APPENDIX D

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

KELSEY ROSE CASCADIA JULIANA, et al.,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civil No. 6:15-cv-01517-TC
	)	
UNITED STATES OF AMERICA, et al.,	)	
	)	
Federal Defendants.	)	
	)	

FEDERAL DEFENDANTS' MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF THEIR MOTION TO DISMISS

JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division

JUSTIN A. TORRES
Trial Attorney, D.C. Bar No. 1003136
Environment and Natural Resources Division
Natural Resources Section
P.O. Box 7611
Washington, DC 20044-7611
Tel: (202) 305-0874
Fax: (202) 305-0506
justin.torres@usdoj.gov

Attorneys for Federal Defendants

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Federal Defendants—the United States of America, the Office of the President of the United States, and a group of federal agencies and their respective heads sued in their official capacities—hereby file this Memorandum of Points and Authorities in support of their Motion to Dismiss.

INTRODUCTION

To provide the relief requested by Plaintiffs in this case, the Court would be required to make and enforce national policy concerning energy production and consumption, transportation, science and technology, commerce, and any other social or economic activity that contributes to carbon dioxide ("CO_2") emissions. Article III does not give Plaintiffs standing to bring such an action or invest a federal court with the power to transform its limited jurisdiction to decide "cases" and "controversies" into a national writ to make climate policy. Nor does the Constitution or public trust doctrine give rise to a claim in federal court to vindicate the generalized public interest in limiting CO_2 emissions. The Amended Complaint should be dismissed with prejudice under Rule 12(b)(1) because Plaintiffs lack Article III standing or, alternatively, under Rule 12(b)(6) for failure to state a claim upon which relief may be granted.

BACKGROUND

Plaintiffs are a group of individuals—of majority age or minors proceeding through guardians *ad litem*—as well as the non-profit organization Earth Guardians, a "tribe of young activists, artists and musicians," dedicated to "creat[ing] a sustainable world for themselves and future generations." First Amended Complaint for Declaratory and Injunctive Relief ¶ 91, ECF No. 7 (Sept. 10, 2015) ("Am. Compl."). In addition, this suit is brought by "Future Generations," by and through their putative guardian, Dr. James Hansen. *Id.* ¶ 92. Plaintiffs filed this Amended Complaint on September 10, 2015, bringing four claims against the United

States and a group of federal agencies and officials. *Id*. ¶¶ 98-130. The Amended Complaint alleges that increases in atmospheric carbon dioxide levels have caused rising sea levels, leading to glacier and sea ice melting, *id*. ¶¶ 214-15, 218-19, 223, 225; increased global surface temperatures, *id*. ¶¶ 217, 224; changes to atmospheric moisture levels and rainfall patterns and increased wildfires, *id*. ¶ 229; and coastal erosion, *id*. ¶ 219. Plaintiffs allege that these changes have impacted, or will negatively impact, drinking water quality, *id*. ¶ 226; agriculture and food production, *id*. ¶¶ 226-27; ocean acid levels, *id*. ¶¶ 230-32; coral reef health, *id*. ¶¶ 233-34; plant and animal biodiversity, *id*. ¶¶ 235-37; human health, *id*. ¶ 238; national security, *id*. ¶ 239; and migration and demographic patterns, *id*. ¶ 240. The individual plaintiffs and the organizational plaintiff allege that they or its members have already experienced these impacts, *id*. ¶¶ 16-96, and that those impacts will accelerate during the likely life span of the individual plaintiffs and Future Generations, *id*. ¶¶ 97, 242-55. Plaintiffs allege that Defendants are causing unsustainable CO_2 emissions and increased CO_2 atmospheric levels and associated impacts by permitting increases in fossil fuel production and combustion, *id*. ¶¶ 151-70, 185-91, subsidizing the fossil fuel industry, *id*. ¶¶ 171-78; and allowing interstate and international transport of fossil fuels, *id*. ¶¶ 179-84. Plaintiffs also specifically complain about DOE/FE Order No. 3041, the Department of Energy's ("DOE") order granting long-term multi-contract authorization, under Section 201 of the Energy Policy Act of 1992, for export of liquefied natural gas ("LNG") from the proposed Jordan Cove LNG terminal in Coos Bay, Oregon ("the Coos Bay facility"). *Id*. ¶¶ 192-201.[1]

[1] Section 201 of the Energy Policy Act of 1992 amended 15 U.S.C. § 717b to state that the importation of natural gas from, or the exportation of natural gas to, "a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or

Plaintiffs bring four claims. First, they claim that Defendants' actions violate "Plaintiffs' substantive Fifth Amendment rights [under the Due Process Clause] because Defendants directly caused atmospheric CO_2 to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Plaintiffs," thus "endanger[ing] Plaintiffs' lives, liberties, and property." Am. Compl. ¶ 279. Plaintiffs further allege that Defendants have acted with deliberate indifference by failing to "implement[] their own plans for climate stabilization or any other comprehensive policy measures to effectively reduce CO_2 emissions to levels that would adequately protect Plaintiffs from the dangerous situation of climate destabilization." *Id.* ¶ 285. Plaintiffs add that Defendants' acts, "if not fundamentally altered without delay, will effect a complete taking of some of Plaintiffs' property interests by virtue of the sea level rise," though they do not bring a claim under the Fifth Amendment's Just Compensation Clause. *Id.* ¶ 287. Finally, Plaintiffs claim that the Department of Energy in particular has infringed on their fundamental substantive due process rights by approving the exportation and importation of natural gas pursuant to Section 201 of the Energy Policy Act of 1992, which because it "increase[s] carbon pollution and exacerbate[s] already-dangerous climate instability" is unconstitutional on its face and as applied to Plaintiffs through DOE/FE Order No. 3041. *Id.* ¶ 288. However, Plaintiffs do not claim that DOE/FE Order No. 3041 suffers from any procedural or facial defect, and it appears that the issuance of this order is simply one more of Defendants'

exportation shall be granted without modification or delay." *See* P.L. 102–486, § 201 (Oct. 24, 1992). DOE/FE Order No. 3041 permits export of liquefied natural gas from a liquefaction facility and export terminal that Jordan Cove Energy Project, L.P. proposes to build—but has not yet built—in Coos Bay, Oregon. *See* Declaration of Cassandra Bernstein Exh. A, at 2 (DOE/FE Order No. 3041).

"aggregate acts" that Plaintiffs allege are unconstitutional because they contribute to climate change and associated impacts. *See, e.g.*, *id*. ¶¶ 1, 5, 9, 129, 305-06, 309-10.

As a second claim, Plaintiffs allege that Defendants' acts violate "the equal protection principles of the Fourteenth Amendment, embedded in the Due Process Clause of the Fifth Amendment." Am. Compl. ¶ 291.[2] Plaintiffs claim that they are a "separate suspect class[]" and "insular minority" under those provisions because they have "no voting rights and little, if any, political power or influence over Defendants." *Id*. ¶ 294. Plaintiffs also allege that plaintiff Future Generations "do not have present political power or influence, have immutable characteristics, and are also an insular minority." *Id*. ¶ 295. Plaintiffs allege that they must be treated as a protected class for purposes of equal protection analysis, and that "federal laws and actions that disproportionately discriminate against and endanger them must be invalidated." *Id*. ¶ 297. Plaintiffs further allege that Section 201 of the Energy Policy Act is unconstitutional on its face and as applied through DOE/FE Order No. 3041 because both have "a disproportionate impact on suspect classes." *Id*. ¶ 299.

As a third claim, Plaintiffs bring suit under the Ninth Amendment, on the ground that "[f]undamental to our scheme of ordered liberty . . . is the implied right to a stable climate system and an atmosphere and oceans that are free from dangerous levels of anthropogenic CO_2," Am. Compl. ¶ 304, and that Defendants' acts have infringed on those unenumerated

[2] "Unlike the Fourteenth Amendment, the Fifth contains no equal protection clause and it provides no guaranty against discriminatory legislation by Congress." *Detroit Bank v. United States*, 317 U.S. 329, 337 (1943). However, the Supreme Court has held that the due process and equal protection clauses are "associated" and that "[i]t may be that they overlap, that a violation of one may involve at times the violation of the other." *Truax v. Corrigan*, 257 U.S. 312, 331 (1921); *see also Hirabayashi v. United States*, 320 U.S. 81, 100 (1943). For purposes of the present motion, Federal Defendants will presume, but do not admit, that there is a viable Fifth Amendment claim for violation of the equal protection principles of the Fourteenth Amendment.

rights, *id*. ¶ 306. Plaintiffs do not bring a Ninth Amendment claim specific to the Energy Policy Act or any DOE order.

Finally, Plaintiffs allege that they are beneficiaries of rights under the public trust doctrine that "protect the rights of present and future generations" to "vital natural resources" such as air and water quality, biological diversity, and intact shorelines. Am. Compl. ¶ 308. Plaintiffs allege that Defendants "have failed in their duty of care as trustees to manage the atmosphere in the best interests of the present and future beneficiaries of the trust property," including Plaintiffs. *Id*. ¶ 310. Plaintiffs do not bring a public trust doctrine claim specific to the Energy Policy Act or any DOE order.

Plaintiffs seek a declaratory judgment that Defendants' acts have violated the Constitution; that Section 201 of the Energy Policy Act is unconstitutional on its face and as applied in DOE/FE Order No. 3041; and that Defendants have violated the public trust. They seek an injunction prohibiting future constitutional and public trust violations by the Defendants and ordering the U.S. government and the Defendant agencies to "prepare a consumption-based inventory of U.S. CO_2 emissions," though they do not specifically state whether this request is limited to an inventory of emissions by the Defendants or by all emitting sources in the United States. Plaintiffs also request that the U.S. government be ordered to "implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," and ask the Court to retain jurisdiction over the case for an indefinite period of time to monitor the Government's compliance with the plan to phase out CO_2 emissions and reduce atmospheric CO_2 levels. Am. Compl. at 94 (Prayer for Relief). While the Plaintiffs do not specifically state whether this requested relief should be directed solely at emissions by the Defendants or by all U.S. emission sources, elsewhere in the Amended Complaint they do state

that CO_2 emissions reductions of 6 percent annually would be required to reduce atmospheric CO_2 levels by the year 2100 to 350 ppm, a level that will head off the future impacts that Plaintiffs allege. *Id*. ¶¶ 257-59. These reductions would be required globally, not just of Defendants or even all U.S. sources, since reductions on that order would only reduce atmospheric CO_2 levels to 350 ppm if that "trajectory [were] adhered to by other major emitters." *Id*. ¶ 262.

STANDARD OF REVIEW

A court reviews a motion to dismiss a complaint for lack of Article III standing under Fed. R. Civ. P. 12(b)(1). *See Elizabeth Retail Props. LLC v. KeyBank Nat. Ass'n*, 83 F. Supp. 3d 972, 985-86 (D. Or. 2015). A jurisdictional challenge may be facial or factual. Where the jurisdictional attack is facial, the court determines whether the allegations contained in the complaint are sufficient on their face to invoke federal jurisdiction, accepting all material allegations in the complaint as true and construing them in favor of the party asserting jurisdiction. *See Warth v. Seldin*, 422 U.S. 490, 501 (1975). Once a party has moved to dismiss for lack of subject matter jurisdiction under Rule 12(b)(1), the opposing party bears the burden of establishing the Court's jurisdiction. *See Chandler v. State Farm Mut. Auto. Ins. Co*., 598 F.3d 1115, 1122 (9th Cir. 2010).

A court may also dismiss a complaint for failure to state a claim upon which relief can be granted pursuant to Fed. R. Civ. P. 12(b)(6). In considering a Rule 12(b)(6) motion, the court must accept all of the claimant's material factual allegations as true and view all facts in the light most favorable to the claimant. *See Reynolds v. Giusto*, No. CV. 08-6261 PK, 2009 WL 2523727, at *1 (D. Or. Aug. 18, 2009). However, a court need not accept as true any legal conclusion set forth in a pleading. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). The Supreme

Court addressed the proper pleading standard under Rule 12(b)(6) in *Bell Atlantic Corp. v. Twombly*: "While a complaint attacked [under] Rule 12(b)(6) . . . does not need detailed factual allegations, a plaintiff's obligation to provide the grounds of his entitlement to relief requires more than labels and conclusions, and a formulaic recitation of a cause of action's elements will not do." 550 U.S. 544, 555 (2007) (citation and brackets omitted). The complaint must set forth facts supporting a *plausible*, not merely *possible*, claim for relief. *Id*.

ARGUMENT

I. Under *Lujan*, Plaintiffs Lack Article III Standing to Bring This Suit.

A federal court, being one of limited jurisdiction, may act only where it is granted power to do so by the Constitution and applicable statutes and regulations. *See Exxon Mobil Corp. v. Allapattah Servs., Inc*., 545 U.S. 546, 552 (2005). One limitation on a court's power to act is Article III standing, which restricts the jurisdiction of the federal courts to the resolution of "[c]ases" and "[c]ontroversies." U.S. Const. art. III § 2, cl.1; *Bender v. Williamsport Area Sch. Dist*., 475 U.S. 534, 541-42 (1986). The standing doctrine "serves to identify those disputes which are appropriately resolved through the judicial process." *Whitmore v. Arkansas*, 495 U.S. 149, 155 (1990). A suit brought by a plaintiff without Article III standing is not a "case or controversy," and an Article III federal court therefore lacks subject matter jurisdiction over the suit. *Steel Co. v. Citizens for a Better Envt*., 523 U.S. 83, 101 (1998).

The Supreme Court in *Lujan v. Defenders of Wildlife* reiterated the "irreducible minimum," *Valley Forge Christian Coll. v. Ams. United for Separation of Church & State*, 454 U.S. 464, 472 (1982), that a plaintiff seeking to invoke a federal court's jurisdiction must establish. 504 U.S. 555, 560-61 (1992). Plaintiffs must show (1) an "injury in fact" that is "concrete and particularized" and "actual or imminent, not conjectural or hypothetical"; (2) that their injury is fairly traceable to the challenged action of the defendant, and not the result of the

"independent action of some third party not before the court"; and (3) that it is "'likely' as opposed to merely 'speculative' that the injury will be 'redressed by a favorable decision.'" *Id.* at 560-61. A particularized injury, the Court noted, is one that "affect[s] the plaintiff in a personal and individual way." *Id.* at 561 n.1. Because Plaintiffs' alleged injuries are not particular to them but are shared by every person in the Nation, living or yet to be born, and because the impacts that Plaintiffs allege are not traceable to the Defendants' acts and would not be redressed by a favorable decision, Plaintiffs lack standing.

A. The Amended Complaint Fails To Allege Particularized Harm Traceable To Defendants' Acts.

1. Plaintiffs Lack Standing Because They Allege A Generalized Grievance, Not A Particularized Harm.

To invoke the jurisdiction of a federal court, a plaintiff must allege "such a personal stake in the outcome of the controversy as to ensure that the dispute sought to be adjudicated will be presented in an adversary context and in a form historically viewed as capable of judicial resolution." *Sierra Club v. Morton*, 405 U.S. 727, 732 (1972) (quotations omitted). Federal courts are not "a forum in which to air . . . generalized grievances about the conduct of government. . . ." *Flast v. Cohen*, 392 U.S. 83, 106 (1968). Each plaintiff must press a personal stake in the outcome of litigation sufficient "to warrant *his* invocation of federal-court jurisdiction and to justify exercise of the court's remedial powers on *his* behalf." *Warth*, 422 U.S. at 498-99 (emphases added). This requires some modicum of personal interest, as standing to sue may not be predicated upon an interest which is held in common by all members of the public, because of the necessarily abstract nature of the injury all citizens share. Unless a plaintiff asserts "an injury that is peculiar to himself or to a distinct group of which he is a part, rather than one 'shared in substantially equal measure by all or a large class of citizens,'" he

lacks standing. *Gladstone Realtors v. Vill. of Bellwood*, 441 U.S. 91, 101 (1979) (quoting *Warth*, 422 U.S. at 499).

In *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court considered a challenge by states, local governments, and environmental organizations to the Environmental Protection Agency's denial of a rulemaking petition asking EPA to regulate greenhouse gas emissions from new motor vehicles under the mobile source provisions of the Clean Air Act. EPA had denied the petition primarily because it then believed that as a legal matter greenhouse gases were not "air pollutants" within the meaning of the Clean Air Act. *Id*. at 513.

In a 5-4 decision, the Court found that the Commonwealth of Massachusetts had standing to bring the challenge. *Massachusetts*, 549 U.S. at 518. The majority rejected the notion that "because greenhouse gas emissions inflict widespread harm, the doctrine of standing presents an insuperable jurisdictional obstacle." *Id.* at 517. It pointed to this language from Justice Kennedy's concurrence in *Lujan*:

> While it does not matter how many persons have been injured by the challenged action, the party bringing suit must show that the action injures him in a concrete and personal way. This requirement is not just an empty formality. It preserves the vitality of the adversarial process by assuring both that the parties before the court have an actual, as opposed to professed, stake in the outcome, and that the legal questions presented . . . will be resolved, not in the rarified atmosphere of a debating society, but in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action.

Id. at 517 (quoting *Lujan*, 504 U.S. at 581). The majority then applied the three-part test for Article III standing drawn from the majority opinion in *Lujan*, and held that, based in particular on the loss of state-owned lands to rising sea levels caused by global warming, Massachusetts had alleged sufficiently particularized injury. *Id*. at 522-23. Since EPA's legal position on the scope of the Clean Air Act had led it to refuse to regulate a major specific source of greenhouse gas emissions, Massachusetts was able to show that its injury was traceable to the challenged

agency action, and that the Court could redress the injury by correcting EPA's erroneous view of the statute. *Id*. at 524-25.

The differences between this case and *Massachusetts v. EPA* are stark, and show why Plaintiffs lack standing. Plaintiffs allege that they have suffered and will suffer injuries from Defendants' acts, which allegedly have contributed to climate change. But they have not alleged with sufficient particularity a "personal and individual" injury, which under *Lujan* is a requirement to establish standing. *Lujan*, 504 U.S. at 561 n.1 ("By particularized, we mean that the injury must affect the plaintiff in a personal and individual way"); *see also Summers v. Earth Island Inst.*, 555 U.S. 488, 495-97 (2009) (plaintiff may not rely on speculation to show particularized injury at hands of challenged government action). "[W]hen the asserted harm is a 'generalized grievance' shared in substantially equal measure by all or a large class of citizens, that harm alone normally does not warrant exercise of jurisdiction." *Warth*, 422 U.S. at 499 (citing *Schlesinger v. Reservists Comm. to Stop the War*, 418 U.S. 208, 221-27 (1974)). In *Massachusetts v. EPA* the Court found that the State was injured in a particularized way by sea level rise. But none of the Plaintiffs here have been injured in the same way as Massachusetts—or indeed, in any way that distinguishes them from any other person in the Nation—and thus they are in no different a position than any other person when it comes to climate change impacts. Indeed, Plaintiffs acknowledge as much when they allege that Defendants' acts have endangered the "stable climate system *required alike by our nation* and Plaintiffs," Am. Compl. ¶ 279 (emphasis added), and "impose[d] harm *on the nation and on Plaintiffs*," *id*. ¶ 154 (emphasis added)—an implicit admission that the grievances animating the Amended Complaint are shared by all. Whatever injuries climate change has caused or will cause, those injuries are "not focused any more on these petitioners than [they are] on the remainder of the world's

population," *Ctr. for Biological Diversity v. U.S. Dept. of the Interior*, 563 F.3d 466, 475 (D.C. Cir. 2009), and hence cannot establish particularized injury for standing for these Plaintiffs.[3] *See also WildEarth Guardians v. Salazar*, 880 F. Supp. 2d 77, 83-87 (D.D.C. 2012), *aff'd sub nom. WildEarth Guardians v. Jewell*, 738 F.3d 298 (D.C. Cir. 2013)[4]; *Amigos Bravos v. BLM*, 816 F. Supp. 2d 1118, 1126-28 (D.N.M. 2011); *Sierra Club v. U.S. Def. Energy Support Ctr.*, Civ. A. No. 01:11-cv-41, 2011 WL 3321296, at *4-*6 (E.D. Va. July 29, 2011). Their claims should be dismissed.

2. Plaintiffs Lack Standing Because They Allege A Causal Chain That Consists Of Generalized Assertions Of Defendants' "Contribution" To Climate Change.

Also deficient are the Amended Complaint's allegations tracing the alleged injuries to the challenged actions of the Defendants. In *Massachusetts v. EPA*, the State could show that the particular EPA determination under challenge—that EPA lacked authority to regulate greenhouse gas emissions from new motor vehicles under the Clean Air Act—led to a substantial

[3] Plaintiffs' allegations concerning the approval of natural gas exportation through the Coos Bay facility do not change the fact that the injury in fact they allege is not particularized and concrete. Plaintiffs have not alleged that there was any facial or procedural defect in DOE/FE Order No. 3041, such as would support a claim under the Administrative Procedure Act or National Environmental Policy Act. Rather, they allege that the export of natural gas through the Coos Bay facility pursuant to Section 201 of the Energy Policy Act will "increase carbon pollution and exacerbate[s] already-dangerous climate instability," and thus is unconstitutional because it contributes to the harms that Plaintiffs allege. Am. Compl. ¶ 288. Thus, the approval of the export of natural gas from this facility does not cause Plaintiffs any alleged harm that is not suffered by the citizenry as a whole.

[4] In *WildEarth Guardians*, the D.C. Circuit affirmed the district court's finding that the environmental plaintiffs lacked standing to allege constitutional claims for climate change impacts caused by global emissions, but held that plaintiffs had standing under the National Environmental Policy Act because of alleged harms to aesthetic and recreational interests caused by local pollution. *WildEarth Guardians*, 738 F.3d at 317-18. Plaintiffs in this case have not brought a NEPA claim, and they allege no separate and specific injuries apart from those related to global CO_2 emissions, so these alleged local impacts do not suffice to establish standing in this case.

amount of additional carbon dioxide emissions threatening the State's interest in preserving its shoreline areas from rising sea levels. 549 U.S. at 524. The causal chain presented in the Amended Complaint, by contrast, is nothing more than "a series of links strung together by conclusory, generalized statements of 'contribution.'" *Wash. Envtl. Council v. Bellon*, 732 F.3d 1131, 1142 (9th Cir. 2013).

Plaintiffs point to harms they have suffered that were allegedly caused by climate change, including harms to their recreational interests, *see, e.g.*, Am. Compl. ¶¶ 16, 18, 21, 29, 35; drinking water and diets, *see, e.g.*, *id*. ¶¶ 16-18, 33; physical health, *see, e.g.*, *id*. ¶¶ 19, 37, 62, 75; psychological well-being, *see, e.g.*, *id*. ¶¶ 19, 21, 24, 33; and economic interests, *see, e.g.*, *id*. ¶¶ 24, 26, 32, 38. But they never attempt to connect those impacts to the Defendants' acts, except through vague and generalized assertions that those acts contribute to global climate change. *See, e.g.*, *id*. ¶ 106 ("DOE's actions and omissions have substantially contributed to unsafe levels of atmospheric CO_2 and a dangerous climate system."); ¶ 112 ("DOI is substantially contributing to dangerous levels of atmospheric CO_2 and a dangerous climate system in our nation."); ¶ 115 ("DOT acknowledges the severity of the threats of climate change, yet continues to facilitate the severity of climate change impacts by contributing approximately 27% of U.S. CO_2 emissions in 2013."); ¶ 117 ("USDA has substantially contributed to and continues to substantially contribute to a dangerous climate system . . . ."). The Ninth Circuit has explicitly rejected the argument that allegations that a source "contributed" to climate change are sufficient to satisfy Article III's causation requirement: Plaintiffs "need not connect each molecule to their injuries, [but] simply saying that [Defendants] have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries, relies on an 'attenuated chain of conjecture' insufficient to support standing."

Wash. Envtl. Council, 732 F.3d. at 1142-43.[5] Because Plaintiffs do not adequately allege a causal connection between Defendants' actions and their generalized statements of harm, their claims should be dismissed.

3. Plaintiffs Lack Standing Because Their Alleged Injuries Cannot Be Redressed By The Court.

Plaintiffs also lack standing because the injuries they allege cannot be redressed by an order within this Court's authority to issue. "It is a prerequisite of justiciability that judicial relief will prevent or redress the claimed injury, or that there is a significant likelihood of such redress. Redressability in this sense is an aspect of standing." *Gonzales v. Gorsuch*, 688 F.2d 1263, 1267 (9th Cir. 1982) (citations omitted). Plaintiffs lack standing when they fail to provide evidence of "a close relation between . . . the injury asserted and the relief claimed." *Id*. Under the Supreme Court's standing cases, redressability is a matter of the "fit" between an act or omission and the injury that results from it: Plaintiffs must trace their injury to a *particular* government action that is prohibited, or inaction in the face of a duty to act, the reversal of which will concretely address their injury. Plaintiffs fail to establish standing where "the injury [is] too abstract," or "the line of causation between the illegal conduct and injury [is] too attenuated," such that "the prospect of obtaining relief from the injury as a result of a favorable ruling [is] too speculative." *Allen v. Wright,* 468 U.S. 737, 752 (1984), *abrogated in part on non-relevant*

[5] The allegations regarding the Coos Bay facility suffer from the same deficiencies in causation as do Plaintiffs' allegations regarding all of Defendants' acts. The Ninth Circuit has observed that "there is limited scientific capability in assessing, detecting, or measuring the relationship between a certain [greenhouse gas] emission source and localized climate impacts in a given region. . . [I]t is currently beyond the scope of existing science to identify a specific source of CO_2 emissions and designate it as the cause of specific climate impacts at an exact location." *Wash. Envtl. Council*, 732 F.3d at 1143 (quotation omitted).

grounds by Lexmark Intern., Inc. v. Static Control Components, Inc., --- U.S. ----, 134 S. Ct. 1377 (2014).

The Amended Complaint here presents a generalized attack on government action and inaction regarding climate change, rather than a challenge to specifically identifiable violations of law that can be concretely rectified by a favorable decision. Even assuming, *arguendo*, that Plaintiffs' injuries could satisfy the standing analysis in *Massachusetts v. EPA*—and they do not, *see Wash. Envtl. Council*, 732 F.3d at 1146—the relief that Plaintiffs seek far exceeds the relatively narrow request in that case to enact regulations under a specific provision in one statute. Instead, Plaintiffs seek a comprehensive national climate policy, overseen by a single federal district court, that would require wholesale changes to energy production and consumption in this country. Meeting this demand would require many Federal energy regulations to be rewritten, and would negate the purposes and findings of several Federal statutes that explicitly direct agencies to balance various policy goals with environmental protection.[6] Formulating and enforcing this expansive relief lies outside this Court's competence

[6] Congress balances energy needs against conservation and environmental goals in a host of statutes that subsidize fossil fuel production, regulate environmental impacts from energy consumption, and provide for efficient production and transportation of energy resources—exactly the activities that Plaintiffs attack in this case. *See, e.g.*, Energy Security Act of 1980, P.L. 96-294, § 100(3) (stating that a Congressional purpose is "attainment of synthetic fuel production in the United States in a timely manner and in a manner consistent with the protection of the environment"); Public Utilities Regulatory Policies Act of 1978, P.L. 95-617, § 2 ("The Congress finds that the protection of the public health, safety, and welfare . . . require—(1) a program providing for increased conservation of electric energy, . . . (2) a program to improve the wholesale distribution of electric energy . . . , (4) a program for the conservation of natural gas while insuring that rates to natural gas consumers are equitable, [and] (5) a program to encourage the development of crude oil transportation systems. . ."), *codified at* 16 U.S.C. § 2601; Surface Mining Control and Reclamation Act of 1977, P.L. 95-87, §101 ("The Congress finds and declares that— . . . (b) coal mining operations presently contribute significantly to the Nation's energy requirements . . . and it is, therefore, essential to the national interest to insure the existence of an expanding and economically healthy underground coal mining industry; . . .

and jurisdiction. Agencies are "creatures of statute" whose powers and obligations are dependent upon congressional authorization. *Am. Bus Ass'n v. Slater,* 231 F.3d 1, 9 (D.C. Cir. 2000). Courts are not at liberty to encumber agencies with duties not contemplated by Congress. *Id.* at 9-10 ("Unless Congress delegates authority to an agency, the agency is without power to act"). Plaintiffs do not allege any statutory framework specifying the agency duties that are supposedly being violated, such that the Court could provide redress by requiring compliance with those specific duties.

Nor do Plaintiffs cite any statute that authorizes federal courts at the behest of allegedly injured parties to issue, for example, an injunction requiring national CO_2 emissions reductions of 6 percent per year for the next century, which they allege is the minimum required to reduce atmospheric CO_2 levels by the year 2100 to 350 ppm, a level that Plaintiffs claim will head off the future impacts they allege. Am. Compl. ¶¶ 257-59. Plaintiffs accordingly cannot show that their alleged injuries resulting from Defendants' acts can be concretely redressed by any specific relief that is within the power of the Court to grant.[7]

[and] (d) the expansion of coal mining to meet the Nation's energy needs makes even more urgent the establishment of appropriate standards to minimize damage to the environment and to productivity of the soil and to protect the health and safety of the public."), *codified at* 30 U.S.C. § 1201; Energy Reorganization Act of 1974, P.L. 93-438, § 2(a) ("The Congress hereby declares that the general welfare and the common defense and security require effective action to develop, and increase the efficiency and reliability of use of, all energy sources to meet the needs of present and future generations, . . . to make the Nation self-sufficient in energy, [and] to advance the goals of restoring, protecting, and enhancing environmental quality. . ."), *codified at* 42 U.S.C. § 5801; Mining and Minerals Policy Act, P.L. 91-631, § 101 ("The Congress declares that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in . . . (2) the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs"), *codified at* 30 U.S.C. § 21a.

[7] This is equally true of Plaintiffs' request for invalidation, on constitutional grounds, of Section 201 of the Energy Policy Act and the Department of Energy permit authorizing the export of natural gas from the Coos Bay facility, since invalidating Section 201 or vacating

4. Future Generations Have Suffered No Injury In Fact And Thus Lack Standing.

Regardless of whether any individual plaintiff has standing, Future Generations lack standing and are not proper plaintiffs. To have standing, a plaintiff must have suffered an injury in fact that is "concrete and particularized" and "actual or imminent, not conjectural or hypothetical." *Lujan*, 504 U.S. at 561. By definition, Future Generations have not yet suffered any *actual* injury because Future Generations do not presently exist, such that they could sustain an injury. And even assuming that the future impacts of climate change are "imminent," Future Generations do not have any constitutional or other rights that are in imminent danger of being harmed.[8] While some federal and state courts have recognized that viable and even pre-viability fetuses may have legal interests under state tort law, *see, e.g.*, *Santana v. Zilog, Inc.*, 95 F.3d 780, 785 (9th Cir. 1996), courts have rejected on standing grounds constitutional claims brought on behalf of non-persons. *See, e.g.*, *Tilikum ex rel. People for the Ethical Treatment of Animals, Inc. v. Sea World Parks & Entm't, Inc.*, 842 F. Supp. 2d 1259, 1262 (S.D. Cal. 2012) (rejecting constitutional claim brought on behalf of captive whales). To Defendants' knowledge, no federal court has ever recognized that future, and therefore hypothetical, persons have

DOE/FE Order No. 3041 would not redress the recreational, health, economic, and dietary harms they allege to have experienced as a result of global climate change. This is simply the flip side of the Ninth Circuit's holding that "[i]t is currently beyond the scope of existing science to identify a specific source of CO_2 emissions and designate it as the cause of specific climate impacts at an exact location." *Wash. Envtl. Council*, 732 F.3d at 1143 (quotation omitted).

[8] Plaintiffs appear to rely on the "Posterity" language in the Preamble to the Constitution as support for their assertion that Future Generations have constitutional rights that could support standing in this case. *See* Am. Compl. ¶ 278. But as several courts have held, the Preamble does not create actionable rights independent of those specifically articulated in the Constitution. *See, e.g.*, *Tinsley v. Methodist Hosp. of Ind.*, 70 F.3d 1275, 1995 WL 695960, at *2 (7th Cir. 1995) (unpublished table decision); *Maybrick v. Soc. Sec. Admin.*, No. 2:13-CV-508 TS, 2013 WL 6571819, at *2 (D. Utah Dec. 13, 2013); *Hazelton v. City of Grand Praire, Tex.*, 8 F. Supp. 2d 570, 578 n.18 (N.D. Tex. 1998).

constitutional rights that may be impaired, and thus have standing to maintain an action to vindicate those constitutional rights in federal court.

Furthermore, Plaintiffs have failed to allege any facts showing that the putative guardian of Future Generations has standing to pursue these claims on their behalf. Plaintiffs have not alleged any statute providing future persons a private right of action for constitutional claims that can be pursued by a third party (such as Dr. Hansen) on the non-person's behalf. *Cf. Cetacean Cmty. v. Bush*, 386 F.3d 1169, 1176 (9th Cir. 2004) ("If Article III does not prevent Congress from granting standing to an animal by statutorily authorizing a suit in its name, the question becomes whether Congress has passed a statute actually doing so."). Constitutional claims are personal and, absent statutory authorization, cannot be asserted vicariously. *United States v. Mitchell*, 915 F.2d 521, 526 n.8 (9th Cir. 1990). While a non-attorney may appear *pro se* on his own behalf, a non-attorney "has no authority to appear as an attorney for others than himself." *C.E. Pope Equity Trust v. United States*, 818 F.2d 696, 697 (9th Cir. 1987). Even if the Court determines that the individual plaintiffs have standing—and they do not—Future Generations clearly do not have standing because they have not suffered an injury in fact to a cognizable constitutional right that is actual or imminent.

B. Plaintiffs' Claims Are A Generalized Grievance Best Addressed Through Democratic Means, Not By A Federal Court.

The allegations on behalf of Future Generations simply highlight the generalized nature of the grievance that animates this case and why this judicial proceeding is not the appropriate forum for addressing it. Plaintiffs allege—not simply on behalf of certain persons living in the Nation presently, but also on behalf of *all* persons in the Nation yet to be born—that "the Judicial Branch [should] compel the Executive Branch to act in conformity with . . . an interest shared by all." *Schlesinger*, 418 U.S. at 217. This is a generalized grievance that raises substantial

separation of powers concerns because its resolution would transform the district court into a super-regulator setting national climate policy.

Explaining its generalized grievance cases, the Supreme Court in *Lujan* observed:

> 'The province of the court,' as Chief Justice Marshall said in *Marbury v. Madison*, 'is, solely, to decide on the rights of individuals.' Vindicating the public interest (including the public interest in Government observance of the Constitution and laws) is the function of Congress and the Chief Executive.

Lujan, 504 U.S. at 576 (citation omitted). Plaintiffs' claims in this case amount to a generalized grievance because they seek to convert the universal public interest in having executive officers undertake appropriate measures to address the threat of climate change into an individual right, vindicable in the courts. Allowing such claims to proceed in open-ended litigation, divorced from any statutory duty to undertake specific action to reduce CO_2 emissions or address climate change, would require courts to make determinations about strategies to protect the climate that are essentially legislative in character, as well as determine how Executive Branch agencies should carry out those strategies. *See* Am. Compl. at 94 (Prayer for Relief requesting the Court to "[r]etain jurisdiction over this action to monitor and enforce Defendants' compliance with the national remedial plan and all associated orders of this Court"). It is not the role of the district court to resolve questions such as how much the nation's greenhouse gas emissions should be reduced to address global climate change; how much of the burden of reducing worldwide greenhouse gas emissions should be borne by the United States; which federal agencies should promulgate regulations or alter their modes of operation; and what is the appropriate level of funding for such efforts. By design, Article III confines a federal district court's jurisdiction to resolving disputes between specific parties; courts are institutionally ill-suited to balance the various interests of, and the burdens to be borne by, the many entities, groups, and sectors of the

economy that, although not parties to this litigation, are affected by a phenomenon that spans the globe. *See Am. Elec. Power Co. v. Connecticut*, --- U.S. ----, 131 S. Ct. 2527, 2539-40 (2011).

The establishment of appropriate targets for the reduction of CO_2 emissions in the United States would entail a host of policy judgments that should be made by decision makers who are politically accountable, have expertise, and are able to pursue a coherent national or international strategy. *Cf. Massachusetts,* 549 U.S. at 524 ("[Agencies] whittle away at [massive problems] over time, refining their preferred approach as circumstances change and as they develop a more nuanced understanding of how best to proceed."). Since the Supreme Court held in *Massachusetts v. EPA* in 2007 that CO_2 falls within delegated regulatory authority, federal agencies have undertaken substantial efforts to address climate change. *See, e.g.*, *Am. Elec. Power,* 131 S. Ct. at 2533 (acknowledging EPA's post-*Massachusetts* regulatory initiatives limiting greenhouse gas emissions); Am. Compl. ¶ 148 (noting that Defendant Environmental Protection Agency commenced "regulation of greenhouse gases under the Clean Air Act from mobile and stationary sources of air pollution" in 2011); Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (Oct. 23, 2015); Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,510 (Oct. 23, 2015). The Court should decline Plaintiff's invitation to short-circuit this regulatory process.

II. Plaintiffs Fail To State A Claim Under The Constitution.

Assuming, *arguendo*, that Plaintiffs have standing to maintain this action, Counts One through Three of the Amended Complaint must be dismissed for failure to state a claim. No court anywhere has ever recognized a federal constitutional right to be free of CO_2 emissions (or any pollutant), and more generally have consistently rejected attempts to constitutionalize permissible levels of environmental contamination and environmental impacts. Plaintiffs—those

under the age of 18, those of majority age, and Future Generations—do not constitute a discrete and insular minority for purposes of climate change, and Plaintiffs have not adequately alleged that they lack access to the political process. And the Ninth Amendment secures no substantive rights at all. Since Defendants' acts do not implicate a fundamental right or a protected class, they are subject only to rational basis review, and Plaintiffs have not adequately alleged that the Federal Defendants' acts or omissions were impermissible under any "reasonably conceivable" set of facts.

A. There Is No Constitutional Right To Be Free of CO_2 Emissions.

Plaintiffs do not allege that the Constitution explicitly provides a right to be free of climate change. They instead allege that such a right is found in the Fifth Amendment's guarantee that "[n]o person shall be . . . deprived of life, liberty, or property, without due process of law." U.S. Const. amend. V. Plaintiffs claim that "[o]ur nation's climate system, including the atmosphere and oceans, is critical to" the enjoyment of the rights guaranteed by the Constitution, Am. Compl. ¶ 279, and that Defendants have placed Plaintiffs in a state of "climate danger," *id*. ¶ 285, by "allowing fossil fuel production, consumption, and combustion at dangerous levels, thereby violating Plaintiffs' substantive Fifth Amendment due process rights," *id*. ¶ 284.

The Supreme Court has stated that courts should exercise the "utmost care and restraint" when contemplating expanding substantive due process protection beyond the rights explicitly identified in the Constitution. *Collins v. City of Harker Heights*, 503 U.S. 115, 125 (1992). To be considered fundamental, an unenumerated right must be "deeply rooted in this Nation's history and tradition," *Moore v. City of E. Cleveland*, 431 U.S. 494, 503 (1977), and the Supreme Court has admonished lower federal courts to "exercise restraint in creating new definitions of substantive due process," *Christy v. Hodel*, 857 F.2d 1324, 1330 (9th Cir. 1988). The party

asserting such a right has the burden of establishing it. *See Michael H. v. Gerald D.*, 491 U.S. 110, 125 (1989).

As the Ninth Circuit has recognized, the first step in determining whether an asserted fundamental right is deeply rooted in the Nation's history and tradition is to "adopt a narrow definition of the interest at stake." *Raich v. Gonzales*, 500 F.3d 850, 863 (9th Cir. 2007) (citing *Washington v. Glucksberg*, 521 U.S. 702, 722 (1997)). *See also id*. ("[W]e have a tradition of carefully formulating the interest at stake in substantive-due-process cases."). For example, in *Reno v. Flores*, the Supreme Court declined to describe an asserted fundamental right broadly as the "right to be free of physical restraint," in favor of the more narrow asserted "right to an individualized hearing on whether private placement [as opposed to placement in government-sponsored institutions] would be in the . . . 'best interests'" of children committed to the care of the state. 507 U.S. 292, 293, 299 (1993). The Court then noted that no court had ever recognized such a right and that "[t]he mere novelty of such a claim is reason enough to doubt that 'substantive due process' sustains it; the alleged right certainly cannot be considered 'so rooted in the traditions and conscience of our people as to be ranked as fundamental.'" *Id*. at 303.

The Court should use the same analytical framework in this case and reject Plaintiffs' claim to a fundamental constitutional right to be free of CO_2 emissions. No court has *ever* recognized such a right; more generally, no court has ever recognized a federal constitutional right to a natural environment free of pollutants. Quite the opposite: courts have consistently held that "there is no constitutional right to a pollution-free environment." *Nat'l Sea Clammers Ass'n v. City of New York*, 616 F.2d 1222, 1237-38 (3d Cir. 1980), *dismissed and vacated in part*

on other grounds, 453 U.S. 1 (1981).[9] Nor is there cause for this Court create such a right. The Supreme Court has warned that "[b]y extending constitutional protection to an asserted right or liberty interest, [courts], to a great extent, place the matter outside the arena of public debate and legislative action. We must therefore 'exercise the utmost care whenever we are asked to break new ground in this field' . . . ." *Glucksberg*, 521 U.S. at 720. Making environmental policy always involves balancing "competing social, political, and economic forces." *Collins*, 503 U.S. at 128. The Constitution envisions that such balancing is distinctly the province of the Executive and Legislative branches of government, not that of federal courts. *See supra* at 17-19.[10]

[9] *See also Concerned Citizens of Neb. v. U.S. Nuclear Regulatory Comm'n*, 970 F.2d 421, 426 (8th Cir. 1992) (no Ninth Amendment right to be free from environmental harm due to radioactive waste); *Ely v. Velde*, 451 F.2d 1130, 1139 (4th Cir. 1970) (declining "to elevate to a constitutional level" a claimed right to be protected from unnecessary and unreasonable environmental degradation and destruction); *S.F. Chapter of A. Philip Randolph Inst. v. EPA*, 2008 WL 859985, at *6-7 (N.D. Cal. Mar. 28, 2008) ("Plaintiffs also allege deprivation of the right to be free of climate change pollution, but that right is not protected by the Fourteenth Amendment either."); *MacNamara v. Cnty. Council of Sussex Cnty.*, 738 F. Supp. 134, 142-43 (D. Del. 1990), *aff'd* 922 F.2d 832 (3d Cir. 1990); *Sequoyah v. Tenn. Valley Auth.*, 480 F. Supp. 608, 611 (E.D. Tenn. 1979), *aff'd*, 620 F.2d 1159 (6th Cir. 1980) ("[T]he Ninth Amendment grants no substantive rights to [environmental] plaintiffs"); *Upper W. Fork Watershed Assoc. v. Corps of Eng'rs, U. S. Army*, 414 F. Supp. 908, 931-32 (N.D. W.Va. 1976) *aff'd sub nom. Upper W. Fork River Watershed Ass'n v. Corps of Eng'rs, U.S. Army*, 556 F.2d 576 (4th Cir. 1977) ("[C]laims about environmental degradation cannot be elevated to Constitutional levels"); *Pinkney v. Ohio Envtl. Prot. Agency*, 375 F. Supp. 305, 310 (N.D. Ohio 1974) ("[T]he Court has not found a guarantee of the fundamental right to a healthful environment implicitly or explicitly in the Constitution. Therefore, in light of the prevailing test of a fundamental right, the Court is unable to rule that the right to a healthful environment is a fundamental right under the Constitution."); *Hagedorn v. Union Carbide Corp.*, 363 F. Supp. 1061, 1064-65 (N.D. W. Va. 1973); *Tanner v. Armco Steel Corp.*, 340 F. Supp. 532, 537 (S.D. Tex. 1972) ("[N]o legally enforceable right to a healthful environment, giving rise to an action for damages, is guaranteed by the Fourteenth Amendment or any other provision of the Federal Constitution.").

[10] Because Plaintiffs' substantive due process claims regarding the Energy Policy Act and DOE/FE Order No. 3041 are derivative of Plaintiffs' larger claim of a constitutional right to be free of climate change that is violated by Defendants' aggregate acts, *see* Am. Compl. ¶¶ 288-91, those claims must also be dismissed.

B. Plaintiffs Are Not A Discrete Minority And Have No Equal Protection Claim.

Plaintiffs also allege that Defendants' acts, in the aggregate, are an equal protection violation. Am. Compl. ¶ 291. Plaintiffs claim that Defendants' acts have "denied Plaintiffs the same protection of fundamental rights afforded to prior and present generations of adult citizens," and that because "fundamental rights are at stake and are being infringed by the affirmative aggregate acts of Defendants, this Court must apply strict scrutiny for a denial of equal protection of the law." *Id*. ¶ 292. Plaintiffs also claim that they are a separate and insular minority for purposes of equal protection analysis, because "Defendants have a long history of deliberately discriminating against children and future generations in exerting their sovereign authority over our nation's air space and federal fossil fuel resources for the economic benefit of present generations of adults." *Id*. ¶ 294. Similarly, Plaintiffs allege, "Future generations do not have present political power or influence" and thus are an insular minority for purposes of equal protection analysis. *Id*. ¶ 295. Because Plaintiffs include "citizens presently below the voting age and future generations, this Court should determine they must be treated as protected classes." *Id*. ¶ 297.

Plaintiffs' assertions lack any basis in law. First, as noted above, the right to be free of CO_2 emissions is not a fundamental right deeply rooted in the Nation's tradition and history. *Supra* at 20-22. "It is not the province of this Court to create substantive constitutional rights in the name of guaranteeing equal protection of the laws." *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 33 (1973). Accordingly, where a legislative or executive act does not impair a fundamental right protected by the Constitution, there is no occasion to "depart[] from the settled mode of constitutional analysis . . . involving questions of economic and social policy," which is to defer to a legislature's rational choices unless the act impacts a protected class. *Id.*

Even taking Plaintiffs' allegations as true, Defendants' acts do not impact a protected class. Young people—whether defined as children below the age of majority, or young adults—are not a suspect class for equal protection purposes, at least as pertains to climate change. Courts have several times rejected attempts to constitutionalize environmental policy choices, including claims brought under the Fifth and Fourteenth Amendments. *See supra* at 21 n.9. More specifically, "[n]o cases have ever held . . . that children are a suspect class." *Cunningham v. Beavers*, 858 F.2d 269, 273 (5th Cir. 1988). In fact, courts regularly apply rational basis scrutiny to classifications based on youth or infancy. *See, e.g.*, *Douglas v. Hugh A. Stallings, M.D., Inc.*, 870 F.2d 1242, 1246 (7th Cir. 1989) (holding that "statutes which classify on the basis of age are subject only to the minimal rational relationship review"); *Jaffee v. Soc'y of New York Hosp.*, 1999 WL 246747, at *3 (S.D.N.Y. Apr. 27, 1999) (same). And at least one federal appellate court has held that persons between the ages of 18 and 45—an age range that would encompass the non-youth individual plaintiffs—are not a "'discrete and insular' group in need of 'extraordinary protection from the majoritarian political process.'" *Price v. Cohen*, 715 F.2d 87, 93 (3d Cir. 1983) (citation omitted).

The Court should decline Plaintiffs' invitation to create an equal protection claim for climate change impacts available to children or young adults. Plaintiffs are clearly not differently situated from any other person of any age when it comes to the alleged current impacts of climate change. *See supra* at 8-11. Nor have Plaintiffs alleged that they have been shut out of the political or electoral processes in any formal sense, such that they have been deprived of equal protection of the laws. The mere fact that children do not possess the right to vote is not an equal protection violation, *see, e.g.*, *Hill v. Stone*, 421 U.S. 289, 297 (1975), and the "broad array of laws and government programs dedicated to protecting and nurturing

children—combined with the large numbers of voters who are parents or otherwise concerned about children—belies the argument that children and their needs cannot attract the attention of the legislature," *Hedgepeth ex rel. Hedgepeth v. Wash. Metro. Area Transit Auth.*, 386 F.3d 1148, 1155 (D.C. Cir. 2004) (citing *City of Cleburne, Tex. v. Cleburne Living Ctr.*, 473 U.S. 432, 445 (1985)). To Defendants' knowledge, no court has ever recognized a constitutional claim based on the expectation that a group of young plaintiffs (even less, unborn plaintiffs) will confront an acute social problem during their expected lifetimes. There is a ripeness issue implicit in any such claim; further, this absence no doubt reflects the recognition that youth eventually become political decision makers, empowered to confront those problems. *Id.* at 1154 ("Youth is . . . far less 'immutable' than old age: minors mature to majority and literally outgrow their prior status."). In fact, Plaintiffs' allegations indicate that they already engage in political activism advocating for their preferred policy outcomes, and several have had opportunities to press their concerns to policy makers.[11] That Plaintiffs have not yet succeeded in enacting their preferred policies through the normal mechanisms of democratic decision making does not give rise to an equal protection claim. *See City of Mobile, Ala. v. Bolden*, 446 U.S. 55, 77 (1980) (the "right to equal participation in the electoral process does not protect any 'political group,' however defined, from electoral defeat"). "Any minority can be said to be powerless to assert

[11] *See, e.g.*, Am. Compl. ¶ 16 (Plaintiff "walked 1,600 miles from Nebraska to Washington D.C. in the Great March for Climate Action to raise awareness about the climate crisis"); ¶ 20 (since the age of six, Plaintiff "has advocated for reductions in CO_2 emissions before local, state, federal, and international governmental bodies, including three speeches before the United Nations, and [serves] on the Presidential Youth Council to advise the President of the United States"); ¶ 30 (Plaintiff "has taken individual action to try to protect the climate system by . . . lobbying his state legislators to pass comprehensive climate legislation"); ¶ 44 (Plaintiff "has been involved in both local and state initiatives to raise awareness about climate change and advocate for science-based CO_2 emission reductions"); ¶ 53 (Plaintiff "started a petition asking the city of Beaverton to adopt a resolution to lower the city's carbon emissions").

direct control over the legislature," but that does not justify heightened scrutiny under the Fifth and Fourteenth Amendments. *Cleburne Living Ctr*., 473 U.S. at 445. The Court should reject Plaintiffs' equal protection claim, whatever its asserted basis.[12]

C. The Ninth Amendment Guarantees No Substantive Rights.

Plaintiffs also allege that Defendants have infringed on their unenumerated right to a stable climate system in violation of the Ninth Amendment. Am. Compl. ¶¶ 302-06. But "[t]he [N]inth [A]mendment has never been recognized as independently securing any constitutional right." *Strandberg v. City of Helena*, 791 F.2d 744, 748 (9th Cir. 1986). Rather, it is "a rule of construction" that does not give rise to individual rights. *United States v. Bifield*, 702 F.2d 342, 349 (2d Cir. 1983); *see also Clynch v. Chapman*, 285 F. Supp. 2d 213, 219 (D. Conn. 2003) (dismissing Ninth Amendment cause of action for failure to state a claim). So while the Ninth Amendment may provide the basis for recognition of unenumerated rights, which themselves may be enforceable under the Fifth or Fourteenth Amendments, the Ninth Amendment itself secures no substantive right. *See Gibson v. Matthews*, 926 F.2d 532, 537 (6th Cir. 1991) (dismissing claim on the ground that "the [N]inth [A]mendment does not confer substantive rights in addition to those conferred by other portions of our governing law"); *DeLeon v. Little*, 981 F. Supp. 728, 734 (D. Conn. 1997) (holding that "'the [Ninth Amendment] does not guarantee any constitutional right'") (quotation omitted); *Mann v. Meachem*, 929 F. Supp. 622, 634 (N.D.N.Y. 1996) ("The Ninth Amendment is recognized as a rule of construction and does

[12] Because Plaintiffs' equal protection claims regarding the Energy Policy Act and DOE/FE Order No. 3041 are derivative of Plaintiffs' larger claim that Defendants' aggregate acts are an equal protection violation, *see* Am. Compl. ¶¶ 298-301, those equal protection claims must also be dismissed.

not protect any specific right") (citation omitted). Since Plaintiffs have failed to state any claim under the Fifth or Fourteenth Amendments, this claim must also be dismissed.

D. Defendants' Acts Have A Rational Basis.

Because the challenged acts and omissions of Defendants do not implicate a fundamental right or impact a suspect class, the Court must apply rational basis review and afford those acts a strong presumption of validity. *See FCC v. Beach Cmmc'ns*, 508 U.S. 307, 313 (1993). Evidentiary support is not required; this Court must uphold Defendant's acts "if there is any *reasonably conceivable* state of facts that could provide a rational basis" for them. *Id*. at 315 (emphasis added). What is more, those attacking the rationality of legislative acts have the burden "'to negative every conceivable basis which might support [them].'" *Id*. (quoting *Lehnhausen v. Lake Shore Auto Parts Co*., 410 U.S. 356, 364 (1973)). Plaintiffs cannot meet that burden, and their allegations do not even make the attempt. The federal government clearly has an interest in shaping greenhouse gas mitigation policies given their intricate interdependence with the nation's broader energy generation landscape. *See supra* at 21 n.9. That interest is more than enough to justify Defendants' strong efforts to reduce the Nation's carbon emissions through regulations promulgated under various statutes and related regulating and permitting regimes while ensuring continued access to affordable, reliable energy sources.

III. This Court Lacks Jurisdiction Over Public Trust Doctrine Suits, Which Arise Under State Law.

Finally, Plaintiffs allege that they are "beneficiaries of rights under the public trust doctrine, rights that are secured by the Ninth Amendment and embodied in the reserved powers doctrines of the Tenth Amendment and the Vesting, Nobility, and Posterity Clauses of the Constitution." Am. Compl. ¶ 308. Plaintiffs claim that Defendants have "alienated substantial portions of the atmosphere in favor of the interests of private parties so that these private parties

can treat our nation's atmosphere as a dump for their carbon emissions." *Id*. ¶ 310. This claim must be also be dismissed under Rule 12(b)(6).

The public trust doctrine has its roots in English common law. *See PPL Montana, LLC v. Montana*, --- U.S. ----, 132 S. Ct. 1215, 1234 (2012). The classic statement of the public trust doctrine was articulated in *Illinois Central Rail Company v. Illinois*, 146 U.S. 387 (1892). The Supreme Court there found that the Illinois legislature did not have authority to vest the State's title to a portion of the navigable waters of Lake Michigan in a private party. The attempted transfer was beyond the authority of the legislature since it amounted to abdication of its obligation to regulate, improve, and secure submerged lands for the benefit of every individual. *Id*. at 453-60.

In cases decided both before and after *Illinois Central*, the Supreme Court has steadfastly and without exception treated the public trust doctrine as a matter of state law, not federal law. *See PPL Montana*, 132 S. Ct. at 1235 ("the public trust doctrine remains a matter of state law" and its "contours . . . do not depend upon the Constitution"); *Idaho v. Coeur d'Alene Tribe*, 521 U.S. 261, 285 (1997); *Phillips Petrol. Co. v. Mississippi*, 484 U.S. 469, 475 (1988); *Appleby v. City of New York*, 271 U.S. 364, 395 (1926); *Long Sault Dev. Co. v. Call*, 242 U.S. 272, 278-79 (1916); *Shively v. Bowlby*, 152 U.S. 1, 57-58 (1894). The Ninth Circuit has done the same. *United States v. 32.42 Acres of Land, More or Less, Located in San Diego Cnty., Cal.*, 683 F.3d 1030, 1037–38 (9th Cir. 2012) (relying on *PPL Montana* in holding that "the contours of [the public trust doctrine] are determined by the states, not by the United States Constitution"). Furthermore, in *Alec L. ex rel. Loortz v. McCarthy*, litigated by several of Plaintiffs' counsel, the U.S. Court of Appeals for the District of Columbia Circuit rejected the precise claims Plaintiffs bring here. 561 F. App'x 7, 8 (D.C. Cir.) (per curiam), *cert. denied*, 135 S. Ct. 774 (2014).

Noting that there is no case "standing for the proposition that the public trust doctrine—or claims based upon violations of that doctrine—arise under the Constitution or laws of the United States," the D.C. Circuit held that the Supreme Court had "categorically rejected . . . without qualification or reservation" any claim that there was a federal public trust doctrine. *Id*. On that basis, the D.C. Circuit affirmed the district court's Rule 12 dismissal of plaintiff's claim that there was a public trust duty to prevent CO_2 emissions into the atmosphere. *Id*. This Court should reach the same conclusion.

CONCLUSION

Considering the foregoing, Plaintiffs' claims must be dismissed for lack of Article III standing under Rule 12(b)(1) or alternatively for failure to state a claim under Rule 12(b)(6).

Respectfully submitted this 17th day of November, 2015.

JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division

/s/ Justin A. Torres
JUSTIN A. TORRES
Trial Attorney, D.C. Bar No. 1003136
Environment and Natural Resources Division
Natural Resources Section
P.O. Box 7611
Washington, DC 20044-7611
Tel: (202) 305-0874
Fax: (202) 305-0506
justin.torres@usdoj.gov

Attorneys for Federal Defendants

CERTIFICATE OF COMPLIANCE

This brief complies with the applicable word-count limitation under LR 7-2(b), 26-3(b), 54-1(c), or 54-3(e) because it contains 10,029 words, including headings, footnotes, and quotations, but excluding the caption, table of contents, table of cases and authorities, signature block, exhibits, and any certificates of counsel.

/s/ *Justin A. Torres*
JUSTIN A. TORRES

CERTIFICATE OF SERVICE

I hereby certify that on this 17th day of November, 2015, a copy of the foregoing Federal Defendants' Memorandum of Points and Authorities in Support of the Motion to Dismiss was filed via the Court's electronic case filing (ECF) system, which will send notice to all counsel of record.

/s/ *Justin A. Torres*
JUSTIN A. TORRES

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL
Chief
GUILLERMO A. MONTERO
Assistant Chief
SEAN C. DUFFY (NY Bar. No. 4103131)
Trial Attorney
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Federal Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, et al.,
Plaintiffs,

v.

UNITED STATES OF AMERICA, et al.,
Federal Defendants.

Case No. 6:15-cv-01517-TC

FEDERAL DEFENDANTS' MOTION TO STAY LITIGATION

Expedited Hearing Requested

INTRODUCTION

In a motion filed earlier today, ECF No. 120, the United States moved this Court to certify its Opinion and Order of November 10, 2016 ("November Order") to the United States Court of Appeals for the Ninth Circuit for interlocutory appeal (hereafter "Motion to Certify"), because the November Order addresses several controlling questions as to which there are substantial grounds for differences of opinion and an immediate appeal may materially advance

the ultimate termination of the litigation. The United States now respectfully moves the Court to stay this litigation pending consideration of the Motion to Certify, and until the earliest of (1) such time as the Court of Appeals declines to accept this matter for interlocutory appeal; or (2) such time as the Court of Appeals has ruled on the certified questions and issued its mandate to this Court.[1] The United States also seeks expedited consideration of this motion and specifically asks for a ruling on this motion by March 14, 2017.

As set forth below, a stay of proceedings pending resolution of the Motion to Certify and possible interlocutory appeal is appropriate because the United States is likely to prevail on appeal, will be irreparably harmed absent a stay, Plaintiffs are not likely to suffer significant injury if a stay is granted, and the public interest would be well-served by a stay. Further, expedited consideration is warranted in this given the significance of the issues raised and the burden on Federal Defendants that discovery is likely to impose.

STANDARD OF REVIEW

District courts have broad discretion to stay proceedings as an incident to its power to control its own docket. *Landis v. North American Co.*, 299 U.S. 248, 254 (1936); *see also CMAX, Inc. v. Hall*, 300 F.2d 265, 268 (9th Cir. 1962) (district courts possess "inherent power to control the disposition of the causes on its docket in a manner which will promote economy of time and effort for itself, for counsel, and for litigants."); *Filtrol Corp. v. Kelleher*, 467 F.2d 242, 244 (9th Cir. 1972); *Mediterranean Enterprises, Inc. v. Ssangyong Corp.*, 708 F.2d 1458, 1465 (9th Cir. 1983) ("A trial court may, with propriety, find it is efficient for its own docket and the fairest course for the parties to enter a stay of an action before it, pending resolution of

[1] Pursuant to Local Rule 7-1(a), the parties conferred on this motion and the request for expedition. Plaintiffs oppose this motion and the request for expedited consideration. Intervenor-Defendants do not oppose this motion or the request for expedited consideration.

independent proceedings which bear upon the case."). Section 1292(b) specifically authorizes the district courts to exercise their discretion to stay proceedings over which they have continuing jurisdiction during the pendency of an interlocutory appeal. *See* 28 U.S.C. § 1292(b).

The Supreme Court provides four factors to be considered when exercising that discretion: 1) whether the stay applicant has made a strong showing that he is likely to succeed on the merits; 2) whether the applicant will be irreparably injured absent a stay; 3) whether issuance of the stay will substantially injure the other parties interested in the proceeding; and 4) where the public interest lies. *Nken v. Holder*, 556 U.S. 418, 434 (2009). With regard to the first of these four factors, the moving party can "show either a probability of success on the merits or that serious legal questions are raised, depending on the strength of petitioner's showing on the other stay factors." *Leiva-Perez v. Holder*, 640 F.3d 962, 967 (9th Cir. 2011) (per curiam) (internal quotation marks and citation omitted). Moreover, the "district court should consider the possible damage which may result from the granting of a stay, the hardship or inequity which a party may suffer in being required to go forward, and the orderly course of justice measured in terms of the simplifying or complicating of issues, proof, and questions of law which could be expected to result from a stay." *CMAX*, 300 F.2d at 268.

ARGUMENT

I. The United States is Likely to Prevail on Appeal.

As noted in the Defendants' Motion to Certify, the Court's rulings on the Due Process Clause and the public trust doctrine present novel issues on which reasonable jurists have a substantial basis to disagree. ECF No. 120-1 at 18-25 ("Brief"); *see Scallon v. Scott Henry's Winery Corp.*, No. 6:14-CV-1990-MC, 2015 WL 5772107, at *1 (D. Or. Sept. 30, 2015) (finding a stay pending disposition of the interlocutory appeal is appropriate "where the question for

appeal is a matter of first impression" and movant "makes strong, non-frivolous, arguments"). That is, the decisions to recognize an entirely new fundamental right under the Due Process Clause of a kind never before recognized, and to expand public trust doctrine by applying it to the federal government, do not find support in existing case law. Brief at 18, 22. And the Court's rulings on standing are in tension with existing Supreme Court precedents that are intended to restrict Article III courts to actual cases and controversies, and prevent them from becoming fora for policy disagreements. *Id.* at 6-17. For these reasons, the United States is likely to succeed on the merits and it has, in all events, unquestionably raised serious legal questions. *See Umatilla Waterquality Protective Ass'n, Inc. v. Smith Frozen Foods, Inc.*, 962 F. Supp. 1312, 1323 (D. Or. 1997) (finding stay is appropriate given the importance of the issues raised to the entire litigation).

II. The United States Will be Irreparably Injured Absent a Stay.

The extraordinary scope of this litigation and the concomitant scope of discovery that Plaintiffs appear to be seeking set this case apart. The anticipated discovery burdens in this case are forecast by Plaintiffs' extraordinarily broad January 24, 2017 litigation hold demand letter. That letter demands preservation of, among other categories of documents over the course of nearly seven decades:

> All Documents related to climate change since the Federal Defendants or the Intervenor Defendants (and their member companies) became aware of the possible existence of climate change;
>
> All Documents related to national energy policies or systems, including fossil fuels and alternative energy sources and transportation;
>
> All Documents related to federal public lands, navigable waters, territorial waters, navigable air space or atmosphere; [and]
>
> All Documents related to greenhouse gas emissions or carbon sequestration as those terms apply to agriculture, forestry, or oceans.

Ex. A at 5-6. Prior to receipt of the January 24 letter, plaintiffs had failed to make clear the potentially enormous scope of their intended discovery.

Consistent with the January 24, 2017 letter, Plaintiffs have made clear that they intend to seek discovery relating to virtually all of the federal government's activities relating to control of CO_2 emissions, fossil fuels production and transportation, alternative energy sources, and public lands, transportation and energy policy that may relate to CO_2 emissions. Compounding the United States' burdens, Plaintiffs have indicated that their intended discovery has a temporal scope of more than sixty years, and will stretch across numerous federal agencies conducting myriad activities that involve their core functions. Absent relief, there will most certainly be depositions of federal government fact witnesses and 30(b)(6) designees that will explore the extraordinarily broad topic of climate change and the federal government's putative knowledge over the past seven decades. This endeavor is virtually limitless in its scope. Even if fact discovery were not exceptionally broad, the expert phase of discovery will most certainly be. Expert discovery will likewise be protracted, complicated and involve a large number of experts synthesizing complex data. In short, given the breadth the claims, their temporal scope, and scientific complexity, the discovery is likely to be time-consuming and resource-intensive and the litigation burdens that would occur as a result are likely to significantly impact Federal Defendants in their efforts to conduct their operations.

A stay of discovery is further appropriate because this action is unmoored to any statute that could limit its scope. Had Plaintiffs brought suit under the APA or agency-specific statutes challenging discrete agency acts or failures to act, judicial review would be on the administrative record. Here, Plaintiffs seek to circumvent that by bringing an equitable action without statutory authority. The fact that Plaintiffs have circumvented that requirement by bringing an equitable

action without statutory authority makes Plaintiffs' intended discovery all the more inappropriate, and further weighs in favor of a stay pending resolution of the Motion to Certify and any related appellate proceedings. *CMAX*, 300 F.2d at 268 (where it would promote "the orderly course of justice," a stay is appropriate).

Given these substantial discovery burdens and the significance of the issues presented by the motion seeking interlocutory appeal, the "fairest course for the parties" is to stay discovery until the motion for interlocutory appeal is decided. *Mediterranean Enterprises*, 708 F.2d at 1465; *H.A.L. v. Foltz*, 2008 WL 591927, *1 (M.D. Fla. 2008) (issuing stay and concluding that "the defendants should not be subjected to the burdens of discovery" until resolution of the defendants' interlocutory appeal of court's order denying qualified immunity).

III. The Injuries to Plaintiffs Due to a Stay Should be Negligible.

A stay of these proceedings during the pendency of an appeal is not likely to appreciably harm Plaintiffs. Because Plaintiffs' claims involve complex scientific knowledge and factual allegations directed at Federal Defendants concerning conduct that took place over several decades, discovery and a trial in this case are likely to be complex and time-consuming. Indeed, Plaintiffs anticipate introducing fifteen to twenty experts in the case. Given the already complex nature of the case, and the time it would take to complete discovery and proceed to trial in this case, the additional time needed for an appeal of the legal issues is relatively modest by comparison. *Scallon*, No. 6:14-CV-1990-MC, 2015 WL 5772107, at *2 (noting that plaintiffs' claims "date back many decades" and that a "comparatively brief delay to resolve this potentially dispositive issue of law cannot be said to cause Plaintiffs substantial injury").

Insofar as Plaintiffs may argue that time is of the essence, Plaintiffs waited until 2015 to file their complaint and elected to pursue novel constitutional and public trust claims rather than

challenge discrete agency actions pursuant to statutory causes of action. Thus, any delay corresponding to the need for interlocutory appellate review is eminently justified; as the party solely responsible for the timing of their civil action, Plaintiffs cannot credibly assert that a delay pending appellate review would be unjust.

IV. The Public Interest in Public Participation in the Political Process Would be Well-Served by a Stay.

The important public interest at stake raised by the Motion to Certify concerns how best to protect the atmosphere and other aspects of the environment while protecting other important values such as employment, reasonably affordable energy, balance of trade, and energy independence. Through this suit, Plaintiffs seek to remove decision-making authority on these critical issues from our publicly-elected representatives, and to have them instead decided by the Court. The proper resolution of this issue raises, among other things, core separation of powers concerns and "the public interest lies with correctly resolving the question of law at issue here. . . ." *Scallon*, No. 6:14-CV-1990-MC, 2015 WL 5772107, at *2. In addition, if a stay is not granted, the Executive Branch (including the Executive Office of the President) would be subject to continued discovery, and would be forced to divert substantial resources away from their essential functions of faithfully executing the law. The public interest accordingly will be served by staying this litigation.[2]

The provision for interlocutory appeal in 28 U. S. C. 1292(b) is intended to materially advance the litigation. Inherent in this purpose is an intention to avoid unnecessary strain on the

[2] Discovery served on the President is especially problematic in light of the absence of controlling statutory authority. *See* Brief at 17; *Mississippi v. Johnson*, 71 U.S. (4 Wall) 475, 501 ("this court has no jurisdiction of a bill to enjoin the President in the performance of his official duties.") And discovery of other components—as officials are only now coming on board—is inefficient and unnecessary at this juncture.

parties and the courts. The requested stay is consistent with that goal and especially advances the public interest where agency functions and limited government resources are at stake.

At a minimum, Federal Defendants are entitled to a stay in such a far-reaching case with the attendant significant discovery burdens because of the recent change in administration. Briefing incoming administration officials with decision-making responsibility concerning the extensive scope of matters involved in this litigation, including the anticipated and immediate discovery burden, will take a significant period of time. These officials will need to become familiar with the subject matter and issues presented, and seek and obtain legal counsel from both their internal agency/departmental attorneys as well as from the Department of Justice attorneys with primary responsibility for this case. The request for a stay here is therefore consistent with requests to stay proceedings to allow time for new administration officials to become familiar with litigated matters under their authority is customary and, in this case necessary, given the scope of discovery sought. *See Brady Campaign to Prevent Gun Violence v. Salazar*, 612 F. Supp. 2d 1, 10 (D.D.C. 2009) (noting that an extension of a preliminary injunction briefing schedule was granted after a change in administration). Accordingly, a stay of proceedings in this case serves judicial and party economy and is well within the Court's discretion. *See Landis*, 299 U.S. at 254 (district court has broad discretion to stay proceedings as an incident to its power to control its own docket).

CONCLUSION

For all of the foregoing reasons, the United States respectfully requests that the Court stay this litigation pending consideration of the Motion to Certify and until the earliest of (1) such time as the Court of Appeals refuses to accept an interlocutory appeal of the Court's

November 10, 2016 order; or (2) such time as the Court of Appeals has ruled on the certified questions and issued its mandate to this Court.

Dated: March 7, 2017

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Sean C. Duffy
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar. No. 4103131)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Federal Defendants

Certificate of Service

I hereby certify that on March 7, 2017 I filed the foregoing with the Clerk of Court via the CM/ECF system, which will provide service to all attorneys of record.

/s/ Sean C. Duffy
Sean C. Duffy

Attorney for Federal Defendants

Case No. 17-_____

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

In re: UNITED STATES OF AMERICA.
UNITED STATES OF AMERICA, et al.
Petitioners,

v.

UNITED STATES DISTRICT COURT FOR
THE DISTRICT OF OREGON
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, *et al.,*
Real Parties in Interest.

On Petition For A Writ Of Mandamus In
Case No. 6:15-cv-01517-TC-AA (D. Or.)

PETITION FOR WRIT OF MANDAMUS TO THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON AND REQUEST FOR STAY OF PROCEEDINGS IN DISTRICT COURT

JEFFREY H. WOOD
Acting Assistant Attorney General

ERIC GRANT
Deputy Assistant Attorney General

ANDREW C. MERGEN
DAVID C. SHILTON
Appellate Section
Environment & Natural Res. Div.
U.S. Department of Justice
P.O. Box 7415
Washington, DC 20044
(202) 514-5580

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Richard J. Lazarus, *Judicial Missteps, Legislative Dysfunction, and the Public Trust Doctrine: Can Two Wrongs Make It Right?*, 45 ENVTL. L. 1139 (2015).....31

INTRODUCTION AND RELIEF SOUGHT

In this case, the United States District Court for the District of Oregon has declared that the Due Process Clause guarantees American citizens an "unenumerated fundamental right" to "a climate system capable of sustaining human life." Dkt. 83 in No. 6:15-cv-01517 (D. Or.) at 31-32 (Attach. 1). The court has determined that this amorphous and sweeping right is judicially enforceable, permitting the court to dictate and manage—indefinitely—all federal policy decisions related to fossil fuels, energy production, alternative energy sources, public lands, and air quality standards. To say the least, and by the district court's own admission, this ruling is "unprecedented." *Id.* at 52.

The defendants—the United States, the President, and twenty other Executive Branch Departments, agencies, offices, Cabinet Secretaries, Directors and Officers—have in both the prior and the current Administrations endeavored to bring to an end this improper case. Defendants moved on November 11, 2015, for the court to dismiss the case (Dkt. 17), and on March 7, 2017, to certify an interlocutory appeal pursuant to 28 U.S.C. §1292(b) from the district court's order denying the motion to dismiss (Dkt. 120). Defendants also moved for a stay of proceedings. Dkt. 121. Despite requests for expedition, the district court did not finally rule on the motion to certify an appeal until June 8, 2017, when it adopted the magistrate judge's recommendation to deny certification, and denied the requested stay. Dkt. 172

(Attach. 2). In the meantime, it has permitted the start of an unbounded discovery process, including requests relating to sensitive internal workings of the Office of the President reaching as far back as the Administration of President Lyndon Johnson. *See infra* at 6-7, 32-37.

The governing criteria for mandamus relief articulated in *Bauman v. U.S. District Court,* 557 F.2d 650 (9th Cir. 1977), are easily satisfied here. The district court has committed multiple and clear errors of law in refusing to dismiss an action that seeks wholesale changes in federal government policy based on utterly unprecedented legal theories. Immediate review is needed to prevent the district court from the unlawful exercise of its jurisdiction and to avoid the staggering burden imposed on the federal government by the ongoing discovery directed at the entire course of federal decision-making relating to the broad issues raised by these unprecedented claims. No other means are available to obtain the relief the government seeks since the district court refused to certify for interlocutory appeal its order denying the motions to dismiss. Defendants respectfully request this Court to issue the writ and direct the district court to dismiss the case. They also request that the Court exercise its authority under the All Writs Act to stay proceedings in the district court until the merits of this petition for mandamus are resolved.

STATEMENT OF JURISDICTION

This Court has authority to issue a writ of mandamus pursuant to 28 U.S.C. § 1651 and Rule 21 of the Federal Rules of Appellate Procedure.

STATEMENT OF THE ISSUE

Whether the district court committed clear legal error and exceeded its judicial authority by refusing to dismiss this action against the President and multiple federal agencies that seeks to fundamentally redirect federal policy regarding energy development, transportation and consumption in order to bring about dramatic reductions in global concentrations of carbon dioxide (CO2).

STATEMENT OF RELEVANT FACTS

Twenty-one minors and an organization called Earth Guardians filed this action on August 12, 2015, naming the President, the Executive Office of the President, and numerous cabinet-level Executive agencies. An Amended Complaint was filed on September 10, 2015. Dkt. 7 (Attach. 3). The Amended Complaint alleges that the defendants have allowed cumulative CO2 emissions to increase, ¶151, by enabling and permitting fossil fuel production and combustion, ¶¶164-70, 185-91, by subsidizing the fossil fuel industry, ¶¶171-78, and by allowing interstate and international transport of fossil fuels, ¶¶179-84. With one exception, plaintiffs do not identify or challenge specific agency actions, such as agency orders, permits, or

rulemakings, or the failure to undertake any specific required actions.[1] Instead, they challenge what they term the federal government's "aggregate actions," ¶129, which they assert have caused "climate instability" that injures their prospects for long and healthy lives. ¶288. Plaintiffs allege that the aggregate actions by the defendants violate their rights under the Due Process Clause and the equal protection component of the Fifth Amendment, their rights reserved by the Ninth Amendment, and the public trust doctrine. ¶¶277-310.

For relief, plaintiffs ask the court to declare their rights under the Constitution to a certain kind or quality of "climate system" and to enjoin the Executive Branch to "prepare a consumption-based inventory of U.S. CO2 emissions" and to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO2." Dkt. 7 at 94. They ask the court to retain jurisdiction for an indefinite period of time to monitor the government's compliance with this "national remedial plan." *Id.*

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[1] The exception is a challenge to the Department of Energy's (DOE) 2011 authorization, pursuant to Section 201 of the Energy Policy Act, of the export of liquefied natural gas (LNG) from the Jordan Cove, Oregon, LNG Terminal. Dkt. 7 at ¶193. Plaintiffs ask that Section 201 be declared unconstitutional as a violation of plaintiffs' "fundamental rights to life, liberty, and property," and that the DOE Order be set aside. *Id.* at ¶288 and p. 94. This claim is indisputably beyond the district court's jurisdiction because exclusive jurisdiction to review export authorizations like this one is vested in the courts of appeals. 15 U.S.C. § 717r(b); *Consol. Gas Supply Corp. v. FERC,* 611 F.2d 951, 957 (4th Cir. 1979).

On November 17, 2015, defendants moved to dismiss the complaint for lack of jurisdiction due to a failure to establish Article III standing and for failure to state a claim under the Fifth Amendment, the Ninth Amendment, and the public trust doctrine. Dkt. 27. On April 8, 2016, the magistrate judge assigned to the case issued findings and a recommendation that the court deny defendants' motion to dismiss, as well as a motion to dismiss on political question grounds filed by intervenor-defendants. Dkt. 68 (Attach. 4).[2] Defendants and intervenors filed objections to the magistrate's findings and recommendation. Dkt. 73, 74. On November 10, 2016, the district court issued an opinion and order adopting the magistrate's findings and recommendations and denying the motions to dismiss. Dkt. 83 (Attach. 1). The district court found that plaintiffs had adequately alleged the injury-in-fact, causation, and redressability elements of standing, *id.* at 18-28; had not raised non-justiciable political questions, *id.* at 6-17; and had asserted cognizable claims under the Due Process Clause and the public trust doctrine, *id.* at 28-51. With respect to plaintiffs' due process claims, the district court held that the Federal Government's aggregate actions on climate change are subject to "strict scrutiny," *id.* at 29, because plaintiffs have adequately alleged the violation of "an unenumerated fundamental right" to "a climate system capable of sustaining human life," *id.* at 31-32. With respect to

[2] The intervenors have subsequently moved to withdraw from the case. Dkt. 163, 166, 167.

plaintiffs' "public trust" claim, the district court held that, as a matter of "substantive due process," *id.* at 51, plaintiffs have a cause of action under the Constitution to assert claims that the Federal Government has violated "duties as trustee[] by failing to protect the atmosphere, water, seas, seashores, and wildlife," *id.* at 40.

Defendants filed an Answer on January 13, 2017. Dkt. 98. On January 24, 2017, plaintiffs sent a Notice of Litigation Hold and Request for Preservation demanding that defendants preserve, among other things:

> All Documents related to climate change since the Federal Defendants * * * became aware of the possible existence of climate change;
>
> All Documents related to national energy policies or systems, including fossil fuels and alternative energy sources and transportation;
>
> All Documents related to federal public lands, navigable waters, territorial waters, navigable air space or atmosphere; [and]
>
> All Documents related to greenhouse gas emissions or carbon sequestration as those terms apply to agriculture, forestry, or oceans.

Dkt. 121-1 at 5-7.

Consistent with their extraordinarily broad conception of the scope of this case, plaintiffs served Requests for Admissions on the Executive Office of the President and on EPA on January 20, 2017, Dkt. 151-1; filed broad Requests for Production of Documents on all defendants in February and March 2017, Dkt. 151-2, 151-3, 151-4, 151-5, 151-6, 151-7, 151-8; and have announced their intention to depose, *inter alios*:

Rex Tillerson, Secretary of State

Scott Pruitt, Administrator, EPA

Rick Perry, Secretary of Energy

Ryan Zinke, Secretary of Interior

Rule 30(b)(6) witness for Executive Office of the President

Dkt. 151-9.

On March 7, 2017, defendants moved the district court to certify its Opinion and Order of November 10, 2016, for interlocutory appeal pursuant to 28 U.S.C. §1292(b). Dkt. 120. The motion identified controlling questions of law pertaining to plaintiffs' lack of standing and to their failure to state cognizable claims under the Constitution or the public trust doctrine. Defendants also moved to stay the litigation pending consideration of the issues raised by the request under 28 U.S.C. §1292(b). Dkt. 121.

As time passed and discovery deadlines approached, defendants sought expedited rulings on these motions. Dkt. 120 at 2. The district court, however, referred the stay motion to the magistrate judge. The magistrate judge then granted (over defendants' objections) plaintiffs' requests for additional time to respond to the motions. Dkt. 127. The magistrate judge denied the stay motion and recommended denying the §1292(b) motion on May 1, 2017. Dkt. 146 (Attach. 5). Defendants filed objections with the district court on May 5, 2017 and on May 9, 2017, respectively,

again requesting expedited rulings since the court had refused to extend pending discovery deadlines while the motions were being considered. Dkt. 149, 151. On May 31, 2017, the Executive Office of the President was forced to respond to the above-discussed Requests for Admissions. All defendants will be forced to respond in the coming weeks to document requests that seek material dating back over at least five decades.

On June 6, 2017, defendants filed a Notice Regarding Pending Motions reminding the district court of the urgent need for resolution of the defendants' requests for interlocutory appeal and for a stay. Dkt. 171. On June 8, 2017, the district court issued an order adopting the magistrate judge's findings and recommendations, denying the motions to certify for interlocutory appeal, and denying the requested stay. Dkt. 172.[3]

STANDARD OF REVIEW

The Court considers a petition for a writ of mandamus by applying the five factors identified in *Bauman v. U.S. District Court*, 557 F.2d 650 (9th Cir. 1977):

> (1) whether the petitioner has no other means, such as direct appeal, to obtain the desired relief;

[3] The district court declined to dismiss defendants' motion to certify as untimely. Dkt. 172 at 3, n.2. The November 9, 2017, decision denying the motions to dismiss was issued immediately following the election resulting in a new Administration. That, along with the necessarily complex process for approving an appeal by the government, explains why the motion to certify was not filed until March 7, 2017.

(2) whether the petitioner will be damaged or prejudiced in any way not correctable on appeal;

(3) whether the district court's order is clearly erroneous as a matter of law;

(4) whether the district court's order is an oft repeated error or manifests a persistent disregard of the federal rules; and

(5) whether the district court's order raises new and important problems or issues of first impression.

Perry v. Schwarzenegger, 591 F.3d 1147, 1156 (9th Cir. 2009) (citing *Bauman*, 557 F.2d at 654-55).[4] Not every factor is relevant in every case, and the writ may issue even if some of the factors point in different directions. *Christensen v. U.S. District Court*, 844 F.2d 694, 697 (9th Cir. 1988). This Court has identified the key factor as whether it is "firmly convinced that [the] district court erred" in issuing the challenged order. *Id.* (quotes, citation omitted).

This Court may also grant mandamus as an exercise its supervisory authority over a district court, to ensure that the judicial system operates in an orderly, efficient manner. *See In re Cement Antitrust Litig.,* 688 F.2d 1297, 1307 (9th Cir. 1982); *see also LaBuy v. Howes Leather Co.*, 352 U.S. 249 (1957). Mandamus may also be appropriate

[4] The three factors the Supreme Court has established for mandamus relief — (1) the party seeking relief has no other adequate means of relief; (2) the right to relief is clear and undisputable; and (3) issuing the writ is appropriate in the circumstances — overlap substantially with the *Bauman* factors and are also satisfied for the reasons discussed. *See Cheney v. U.S. Dist. Ct.*, 542 U.S. 367, 380-81 (2004) (*Cheney*).

"to restrain a lower court when its actions would threaten the separation of powers by 'embarrass[ing] the executive arm of the Government * * *.'" *Cheney,* 542 U.S. at 381, quoting *Ex parte Peru*, 318 U.S. 578, 588 (1943).

REASONS FOR GRANTING THE WRIT

I. The district court's order is based on clear error.

In its order denying the motions to dismiss, the district court rendered unprecedented and clearly erroneous rulings. It found that plaintiffs had adequately alleged standing based on alleged injuries that are widely shared by every member of society, cannot plausibly be traced to particular actions of the federal government, and cannot be redressed by an order within the authority of a federal court. It accepted plaintiffs' novel and unprecedented interpretation of the scope of the Due Process Clause as providing an "unenumerated fundamental right" to a global atmosphere capable of sustaining human life with CO2 concentrations that the district court determines are necessary to protect plaintiffs from asserted injury. It improperly found that plaintiffs could proceed on a theory that the President and federal agencies had violated the "public trust" doctrine, even though the Supreme Court has found that such doctrine is purely a creature of state law and even though the Court of Appeals for the District of Columbia Circuit has affirmed the dismissal of nearly-identical claims by some of these same plaintiffs.

These rulings constitute clear and profound error warranting a writ of mandamus directing that the case be dismissed. They also demonstrate a remarkable disregard for essential separation-of-powers limitations on the role of federal courts and call for this Court to exercise its supervisory mandamus powers to end this clearly improper attempt to have the judiciary decide important questions of energy and environmental policy to the exclusion of the elected branches of government.

A. The district court clearly erred by finding that plaintiffs adequately alleged standing based on vague and attenuated allegations of injury, causation and redressability.

The Supreme Court has consistently stressed that "the standing inquiry requires careful judicial examination of a complaint's allegations to ascertain whether the particular plaintiff is entitled to an adjudication of the particular claims asserted." *Allen v. Wright*, 468 U.S. 737, 752 (1984), *abrogated in non-relevant part by Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014). Accordingly, in response to a motion to dismiss, a district court must determine:

> Is the injury too abstract, or otherwise not appropriate, to be considered judicially cognizable? Is the line of causation between the illegal conduct and injury too attenuated? Is the prospect of obtaining relief from the injury as a result of a favorable ruling too speculative?

Id. at 752. These questions go to the heart of whether an adjudication is proper, and they "must be answered by reference to the Art. III notion that federal courts may exercise power only in the last resort, and as a necessity, * * * and only when

adjudication is consistent with a system of separated powers and the dispute is one traditionally thought to be capable of resolution through the judicial process." *Id.* at 738 (inner citations and quote marks omitted); *see also Clapper v. Amnesty Int'l USA*, 133 S. Ct. 1138, 1146 (2013) (standing requirement preserves the separation of powers by "prevent[ing] the judicial process from being used to usurp the powers of the political branches.")

This suit is plainly not "consistent with a system of separated powers" *Allen,* 468 at 752, as it seeks to have a federal court decide broad matters of national energy and environmental policy that are reserved to the elected branches of government, at the behest of plaintiffs who assert highly generalized injuries purportedly resulting from a decades-long failure of Congress and the Executive Branch to adequately address the buildup of CO2 in the global atmosphere.[5] The Supreme Court has made clear that Article III does not permit suits that seek "broad-scale investigation" into

[5] The district court recognized that "[t]his lawsuit challenges decisions defendants have made across a vast set of topics," including "whether and to what extent to regulate CO2 emissions from power plants and vehicles, whether to permit fossil fuel extraction and development to take place on federal lands, how much to charge for use of those lands, whether to give tax breaks to the fossil fuel industry, whether to subsidize or directly fund that industry," and many others. Dkt. 83 at 3-4. But rather than recognizing that these broad policy questions are for the elected branches of government, the court found them to be appropriate for judicial determination because "[t]he identification and protection of fundamental rights is an enduring part of the judicial duty to interpret the Constitution." *Id.* at 31, 32. As shown *infra* at 22-26, this was clear error.

government functions "with the district court determining at the conclusion of that investigation the extent to which those activities may or may not be appropriate," because "this approach would have the federal courts as virtually continuing monitors of the wisdom and soundness of Executive action." *Laird v. Tatum*, 408 U.S. 1, 14–15 (1972). Contrary to the district court's assumption, no additional fact finding could possibly repair the fundamental defects that foreclose standing in this case. The refusal to dismiss on grounds of lack of standing was clear error.

1. Plaintiffs did not allege a cognizable injury that is particularized and concrete.

The Supreme Court has consistently "stressed that the alleged injury must be legally and judicially cognizable." *Raines v. Byrd*, 521 U.S. 811, 819 (1997). This requires that "the plaintiff have suffered 'an invasion of a legally protected interest which is * * * concrete and particularized,' *Lujan, supra*, at 560 * * * and that the dispute is 'traditionally thought to be capable of resolution through the judicial process,' *Flast v. Cohen*, 392 U.S. 83, 97 (1968)." *Id.* As the Court explained in *Schlesinger v. Reservists Comm. to Stop the War*, 418 U.S. 208, 220–21 (1974):

> Concrete injury, whether actual or threatened, is that indispensable element of a dispute which serves in part to cast it in a form traditionally capable of judicial resolution. It adds the essential dimension of specificity to the dispute by requiring that the complaining party have suffered a particular injury caused by the action challenged as unlawful.

See also Spokeo, Inc. v. Robins, 136 S. Ct. 1540, 1548 (2016) ("[f]or an injury to be 'particularized,' it 'must affect the plaintiff in a personal and individual way'").

The allegations of injury accepted by the district court as adequate to survive the motion to dismiss fell far short of these Article III requirements. The allegations of the complaint involve generalized phenomena such as drought, floods, rising sea levels, reduced agricultural productivity, and fire-prone forests that may affect plaintiffs, but in the same way and to the same extent as they may affect everyone else in the world. Dkt. 7 ¶¶ 16-91. These generalized harms are allegedly caused or exacerbated by a "global" increase in atmospheric CO2 that plaintiffs allege has resulted, in part, from the "aggregate" actions and inactions of the federal government over six decades of implementing congressional policy concerning energy development and environmental protection. *Id.* at ¶129 (defendants "aggregate actions * * * have substantially caused the present climate crisis"); *see also* ¶275. These allegations do not plausibly allege a cognizable injury that is "concrete" and "particularized."

Contrary to the district court, nothing in *Massachusetts v. EPA*, 549 U.S. 497 (2007), supports standing based on non-specific allegations of harm allegedly resulting from decades-long failures by the federal government to enact and implement policies that would lessen the buildup of CO2 in the global atmosphere. In that case, the Court permitted Massachusetts to pursue a claim involving an alleged failure to

comply with a specific provision of the Clean Air Act because it had a "stake in protecting its quasi-sovereign interests" through the exercise of a "procedural right" provided in the statute. *Id.* at 518-20. As this Court has expressly recognized, the standing holding in *Massachusetts v. EPA* does not apply where "the present case neither implicates a procedural right nor involves a sovereign state." *Washington Environmental Council v. Bellon,* 732 F.3d 1131, 1145 (9th Cir. 2013) ("*Bellon*"). There is no equivalent statutory provision giving these plaintiffs a protectable interest in seeking relief from effects allegedly resulting from the aggregate effect of governmental actions and inactions over many decades relating to CO2. And whereas Massachusetts' claim "turn[ed] on the proper construction of a congressional statute, a question eminently suitable to resolution in federal court," 549 U.S. at 516, plaintiffs' claims here do not rely on any statute but instead ask the court to make essentially legislative determinations regarding energy, transportation, public lands and pollution control policies, matters which are far removed from a dispute that is "traditionally thought to be capable of resolution through the judicial process." *Raines, supra,* 521 U.S. at 819.

2. Plaintiffs failed to adequately allege causation.

The Supreme Court observed in *Allen* that allowing standing where the alleged injury could not fairly be traced to a particular government action "would pave the

way generally for suits challenging, not specifically identifiable Government violations of law, but the particular programs agencies establish to carry out their legal obligations. Such suits, even when premised on allegations of several instances of violations of law, are rarely if ever appropriate for federal-court adjudication." 468 U.S. at 759-60. That describes this case, where plaintiffs rely on the "aggregate" of everything the federal government has done (or not done) over the past six decades relating to CO2 emissions as the "cause" of their asserted injuries. *See* Dkt. 83 at 14 (district court finds that "the theory of plaintiffs' case is * * * that defendants' *aggregate actions* violate their substantive due process rights and the government's public trust obligations") (emphasis in original).

It is impossible to determine from the complaint what role particular actions of each defendant agency or of various presidents (over decades) supposedly has played or will play in the creation of the alleged injuries, as opposed to the role played by third parties not before the court. Where "the plaintiff is not himself the object of the government action or inaction he challenges, standing is not precluded, but it is ordinarily 'substantially more difficult' to establish." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 562 (1992) (quoting *Allen*, 468 U.S. at 758). The plaintiffs do not allege that they are the object of any government action, but instead that the federal government has engaged in policies that encourage private actors to develop and use fossil fuels, or done too little to regulate the emission of CO2. Where "causation and

redressability ordinarily hinge on the response of the regulated (or regulable) third party to the government action or inaction — and perhaps on the response of others as well — it becomes the burden of the plaintiff to adduce facts showing that those choices have been or will be made in such manner as to produce causation and permit redressability of injury." *Lujan*, 504 U.S. at 562.

That requirement is rendered meaningless if plaintiffs simply lump together everything the federal government does or does not do that relates to fossil fuels or to the emission of CO2 and then allege that the "aggregate" effect of government conduct and private conduct they wish to see regulated causes them injury through climate change. The district court found it sufficient for plaintiffs to simply allege that "defendants have the power to increase or decrease" CO2 emissions from fossil fuel combustion through policies relating to fossil fuel development and that "DOT and EPA have broad power to set emissions standards" with respect to the transportation and power sectors of the economy. Dkt. 83 at 25-26. But a central part of the Article III inquiry is the requirement that a plaintiff identify *with particularity* a government failure that is a meaningful cause of the plaintiff's injury. That inquiry cannot be avoided by the expedient of aggregating a vaguely-defined category of government actions and inactions relating to vast sectors of the American economy. *See Lewis v. Casey*, 518 U.S. 343, 358 n.6 (1996) ("Standing is not dispensed in gross. If the right to complain of *one* administrative deficiency automatically conferred the right to

complain of *all* administrative deficiencies, any citizen aggrieved in one respect could bring the whole structure of state administration before the courts for review.")

The fundamental deficiency in plaintiffs' causation showing is confirmed by this Court's decision in *Bellon*, *supra,* 732 F.3d 1131. Although the plaintiffs in *Bellon*, unlike plaintiffs here, had alleged a specific failure by an agency — not setting standards for CO2 emissions from refineries — that allegation was insufficient for causation. This Court made clear that where standing rests on alleged climate change injuries, "[t]o satisfy the causality element for Article III standing, Plaintiffs must show that the injury is causally linked or 'fairly traceable' to the Agencies' alleged misconduct, and not the result of misconduct of some third party not before the court." *Id.* at 1141, citing *Lujan*, 504 U.S. at 560–61. As the Court noted, "simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries, relies on an attenuated chain of conjecture insufficient to support standing." *Id.* at 1142-43 (quote marks and citation omitted). Plaintiffs here rely on a far more attenuated and diffuse chain of causation, one that fails to point to a specific alleged failure to regulate but relies instead on alleged but unidentified failures over many decades. Contrary to the district court's assumption (Dkt. 83 at 25), this is not a failure that can be corrected by allowing plaintiffs to conduct factual discovery. Basing causation on the "aggregate" effect of all federal policies relating to fossil fuel

production and overall regulatory policy toward CO2 emissions is a fundamental legal flaw that no factual showing could possibly cure.[6]

3. Plaintiffs failed to adequately allege redressability.

The district court similarly assumed that plaintiffs could properly allege redressability by aggregating all sources of CO2 emissions that have any connection with the federal government or federal lands, and then alleging that reducing that aggregate quantity by broad relief directed at the federal government would lessen their injuries. Dkt. 83 at 27 ("If plaintiffs can show, as they have alleged, that defendants have control over a quarter of the planet's greenhouse gas emissions, and that a reduction in those emissions would reduce atmospheric CO2 and slow climate change, then plaintiffs' requested relief would redress their injuries"). This approach is clearly at odds with *Allen* and *Lujan,* as well as with *Lewis v. Casey*, 518 U.S. at 358 n.6, which affirmed that standing focuses on redress of *particular* administrative

[6] Contrary to the district court (Dkt. 83 at 26), *Massachusetts v. EPA* does not support causation here. The State there alleged that its injuries were caused by a particular failure of the defendant agency (EPA's denial of a rulemaking petition asking for regulation of greenhouse gas emissions under a specific section of the Clean Air Act), and that this failure to follow a statutory duty led to significantly increased greenhouse gas emissions from a specific source (new motor vehicles). 549 U.S. at 510-14, 523-24. Here, the complaint simply lists examples of various regulations, orders, actions and inactions, and then alleges that the entire course of federal government conduct in past decades has caused plaintiffs' injuries.

deficiencies, rather than "confer[ing] the right to complain of *all* administrative deficiencies."

Plaintiffs cannot establish redressability by the simply alleging that the district court can order the federal government to take "'action necessary to ensure that atmospheric CO2 is no more concentrated than 350 ppm by 2100.'" Dkt. 83 at 28 (quoting Dkt. 7 ¶12). The complaint never alleges that the agencies have statutory authority for the sweeping remedial action plaintiffs assert is necessary to remedy their harms, and the district court specifically noted that plaintiffs' theory of the case "requires no citation to particular statutory or regulatory provisions." Dkt. 83 at 14.[7] Nor, under the Constitution's framework of separation of powers, could the court compel Congress to enact the additional authority that would be needed to provide the requested relief.

Equally problematic is the erroneous assumption of the district court that this relief could be obtained against the President. *See, e.g., Mississippi v. Johnson*, 71 U.S. (4 Wall.) 475, 501 (1866) ("this court has no jurisdiction of a bill to enjoin the President

[7] In a recent filing, plaintiffs claim that they "have adequately alleged existing statutory and regulatory authority under which Federal Defendants can provide the relief requested." Dkt. 129 at 25, citing Dkt. 7 at ¶¶ 98-130, 180, 183, 265, 266. Nothing in those paragraphs of the complaint identifies *any* statutory or regulatory authority that would permit the court to order defendants "to prepare a consumption-based inventory of U.S. CO2 emissions," or "to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO2 so as to stabilize the climate system." Dkt. 7 at 94.

in the performance of his official duties"). "There is longstanding legal authority that the judiciary lacks the power to issue an injunction or a declaratory judgment against the co-equal branches of government * * *." *Newdow v. Bush*, 355 F. Supp. 2d 265, 280-82 (D.D.C. 2005) (declining to carve an exception to Presidential immunity "where [the President] is claimed to have violated the Constitution"); *see also Clinton v. Jones*, 520 U.S. 681, 718-19 (1997) (Breyer, J. concurring) (acknowledging "the apparently unbroken historical tradition * * * implicit in the separation of powers that a President may not be ordered by the Judiciary to perform particular Executive acts") (quoting *Franklin v. Massachusetts*, 505 U.S. 788, 802–03 (1992) (Scalia, J. concurring)).

Plaintiffs' redressability allegations thus also clearly fail to establish an Article III controversy: plaintiffs have failed to identify specific agency actions or inactions that could be redressed by a federal court and they have failed to identify any statutory authority for an order directing the defendants to "phase out fossil fuel emissions and draw down excess atmospheric CO2." Dkt. 7 at 94.

B. The district court clearly erred by allowing plaintiffs to proceed on their claim of a fundamental right under the due process clause.

Even if plaintiffs had shown that this case was within the district court's jurisdiction under Article III, it should have been dismissed for failure to state a claim upon which relief can be granted. "While a complaint attacked [under] Rule 12(b)(6) * * * does not need detailed factual allegations, a plaintiff's obligation to provide the

grounds of his entitlement to relief requires more than labels and conclusions, and a formulaic recitation of a cause of action's elements will not do." *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (citation and brackets omitted). The complaint must set forth facts supporting a plausible, not merely possible, claim for relief. *Id.* The complaint here clearly failed to do that.

1. There is no basis in law for a due process right to a particular climate system.

The district court recognized the unprecedented nature of its ruling that plaintiffs could pursue a due process claim against the federal government based on a global phenomenon like climate change. The court nevertheless allowed the case to go forward because "[p]laintiffs purport to challenge the government's failure to limit third-party CO2 emissions pursuant to the danger creation *DeShaney* exception." Dkt. 83 at 33. The district court's attempt to analogize this case involving the entire federal government's alleged contribution to global levels of CO2 to cases involving actions of police officers that placed individual plaintiffs in direct and immediate peril is riddled with error.

No federal court at any level has ever found a right to be protected from a general environmental phenomenon like climate change, and many courts have dismissed similar arguments asserting constitutionally-protected rights to various aspects of the environment. *See Nat'l Sea Clammers Ass'n v. City of New York*, 616 F.2d

1222, 1237-38 (3d. Cir. 1980) ("[i]t is established in this circuit and elsewhere that there is no constitutional right to a pollution-free environment"), *dismissed and vacated in part on other grounds sub nom. by Middlesex Cty. Sewerage Auth. v. Nat'l Sea Clammers Ass'n*, 453 U.S. 1 (1981); *S.F. Chapter of A. Philip Randolph Inst. v. EPA*, No. C 07-04936 CRB, 2008 WL 859985, at *6-7 (N.D. Cal. Mar. 28, 2008) ("Plaintiffs also allege deprivation of the right to be free of climate change pollution, but that right is not protected by the Fourteenth Amendment [Due Process Clause] either."); *Pinkney v. Ohio Envtl. Prot. Agency*, 375 F. Supp. 305, 310 (N.D. Ohio 1974) ("[T]he Court has not found a guarantee of the fundamental right to a healthful environment implicitly or explicitly in the Constitution."); *Gasper v. La. Stadium & Exposition Dist.*, 418 F. Supp. 716, 720-21 (E.D. La. 1976) ("[T]he courts have never seriously considered the right to a clean environment to be constitutionally protected under the Fifth and Fourteenth Amendments"), *aff'd*, 577 F.2d 897 (5th Cir. 1978).

The consistent and long-standing refusal of courts to accept a due process right to environmental quality is required by the Supreme Court's cautious approach to considering novel due process claims and its "insistence that the asserted liberty interest be rooted in history and tradition." *Michael H. v. Gerald D.*, 491 U.S. 110, 122 (1989). In *Washington v. Glucksberg*, the Court emphasized that federal courts must "exercise the utmost care whenever we are asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed into"

judicial policy preferences, and lest important issues be placed "outside the arena of public debate and legislative action." 521 U.S. 702, 720 (1997); *see also Reno v. Flores*, 507 U.S. 292, 302 (1993) ("'Substantive due process' analysis must begin with a careful description of the asserted right, for '[t]he doctrine of judicial self-restraint requires us to exercise the utmost care whenever we are asked to break new ground in this field.'") (quoting *Collins v. Harker Heights*, 503 U.S. 115, 125 (1992)).

Neither plaintiffs nor the district court made any attempt to show that the concept of a fundamental right to a stable climate system is "deeply rooted in our legal tradition," as required by *Glucksberg*, 521 U.S. at 722. The district court cited only a single opinion from a Phillipines court to show judicial support for a fundamental right to a "'balanced and healthful ecology.'" Dkt. 83 at 50, citing *Minors Oposa*, 33 I.L.M. at 187; *see also id.* at 32. This is plainly insufficient to show that an asserted right under the United States Constitution to a stable climate system is "deeply rooted in our legal tradition." *See Raich v. Gonzales*, 500 F.3d 850, 865 (9th Cir. 2007).

The interest in a stable climate system is unlike any of the fundamental liberty interests the Supreme Court has accepted. It has no impact on personal autonomy, unlike restraints on the ability to marry. While the plaintiffs and the district court rely on the decision in *Obergefell v. Hodges*, 135 S. Ct. 2584, 2598 (2015), recognizing a fundamental right to same-sex marriage, that recognition was based on prior decisions

establishing that "[t]he fundamental liberties protected by [the Due Process] Clause include * * * certain personal choices central to individual dignity and autonomy, including intimate choices that define personal identity and beliefs." *Id.* at 2597. While *Obergefell* extended that existing line of cases to recognize a fundamental right to marry for same-sex couples, the "fundamental right" found by the district court here has no relation to any subject that has previously been afforded heightened constitutional protection.

The limited due process right recognized by this Court in several post-*DeShaney* cases is grounded in the peculiar duty a governmental body takes on when it has control over a particular individual's person and places him or her in imminent peril. *See Penilla v. City of Huntington Park,* 115 F.3d 707, 710 (9th Cir. 1997) (cause of action for due process violation arose where officers "took affirmative actions that significantly increased the risk facing Penilla: they cancelled the 911 call to the paramedics; they dragged Penilla from his porch, where he was in public view, into an empty house; they then locked the door and left him there alone * * * after they had examined him and found him to be in serious medical need"); *Wood v. Ostrander*, 879 F.2d 583, 588 (9th Cir. 1989) (due process cause of action arose where officer arrested a female driver, impounded the car, and left driver by the side of the road at night in a high-crime area). This duty of officers not to affirmatively place an individual in a position of imminent risk with deliberate indifference to his or her safety can be

traced to common law roots. But there is no basis in common law or elsewhere for a duty to protect persons (which would presumably include all members of the general population of the United States) against whatever perils are produced by emissions of CO2.[8]

2. Plaintiffs failed to identify any cause of action for their claims.

Neither plaintiffs nor the district court identified a cause of action authorizing suits against federal agencies or the President for declaratory and injunctive relief related to this alleged right. When the district court asserted that "the Fifth Amendment * * * provides the right of action" for both the due process and the public trust claims, it cited only cases upholding a cause of action for damages against federal officers for violations of constitutional rights. Dkt. 83 at 51, citing *Davis v. Passman*, 442 U.S. 228, 245 (1979), and *Carlson v. Green*, 446 U.S. 14, 18 (1980). While the Supreme Court has in limited circumstances implied causes of action against individual federal officers in their personal capacities, in order to vindicate clearly-

[8] Nor have plaintiffs properly alleged another prerequisite to a substantive due process claim: that the challenged conduct is "so egregious, so outrageous, that it may fairly be said to shock the contemporary conscience." *Cty. of Sacramento v. Lewis*, 523 U.S. 833, 848 n. 8 (1998). The complaint cites only instances of federal agencies carrying out statutorily-authorized policies that plaintiffs believe are too encouraging of energy production and give too little consideration to climate change. Such official action that is merely inconsistent with plaintiffs' policy preferences is not remotely the sort of conduct that rises to the conscience-shocking level that can support a due process claim. *See, e.g., Lombardi v. Whitman*, 485 F.3d 73, 84 (2d Cir. 2007).

established constitutional rights, it has emphasized that such implication should be sparing, and that "such power is to be exercised in the light of relevant policy determinations made by the Congress," and only where no other alternative form of relief is available. *Bush v. Lucas*, 462 U.S. 367, 373-744 (1983); *see also Davis,* 442 U.S. at 245.

No court has ever recognized an implied Fifth Amendment cause of action directly against the federal government itself that would allow plaintiffs to seek, through injunctive and declaratory relief, a fundamental re-ordering of national priorities to address an environmental problem. Any such implied cause of action would run contrary to the consistent refusal of Congress to authorize causes of action for programmatic challenges. As the district court recognized, Dkt. 83 at 52, plaintiffs could not have brought this broadly programmatic challenge under any statutorily-created causes of action such as the APA. *See Lujan v. Nat'l Wildlife Fed'n,* 497 U.S. 871, 892–93 (1990) ("it is at least entirely certain that the flaws in the entire 'program' * * * referenced in the complaint, and presumably actions yet to be taken as well * * * cannot be laid before the courts for wholesale correction under the APA"); *see also Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 64 (2004) ("'respondent cannot seek wholesale improvement of this program by court decree, rather than in the offices of the Department or the halls of Congress, where programmatic improvements are normally made'") (quoting *Lujan,* 497 U.S. at 64-65). Nor could plaintiffs have

invoked the narrow and specific Clean Air Act cause of action at issue in *Massachusetts v. EPA,* 549 U.S. at 519-20. The district court's failure to dismiss these programmatic claims here further warrants a writ of mandamus.

C. The district court clearly erred in holding that plaintiffs stated an actionable "public trust" claim against the federal government.

As with its due process holding, the district court was unable to point to any authority supporting the proposition that the "public trust" doctrine authorizes suit against the federal government writ large to require it to protect the global atmosphere or other alleged public trust resources. Moreover, plaintiffs' public trust theory was convincingly rejected in a recent, nearly-identical suit brought in the District of Columbia by some of the same individuals who are plaintiffs and their counsel here. In *Alec L. v. Jackson*, 863 F. Supp. 2d 11 (D.D.C. 2012), *aff'd, Alec L. ex rel. Loorz v. McCarthy*, 561 Fed. App'x 7 (D.C. Cir. 2014), cert. denied, 135 S. Ct. 774 (2014), plaintiffs alleged that several Executive Branch departments and agencies had violated their alleged fiduciary duties to preserve and protect the atmosphere as a commonly-shared public resource under the public trust doctrine. They invoked the federal question statute, 28 U.S.C. §1331, as the basis for subject matter jurisdiction over this "public trust" claim. The district court in *Alec L.* found no support for the assertion that the public trust doctrine or claims based on it arise under the Constitution or laws of the United States. The court cited the Supreme Court's

reaffirmation in *PPL Mont., LLC v. Montana*, 565 U.S. 576, 603-04 (2012), that "the public trust doctrine remains a matter of state law" and that "the contours of that public trust do not depend upon the Constitution."

The district court in *Alec L.* also ruled that even if the public trust doctrine had provided a claim under federal law at one time, that claim has been displaced by federal regulation, specifically the Clean Air Act. The district court relied for this alternative ruling on *American Electric Power Company v. Connecticut*, 564 U.S. 410, 423-24 (2011), where the Supreme Court held that "the Clean Air Act and the EPA actions it authorizes displace any federal common law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants."

The D.C. Circuit affirmed in an unpublished memorandum decision, concluding that the district court had correctly dismissed the suit for lack of subject matter jurisdiction since the public trust doctrine is a matter of state law, not federal law. *Alec L. ex rel. Loorz v. McCarthy*, 561 Fed. App'x at 8, citing *PPL Montana*. This Court has also interpreted *PPL Montana* as establishing that the public trust doctrine is purely a matter of state law, and as such does not (for example) restrict the power of the United States to condemn a parcel of former tidelands in fee. *United States v. 32.42 Acres of Land*, 683 F.3d 1030, 1038-39 (9th Cir. 2012).

The district court recognized that "*Alec L.* was substantially similar to the instant action." Dkt. 83 at 45. Nevertheless, it was "not persuaded by the reasoning

of the *Alec L.* courts," because, in its view "a close reading of *PPL Montana* reveals that it says nothing about the viability of federal public trust claims." *Id.* at 46. But although *PPL Montana* did not involve a federal public trust claim, its holding that "the public trust doctrine remains a matter of state law" clearly precludes the possibility that the doctrine could form the basis for suit against the federal government in federal court.

Even if the public trust doctrine could be invoked against federal agencies acting pursuant to statutes, the district court cited no case that had ever applied the doctrine beyond the context of tidelands and navigable freshwater bodies. The Supreme Court has always addressed the public trust doctrine in connection with state management of coastal regions and navigable waterways. *See, e.g., PPL Montana*, 132 S. Ct. at 1235; *Philipps Petroleum Co. v. Mississippi*, 484 U.S. 469, 479 (1988). The district court attempted to shoehorn plaintiffs' claim into the traditional scope of the public trust doctrine by finding that, "[b]ecause a number of plaintiffs' injuries relate to the effects of ocean acidification and rising ocean temperatures, they have adequately alleged harm to public trust assets." Dkt. 83 at 42 (footnote omitted). But there is no support in the public trust law of any state for bringing a claim based on allegations that depend on such an indirect chain of causation; *i.e.*, that CO2 emissions from challenged actions and non-actions, when combined with all other worldwide emissions of CO2 over decades, leads to warmer and more acidic waters in the earth's

vast oceans, which in turn might affect particular coastal areas that may be subject to the public trust doctrine.[9]

II. Mandamus is warranted to confine the district court to the lawful exercise of its jurisdiction.

Even if it were not so plain that the district court committed clear errors in denying the motion to dismiss, it would be appropriate for this Court to exercise its supervisory mandamus authority over the district court "to ensure that the judicial system operates in an orderly and efficient manner." *See In re Cement Antitrust Litig.*, 688 F.2d 1297, 1307 (9th Cir. 1982); *see also LaBuy v. Howes Leather Co.*, 352 U.S. 249, 259-260 (1957). The district court's rulings in this case show a clear and continuing intent to usurp the power of Congress to determine national policy regarding energy development, use of public lands, and environmental protection by constructing out of whole cloth a novel constitutional right to a "climate system capable of sustaining human life," thus allowing the plaintiffs and the court to ignore statutory limits and directions. *See, e.g.,* Dkt. 83 at 52. The rulings similarly show a clear intent to usurp the authority of the President to "take Care that the Laws be faithfully executed," Art. II, § 3, and of the federal agencies to exercise the authority that Congress has

[9] Even scholars who are sympathetic to the broad goals pursued by the plaintiffs here acknowledge that plaintiffs' arguments "take the public trust doctrine far beyond its historic moorings." Richard J. Lazarus, *Judicial Missteps, Legislative Dysfunction, and the Public Trust Doctrine: Can Two Wrongs Make It Right?*, 45 ENVTL. L. 1139, 1152 (2015).

delegated to administer statutes governing the federal government's approach to energy and environmental policy. This usurpation of congressional, presidential and agency authority is not correctable by way of an appeal after final judgment, and so should be corrected by issuance of a writ of mandamus. *See Perry v. Schwarzenegger,* 591 F.3d at 1157-59 (supervisory mandamus appropriate where important constitutional interests could be compromised before appellate review is available).

III. Defendants have no other means of obtaining immediate review needed to avoid a serious intrusion on the separation of powers, and without action by this court the defendants will be prejudiced in a way not correctable on appeal.

The defendants have no adequate means, other than by a writ of mandamus, to obtain needed immediate review of these significant rulings and relief from onerous and disruptive discovery based on claims that have no basis in law. This Court found that a writ of mandamus was appropriate in similar circumstances where a district court denied a motion to dismiss an action against foreign banks on grounds of the Act of State doctrine, refused to certify that decision for interlocutory appeal pursuant to 28 U.S.C. §1292(b), and allowed discovery against the banks to proceed. *Credit Suisse v. United States District Court for the Central District of California,* 130 F.3d 1342, 1346 (9th Cir. 1997) ("*Credit Suisse*"). After finding that "[t]he Banks thus have no other means of obtaining immediate review of the denial of their motion to dismiss," the Court issued a writ of mandamus directing the district court to vacate its denial of the

Banks' motion to dismiss and to dismiss the action. *Id* at 1348. Here as well, defendants have no other means of obtaining immediate review of the denial of the motion to dismiss, and the burden and cost of complying with the extraordinarily intrusive and inappropriate discovery sought by plaintiffs cannot be corrected in a subsequent appeal from a final judgment. *See also Medhekar v. U.S. Dist. Court for the N. Dist. of California*, 99 F.3d 325, 326 (9th Cir. 1996) (finding second *Bauman* factor satisfied since "the harm sought to be avoided, the burden and cost of providing the initial disclosures, cannot be corrected in a subsequent appeal from a final judgment in the absence of mandamus relief").

The extraordinary scope of this litigation and the enormous burden of discovery became evident with plaintiffs' January 24, 2017, litigation hold demand letter, which demanded that all defendants (including the President) preserve "[a]ll Documents related to climate change," "[a]ll Documents related to national energy policies or systems," "[a]ll Documents related to federal public lands, navigable waters, territorial waters, navigable air space or atmosphere;" and "[a]ll Documents related to greenhouse gas emissions or carbon sequestration as those terms apply to agriculture, forestry, or oceans," going back at least six decades. Dkt. 121-1 at 5-6. The intrusion on the separation of powers has been vividly highlighted by plaintiffs' requests for production of documents, none more so than the RFPs directed at the

President.[10] That RFP, as revised on May 19, 2017, seeks a vast array of documents and communications relating to climate change from the current administration and every previous administration going back to the Administration of President Lyndon Johnson. *See* Dkt. 159-6 at ¶¶1-29. Many of the requests relate to sensitive internal workings of the Office of the President, including the seeking of advice from agency and department heads (*e.g.,* ¶¶ 8-10), and communications relating to international negotiations (¶¶ 25-29).[11] These requests seriously infringe upon the President's constitutional authority to require opinions from department heads and to conduct foreign relations.

As the Supreme Court made clear in *Cheney*, mandamus is appropriate where discovery threatens to disrupt the confidentiality that is essential to Presidential or Vice-Presidential decision-making, or to burden the Office of the President in ways

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[10] Plaintiffs therein define "the President" broadly to include "the President, Vice President, Executive Office of the President, the President's Cabinet, Presidential advisory boards, [and] Presidential and Vice Presidential task forces," as well as the Council on Environmental Quality, the Office of Management and Budget, and Office of Science and Technology Policy, along with "all current and former principals, employees, agents, attorneys, consultants and other representatives of the President." RFP at 3-4.

[11] Similarly, the Revised RFP to the State Department dated May 19, 2017, demands "Each DOCUMENT that REFERS, RELATES, REGARDS, OR PERTAINS TO COMMUNICATIONS between Secretary of State Rex Tillerson and President Donald Trump on the issue of CLIMATE CHANGE" as well as on "the issue of ENERGY POLICY" since January 20, 2017, and communications and documents relating to a host of international negotiations going back as far as 1979. Dkt. 159-3 at ¶¶ 9-10, 17-48.

that distract from the performance of constitutional duties. 542 U.S. at 381-82 ("the public interest requires that a coequal branch of Government 'afford Presidential confidentiality the greatest protection consistent with the fair administration of justice,' and give recognition to the paramount necessity of protecting the Executive Branch from vexatious litigation that might distract it from the energetic performance of its constitutional duties") (quoting *United States v. Nixon*, 418 U.S. 683, 715 (1974)). In *Cheney,* the Court ruled that the court of appeals erred in concluding it lacked authority to issue mandamus regarding discovery requested by the Sierra Club and others against Vice President Cheney relating to the National Energy Policy Development Group; the Court emphasized in particular that "separation-of-powers considerations should inform a court of appeals' evaluation of a mandamus petition involving the President or the Vice President." *Id.* at 382.[12] The plaintiffs' discovery efforts here constitute an even broader threat of disruption to confidentiality than was present in *Cheney,* since this case involves not just a specific Vice-Presidential task force, but everything having to do with climate change over the course of many decades.

[12] On remand, the Court of Appeals granted the petition for mandamus and ordered the case dismissed. *In re Cheney*, 406 F.3d 723, 731 (D.C. Cir. 2005).

Plaintiffs' discovery requests directed at the federal agencies are equally inappropriate and disruptive. Plaintiffs have made clear that they intend to seek discovery regarding virtually all of the federal government's activities relating to control of CO2 emissions, fossil fuels production and transportation, alternative energy sources, and public lands, transportation and energy policy. Thus, plaintiffs have stated (Dkt. 159 at 6):

> The discovery phase of this case will develop a factual record, in part, establishing with scientific and factual certainty: (1) the causal mechanisms underlying climate change; (2) the global and national injuries and unique personal injuries to Plaintiffs resulting from climate change; (3) the degree to which Federal Defendants' actions have caused those impacts; (4) the factual context within which Federal Defendants have taken, authorized, and permitted the actions resulting in those impacts; and (5) the degree to which Federal Defendants can mitigate and reverse those impacts through exercise of their authority over our nation's energy system.

Because they are proceeding on clearly erroneous theories as to the sort of claims that plaintiffs may bring in this context, neither the magistrate judge nor the district court can be expected to rein in this improper discovery. Thus, in recommending denial of the motion to certify an interlocutory appeal, the magistrate judge specifically cited an alleged need "to develop the record," reasoning that that since "[t]he plaintiffs contend that the federal defendants are denying their basic right to a habitable climate system, * * * [t]he fossil fuel production regulatory practices of federal defendants both historically and going forward will provide an evidentiary framework for their claims." Dkt. 146 at 10, 11. The district court adopted the

magistrate's findings *in toto*. Dkt. 172. This extraordinarily broad discovery based on clearly incorrect legal theories is already proving to be highly time-consuming and resource-intensive and is significantly affecting the operations of the defendant agencies. The damage this will do to vital federal operations cannot be remedied by an appeal from a final judgment.

IV. The order raises new and important problems and issues of first impression.

The district court conceded that "plaintiffs likely could not obtain the relief they seek through citizen suits brought under the Clean Air Act, the Clean Water Act, or other environmental laws." Dkt. 83 at 52. But in the court's view, "that argument misses the point," which is that "[t]his action is of a different order than the typical environmental case." *Id.* Since the plaintiffs here are alleging that the defendants' actions and inactions "profoundly damaged our home planet," then "whether or not they violate any specific statutory duty" is simply irrelevant. *Id.* The court conceded that its ruling was "unprecedented," but ultimately concluded that "[f]ederal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it."

The district court is the first in the country to recognize this "different order" of case that permits a federal court to run roughshod over both judgments of Congress embodied in statutes and limits on justiciability established over decades of

Supreme Court precedents. The need for this Court to intervene through a writ of mandamus is clear.

V. A stay of proceedings is warranted.

Defendants also ask this Court to exercise its authority under the All Writs Act to stay district court proceedings while it considers this mandamus petition. *See* 9th Cir. General Order 6.8a (motions panel "may also issue a stay or injunction pending further consideration of the application").[13] Whether to issue a stay is "an exercise of judicial discretion * * * to be guided by sound legal principles," *Nken v. Holder*, 556 U.S. 418, 433-34 (2009) (internal citations omitted), based on the following factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987); *see also Leiva-Perez v. Holder*, 640 F.3d 962, 970 (9th Cir. 2011) (*Nken* requires a showing of irreparable harm, but applies a balancing test showing "that irreparable harm is probable and either: (a) a strong likelihood of success on the merits and that the public interest does not weigh heavily

[13] Fed. R. App. P. 8(a)(1) does not expressly refer to a stay pending review of a petition for a writ of mandamus under Fed. R. App. P. 21. Nevertheless, defendants sought a stay pending resolution of a requested interlocutory appeal, which was denied by the magistrate. Dkt. 146. Defendants renewed that request for stay in their objection to the magistrate's denial of stay, Dkt. 151, but the district court denied that request in its June 8, 2017, order. Dkt. 172 at 4.

against a stay; or (b) a substantial case on the merits and that the balance of hardships tips sharply in the petitioner's favor"). Each of these factors counsels in favor of a stay.

The arguments set out above show that the defendants have a strong likelihood of success in obtaining mandamus. Absent a stay, the President and the federal departments and agencies that are subject to the discovery propounded by plaintiffs will be irreparably harmed because of the disruption to important functions that this sweeping and improper discovery is causing. A stay of proceedings during the pendency of this mandamus petition is not likely to appreciably harm plaintiffs, since their alleged injuries stem from the cumulative effects of CO2 emissions from every source in the world over decades; whatever additions to the global atmosphere that may somehow be attributed to the defendants over the time it takes to resolve the petition are plainly *de minimis* and not a source of irreparable harm. Finally, the public interest strongly favors a stay, because absent such relief the Executive Branch and its agencies (including the Executive Office of the President) would be subject to continued discovery and forced to divert substantial resources away from their essential function of "faithfully execut[ing]" the law. U.S. CONST. art. II, § 3.

CONCLUSION

The Court should grant a stay of proceedings in the district court while it considers this petition. The petition should be granted and the district court directed to vacate its November 10, 2016 Order and dismiss the case.

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General

ERIC GRANT
Deputy Assistant Attorney General

s/ David C. Shilton
ANDREW C. MERGEN
DAVID C. SHILTON
Attorneys, Appellate Section
Environment & Natural Resources Div.
U.S. Department of Justice
P.O. Box 7415
Washington, DC 20044
(202) 514-5580
david.shilton@usdoj.gov

STATEMENT OF RELATED CASES

Petitioners are not aware of any related cases.

/s/ David C. Shilton
David C. Shilton

CERTIFICATE REGARDING COMPLIANCE WITH FRAP 21(d)

Petitioners are today filing a motion for permission to file an over-length petition for mandamus and request for stay. This petition for mandamus and request for stay contains 9,926 words, exclusive of the material specified in FRAP 32(f).

/s/ David C. Shilton
David C. Shilton

CERTIFICATE OF SERVICE

I hereby certify that on June 9, 2017, I electronically filed the foregoing petition with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system. On this date, a notice of filing of this petition, including the petition itself, will be lodged in the district court in the underlying matter, and service in compliance with Federal Rule of Appellate Procedure 21(a)(1) will be accomplished through the district court's CM/ECF system. All counsel in this case are participants in the district court's CM/ECF system. In addition, a courtesy copy of the foregoing brief has been provided via e-mail to the following counsel:

Julia A. Olson
juliaaolson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, OR 97401

Philip L. Gregory
Pgregory@cpmlegal.com
Cotchett, Pitre & McCarthy, LLP
San Francisco Airport Office
840 Malcolm Road
Burlingame, CA 94010

Daniel M. Galpern
Dan.Galpern@gmail.com
Law Offices of Daniel M. Galpern
1641 Oak Street
Eugene, OR 97401

Attorneys for Plaintiffs

Frank R. Volpe
Fvolpe@sidley.com
Mark D. Hopson
Mhopson@sidley.com
Benjamin E. Tannen
Btannen@sidley.com
1501 K Street NW
Washington, DC 20005

C. Marie Eckert
Marie.Eckert@millernash.com
Miller, Nash, Graham & Dunn LLP
111 SW Fifth Avenue, Suite 3400
Portland, OR 97204

Attorneys for Intervenor Defendants

/s/ David C. Shilton
David C. Shilton
Attorney for Federal Defendants

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
Trial Attorneys
Natural Resources Section
601 D Street NW
Washington, DC 20004
(202) 305-0445 (Duffy)
(202) 305-0470 (Piropato)
sean.c.duffy@usdoj.gov
marissa.piropato@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, et al.,

Plaintiffs,

v.

UNITED STATES OF AMERICA, et al.,

Defendants.

Case No. 6:15-cv-01517-TC

DEFENDANTS' MOTION FOR A PROTECTIVE ORDER AND FOR A STAY OF ALL DISCOVERY

Expedited Ruling Requested on Motion for Stay of All Discovery

Defendants hereby move the Court for a protective order and stay of all discovery. Discovery is precluded by the Administrative Procedure Act ("APA") and barred by the Constitution. The bases for this motion are more fully set forth in the accompanying Memorandum of Law. The United States respectfully requests expedited consideration of its motion seeking to stay all discovery. Per Local Rule 7-1(a), the parties have conferred and Plaintiffs oppose this motion and the request for expedited consideration.

Dated: May 9, 2018

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Clare Boronow
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar. No. 4103131)
MARISSA A. PIROPATO (MA Bar. No. 651630)
CLARE BORONOW (admitted to MD bar)
Trial Attorney
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
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DEFENDANTS' MEMORANDUM OF LAW IN SUPPORT OF MOTION FOR A PROTECTIVE ORDER AND FOR A STAY OF ALL DISCOVERY

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INTRODUCTION

Asserting an unenumerated and unprecedented constitutional right to particular climate conditions, Plaintiffs challenge a sweeping array of largely unspecified agency actions, policies, and programs related to federal environmental and energy policy over the past several decades. They seek to have the Court require the President and eight Executive Branch departments and agencies draw up a new policy and then to have the Court impose and enforce that policy. In considering Defendants' petition for a writ of mandamus, the Ninth Circuit observed that "some of plaintiffs' claims as currently pleaded are quite broad, and some of the remedies the plaintiffs seek may not be available as redress." *In re United States*, 884 F.3d 830, 837 (9th Cir. 2018). The court instructed that "the district court needs to consider those issues further in the first instance," adding that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that the court had "no reason to assume this case will be any different." *Id.* at 838. In the meantime, the court also observed that the defendants "may seek protective orders, as appropriate, under Federal Rule of Civil Procedure 26(c)." *Id.* at 835.

Plaintiffs have now served Defendants with a new round of discovery requests, including requests to depose representatives of two federal executive agencies under Rule 30(b)(6), and Plaintiffs have informed Defendants that further requests will follow. As contemplated by the Ninth Circuit, Defendants now object to Plaintiffs' discovery requests and move for a protective order precluding all discovery. Such an order is justified for three reasons—in addition to the fundamental flaws in this suit that Plaintiffs' claims are nonjusticiable and that the unprecedented, sweeping constitutional right they assert has no foundation in the text or purposes of the Due Process Clause or in the history of the Nation. First, Plaintiffs' challenges to federal agency actions are governed by the Administrative Procedure Act ("APA"), and—with

exceptions not relevant here—judicial review in APA cases is limited to the administrative record. Second, the APA's carefully constructed provisions governing notice-and-comment rulemaking and administrative adjudication, together with the respective departments and agencies' organic statutes establishing their respective authorities, foreclose any prospect for the Court to require the Defendant agencies and officials to take public policy positions or make factual assessments on matters concerning climate change through depositions, requests for admission, or other forms of discovery in this suit. Those provisions also foreclose an adjudication of these factual and policy issues in this suit against those agencies or their officials, outside the procedures prescribed by Congress for matters within their jurisdiction to be resolved. Finally, even if discovery in this case were not precluded by the APA, it would be barred by the Constitution, because Plaintiffs' attempt to elicit positions and proposals from executive agency officials on questions of public policy would invade the President's exclusive constitutional authority to supervise the Executive Branch, require the opinions of his principal officers, and formulate policy recommendations.

Because Defendants' proposed protective order would preclude all discovery in the case, Defendants ask this Court to stay discovery pending resolution of this motion. In addition, and consistent with the Ninth Circuit's expectation that the claims in this case would be "vastly narrowed," *In re United States*, 884 F.3d at 838, Defendants have moved for judgment on the pleadings ("MJOP") and will soon move for summary judgment, as the Ninth Circuit also contemplated, *see id.* at 836. Because a favorable ruling on either of those dispositive motions would eliminate the need for any discovery, Defendants also ask this Court to stay all discovery pending resolution of those motions. *See In re United States*, 138 S. Ct. 443, 444 (2017).

BACKGROUND

I. The Amended Complaint

As the Court has recognized, Plaintiffs' claims are "unprecedented." ECF No. 83 at 52. Plaintiffs assert an unenumerated and previously unimagined constitutional right to a "climate system capable of sustaining human life." *Id.* They ask this Court to order President Obama (and now President Trump), the Executive Office of the President, and eight federal agencies to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." ECF No. 7 ("Am. Compl."), Prayer for Relief ¶ 7. Plaintiffs claim that Defendants have known about the risks of climate change "for decades" but have nevertheless "continued to permit, authorize, and subsidize fossil fuel extraction, development, consumption, and exportation—activities producing enormous quantities of CO_2 emissions that have substantially caused or contributed to the increase in the atmospheric concentration of CO_2." Am. Compl. ¶¶ 5-7. With one exception, Plaintiffs do not identify or challenge specific agency actions, but instead challenge what they term the Defendants' "affirmative aggregate actions." *Id.* ¶¶ 1, 5, 44, 129, 163, 281.[1]

Plaintiffs predicate their demands on the Due Process Clause of the Fifth Amendment, equal protection principles in the Fifth Amendment, unenumerated rights reserved by the Ninth Amendment, and an asserted "public trust" duty, invoking an infrequently used doctrine under state law whose principal purpose has been to govern state property rights in lands submerged beneath tidal and navigable waterways. Specifically, Plaintiffs complain that (1) the agencies

[1] Plaintiffs allege that the Jordan Cove LNG Terminal in Coos Bay, Oregon will produce significant greenhouse gas emissions that will harm Plaintiffs. Am. Compl. ¶¶ 198-201. As explained below and in Defendants' motion for judgment on the pleadings, any cognizable challenge to agency action regarding the Jordan Cove Terminal must be raised in the court of appeals. *See* MJOP 16-17 & n.3.

have taken "deliberate actions" that have "cumulatively resulted in dangerous levels of atmospheric CO_2, which deprive Plaintiffs of their fundamental right to life, liberty, and property," Am. Compl. ¶ 280; (2) Plaintiff youths are a protected class and, as such, are discriminated against by laws and actions that "favor the present, temporary economic benefits of certain citizens, especially corporations, over Plaintiffs' rights to life, liberty, and property," *id.* ¶¶ 294, 301; (3) Defendants have infringed on Plaintiffs' "right to be sustained by our country's vital natural systems, including our climate system," and their "right to a stable climate system," which are "implicit liberties protected from government intrusion by the Ninth Amendment," *id.* ¶¶ 303-04; and (4) Defendants have "failed in their duty of care as trustees to manage the atmosphere in the best interests of the present and future beneficiaries," including Plaintiffs, *id.* ¶ 310.

Plaintiffs seek a declaration that Defendants have violated their constitutional rights and the supposed public trust described above, that Section 201 of the Energy Policy Act is unconstitutional on its face, and that DOE/FE Order No. 3041 is unconstitutional as applied. *Id.*, Prayer for Relief ¶¶ 1, 3-5. They also seek an injunction prohibiting Defendants from future violations of the Constitution and alleged public trust obligations, and they ask the Court to order Defendants to "prepare a consumption-based inventory of U.S. CO_2 emissions," and "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." *Id.*, Prayer for Relief ¶¶ 2, 6-7. They request that the Court retain jurisdiction over the case for an indefinite period of time to monitor the government's compliance with the "national remedial plan." *Id.*, Prayer for Relief ¶ 8. Plaintiffs indicate that "[g]lobal atmospheric CO_2 concentrations must be reduced to below 350 [parts per million] by the end of the century," Am. Compl. ¶ 257, a goal that would require a "global reduction in CO_2

emissions of at least 6% per year, alongside approximately 100 gigatons of carbon drawdown this century from global reforestation and improved agriculture." *Id.* ¶ 258.

II. Procedural History

In November 2015, Defendants moved to dismiss Plaintiffs' claims on several grounds, including lack of standing, failure to state a cognizable constitutional claim, and failure to state a claim on a public trust theory. ECF No. 27. The magistrate judge recommended that the Court deny the motion. ECF No. 68. Defendants objected to the magistrate judge's recommendations. ECF No. 74. The Court adopted the magistrate judge's recommendations and denied Defendants' motion to dismiss. ECF No. 83.

On March 7, 2017, Defendants moved to certify the Court's order for interlocutory appeal. ECF No. 120. The magistrate judge recommended that the Court deny the motion. ECF No. 146. Defendants objected to the magistrate judge's findings and recommendations, ECF No. 149, but the Court adopted them and denied the motion on June 8, 2017. ECF No. 172. The next day, Defendants petitioned for a writ of mandamus in the Ninth Circuit, arguing that the Court erred rejecting the contention that Plaintiffs' claims are nonjusticiable and in finding that Plaintiffs have judicially enforceable rights in the climate, and that mandamus was the only means of obtaining timely and effective relief. ECF No. 177-1.

On December 11, 2017, the Ninth Circuit heard argument on mandamus petition. The panel members expressed skepticism about the breadth of plaintiffs' claims. As Judge Berzon put it, "I would hope that if this case did go forward, that it would be pared down and focused and directed at particular orders and agencies." Oral Arg. Recording at 11:23-11:33, *United States v. U.S. Dist. Court for Dist. of Or.*, No. 17-71692 (9th Cir. Dec. 11, 2017), https://www.ca9.uscourts.gov/media/.

On March 7, 2018, the Ninth Circuit denied Defendants' mandamus petition without prejudice. *In re United States*, 884 F.3d at 838. The court recognized that "some of plaintiffs' claims as currently pleaded are quite broad, and some of the remedies the plaintiffs seek may not be available as redress." *Id.* at 837. The court "also underscore[d] that this case is at a very early stage, and that the defendants have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders." *Id.* The court added that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that the court had "no reason to assume this case will be any different." *Id.* at 838. Ultimately, however, the court "decline[d] to exercise [its] discretion to grant mandamus relief at [that] stage of the litigation[,]" in part because no discovery requests had yet been filed. *Id.* at 835, 838. The court reiterated that Defendants could continue to "raise and litigate any legal objections they have," including by challenging future discovery orders, "seeking mandamus in the future," or "asking the district court to certify orders for interlocutory appeal of later rulings." *Id.* at 835-38.

The district court has ordered the parties to proceed with discovery, and has set trial for October 29, 2018. ECF Nos. 181, 189, 192. In April 2018, Plaintiffs served Defendants with 17 expert reports. On May 4, 2018, Plaintiffs served more than 100 Requests for Admissions and Rule 30(b)(6) notices on two named agency defendants, the United States Department of Agriculture ("USDA") and Department of the Interior ("DOI"). These RFAs are broad in scope, seeking admissions in certain cases dating back to the 1960s on matters that are not purely factual but extend to topics such as policy opinions on whether certain resources are at risk and admissions concerning "cultural services" such as "spiritual renewal and, aesthetic enjoyment." *See, e.g.*, ECF No. 194-3 at 16-17; ECF No. 194-4 at 29. Among the topics noticed for the

30(b)(6) depositions, Plaintiffs requested the United States to designate a witness to respond to "any analysis or evaluation" related to "atmospheric CO_2 concentrations, climate change targets, or greenhouse gas emissions" that "would avoid endangerment of human health and welfare for current and future generations . . . ." Ex. A at 6 (Pls.' FRCP 30(b)(6) Notice of Deposition – Def. Dep't of Interior); Ex. B at 6 (Pls.' FRCP 30(b)(6) Notice of Deposition – Def. Dep't of Agric.). Plaintiffs further noticed a topic concerning the role of DOI and USDA in implementing President Trump's energy policy. Plaintiffs have not yet served any revised discovery requests on the other agency defendants, including the EPA and Department of Energy, against whom Plaintiffs focus many of the allegations in the Amended Complaint, but Plaintiffs have informed Defendants that they anticipate serving additional discovery requests in the weeks ahead.[2]

LEGAL STANDARD

A protective order should be granted when the moving party establishes "good cause" for the order and justice requires "an order to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense." Fed. R. Civ. P. 26(c)(1). The authority of the Court under Rule 26(c) includes the ability to enter an order "forbidding the disclosure or discovery" altogether. Fed. R. Civ. P. 26(c)(1)(A); *see Havasupai Tribe v. Robertson,* 943 F.2d 32, 34 (9th Cir. 1991). The Ninth Circuit has routinely upheld protective orders precluding all discovery in cases governed by the APA's record-review rule. *See id.*; *Animal Def. Council v. Hodel,* 840 F.2d 1432, 1436 (9th Cir. 1988), *amended by* 867 F.2d 1244 (9th Cir. 1989); *Friends of the Earth v. Hintz,* 800 F.2d 822, 827-29 (9th Cir. 1986).

[2] The United States is still analyzing the discovery propounded on May 4, 2018. This motion focuses on the *propriety of discovery generally* and in no way waives the United States' right to seek a protective order directed at the specific requests propounded on May 4, 2018, or any future discovery Plaintiffs may propound.

Federal courts likewise have broad discretion to control their dockets by staying proceedings. *See, e.g., Landis v. N. Am. Co.*, 299 U.S. 248, 254 (1936); *Lockyer v. Mirant Corp.*, 398 F.3d 1098, 1109 (9th Cir. 2005). In determining whether to grant a stay, courts weigh the "competing interests which will be affected by the granting or refusal to grant a stay," including "the possible damage which may result from the granting of a stay, the hardship or inequity which a party may suffer in being required to go forward, and the orderly course of justice measured in terms of the simplifying or complicating of issues, proof, and questions of law which could be expected to result from a stay." *See Lockyer*, 398 F.3d at 1110 (quoting *CMAX, Inc. v. Hall*, 300 F.2d 265, 268 (9th Cir. 1962)). Courts regularly stay discovery pending decisions on other motions that would moot the need for discovery, including dispositive motions or motions for a protective order precluding all discovery. *See, e.g.*, *Rutman Wine Co. v. E. & J. Gallo Winery,* 829 F.2d 729, 738 (9th Cir. 1987); *Wood v. McEwen,* 644 F.2d 797, 801-02 (9th Cir. 1981); *Matera v. Google Inc*., No. 15-CV-04062-LHK, 2016 WL 454130, at *2 (N.D. Cal. Feb. 5, 2016); *see also In re United States*, 138 S. Ct. at 444.

ARGUMENT

I. The Court Should Grant a Protective Order Precluding All Discovery

In addition to the grounds previously raised by Defendants and renewed here concerning the nonjusticiability of the suit and the absence of any judicially enforceable rights in the Earth's climate under the Constitution or an asserted "public trust," this Court should grant a protective order for any or all of three reasons. First, Plaintiffs' challenges to agency actions and inaction are governed by the APA, which—with exceptions not relevant here—limits judicial review to the administrative record and therefore precludes and obviates the need for any discovery. Second, the APA's carefully constructed provisions governing notice-and-comment rulemaking and administrative adjudication, together with the respective departments and agencies' organic

statutes establishing their respective authorities, foreclose any prospect for the Court to require the Defendant agencies and officials to take public policy positions or make factual assessments on matters concerning climate change through depositions, requests for admission, or other forms of discovery in this suit. Those provisions also foreclose an adjudication of these factual and policy issues in this suit against those agencies or their officials, outside the procedures prescribed by Congress for matters within their jurisdiction to be resolved. Third, even if discovery in this case were not precluded by the APA, it would be barred by the Constitution, because Plaintiffs' attempt to elicit positions and proposals from executive agency officials on questions of public policy would invade the President's exclusive constitutional authority to supervise the Executive Branch, require the opinions of his principal officers, and formulate policy recommendations.

A. Plaintiffs' Claims Must Be Reviewed on an Administrative Record

As explained in detail in Defendants' motion for judgment on the pleadings, Plaintiffs ultimately challenge administrative agency actions and inaction, and their claims are therefore cognizable only under the APA, which Congress established as the exclusive mechanism to seek judicial review of agency actions and inactions of the kind that underlie Plaintiffs' claims. *See* MJOP 11-16 *W. Radio Servs. Co. v. U.S. Forest Serv.*, 578 F.3d 1116, 1122-23 (9th Cir. 2009). And review may be sought under the APA only by challenging discrete agency action, not on a broad programmatic (much less Executive-Branch-wide) basis. *See Lujan v. Nat'l Wildlife Fed'n*, 497 U.S. 871, 891 (1990).[3]

[3] Other statutes, such as Section 307 of the Clean Air Act, may also provide relevant rights of action to challenge agency actions that regulate or otherwise relate to greenhouse gas emissions. But Plaintiffs do not invoke any such statutory right of action.

Because Plaintiffs' claims must proceed under the APA, they are not entitled to conduct discovery of Defendants. It is a "fundamental principle[] of judicial review of agency action" that review must be based on "the administrative record already in existence, not some new record made initially in the reviewing court." *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 743 (1985) (citing *Camp v. Pitts*, 411 U.S. 138, 142 (1973)). "The task of the reviewing court is to apply the appropriate APA standard of review to the agency decision based on the record the agency presents to the reviewing court." *Id.* at 743-744 (citation omitted). "The reviewing court is not generally empowered to conduct a *de novo* inquiry into the matter being reviewed and to reach its own conclusions based on such an inquiry." *Id.* at 744. "The factfinding capacity of the district court is thus typically unnecessary to judicial review of agency decisionmaking." *Id.*; *see Citizens to Preserve Overton Park v. Volpe*, 411 U.S. 402, 420 (1971).

The rule that APA claims must be reviewed based on the administrative record, and that APA plaintiffs are therefore not entitled to discovery, is "black-letter administrative law," *Hill Dermaceuticals, Inc. v. FDA*, 709 F.3d 44, 47 (D.C. Cir. 2013), and it has been enforced repeatedly by the Ninth Circuit, including in environmental cases like this one. *See, e.g.*, *Havasupai*, 943 F.2d at 34 (affirming district court's limitation on the scope of its review to the administrative record and barring discovery); *Friends of the Earth*, 800 F.2d at 827-29 (affirming district court's order quashing litigation depositions on ground that review was limited to the administrative record); *Wash. State Farm Bureau v. Marshall*, 625 F.2d 296, 305 (9th Cir. 1980) (holding that district court should have limited its review to evidence before the agency at the

time of the decision); *see also Lands Council v. Powell,* 395 F.3d 1019, 1029 (9th Cir. 2005) (reiterating rule while resolving case on other grounds).[4]

District courts, moreover, have often implemented the record-review rule by issuing protective orders under Rule 26(c), as Defendants ask the Court to do here. *See, e.g.*, *Evans v. Salazar*, No. C08-0372-JCC, 2010 WL 11565108, at *2 (W.D. Wash. July 7, 2010); *Inland Empire Pub. Lands Council v. Glickman*, 911 F. Supp. 431, 437 (D. Mont. 1995), *aff'd*, 88 F.3d 697 (9th Cir. 1996); *see also Harvard Pilgrim Health Care of New England v. Thompson*, 318 F. Supp. 2d 1, 8 (D.R.I. 2004); *Pres. Endangered Areas of Cobb's History (P.E.A.C.H.) v. U.S. Army Corps of Eng'rs,* 915 F. Supp. 378, 383-84 (N.D. Ga. 1995), *aff'd*, 87 F.3d 1242 (11th Cir. 1996); *Charlton Mem'l Hosp. v. Sullivan*, 816 F. Supp. 50, 51 (D. Mass. 1993).

Plaintiffs' assertion of constitutional claims does not make their case any less of a challenge to agency action or remove it from the scope of the APA's procedural rules, including the record-review rule. As explained in Defendants' motion for judgment on the pleadings, Section 706(2)(B) of the APA expressly contemplates judicial review of constitutional challenges to agency action when it directs a reviewing court to hold unlawful agency action that is "contrary to constitutional right, power, privilege, or immunity," 5 U.S.C. 706(2)(B), and the Supreme Court has decided constitutional claims under the APA, *see, e.g.*, *Webster v. Doe*, 486 U.S. 592, 603-04 (1988). MJOP 11-16. Numerous district courts have recognized that

[4] The Ninth Circuit has allowed extra-record review or limited discovery in only four narrow circumstances: (1) when the agency has failed to explain its actions so as to frustrate judicial review; (2) when it appears that the agency has relied on documents or materials not included in the administrative record; (3) when necessary to explain technical terms or complex subject matter involved in the agency action; or (4) when there is a strong showing of bad faith or improper behavior by the agency. *Sw. Ctr. for Biological Diversity v. U. S. Forest Serv.,* 100 F.3d 1443, 1450 (9th Cir. 1996). Even if those are all valid exceptions, *but see Overton Park*, 411 U.S. at 420 (contemplating narrower exception), none of them is implicated here.

constitutional challenges to agency action are just as strictly governed by the record-review rule as are statutory challenges. *See, e.g.*, *Chiayu Chang v. U.S. Citizenship & Immigration Servs.*, 254 F. Supp. 3d 160, 161-62 (D.D.C. 2017) (denying motion for discovery outside the administrative record); *Ketcham v. U.S. Nat'l Park Serv.*, No. 16-CV-00017-SWS, 2016 WL 4268346, at *1 (D. Wyo. Mar. 29, 2016) (denying motion objecting to filing of the administrative record); *N. Arapaho Tribe v. Ashe*, 92 F. Supp. 3d 1160, 1170–71 (D. Wyo. 2015) (granting motion to strike extra-record evidence); *Harvard Pilgrim Health Care*, 318 F. Supp. 2d at 8 (affirming magistrate judge's grant of a protective order); *Jarita Mesa Livestock Grazing Assoc. v. U.S. Forest Serv.*, 58 F. Supp. 3d 1191, 1199, 1237 (D.N.M. 2014) (granting motion to preclude discovery outside the administrative record); *Evans v. Salazar*, No. C08-0372-JCC, 2010 WL 11565108, at *2 (W.D. Wash. July 7, 2010) (granting protective order).

The district court's decision in *Chiayu Chang* is illustrative. There, the plaintiffs challenged the government's denial of their visa petitions, alleging retroactivity, due process, and equal protection claims. 254 F. Supp. 3d at 161. The plaintiffs moved for discovery, arguing "that the constitutional or 'non-APA' nature of their [claims] exempts them from the record review rule because those claims are brought under the court's 'equitable power' and the Constitution rather than under the APA." *Id.* at 161. The court rejected this tactic, holding that "discovery on plaintiffs' equal protection and due process claims is not appropriate." *Id.* at 162. "To hold otherwise," the court reasoned, "would 'incentivize every unsuccessful party to agency action to allege . . . constitutional violations' in order to 'trade in the APA's restrictive procedures for the more evenhanded ones of the Federal Rules of Civil Procedure.'" *Id.* at 161-62 (quoting *Jarita Mesa*, 58 F. Supp. 3d at 1238).

Similarly, in *Ketcham*, plaintiffs sought declaratory and injunctive relief against the National Park Service for allegedly violating plaintiffs' First Amendment right by denying public access to areas in Yellowstone National Park where the government was culling bison. 2016 WL 4268346, at *1. After the government filed an administrative record with the court, the plaintiffs objected, "asserting the Court should respect their decision to bring this action as a constitutional claim rather than an APA claim." *Id.* Like the court in *Chiayu Chang*, the court in *Ketcham* rejected plaintiffs' tactic, reasoning that "[t]o distinguish between a 'stand-alone constitutional challenge' and an 'APA challenge,' as urged by Plaintiffs, would run afoul of Congress's intent." *Id.* at *2; *accord, e.g.*, *E. Bridge, LLC v. Chao*, 320 F.3d 84, 91 (1st Cir. 2003) ("[T]he present constitutional claim is really just a recharacterization of their administrative claim, and we will not allow plaintiffs to circumvent the statutory review process with an agile game of word play."); *Harvard Pilgrim*, 318 F. Supp. 2d at 10 ("The APA's restriction of judicial review to the administrative record would be meaningless if any party seeking review based on statutory or constitutional deficiencies was entitled to broad-ranging discovery."); *Charlton Mem'l Hosp.*, 816 F. Supp. at 51 (granting a protective order because "counts alleging violations of the Equal Protection Clause … cannot so transform the case that it ceases to be primarily a case involving judicial review of agency action").

In sum, the need to protect Defendants from undue and unlawful discovery in violation of the APA's record-review requirement readily justifies the grant of a protective order under Rule 26(c). As explained in Defendants' motion for judgment on the pleadings, Plaintiffs have not yet identified any "discrete" final agency actions properly subject to challenge in this Court. *Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 62, 64 (2004); *see Lujan*, 497 U.S. at 891; MJOP 16-22. If Plaintiffs identify any such discrete agency action—perhaps by amending their complaint as

part of "vastly narrow[ing]" their claims, as the Ninth Circuit envisioned, *In re United States*, 884 F.3d at 838—and if Plaintiffs' claims are otherwise cognizable and not dismissed on some other ground, the appropriate agency would compile an administrative record as part of the judicial review of that action.

B. Requiring Agencies to Take Policy Positions in Discovery Conflicts with the APA's Provisions Regulating Rulemaking and Adjudication

A protective order is also justified because the discovery envisioned by Plaintiffs conflicts with the APA in another way: Requiring federal agencies to take positions on policy questions through depositions and requests for admission would violate the APA's carefully articulated scheme for agencies to make factual assessments and policy determinations through rulemaking and adjudication in matters within their jurisdiction.

The APA sets forth a "comprehensive regulation of procedures" for agency decision-making. *Wong Yang Sung v. McGrath*, 339 U.S. 33, 36 *modified*, 339 U.S. 908 (1950). The APA defines a "rule" to mean "the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency." 5 U.S.C. § 551(4). "[A]djudication" means "agency process for the formulation of an order," *id.* § 551(7), which in turn "means the whole or a part of a final disposition, whether affirmative, negative, injunctive, or declaratory in form, of an agency in a matter other than rule making but including licensing," *id.* § 551(6). The APA then prescribes detailed and mandatory procedures for agencies to follow in rulemaking and formal adjudication. *See* 5 U.S.C. §§ 553, 554.

"Time and again," the Supreme Court has explained that the APA establishes the exclusive procedural requirements for agency decisionmaking, and the courts are not free to alter those requirements. *Perez v. Mortg. Bankers Ass'n*, 135 S. Ct. 1199, 1207 (2015); *see Vt.*

Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 546 (1978). To require agencies to comply with discovery seeking official positions on matters of factual assessment and questions of policy would, however, impermissibly conflict with the procedures prescribed by the APA and deprive the public of the ability to provide input where the APA's rulemaking provisions or agency procedures require. Consistent with Plaintiffs' stated aims of probing the Executive Branch's policies on climate change, Plaintiffs' discovery requests have asked (and surely will continue to ask) the agencies to make factual assessments and statements on numerous complex and controversial policy issues in an effort to have them craft, and the Court enforce, an "enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." Am. Compl., Prayer for Relief ¶ 7. The responses of agency officials to such questions on behalf of their agencies, *see* Fed. R. Civ. P. 30(b)(6), could in many cases fall within the broad definitions of "rule" and "adjudication" provided by the APA, *see* 5 U.S.C. § 551(4), (7), for matters that Congress has committed to the agencies. Yet they would be offered by individual deponents, without public input from other stakeholders or any of the relevant orderly procedures of agency decisionmaking contemplated by the APA. *See* 5 U.S.C. §§ 553, 554. These and similar required responses to discovery thus would be in direct contravention of Congress's judgment in the APA and the agencies' respective organic statutes to vest such determinations in the agencies' administrative processes in the first instance. Indeed, beyond discovery, a trial on such matters against the Defendant agencies (much less the President) would be fundamentally inconsistent with the APA and the agencies' organic statutes.

Plaintiffs thus seek to force the agencies to do something that the APA forbids and is beyond this Court's authority to require. Just as this Court cannot expand the APA's procedural requirements, *see Perez*, 135 S. Ct. at 1207, it likewise cannot authorize their violation. *See, e.g.*,

In re SEC ex rel. Glotzer v. Stewart, 374 F.3d 184, 188-192 (2d Cir. 2004) (refusing to authorize discovery request directed at federal agency that violated APA requirements); *cf. Am. Elec. Power Co. v. Connecticut (AEP)*, 564 U.S. 410, 428 (2011) (noting, in rejecting climate-change-related claim, that courts "may not . . . issue rules under notice-and-comment procedures"). A protective order precluding discovery against the agencies is accordingly warranted.

C. The Constitutional Separation of Powers Bars Discovery

Finally, even apart from the requirements of the APA, the Constitution's separation of powers bars the discovery that Plaintiffs envision here. Even before the enactment of the APA, the Supreme Court recognized that permitting an agency's "findings to be attacked or supported in court by new evidence would substitute the court for the administrative tribunal[,]" *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 444 (1930), a step that would improperly allow the court to "usurp[] the agency's function[,]" *Unemployment Comp. Comm'n of Alaska v. Aragon*, 329 U.S. 143, 155 (1946); *see also Nat'l Broad. Co. v. United States*, 319 U.S. 190, 227 (1943) (stating that "[t]he court below correctly held that its inquiry was limited to review of the evidence before the Commission" in a challenge to agency action under the First Amendment). Moreover, "in cases where Congress has simply provided for review, without setting forth the standards to be used or the procedures to be followed," the Supreme Court "has held that consideration is to be confined to the administrative record and that no de novo proceeding may be held." *United States v. Carlo Bianchi & Co.*, 373 U.S. 709, 715 (1963); *see also Dickinson v. Zurko*, 527 U.S. 150, 155 (1999); *Ninilchik Traditional Council v. United States*, 227 F.3d 1186, 1194 (9th Cir. 2000) (explaining that APA judicial review provisions "function[] as a default judicial review standard").

Limiting review of agency action to the agency record reflects fundamental separation of powers principles. A fortiori, this suit, in which Plaintiffs seek discovery in aid of requiring the Defendant agencies (and the President) to develop and implement a comprehensive, government-wide climate policy, *without regard to the agencies' existing statutory authorities*, trenches even more fundamentally on the separation of powers. The Constitution provides that "the executive power shall be vested in a President of the United States." U.S. CONST. art. II, § 1. As part of the executive power, the "President and those who assist him must be free to explore alternatives in the process of shaping policies and making decisions and to do so in a way many would be unwilling to express except privately." *United States v. Nixon*, 418 U.S. 683, 708 (1974). That principle is also reflected in the Opinion Clause of the Constitution, which vests in the President the exclusive power to "require the Opinion . . . of the principal Officer in each of the executive Departments, upon any Subject relating to the Duties of their respective Offices." U.S. CONST. art. II, § 2, cl. 1; *see Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 641 n.9 (1952) (Jackson, J., concurring) (describing President's power under the Opinion Clause). The Recommendations Clause of the Constitution similarly vests the President with power to "recommend to" Congress for "Consideration such Measures as he shall judge necessary and expedient." U.S. CONST. art. II, § 3. Like the Opinion Clause, the Recommendations Clause presupposes that the President "must possess more extensive sources of information" than the other branches. JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES, at § 807 (Ronald D. Rotunda & John E. Nowak eds., Carolina Acad. Press 1987) (1833).

By contrast, courts exercising the judicial power "may not commission scientific studies or convene groups of experts for advice," and accordingly "lack the scientific, economic, and technological resources an agency can utilize in coping with" complex policy problems. *AEP*,

564 U.S. at 428. Just as the President may not compel an advisory opinion from a court on a question of law, *see, e.g., Flast v. Cohen*, 392 U.S. 83, 96 n.14 (1968), a court may not compel the opinion of an executive official on a question of policy. Similarly, because the President's duty requires him to recommend only what "*he* shall judge necessary and expedient," U.S. CONST. art. II, § 3 (emphasis added), the Constitution makes clear that this exclusively executive power must remain free from interference. The Supreme Court has accordingly rejected discovery demands that "threaten substantial intrusions on the process by which those in closest operational proximity to the President advise the President." *Cheney v. U.S. Dist. Court for D.C.*, 542 U.S. 367, 381 (2004) (internal quotation marks and citation omitted).

The discovery sought by Plaintiffs implicates the same separation of powers concerns. Plaintiffs seek to probe the views of federal agencies concerning questions of national environmental and energy policy and to require them to make factual and predictive judgments outside the scope of governing procedures and authority. In the very first revised discovery requests served, Plaintiffs sought binding Rule 30(b)(6) deposition testimony seeking the official views of federal agencies on their roles in implementing the President's energy policy, including the departments' "analysis or evaluation" of various issues related to climate change. And this is presumably just the beginning. Allowing Plaintiffs to exploit the civil litigation system to marshal the policy positions of federal agencies would displace the President as the superintendent of the Executive Branch and encroach on his exclusive authority to elicit the views of federal agencies in formulating national policies for addressing important issues of general concern. Congress may not "encroach[] upon a power that the text of the Constitution commits in explicit terms to the President," *Public Citizen v. U.S. Dep't of Justice*, 491 U.S. 440,

482 (1989) (Kennedy, J., concurring), and neither may the Judiciary. Defendants' motion for a protective order against all discovery should accordingly be granted.

II. The Court Should Stay All Discovery Pending Resolution of this Motion and Defendants' Dispositive Motions

In addition to requesting a protective order precluding discovery, Defendants also respectfully ask this Court to exercise its authority to stay all discovery in light of the substantial separation of powers and other legal obstacles discussed above and in the interests of judicial economy and avoiding a needless expenditure of resources by both parties. *See e.g., Sinclair Ref. Co. v. Jenkins Petroleum Process Co.,* 289 U.S. 689, 693-94 (1933). At a minimum, this Court should stay discovery pending resolution of this motion, which—if granted—would mean that no discovery is necessary or appropriate.

Moreover, the Court should stay discovery pending its resolution of Defendants' motion for judgment on the pleadings, which Defendants have also filed today, and Defendants' motion for summary judgment, which Defendants will file in the near future. *See In re United States*, 884 F.3d at 836 (noting that Defendants "still have the usual remedies before the district court for nonmeritorious litigation, for example, seeking summary judgment on the claims"). A favorable ruling on either of those motions would terminate the litigation and thus eliminate any need for discovery. For that reason, district courts have frequently granted—and the Ninth Circuit has frequently upheld—stays of discovery while dispositive motions are pending. *See, e.g.*, *Rutman Wine*, 829 F.2d at 738 ("It is sounder practice to determine whether there is any reasonable likelihood that plaintiffs can construct a claim before forcing the parties to undergo the expense of discovery."); *Wood*, 644 F.2d at 801-02 (upholding grant of protective order suspending discovery where the legal sufficiency of plaintiff's complaint was challenged). The Supreme Court, moreover, recently granted a stay of discovery while the Ninth Circuit considers

the government's dispositive motion in another case challenging Executive Branch policy. *See In re United States*, 138 S. Ct. at 444.

A stay of discovery will not prejudice Plaintiffs. Defendants' dispositive motions can be resolved without discovery, *cf. Jarvis v. Regan,* 833 F.2d 149, 155 (9th Cir. 1987), and only very modest discovery has occurred to date, so a stay would not cause any serious disruption, *see Matera*, 2016 WL 454130, at *4. At most, Plaintiffs may complain of a short-term delay. But it was Plaintiffs who waited years to bring this suit, and even more years to serve their current discovery requests. Thus, any argument of harm arising from a stay would be exceedingly strained, at best. The balance of harms tips strongly in Defendants' favor, and the Court should accordingly grant a stay.

CONCLUSION

The Court should grant a protective order precluding all discovery. The Court should also stay all discovery pending resolution of this motion and Defendant's dispositive motion for judgment on the pleadings and forthcoming motion for summary judgment.

Dated: May 9, 2018

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Clare Boronow
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW

Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar. No. 4103131)
MARISSA A. PIROPATO (MA Bar. No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
601 D Street NW
Washington, DC 20004
(202) 305-0445
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*,	Case No. 6:15-cv-01517-TC
Plaintiffs,	**DEFENDANTS' MOTION TO STAY DISCOVERY PENDING RESOLUTION OF OBJECTIONS**
v.	
UNITED STATES OF AMERICA, *et al.*,	**Expedited Hearing Requested**
Defendants.	

Defendants hereby move the Court for a stay of discovery pending resolution of its objections to this Court's order denying the motion for a protective order and stay of all discovery. May 25, 2018 Order, ECF No. 212. Those objections were filed today. *See* Defs.' Objections to Order Denying Mot. for a Protective Order and Stay of Discovery, ECF No. 215 ("Objections"). As set forth in the accompanying memorandum of law, a stay pending resolution

of those objections is warranted because discovery in this case is impermissible under the Administrative Procedure Act ("APA"), any discovery seeking policy positions of agency officials would violate the separation of powers, and resolution of dispositive motions pending before the Court could remove the need for discovery entirely. Because discovery deadlines are imminent, Defendants request expedited review of this motion. The parties have conferred and Plaintiffs oppose this motion and our request for expedited review. *See* LR 7-1(a).

MEMORANDUM OF LAW IN SUPPORT OF MOTION TO STAY DISCOVERY PENDING RESOLUTION OF OBJECTIONS

The Ninth Circuit has stated that it expects the claims and remedies in this case will be "vastly narrowed as litigation proceeds." *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d 830, 836, 838 (9th Cir. 2018). Specifically, that court contemplated that the United States would "seek protective orders," move to "dismiss the President as a party," and seek "summary judgment on the claims." *Id.* at 835-36. It added that Defendants could continue to "raise and litigate any legal objections they have," including by "seeking mandamus in the future" or "asking the district court to certify order for interlocutory appeal of later rulings." *Id.* at 837-38. The government has moved for each of the forms of relief contemplated by the Ninth Circuit, as well as a stay of discovery pending resolution of those motions. *See* Mot. for Judgment on the Pleadings, ECF No. 195; Mot. for Protective Order, ECF No. 196; Mot. for Summary Judgment, ECF No. 207. This Court denied the stay motion on May 25, but Defendants filed timely objections under Fed. R. Civ. P. 72(a), *see* Objections, and good cause exists for staying discovery pending resolution of those objections.

I. This Court should stay discovery to allow the district court to consider the objections to the denial of the motion for a protective order and stay.

This Court should stay discovery pending the District Court's resolution of Defendants' objections to the order denying the motion for a protective order and stay. A court may stay

discovery where there is "good cause" to do so. Fed. R. Civ. P. 26(c). Where "a party moves to stay discovery pending a district judge's resolution of an objection to a discovery order, the movant must show that (1) it is likely it will succeed on the merits of the appeal, (2) it will suffer irreparable injury in the absence of a stay, (3) other parties will not be substantially injured by a stay, and (4) the stay will not harm [the] public interest." *NML Capital, Ltd. v. Republic of Argentina*, No. 2:14-CV-492-RFB-VCF, 2015 WL 3489684, at *4 (D. Nev. June 3, 2015).

A. The objections are meritorious and a stay is warranted.

Defendants are likely to succeed on the merits of their objections because constitutional claims must proceed under the APA, which requires such claims to be directed to discrete and specifically identified agency actions, and requires that judicial review be based on "the administrative record already in existence, not some new record made initially in the reviewing court." *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 743 (1985) (citing *Camp v. Pitts*, 411 U.S. 138, 142 (1973)); *see id* at 743-44 ("The task of the reviewing court is to apply the appropriate APA standard of review to the agency decision based on the record the agency presents to the reviewing court." *Id.* at 743-744 (citation omitted)). It is "black-letter administrative law" that APA plaintiffs are not entitled to discovery, *Hill Dermaceuticals, Inc. v. FDA*, 709 F.3d 44, 47 (D.C. Cir. 2013) (per curiam), and this principle applies with equal force to cases where plaintiffs assert constitutional claims. *See* ECF No. 196 at 9-14; *see also, e.g.*, *Chiayu Chang v. U.S. Citizenship & Immigration Servs.*, 254 F. Supp. 3d 160, 161-62 (D.D.C. 2017) (denying motion for discovery outside the administrative record on plaintiffs' constitutional claims); *Ketcham v. U.S. Nat'l Park Serv.*, No. 16-CV-00017-SWS, 2016 WL 4268346, at *1 (D. Wyo. Mar. 29, 2016) (reviewing constitutional claims against agency action on administrative record and refusing to "distinguish between a 'stand-alone constitutional

challenge' and an 'APA challenge'" because it "would run afoul of Congress's intent" in enacting the APA); *N. Arapaho Tribe v. Ashe*, 92 F. Supp. 3d 1160, 1174 (D. Wyo. 2015) (finding that court "must limit its constitutional review of Defendants' informal adjudication to the administrative record"); *Harvard Pilgrim Health Care of New England v. Thompson*, 318 F. Supp. 2d 1, 8 (D.R.I. 2004) (affirming magistrate judge's grant of a protective order limiting review of all claims, including constitutional claims, to administrative record); *Jarita Mesa Livestock Grazing Ass'n v. U.S. Forest Serv.*, 58 F. Supp. 3d 1191, 1199, 1237 (D.N.M. 2014) (granting motion to preclude discovery outside the administrative record despite constitutional claims); *Evans v. Salazar*, No. C08-0372-JCC, 2010 WL 11565108, at *2 (W.D. Wash. July 7, 2010) (granting protective order barring discovery on constitutional claims and limiting review to administrative record).

And while this Court has correctly noted that Plaintiffs do not invoke the APA, the APA nonetheless provides the right of action for challenging action or alleged inaction by a federal agency, including on constitutional grounds, *see* 5 U.S.C. § 706, and it requires plaintiffs to direct their challenge to specifically identified and discrete agency actions. Plaintiffs cannot avoid the APA by choosing not to invoke it in their Complaint. Just as a plaintiff asserting a damages claim under the Constitution against a state actor cannot circumvent the requirements of 42 U.S.C. § 1983 by failing to invoke that statute in their complaint, *see Johnson v. City of Shelby*, 135 S. Ct. 346, 347 (2014), and a prisoner challenging the fact of their imprisonment under the Constitution cannot avoid the exhaustion requirements of the habeas statute by failing to invoke it, *see Preiser v. Rodriguez*, 411 U.S. 475, 489-90 (1973), so too, are Plaintiffs bound by the statutory requirements governing constitutional claims against agency action and inaction. The APA expressly contemplates judicial review of constitutional challenges to agency action.

See 5 U.S.C. § 706(2)(B) (directing a reviewing court to hold unlawful agency action that is "contrary to constitutional right, power, privilege, or immunity"). Thus, as with regard to habeas petitions, "[i]t would wholly frustrate explicit congressional intent to hold that [Plaintiffs] in the present case could evade this requirement by the simple expedient of putting a different label on their pleadings." *Preiser*, 411 U.S. at 490.

The issue of whether Plaintiffs must invoke the private right of action in the APA has not previously been addressed by this Court, although it was squarely presented in Defendants' motion for a protective order and stay. In addressing justiciability, the District Court has held that there are adequate legal standards by which to adjudicate the merits of Plaintiffs' constitutional claims. *See* ECF No. 83 at 13. But whether the Constitution provides a judicially enforceable right to a climate system of a particular composition is a separate question from whether Plaintiffs have identified a private right of action to enforce any such right. The former turns on whether the asserted constitutional right exists. The latter issue—and the only relevant one here—turns on whether the APA provides the exclusive right of action for constitutional challenges to an agency's action or alleged failure to act with respect to regulatory measures, and other administrative measures, and if so, whether Plaintiffs' claims comply with the judicial review standards imposed by the APA. On this latter issue, the law is clear that Plaintiffs must invoke the APA's private right of action and abide by the APA's judicial review standards.

Defendants are also likely to succeed on the merits of their objections because any discovery requiring agencies to take policy positions and make factual judgments in discovery conflicts with the APA's "comprehensive regulation of procedures" for agency decision-making. *Wong Yang Sung v. McGrath*, 339 U.S. 33, 36 modified, 339 U.S. 908 (1950), including notice-and-comment procedures to ensure an opportunity for broad public input before an agency

reaches particular conclusions and adopts measures within its authority for making adjudicatory decisions. "Time and again," the Supreme Court has explained that the APA provides the exclusive procedural requirements for agency decision-making, and the courts are not free to alter those requirements. *Perez v. Mortg. Bankers Ass'n*, 135 S. Ct. 1199, 1207 (2015) (internal quotation marks and citation omitted); *see Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 546 (1978). To require agencies to comply with discovery seeking official positions on matters of factual assessment and questions of policy, would impermissibly conflict with the procedures prescribed by the APA and deprive the public of the ability to provide input, where the APA's rulemaking provisions or agency procedures require. *See, e.g., In re SEC ex rel. Glotzer*, 374 F.3d 184, 188-192 (2d Cir. 2004) (refusing to authorize discovery request directed at federal agency that violated APA requirements); *cf. Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 428 (2011) (AEP) (noting, in rejecting climate-change-related claim, that courts "may not … issue rules under notice-and-comment procedures"). Indeed, so too would any trial and ultimate rulings by this Court outside the statutory framework for agency decision-making and judicial review.

Defendants' objections are also likely to succeed because the separation of powers bars discovery under the circumstances presented by this case. Specifically, the Constitution provides that the "executive Power shall be vested in a President of the United States." U.S. CONST. art. II, § 1, cl. 1. As part of the executive power, the "President and those who assist him must be free to explore alternatives in the process of shaping policies and making decisions and to do so in a way many would be unwilling to express except privately." *United States v. Nixon*, 418 U.S. 683, 708 (1974). Plaintiffs' attempts to probe the views of federal agencies concerning questions of national environmental and energy policy and to require them to make factual and predictive

judgments outside the scope of governing procedures usurps the role of the President in supervising and seeking the opinions of Executive Branch agencies and is fundamentally contrary to the constitutional structure and the judicial power under Article III.

Finally, Defendants' objections concerning this Court's denial of their stay motion are likely to succeed because there are two dispositive motions pending before the Court. Those motions should be decided before allowing for discovery, consistent with the Ninth Circuit's instruction that Defendants "have ample opportunity to raise and litigate any legal objections they have" in the District Court. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d at 837. The Defendants' motion for judgment on the pleadings is currently set for hearing on July 18, and under the Court's local rules, the Defendants' motion for summary judgment will be fully briefed and ripe for hearing on the same date. A favorable ruling on either of those motions would either terminate the litigation or substantially narrow it, thus eliminating any need for discovery or substantially affecting its scope. The arguments set forth in those motions are compelling, meritorious, and if successful, will eliminate the need for discovery and any further proceedings in this case. Where, as here, pending motions have the potential to alter the scope of the case, a stay of discovery is the appropriate course. *See Ciuffitelli v. Deloitte & Touche LLP*, No. 3:16-cv-0580-AC, 2016 WL 6963039, at *9 (D. Or. Nov. 28, 2016) ("Delaying discovery . . . will promote the efficient and 'inexpensive determination' of this case by clarifying the appropriate scope of Plaintiffs' claims and, thus, establishing the appropriate scope of discovery."); *Rutman Wine Co. v. E. & J. Gallo Winery*, 829 F.2d 729, 738 (9th Cir. 1987) ("It is sounder practice to determine whether there is any reasonable likelihood that plaintiffs can construct a claim before forcing the parties to undergo the expense of discovery."); *Wood v. McEwen*, 644 F.2d 797, 801-02 (9th Cir. 1981) (upholding protective order suspending discovery

where the legal sufficiency of plaintiff's complaint was challenged); *Jarvis v. Regan*, 833 F.2d 149, 155 (9th Cir. 1987) (no abuse of discretion in staying discovery pending resolution of a motion to dismiss when the motion did not raise factual issues).

Indeed, in similar circumstances, the Supreme Court recently held that the Ninth Circuit erred in another case challenging Executive Branch policy by denying the government's petition for a writ of mandamus against orders to produce certain materials before the district court had resolved the government's dispositive motion. *See In re United States*, 138 S. Ct. 443 (2017) (per curiam). In that case, the district court refused to stay all discovery until it resolved the government's motion to dismiss on justiciability grounds, among others, and ordered the expansion of the administrative record that the government had produced. *Id.* at 444. After the Ninth Circuit denied the government's mandamus petition challenging those orders, the government renewed its arguments in the Supreme Court in a petition for mandamus or, in the alternative, certiorari, and further sought a stay of all discovery and the administrative-record order pending consideration of its petition. *Id.* The Supreme Court granted the stay. *Id.* And it unanimously vacated the Ninth Circuit's denial of mandamus, remanding with instructions that the district court rule on the government's threshold arguments, which "if accepted, likely would eliminate [any] need" for expanding the record before the district court, and then "consider certifying that ruling for interlocutory appeal under 28 U.S.C. § 1292(b) if appropriate." *Id.* at 445. On remand, the district court maintained the stay of all discovery and, although it ultimately rejected the government's motion to dismiss, it *sua sponte* certified its order for interlocutory appeal, which the Ninth Circuit subsequently accepted. *Regents of the Univ. of Cal. v. U.S. Dep't of Homeland Sec.*, 279 F. Supp. 3d 1011, 1050 (N.D. Cal. 2018).

The Supreme Court's guidance in *In re United States* is equally applicable here; the District Court should rule on the pending dispositive motions prior to allowing discovery to proceed. Accordingly, Defendants are likely to succeed on the merits of their objections.

B. Granting the requested stay will not prejudice Plaintiffs, whereas denying it will harm the public interest and significantly prejudice Defendants.

A stay of discovery pending this Court's resolution of the dispositive motions will not prejudice Plaintiffs. Only modest discovery has occurred to date, so a stay would not cause any serious disruption. *See Matera v. Google Inc.*, No. 15-cv-04062-LHK, 2016 WL 454130, at *4 (N.D. Cal. Feb. 5, 2016). At most, Plaintiffs may complain of a short-term delay. But it was Plaintiffs who waited years to bring this suit, and even more years to serve their current discovery requests. Thus, any argument of harm arising from a stay would be exceedingly strained, at best.

The balance of harms tips strongly in Defendants' favor. Absent a stay, Defendants and the public will be significantly prejudiced because Plaintiffs' discovery requests undermine the public process that the APA and the legislative process provide for citizens to petition their government to institute their preferred policies. And requiring Defendants to participate in discovery, and by necessity forcing the Executive branch to formulate national policies on behalf of these Plaintiffs and no one else, will violate the Constitution's separation of powers. Moreover, responding to the unlawful discovery Plaintiffs seek in this case will waste public resources.

II. A stay is warranted even if the district court is inclined to agree with this Court's resolution of the previous motion for a stay or protective order.

A stay pending resolution of the objections is warranted, even if the District Court is inclined to agree with the resolution of Defendants' prior motion for a protective order or stay, because the District Court should certify its order "for interlocutory appeal … pursuant to 28

U.S.C. § 1292(b)" as the Ninth Circuit expressly contemplated. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d at 838.

Conclusion

For the foregoing reasons, the Court should grant this motion to stay discovery pending resolution of Defendants' objections to this Court's order denying the motion for a protective order and stay.

Dated: June 1, 2018

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Sean C. Duffy
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

Certificate of Service

I hereby certify that on June 1, 2018, I filed the foregoing with the Clerk of Court via the CM/ECF system, which will provide service to all attorneys of record.

/s/ Sean C. Duffy
Sean C. Duffy

Attorney for Defendants

No. 18-_____

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

In re UNITED STATES OF AMERICA, et al.

UNITED STATES OF AMERICA, et al.,
Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON,
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, et al.,
Real Parties in Interest.

On Petition for a Writ of Mandamus to the United States District Court
for the District of Oregon (No. 6:15-cv-1517-TC)

PETITION FOR A WRIT OF MANDAMUS AND EMERGENCY MOTION FOR A STAY OF DISCOVERY AND TRIAL UNDER CIRCUIT RULE 27-3

JEFFREY H. WOOD
Acting Assistant Attorney General
ERIC GRANT
Deputy Assistant Attorney General
ANDREW C. MERGEN
ROBERT J. LUNDMAN
Attorneys
Environment & Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-0943
eric.grant@usdoj.gov

Counsel for Petitioners

CIRCUIT RULE 27-3 CERTIFICATE

Pursuant to Circuit Rule 27-3(a), I hereby certify that to avoid irreparable harm to Petitioners United States of America, et al. (the government), relief is needed in less than 21 days' time.

1. Regarding Circuit Rule 27-3(a)(1), the government notified both the Clerk and counsel for Real Parties in Interest (Plaintiffs) on Tuesday, July 3 of its intention to file this mandamus petition and emergency motion. The just-finalized petition and motion are being served simultaneously with filing both via the district court's CM/ECF system and via e-mail to the counsel's below-stated addresses.

2. Regarding Circuit Rule 27-3(a)(3)(i), counsel are as follows:

Counsel for the Government:

Eric Grant
(202) 514-0943
eric.grant@usdoj.gov

Andrew C. Mergen
(202) 514-2813
andy.mergen@usdoj.gov

Robert J. Lundman
(202) 514-2946
robert.lundman@usdoj.gov
Environment & Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044

Counsel for Plaintiffs:

Julia A. Olson
(415) 786-4825
juliaaolson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Andrea K. Rodgers
(206) 696-2851
andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

Philip L. Gregory
(650) 278-2957
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

3. Regarding Circuit Rule 27-3(a)(3)(ii), the facts showing the existence and nature of the claimed emergency are set forth in detail below in the Statement of the Case (pp. 12-16) and in Part III of the Argument (pp. 51-54). In brief, the government respectfully requests emergency relief in this matter because it faces impending deadlines to identify its expert witnesses (July 12) and to produce expert reports rebutting Plaintiffs' 18 expert witnesses (August 13), as well as other mounting burdens to prepare for a trial scheduled for October 29 and estimated to last approximately 50 trial days.

4. Regarding Circuit Rule 27-3(a)(3)(iii), Plaintiffs' counsel were notified through e-mails sent on July 3 and July 4, and further through a telephone conference held on July 4, of the government's intended filing of this mandamus petition and emergency motion. Counsel are being served with the just-finalized petition and

motion simultaneously with filing both via the district court's CM/ECF system and via e-mail to the counsel's above-stated addresses.

5. Regarding Circuit Rule 27-3(a)(3)(4), as set forth in the Statement of the Case below (pp. 11-12, 15-16), the government has sought—and been denied—relief from the district court. Indeed, District Judge Aiken's affirmance on Friday, June 29 of Magistrate Judge Coffin's order denying Defendants' Motion for a Protective Order and for a Stay of All Discovery, *see* Exhibits 6 and 7 hereto, is the precipitating event for the instant filing. The government is simultaneously filing in the district court a Motion for a Stay Pending a Petition for a Writ of Mandamus.

s/ Eric Grant
Eric Grant

Counsel for Petitioners

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INTRODUCTION AND RELIEF SOUGHT

This suit is a fundamentally misguided attempt to redirect federal environmental and energy policies through the courts rather than the political process. Without identifying any specific agency action or inaction (save one), Plaintiffs allege that the "affirmative aggregate acts" of Defendants—the President, the Executive Office of the President, the Environmental Protection Agency, and the Departments of Agriculture, Commerce, Defense, Energy, Interior, State, and Transportation—for the past 50 years in the area of fossil fuel production and use are causing a "dangerous climate system" and systematically violating their asserted substantive due process rights. Plaintiffs ask the district court to address these alleged wrongs by ordering the President and defendant agencies to prepare and implement a national remedial plan and by retaining jurisdiction indefinitely to ensure compliance. Remarkably, the district court has allowed this improper suit to proceed for nearly three years over the repeated objections of the United States and has now set aside 50 trial days this fall for Plaintiffs' requested "Trial of the Century."[1]

The last time this case was before this Court, the Court recognized that "some of plaintiffs' claims as currently pleaded are quite broad, and some of the remedies

[1] *Draw #youthvgov*, Youth v. Gov, https://www.youthvgov.org/artist-search/ (last visited July 3, 2018).

the plaintiffs seek may not be available as redress." Exhibit 2 at 17 (available at *In re United States*, 884 F.3d 830 (9th Cir. 2018)). Ultimately, however, the Court declined to grant mandamus relief and direct dismissal, noting that the government might be able to avoid threatened harms by "seek[ing] protective orders," moving to "dismiss the President as a party," and requesting "summary judgment on the claims." *Id.* at 11, 13, 14. The Court observed that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that it had "no reason to assume this case will be any different." *Id.* at 17. The Court also noted that, on remand, Defendants could "raise and litigate any legal objections they have," including by "seeking mandamus in the future" or "asking the district court to certify orders for interlocutory appeal of later rulings." *Id.* at 15, 17.

The government heeded the Court's direction. On remand, as contemplated by this Court's order, the government moved for judgment on the pleadings. That motion reasserted the government's prior arguments for dismissal; requested dismissal of the President as a party; and argued that under the Administrative Procedure Act (APA), Plaintiffs' claims must be dismissed unless Plaintiffs amend them to challenge specific agency actions or inactions. The government also sought a protective order from all discovery, explaining that Plaintiffs' claims must proceed against specific agency actions or inactions and be reviewed on the administrative record of those actions; and that, in any event, the discovery and trial contemplated

by Plaintiffs would violate the APA's comprehensive regulation of agency decisionmaking and the separation of powers. Finally, the government moved for summary judgment on various grounds, including that even if Plaintiffs' allegations could survive a motion to dismiss, Plaintiffs could not carry their burden of proving that Defendants' conduct caused their asserted injuries.

For their part, Plaintiffs opposed dismissing the President, refused to narrow their claims in any respect or identify specific agency actions or inactions they sought to challenge, opposed the government's request for a protective order, and asked the district court to delay deciding either of the government's dispositive motions until after the trial. As for the district court, it promptly announced that trial would begin on October 29, 2018 and would be expected to last for approximately 50 trial days. It denied the government's motion for a protective order; granted Plaintiffs extensions to oppose the government's motion for judgment on the pleadings and motion for summary judgment; and refused to stay discovery while it resolves the government's dispositive motions. The trial begins in less than four months' time, and the accelerating burdens of discovery and trial preparation—including depositions of Plaintiffs' 18 expert witnesses and preparation of rebuttal expert reports on the wide-ranging topics on which Plaintiffs' experts opine—are growing more intense.

It is time for this ill-conceived suit to end. Plaintiffs' implausible and far-reaching constitutional claims are procedurally defective and substantively frivolous. And the similarly unprecedented proceedings contemplated by the district court would violate bedrock limitations on agency decisionmaking imposed by the APA and intrude on the executive authority to consider and formulate federal policy, in violation of the separation of powers. This Court should exercise its authority under the All Writs Act, 28 U.S.C. § 1651, to instruct the district court to dismiss this case now. At a minimum, it should direct the district court to stay further discovery and trial until the government's pending dispositive motions are resolved, in keeping with the Supreme Court's recent directions in another suit asserting constitutional claims against agency action. Finally, the government respectfully requests that the Court immediately stay all discovery and trial pending this Court's consideration of this petition for mandamus.

Given the impending obligations related to the government's experts and the rapidly approaching trial date, the government respectfully requests an expedited ruling from this Court on this request for a stay and an immediate administrative stay while the Court considers the government's stay request. Absent relief from this Court on the government's stay request or mandamus petition by Monday, July 16, the government will have little choice but to seek further relief from the Supreme Court.

STATEMENT OF JURISDICTION

This Court has authority to issue a writ of mandamus pursuant to 28 U.S.C. § 1651 and Rule 21 of the Federal Rules of Appellate Procedure.

STATEMENT OF THE ISSUE

Whether this Court should exercise its authority under the All Writs Act, 28 U.S.C. § 1651, to order the dismissal of this action against the President and multiple federal agencies that seeks to redirect federal environmental and energy policies through civil litigation to phase out fossil fuel emissions.

STATEMENT OF THE CASE

1. Twenty-one minor individuals, an organization known as Earth Guardians, and future generations (by and through their self-appointed guardian Dr. James Hansen) filed this suit in 2015 against President Obama, the Executive Office of the President, and numerous Cabinet-level Executive agencies, alleging that these Executive officials and agencies contributed to climate change in violation of rights Plaintiffs assert under the Fifth and Ninth Amendments to the Constitution and an asserted federal public trust doctrine. Plaintiffs allege that Defendants (now President Trump and officials in his Administration) have, through action and inaction, enabled the combustion of fossil fuels, which release greenhouse gases into the atmosphere. With one exception, Plaintiffs do not identify or challenge any specific agency actions, such as agency orders, permits, adjudications, or

rulemakings, or even any failure to undertake any specific required actions.[2] Instead, they challenge what they term the federal government's "aggregate actions," ECF No. 7, ¶ 129, which they assert have caused "climate instability" that injures their prospects for long and healthy lives, *id.* ¶ 288.

Plaintiffs ask the district court to declare that they have rights under the Constitution to a particular climate system and to enjoin the Executive Branch to "prepare a consumption-based inventory of U.S. CO_2 emissions" and to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." ECF No. 7 at 94. In addition, they ask the court to retain jurisdiction for an indefinite period of time to monitor the government's compliance with this "national remedial plan." *Id.*

2. In November 2016, the district court denied the government's motion to dismiss Plaintiffs' claims for lack of jurisdiction and failure to state a claim. Exhibit 1 (ECF No. 83) (available at *Juliana v. United States*, 217 F. Supp. 3d 1224 (D. Or. 2016)). The court found that Plaintiffs had established Article III standing by adequately alleging that they had been harmed by the effects of climate change,

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[2] The exception is a challenge to the Department of Energy's 2011 authorization, pursuant to Section 201 of the Energy Policy Act, of the export of liquefied natural gas from a terminal in Coos Bay, Oregon. ECF No. 7, ¶ 193. This claim is indisputably beyond the district court's jurisdiction because the courts of appeals have exclusive jurisdiction to review such authorizations. *See* 15 U.S.C. § 717r(b); *Consolidated Gas Supply Corp. v. FERC,* 611 F.2d 951, 957 (4th Cir. 1979).

through increased droughts, wildfires, and flooding, *id.* at 19-21; that Defendants' regulation of (and failure to further regulate) fossil fuels caused Plaintiffs' injuries, *id.* at 22-26; and that the court could redress those injuries by "order[ing] Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system," *id.* at 28 (quoting ECF No. 7, ¶ 12).

The district court also concluded that Plaintiffs had stated a claim under the Fifth Amendment's Due Process Clause and a federal public trust doctrine. *Id.* at 28-51. The court found in the Fifth Amendment's protection against the deprivation of "life, liberty, or property, without due process of law" a previously unrecognized fundamental right to a "climate system capable of sustaining human life," and the court determined that Plaintiffs had adequately alleged infringement of that fundamental right. *Id.* at 32. The court further determined that Plaintiffs had adequately stated a claim under a federal public trust doctrine, which it held imposes a judicially enforceable prohibition on the federal government against "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." *Id.* at 37 (internal quotation marks omitted). Plaintiffs'

claims under this doctrine, the court concluded, are also "properly categorized as substantive due process claims." *Id.* at 51.

The district court subsequently denied the government's motion to certify for interlocutory appeal the court's order denying the motion to dismiss. ECF No. 172.

3. The government petitioned this Court for a writ of mandamus ordering dismissal, contending that the district court's order denying the motion to dismiss contravened fundamental limitations on judicial review imposed by Article III of the Constitution and clearly erred in recognizing a sweeping new fundamental right to certain climate conditions under the Due Process Clause. The government further requested a stay of the litigation pending the Court's consideration of the mandamus petition.

The Court granted the government's request for a stay and, at oral argument on the government's petition, the panel expressed skepticism about the breadth and merits of Plaintiffs' claims. As Judge Berzon put it, "I would hope that if this case did go forward, that it would be pared down and focused and directed at particular orders and agencies." Audio Recording of Oral Argument 11:23-11:33, *In re United States*, No. 17-71692 (9th Cir. Dec. 11, 2017), https://www.ca9.uscourts.gov/media/view.php?pk_id=0000031810.

The Court, however, ultimately "decline[d] to exercise [its] discretion to grant mandamus relief at [that] stage of the litigation." Exhibit 2 at 17. In its decision,

the Court reiterated that "some of plaintiffs' claims as currently pleaded are quite broad, and some of the remedies plaintiffs seek may not be available as redress." *Id.*; *see also id.* at 14 (stating that it "well may be" that plaintiffs' claims are "too broad to be legally sustainable"). The Court reasoned, however, that "the district court needs to consider those issues further in the first instance." *Id.* at 17. The Court "underscore[d] that this case is at a very early stage, and that the defendants have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders." *Id.* at 15. The Court observed that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that it had "no reason to assume this case will be any different." *Id.* at 17. And the Court stated that Defendants could continue to "raise and litigate any legal objections they have," *id.* at 15, including by challenging future discovery orders, moving to "dismiss the President as a party," "reasserting a challenge to standing, particularly as to redressability," "seeking mandamus in the future," or "asking the district court to certify orders for interlocutory appeal of later rulings." *Id.* at 12, 13, 17.

4. On remand, the government filed a series of motions in the district court as contemplated by this Court's decision.

On May 9, 2018, the government filed a motion for judgment on the pleadings, ECF No. 195, reiterating its prior arguments for dismissal—that Plaintiffs lack standing and their novel assertion of judicially enforceable fundamental rights to a particular climate system lacks any support in the Constitution or this Nation's history and tradition—to permit the district court (as this Court contemplated) to "consider those issues further." Exhibit 2 at 17. In addition, the government offered three new grounds for dismissing some or all of Plaintiffs' claims. First, the government asked the district court to dismiss the President because a federal court has "no jurisdiction" to "enjoin the President in the performance of his official duties." *Franklin v. Massachusetts*, 505 U.S. 788, 802-03 (1992) (internal quotation marks omitted). Second, the government argued that Plaintiffs had failed to identify a private right of action to assert its claims. The APA, the government explained, provides the mechanism for challenging federal administrative actions and alleged failures to act of the kind that underlie Plaintiffs' claims, and the APA requires litigants to challenge discrete, identified agency actions or alleged failures to act. Unless Plaintiffs amend their claims to "focus the litigation on specific governmental decisions and orders," Exhibit 2 at 15, the government argued, they fail as a matter of law. Third, the government contended that, even if Plaintiffs could bring this action outside the APA, their asserted claims and requested relief violate the constitutional separation of powers by effectively requiring the district court to usurp

the role of the President in calling on the expertise and resources of the Executive Branch to formulate the nation's environmental and energy policy and to make recommendations to Congress concerning changes to laws governing those policies.

On the same day, the government also filed a motion for a protective order barring all discovery or, at a minimum, a stay of all discovery pending resolution of its motion for judgment on the pleadings and its forthcoming motion for summary judgment. ECF No. 196. The government argued that, because this case may only proceed under the APA, judicial review must be based on the administrative record of specifically identified actions or decisions challenged by Plaintiffs, and therefore no discovery is proper. In addition, the government argued that, even if review were not otherwise limited to the administrative record of specific agency actions, discovery in this case would be independently barred by the procedural requirements that the APA imposes on agency decisionmaking.

Those requirements, the government explained, prohibit agencies from making factual assessments and statements on the numerous complex and controversial policy issues implicated by this case through discovery requests and individual deponents in a suit brought by a few members of the public, rather than through the relevant orderly procedures of agency decisionmaking required by the APA with public input from other stakeholders and members of the public. Finally, the government contended that discovery in this case aimed at developing and

implementing a comprehensive, government-wide climate policy, outside the substantive and procedural framework of the existing organic statutes of the defendant agencies and the APA, would violate the separation of powers by invading the President's exclusive constitutional authority to supervise the Executive Branch, require the opinions of his principal officers, and formulate legislative and policy recommendations. *See* U.S. Const. art. II, §§ 1, 3. The government argued that, at a minimum, the district court should stay all discovery until the court ruled on the government's pending motion for a judgment on the pleadings and its forthcoming motion for summary judgment, the granting of which would either eliminate any occasion for discovery or substantially affect its scope.

On May 22, 2018, the government filed a motion for summary judgment, arguing that (1) Plaintiffs lack standing both as a matter of law and as judged against the evidentiary record; (2) Plaintiffs have failed to identify a right of action for their claims apart from the APA and have not satisfied the APA's requirement to identify discrete agency actions or inactions that they challenge; and (3) Plaintiffs' claims fail on the merits. ECF No. 207. In addition, the government contended that it was entitled to summary judgment because, even aside from Plaintiffs' lack of standing, this suit is not a case or controversy within the meaning of Article III.

5. In the meantime, both Plaintiffs and the district court have wholly failed to narrow or focus the claims in this case. Immediately upon remand, the district

court ordered the parties to proceed with discovery, and it set an opening trial date of October 29, 2018. ECF Nos. 181, 189, 192. The court indicated its expectation that the trial will last for approximately 50 trial days—i.e., with yearend holidays, until well into 2019. *See, e.g.*, Exhibit 3 at 8:1 (Coffin, J.) (estimating "five weeks per side in essence"). The court has repeatedly made clear that it has no intention of delaying trial. *See, e.g.*, Exhibit 5 at 16:2-4 (Aiken, J.) ("[A]s we have talked about in this case before, we are not delaying trial at this point. We are moving forward."); *id*. at 17:17 ("[W]e have got a trial date and we are moving forward."); Exhibit 4 at 27:22-24 (Coffin, J.) ("October 29, 2018, trial starts unless some higher court says no."); ECF No. 239 (Aiken, J.) (denying request to extend the trial date for the same period as extension of time for Plaintiffs to oppose summary judgment).

At the same time, the court extended the deadline for Plaintiffs to respond to the government's motion for judgment on the pleadings to June 15, 2018, ECF No. 210, and set argument for the motion for July 18, 2018, ECF No. 214. It similarly extended the deadline for Plaintiffs to respond to the government's motion for summary judgment until June 28, 2018. ECF No. 240. The government filed a motion requesting that the district court also set argument on the motion for summary judgment for the July 18 hearing—a request that Plaintiffs have opposed. ECF No. 305. The court has not yet ruled on that request.

Plaintiffs, meanwhile, have publicly promised the "Trial of the Century," and their conduct reflects those intentions. In April 2018, Plaintiffs served the government with 17 expert reports. In May 2018, Plaintiffs served 248 Requests for Admissions (RFAs) and Federal Rule 30(b)(6) deposition notices on two agency defendants, namely, the Department of Agriculture and the Department of the Interior. These RFAs are broad in scope, seeking admissions dating back to the 1960s on topics such as whether, in the agencies' views, certain resources are "at risk"; and admissions concerning "cultural services" such as "spiritual renewal and[] aesthetic enjoyment." *See*, *e.g.*, ECF No. 194-3 at 16-17; ECF No. 194-4 at 29. Among the topics noticed for the Rule 30(b)(6) depositions, Plaintiffs demanded that the United States designate a witness to express the defendant agencies' official positions on "any analysis or evaluation" related to "atmospheric CO2 concentrations, climate change targets, or greenhouse gas emissions" that "would avoid endangerment of human health and welfare for current and future generations," as well as on the role of the agencies in implementing President Trump's energy policy. ECF No. 196-1 at 6 (Federal Rule 30(b)(6) notice of deposition of Department of Interior); ECF No. 196-2 at 6 (Federal Rule 30(b)(6) notice of deposition of Department of Agriculture).

In June 2018, Plaintiffs served similar RFAs and noticed nearly identical Rule 30(b)(6) depositions of representatives from the Department of Energy and the

Department of Defense. When the government sought a protective order with respect to the May RFAs and deposition notices on multiple grounds, Plaintiffs refused to withdraw the requests but asked the district court to hold the government's responses in abeyance, while Plaintiffs seek to obtain the same information through contention interrogatories and requests for judicial notice. ECF No. 247.

6. On May 25, 2018, Magistrate Judge Coffin denied the government's motion for a protective order for all discovery or, at a minimum, a stay of all discovery pending resolution of the government's motions for judgment on the pleadings and summary judgment. Exhibit 6 (ECF No. 212). Judge Coffin determined that the Complaint does not assert claims arising under the APA because the claims are "based on alleged violations of constitutional rights." *Id*. at 2. He expressed the view that the district court had already rejected Defendants' argument that Plaintiffs must bring their claims under the APA. *Id*. And he refused to grant a protective order based on the separation of powers, ruling instead that "[s]hould a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request." *Id*. at 3. Judge Coffin denied the government's request for a stay of discovery without explanation. *Id*.

On Friday, June 29, the district court summarily affirmed Magistrate Judge Coffin's order, stating that it had "carefully reviewed [that] order in light of [the

government's] objections" and "conclude[d] that the order is not clearly erroneous or contrary to law." Exhibit 7 (ECF No. 300) at 2. The court provided no additional explanation for its decision. Again without explanation, the court further "decline[d] to certify [its] decision for interlocutory appeal under 28 U.S.C. § 1292(b)." *Id.* Meanwhile, the government's trial preparation burdens continue, as the October trial date fast approaches. Among other obligations, the government is required to disclose its experts by July 12 and provide expert reports to Plaintiffs by August 13. ECF No. 192.

STANDARD OF REVIEW

Mandamus is an "extraordinary" remedy traditionally used "to confine the court against which mandamus is sought to a lawful exercise of its prescribed jurisdiction." *Cheney v. U.S. Dist. Ct.*, 542 U.S. 367, 381 (2004) (brackets and internal quotation marks omitted). Mandamus relief may appropriately be granted to correct errors beyond those fitting nicely within the "technical definition of jurisdiction," but also errors "amounting to a judicial usurpation of power" or a "clear abuse of discretion." *Id.* For example, mandamus has been used "to restrain a lower court when its actions would threaten the separation of powers," *Cheney,* 542 U.S. at 381; *see also Ex parte Peru*, 318 U.S. 578, 588 (1943); to prevent unlawful discovery on meritless claims, *Credit Suisse v. U.S. Dist. Ct.*, 130 F.3d 1342, 1346 (9th Cir. 1997); and to ensure that the judicial system operates in an

orderly, efficient manner, *In re Cement Antitrust Litig.,* 688 F.2d 1297, 1307 (9th Cir. 1982); *LaBuy v. Howes Leather Co.*, 352 U.S. 249 (1957).

This Court considers a petition for a writ of mandamus by applying the five *Bauman* factors: (1) whether the petitioner has no other means to obtain the desired relief; (2) whether, absent relief, the petitioner will be prejudiced in a manner not correctable on appeal; (3) whether the district court has clearly erred as a matter of law; (4) whether the district court has committed an oft repeated error or manifested a persistent disregard of the federal rules; and (5) whether the petition presents new and important problems or issues of first impression. *See Perry v. Schwarzenegger*, 591 F.3d 1147, 1156 (9th Cir. 2009) (citing *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650, 654-55 (9th Cir. 1977)).[3] Not every factor is relevant in every case, and the writ may issue even if some of the factors point in different directions. *Christensen v. U.S. Dist. Ct.*, 844 F.2d 694, 697 (9th Cir. 1988); *see also Credit Suisse*, 130 F.3d at 1345 ("In fact, rarely will a case arise where all these guidelines point in the same direction or where each guideline is even relevant or applicable.").

[3] The Supreme Court has identified three requirements for mandamus relief—(1) the party seeking relief has no other adequate means of relief; (2) the right to relief is clear and undisputable; and (3) issuing the writ is appropriate in the circumstances —which overlap substantially with the *Bauman* factors and are also satisfied here for the reasons discussed. *See Cheney*, 542 U.S. at 380-81.

REASONS FOR GRANTING THE WRIT

The Court should exercise its authority under the All Writs Act to instruct the district court to dismiss this extraordinarily misguided case for at least three independent reasons. First and most fundamentally, this attempt to establish national climate policy through litigation is not remotely a case or controversy cognizable in an Article III court. Plaintiffs cannot establish Article III standing to assert generalized grievances related to the global phenomenon of climate change, none of which can be fairly traced to any particular action or inaction by Defendants or redressed by any order within the authority of a federal court to issue. And, even if they could establish standing, Plaintiffs' claims seeking development and implementation of a national plan to remedy climate change (to be overseen, perhaps for the balance of this century, by a single district court) are simply not of the sort that a federal court is empowered to hear and decide. Second, even if this suit were to proceed, it would have to be targeted at specifically identified agency actions or alleged failures to act and be based on the administrative record for those actions. The APA provides the exclusive right of action for challenging an agency's action or failure to act with respect to regulatory requirements and standards, and the APA does not permit the sort of broad, programmatic attack on agency policies made by Plaintiffs here. Third and finally, Plaintiffs' claims of a fundamental right to a

particular climate system and a never-before-recognized public trust obligation on the federal government are frivolous.

Without disagreeing with any of these contentions, this Court declined to grant mandamus relief the last time the suit was before the Court, because it concluded that the government might be able to obtain relief—or at least vastly narrow the claims in this case—through other means. Despite the government's extensive efforts to adhere to the roadmap outlined by this Court, it is now clear that the district court has not followed that directive. With full-blown discovery against eight Executive agencies looming and a 50-day trial quickly approaching, the district court has refused to stay discovery while it considers the government's multiple pending motions and has made clear that the October 29 trial date will not budge without intervention from a higher court. The time for such intervention is now. At a minimum, the Court should stay discovery and trial pending the district court's resolution of the government's pending dispositive motions for judgment on the pleadings and for summary judgment, so that this Court has an opportunity to review resolution of those motions—through interlocutory certification or mandamus—before the government is subjected to wide-ranging and impermissible discovery and a 50-day trial that is beyond the jurisdiction of the district court to conduct.

I. This case should be dismissed.

A. Plaintiffs' claims are not justiciable.

The Supreme Court has reiterated that "no principle is more fundamental to the judiciary's proper role in our system of government than the constitutional limitation of federal-court jurisdiction to actual cases or controversies." *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 341 (2006) (quoting *Raines v. Byrd*, 521 U.S. 811, 818 (1997)); *see also* U.S. Const. art. III, § 2, cl. 1. This suit fails to qualify as a "case" or "controversy" within the meaning of Article III for two independent reasons.

1. Plaintiffs lack Article III standing.

Perhaps the most familiar aspect of the case-or-controversy limitation is the requirement that the party invoking the power of a federal court establish standing. In order to do so, Plaintiffs must prove that (1) they "have suffered an injury in fact," i.e., "an invasion of a legally protected interest which is (a) concrete and particularized[,] and (b) actual or imminent, not conjectural or hypothetical"; (2) the injury is "fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court"; and (3) it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992) (internal quotation marks and citations omitted) (omissions and brackets in

original). The purpose of the standing doctrine is "to prevent the judicial process from being used to usurp the powers of the political branches." *Clapper v. Amnesty Int'l USA*, 568 U.S. 398, 408 (2012). "In keeping with that purpose," a court's inquiry must be "especially rigorous when reaching the merits of the dispute would force [it] to decide whether an action taken by one of the other two branches of the Federal Government was unconstitutional." *Id.* Plaintiffs cannot establish any of the standing requirements here.

First, Plaintiffs assert generalized grievances, not particularized harms. As the Supreme Court has repeatedly recognized, a "generalized grievance" is not a "concrete and particularized" injury sufficient to satisfy the first prong of the standing analysis. *See, e.g.*, *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1387 n.3 (2014); *Lance v. Coffman*, 549 U.S. 437, 439 (2007) (per curiam); *DaimlerChrysler Corp.*, 547 U.S. at 344-46; *Defenders of Wildlife*, 504 U.S. at 573-74. For that reason, "standing to sue may not be predicated upon an interest . . . which is held in common by all members of the public, because of the necessarily abstract nature of the injury all citizens share." *Schlesinger v. Reservists Comm. to Stop the War*, 418 U.S. 208, 220 (1974); *see also Gladstone Realtors v. Vill. of Bellwood*, 441 U.S. 91, 100 (1979).

The injuries that Plaintiffs claim are not particular to them or cognizable for purposes of Article III. Rather, they involve the diffuse effects of a generalized

phenomenon on a global scale. To the extent that climate-related injuries affect Plaintiffs, the effects are the same as those felt by any other person in their communities, in the United States, or throughout the world at large. *See DaimlerChrysler Corp.*, 547 U.S. at 353 ("[S]tanding is not dispensed in gross."). Federal courts have repeatedly held that injuries predicated on the general harms of climate change do not suffice for purposes of standing. *Center for Biological Diversity v. U.S. Dep't of Interior*, 563 F.3d 466, 475-79 (D.C. Cir. 2009); *WildEarth Guardians v. Salazar*, 880 F. Supp. 2d 77 (D.D.C. 2012), *aff'd sub nom. WildEarth Guardians v. Jewell*, 738 F.3d 298 (D.C. Cir. 2013). The same result is compelled here.

Second, Plaintiffs cannot show that the government policies they challenge—expressed in broad and undifferentiated terms, rather than directed to discrete agency actions—caused their asserted injuries. *See Defenders of Wildlife*, 504 U.S. at 560. Plaintiffs principally complain of the government's regulation (or lack thereof) of private parties not before the district court. When a plaintiff's alleged harms may have been caused directly by the conduct of parties other than the defendants (and only indirectly by the defendants), however, it is "substantially more difficult to meet the minimum requirement of Art. III: to establish that, in fact, the asserted injury was the consequence of the defendants' actions, or that prospective relief will remove the harm." *Warth v. Seldin*, 422 U.S. 490, 504-05 (1975); *see also Defenders*

of Wildlife, 504 U.S. at 562 ("When . . . a plaintiff's asserted injury arises from the government's allegedly unlawful regulation (or lack of regulation) of *someone else,* much more is needed.").

Plaintiffs cannot make that heightened showing. Among their widely scattered objections, for example, Plaintiffs claim that the United States subsidizes the fossil fuel industry. ECF No. 7, ¶¶ 171-78. But Plaintiffs cannot establish a causal link between the amorphously described policy decisions and the specific harms that they allege, as opposed to the independent actions by private persons both within and outside the United States (nor any proof that their harms would be redressed by an order against such subsidization). Rather, they offer only speculation that, in the absence of such subsidization, third parties in the fossil fuel industry would alter their behavior in a manner that would affect Plaintiffs in a particularized and concrete way. *See, e.g.*, *Simon v. Eastern Kentucky Welfare Rights Org.*, 426 U.S. 26, 40-46 (1976) (holding that plaintiffs challenging tax subsidies for hospitals serving indigent customers lacked standing where they could only speculate on whether a change in policy would "result in [plaintiffs] receiving the hospital services they desire"). "A federal court, properly cognizant of the Art. III limitation upon its jurisdiction, must require more than respondents have shown before proceeding to the merits." *Id.* at 46.

This Court's decision in *Washington Environmental Council v. Bellon*, 732 F.3d 1131 (2013), is directly on point. In *Bellon*, the Court rejected an attempt to link alleged climate injuries to a state agency's allegedly insufficient regulation of private parties. It found that "simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries, relies on an attenuated chain of conjecture insufficient to support standing." *Id.* at 1142-43 (citation and internal quotation marks omitted). The Court concluded that "[b]ecause a multitude of independent third parties are responsible for the changes contributing to Plaintiffs' injuries, the causal chain is too tenuous to support standing." *Id.* at 1144 (citation omitted). So too here.

Third, Plaintiffs cannot establish that it is likely that their asserted injuries could be redressed by an order from a federal court. To the extent that Plaintiffs seek to compel a defendant agency to exercise the authority and discretion it possesses under its organic statute, Plaintiffs have failed to identify any such specific actions, and the district court in any event lacks authority to direct an agency to exercise that discretion in any particular way. *See Norton v. Southern Utah Wilderness All.*, 542 U.S. 55, 63-64 (2004) (*SUWA*) (discussing historical limitations of mandamus remedy). To the extent that Plaintiffs seek action beyond the defendant agencies' existing authority under their organic statutes, the district court

lacks authority to require agencies to take such actions or to require Congress to enact new laws. *See Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986) ("[A]n agency literally has no power to act . . . unless and until Congress confers power upon it.").

Plaintiffs have not even begun to articulate a remedy that a federal court could award that is consistent with these limitations on its authority and that could move the needle on the complex phenomenon of global climate change, much less likely redress their alleged injuries. *See Bellon*, 732 F.3d at 1147 (finding no redressability where plaintiffs failed to prove that the remedies within the district court's authority "would likely reduce the pollution causing Plaintiffs' injuries"). The district court assumed that it had the authority to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." Exhibit 1 (quoting ECF No. 7, ¶ 94). But neither Plaintiffs nor the court cited any legal authority that would permit such a usurpation of legislative and executive authority by an Article III court.

2. Even aside from standing, this is not a "case" or "controversy" within the meaning of Article III.

Even if Plaintiffs could somehow establish standing, this suit is not one that a federal court could entertain consistent with the Constitution. Article III vests federal courts created by Congress with the "judicial Power of the United States." The judicial power is "one to render dispositive judgments" in "Cases or

Controversies" as defined by Article III. *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 218-19 (1995) (internal quotation marks omitted). It can "come into play only in matters that were the traditional concern of the courts at Westminster" and only when those matters arise "in ways that to the expert feel of lawyers constituted 'Cases' or 'Controversies.'" *Vermont Agency of Nat. Res. v. United States ex rel. Stevens*, 529 U.S. 765, 774 (2000) (internal quotation marks omitted); *see also Stern v. Marshall*, 564 U.S. 462, 485 (2011). As such, the "necessary restrictions on [a court's] jurisdiction and authority contained in Article III of the Constitution limit the judiciary's institutional capacity to prescribe palliatives for societal ills." *Missouri v. Jenkins*, 515 U.S. 70, 112 (1995) (O'Connor, J., concurring).

Plaintiffs' suit is not a case or controversy cognizable under Article III. Plaintiffs ask the Court to review and assess the entirety of the Executive Branch's programs and policies relating to climate change—including actions that the Executive Branch has not taken, and even ones that are beyond the authority of Executive Branch agencies to take—and then to undertake to pass upon the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. *See, e.g.*, ECF No. 7, ¶¶ 277-310. And they ask the Court to do so under the Due Process Clause, a provision designed to protect discrete individual rights, not to furnish a vehicle for restructuring the operations of the Executive Branch and the United States Government at large with respect to broad policies

affecting all persons throughout the country. No federal court, nor any court at Westminster, has ever purported to use the "judicial power" to perform such a review—and for good reason: the Constitution commits the power to oversee the Executive Branch, draw on its expertise, and formulate policy programs to the President, not to Article III courts. *See* U.S. Const. art. II, § 2, cl. 1; *id.* art. II, § 3; *cf. Cheney*, 542 U.S. at 385.

Plaintiffs appeal to the district court's equitable powers as justifying the review they seek in this case. But a federal court's equitable powers are "subject to restrictions: the suit must be within the traditional scope of equity as historically evolved in the English Court of Chancery." *Guarantee Trust Co. v. York*, 326 U.S. 99, 105 (1945); *see also, e.g.*, *Grupo Mexicano de Desarrollo S.A. v. All. Bond Fund, Inc.*, 527 U.S. 308, 318 (1999) (same). "Substantially, then, the equity jurisdiction of the federal courts is the jurisdiction in equity exercised by the High Court of Chancery in England at the time of the adoption of the Constitution and the enactment of the original Judiciary Act, 1789 (1 Stat. 73)." *Grupo Mexicano*, 527 U.S. at 318 (internal quotation marks omitted). The controlling question is whether "the relief [Plaintiffs] requested here was traditionally accorded by courts of equity," *id*. at 319, and the answer is plainly no. As noted, among other things, Plaintiffs ask the district court to order the President and the defendant agencies "to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions

and draw down excess atmospheric CO_2 so as to stabilize the climate system" and to "[r]etain jurisdiction over this action to monitor and enforce Defendants' compliance with the national remedial plan." ECF No. 7 at 94. That novel relief is dramatically beyond any traditional concept of equity.

The high-water mark for the federal courts' traditional equitable authority has arguably been in institutional reform cases, such as the school desegregation cases, where the Supreme Court found the equitable authority of federal courts sufficiently broad to address the discrete constitutional claims at issue there. *See, e.g.*, *Swann v. Charlotte-Mecklenburg Bd. of Educ.*, 402 U.S. 1, 16 (1971). But even those claims paled in comparison to Plaintiffs' claims and requested relief. The plaintiffs in those cases sought injunctions against particular school districts for particular constitutional violations distinctly experienced by particular individuals. The courts then directed injunctions at the institutions and required particular actions to remedy the violations. Plaintiffs here challenge Congress' and the Executive Branch's policies relating to climate change across the Government and across the Nation over decades, and allegedly affecting the population at large, and ask the district court to take control of that entire range of policy-making.

"There simply are certain things that courts, in order to remain courts, cannot and should not do." *Jenkins*, 515 U.S. at 132 (Thomas, J., concurring). One of those things is "running Executive Branch agencies." *Id.* at 133. As a unanimous Supreme

Court recently explained in a case involving proposed regulation of greenhouse gas emissions, an expert environmental agency is "surely better equipped to do the job than individual district judges issuing ad hoc, case-by-case injunctions." *American Elec. Power Co. v. Connecticut*, 564 U.S. 410, 428 (2011) (*AEP*). Among other reasons, "[f]ederal judges lack the scientific, economic, and technological resources an agency can utilize in coping with issues of this order. Judges may not commission scientific studies or convene groups of experts for advice, or issue rules under notice-and-comment procedures inviting input by any interested person, or seek the counsel of regulators in the States where the defendants are located." *Id.* (citation omitted). Yet those are precisely the steps that would be required to adjudicate Plaintiffs' claims, and they are irreconcilable with Article III.

B. Plaintiffs must challenge specified agency actions or inactions under the APA and based on the administrative record.

Even if this suit could proceed within the boundaries of Article III, it would have to be targeted at specifically identified agency actions or alleged failures to act, and review would have to be based on the administrative record for those actions. The APA provides that a "person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702. Review is presumptively limited to "final agency action," *id.* § 704, and the statute authorizes a reviewing court to "hold unlawful and set aside agency action" that is "arbitrary,

capricious, an abuse of discretion, or otherwise not in accordance with law" or "contrary to constitutional right, power, privilege, or immunity," *id.* § 706(2), and to "compel agency action unlawfully withheld or unreasonably delayed," *id.* § 706(1). The statute also waives the United States' sovereign immunity to allow such a suit. *Id.* § 702. In so doing, the APA provides a "comprehensive remedial scheme" for "persons adversely affected by agency action" or alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. *Western Radio Servs. Co. v. U.S. Forest Serv.*, 578 F.3d 1116, 1122-23 (9th Cir. 2009); *see also Webster v. Doe*, 486 U.S. 592, 607 n.* (1988) (Scalia, J., dissenting) (explaining that the APA "is an umbrella statute governing judicial review of all federal agency action" and that "if review is not available under the APA it is not available at all").

Plaintiffs allege that a large number of (mostly unspecified) "agency action[s]" and inactions are "contrary to constitutional right." 5 U.S.C. §§ 702, 706. They allege, in various forms, that "Defendants have knowingly endangered plaintiffs' health and welfare by approving and promoting fossil fuel development, including exploration, extraction, production, transportation, importation, exportation, and combustion, and by subsidizing and promoting this fossil fuel exploitation." ECF No. 7, ¶ 280. And they allege Defendants have done so through a series of broad and unspecified agency actions: the leasing of lands for mineral

development; the permitting of oil and gas wells, coal mines, pipelines, and power plants; the development of management plans for federal lands; and the implementation of rulemakings that govern mineral development, to name a few. *See, e.g.*, *id.* ¶¶ 5, 7, 12, 163, 292, 298, 305. Each of the individual agency decisions implicitly challenged by Plaintiffs—each lease, each permit, each rulemaking, each management plan—is a separate "agency action." 5 U.S.C. §§ 551(13), 701, 702, 704, 706. Plaintiffs' claims are therefore reviewable, if at all, only under the APA and on the basis of the administrative record for each of those specific actions. *See Florida Power & Light Co. v. Lorion*, 470 U.S. 729, 743-44 (1985) ("The task of the reviewing court is to apply the appropriate APA standard of review, 5 U.S.C. § 706, to the agency decision based on the record the agency presents to the reviewing court.").

As currently formulated, however, Plaintiffs' claims cannot proceed under the APA, because the Act allows only for challenges to "circumscribed, discrete" final agency action, not the sort of "broad programmatic attack" on agency policies that Plaintiffs assert here. *SUWA*, 542 U.S. at 62, 64; *see also Lujan v. National Wildlife Fed'n*, 497 U.S. 871, 891 (1990); *San Luis Unit Food Producers v. United States*, 709 F.3d 798, 801-06 (9th Cir. 2013); 5 U.S.C. §§ 702, 704. Plaintiffs expressly cast their claims as a challenge to "affirmative aggregate actions" by the numerous defendant agencies that "permitted, encouraged, and otherwise enabled continued

exploitation, production, and combustion of fossil fuels." ECF No. 7, ¶¶ 1, 5. But a challenge to "aggregate actions" is the antithesis of the "*discrete* agency action" that the Supreme Court has explained must be challenged under the APA. *SUWA*, 542 U.S. at 64.

Contrary to Magistrate Judge Coffin's reasoning (which the district court declined to disturb), there is nothing talismanic about Plaintiffs' assertion of constitutional claims. Section 706 of the APA expressly states that judicial review extends to alleged constitutional violations: "The reviewing court shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . *contrary to constitutional right*, power, privilege, or immunity." 5 U.S.C. § 706(2)(B) (emphasis added); *see also Webster*, 486 U.S. at 603-04 (holding that Due Process Clause and Equal Protection Clause claims may proceed under APA judicial review provisions). Federal courts have therefore repeatedly rejected attempts by plaintiffs to circumvent the APA's limitations on judicial review by asserting constitutional claims. *See, e.g.*, *Chiayu Chang v. U.S. Citizenship & Immigration Servs.*, 254 F. Supp. 3d 160, 161-62 (D.D.C. 2017); *Ketcham v. U.S. Nat'l Park Serv.*, No. 16-CV-00017-SWS, 2016 WL 4268346, at *1 (D. Wyo. Mar. 29, 2016); *Northern Arapaho Tribe v. Ashe*, 92 F. Supp. 3d 1160, 1174 (D. Wyo. 2015); *Harvard Pilgrim Health Care of New England v. Thompson*, 318 F. Supp. 2d 1, 8 (D.R.I. 2004); *Jarita Mesa Livestock Grazing Ass'n v. U.S. Forest Serv.*, 58 F.

Supp. 3d 1191, 1199, 1237 (D.N.M. 2014); *Evans v. Salazar*, No. C08-0372-JCC, 2010 WL 11565108, at *2 (W.D. Wash. July 7, 2010).

Plaintiffs appear to suggest that they can evade the APA's limitations because the Constitution itself provides the right of action for constitutional claims. ECF No. 7, ¶ 13 ("This action . . . is authorized by Article III, Section 2, which extends the federal judicial power to all cases arising in equity under the Constitution."). But the Supreme Court has never held that the Constitution itself provides an across-the-board right of action for all constitutional claims—and especially for the sweeping constitutional claims that Plaintiffs advance here and the sweeping relief they seek. Indeed, the Court recently decided that "the Supremacy Clause does not confer a right of action," a decision that would make no sense if petitioner were correct that constitutional claims are automatically cognizable. *Armstrong v. Exceptional Child Ctr., Inc.*, 135 S. Ct. 1378, 1384 (2015). Federal courts do have equitable authority in some circumstances "to enjoin unlawful executive action." *Id.* at 1385; *see also, e.g., Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 491 n.2 (2010). But that equitable power is "subject to express and implied statutory limitations." *Armstrong*, 135 S. Ct. at 1385. Thus, "[w]here Congress has created a remedial scheme for the enforcement of a particular federal right," courts "have, in suits against federal officers, refused to supplement that scheme with one created by the judiciary." *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 74 (1996). Here,

even if a court's equitable authority could ever encompass a case of this sort, *but see supra* Section I.A.2 (pp. 27-29), the APA provides "express . . . statutory limitations" that "foreclose," *Armstrong*, 135 S. Ct. at 1381, Plaintiffs' asserted constitutional claims against the broad and unspecified "aggregate actions" of the federal government as a whole.[4]

C. Plaintiffs' claims are frivolous.

Finally, even if a court could reach the merits of Plaintiffs' constitutional theories, they plainly fail. In denying the government's motion to dismiss, the district court concluded that Plaintiffs stated two related constitutional claims based on substantive due process: (1) a previously unidentified judicially enforceable fundamental right to "a climate system capable of sustaining human life"; and (2) a federal public trust doctrine to the same effect. Both claims are frivolous.[5]

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[4] Indeed, the legislative history of the APA confirms Congress's intent that the statute provide the exclusive means of "judicial review of *all* administrative rules and of *all* administrative decisions and orders," including review of alleged constitutional violations. S. Rep. No. 76-442, at 6 (1939) (emphasis added); S. Rep. No. 79-752, at 26 (1945); H. Rep. No. 79-1980, at 42 (1946).

[5] In addition to their "fundamental right" and "public trust" claims, Plaintiffs also asserted claims under the equal protection component of the Fifth Amendment based on the government's alleged discrimination against the "separate suspect classes" of "children and future generations," ECF No. 7, ¶ 294; *see also id.* ¶¶ 290-301; and under the unenumerated rights preserved by the Ninth Amendment, *id.* ¶¶ 302-06. To the extent these claims are distinct from their other claims, not even the district court found them viable. Rightly so: "age is not a suspect class," *United States v. Flores-Villar*, 536 F.3d 990, 998 (9th Cir. 2008), and "the [N]inth [A]mendment has

1. The Due Process Clause does not create a judicially enforceable right to a particular climate composition.

The Supreme Court has instructed courts considering novel due process claims to "exercise the utmost care whenever we are asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences, and lest important issues be placed "outside the arena of public debate and legislative action." *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997). The Court has "regularly observed that the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, 'deeply rooted in this Nation's history and tradition.'" *Id.* at 720-21 (quoting *Moore v. City of E. Cleveland*, 431 U.S. 494, 503 (1977) (plurality opinion)). The district court's recognition of an "unenumerated fundamental right" to "a climate system capable of sustaining human life," Exhibit 1 at 31-32, has no basis in this Nation's history or tradition and threatens to wrest fundamental policy issues of energy development and environmental regulation from "the arena of public debate and legislative action," *Glucksberg*, 521 U.S. at 720, into the supervision of the federal courts—indeed, here, into a single district court.

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never been recognized as independently securing any constitutional right, for purposes of pursuing a civil rights claim," *Strandberg v. City of Helena*, 791 F.2d 744, 748 (9th Cir. 1986).

In no other case has a court found a fundamental right remotely comparable to a right to a particular "climate system" or to other aspects of the physical environment. The district court relied on the Supreme Court's recognition of a fundamental right to same-sex marriage in *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015). It should go without saying that there is no relationship between a personal and circumscribed right to same-sex marriage and the alleged right to a climate system capable of sustaining human life that apparently would run to every individual in the United States. The fundamental right recognized by the district court has no relationship to "certain personal choices central to individual dignity and autonomy," *id.* at 2597 (citation omitted), or any right as "fundamental as a matter of history and tradition" as the right to marry recognized in *Obergefell*, *id.* at 2602. Nor was the *Obergefell* Court's recognition of that narrow right an invitation to abandon the cautious approach to recognizing new fundamental rights that is demanded by the Court's prior decisions.

Plaintiffs' state-created danger theory is equally flawed. As a general matter, the Due Process Clause "is phrased as a limitation on the State's power to act, not as a guarantee of certain minimal levels of safety and security. It forbids the State itself to deprive individuals of life, liberty, or property without 'due process of law,' but its language cannot fairly be extended to impose an affirmative obligation on the State to ensure that those interests do not come to harm through other means."

DeShaney v. Winnebago County Dep't of Soc. Servs., 489 U.S. 189, 195 (1989). As a general matter, the Due Process Clause thus imposes no affirmative duty to protect a person who is not in state custody, and the limited exception recognized by this Court (circumstances in which a governmental body has control over a particular individual's person and places him in imminent peril) has no application here. *See, e.g., Penilla v. City of Huntington Park*, 115 F.3d 707, 710 (9th Cir. 1997) (holding that a cause of action for due process violation arose where officers "took affirmative actions that significantly increased the risk facing Penilla: they cancelled the 9-1-1 call to the paramedics; they dragged Penilla from his porch, where he was in public view, into an empty house; then they locked the door and left him there alone . . . after they had examined him and found him to be in serious medical need"); *Wood v. Ostrander*, 879 F.2d 583, 588 (9th Cir. 1989) (due process cause of action arose where officer arrested a female driver, impounded the car, and left driver by the side of the road at night in a high-crime area).

2. No federal public trust doctrine limits the federal government's authority to regulate greenhouse gases.

Plaintiffs' public trust claim fares no better. The roots of a public trust doctrine "trace to Roman civil law and its principles can be found in the English common law on public navigation and fishing rights over tidal lands and in the state laws of this country." *PPL Montana, LLC v. Montana*, 565 U.S. 576, 603 (2012). Where it applies, the doctrine generally holds that the sovereign "owns all of its

navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." *National Audubon Soc'y v. Super. Ct.*, 33 Cal. 3d 419, 434 (1983). As trustee, the sovereign has an obligation to "protect the people's common heritage of streams, lakes, marshlands and tidelands." *Id.* at 441.

Plaintiffs attempt to invoke that doctrine to impose judicially enforceable, extra-statutory obligations on the federal government's regulation of the fossil fuel industry and its alleged effects on the atmosphere. Plaintiffs fail to identify a single decision applying a public trust doctrine in this novel manner. But even if such a non-constitutional doctrine could ever limit a sovereign's regulation of private parties, Plaintiffs' claim is unavailing because, as the Supreme Court and this Court have "repeatedly recognized," any such doctrine is purely a matter of *state* law and pertains only to a *state's* sovereign duties and power. *United States v. 32.42 Acres of Land*, 683 F.3d 1030, 1038 (9th Cir. 2012); *see also, e.g.*, *PPL Montana*, 565 U.S. at 603 ("[T]he public trust doctrine remains a matter of state law."). With respect to the federal government, the Property Clause of the Constitution vests Congress with the "Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States." U.S. Const. art. IV, § 3, cl. 2. And that "power over the public land thus entrusted to Congress is without

limitations." *Kleppe v. New Mexico*, 426 U.S. 529, 539 (1976) (quoting *United States v. City & County of San Francisco*, 310 U.S. 16, 29 (1940)).[6]

Moreover, even if a common law public trust doctrine could ever constrain the federal government's protection of the atmosphere, it has been displaced by the Clean Air Act. That Act defines the scope of EPA's duties to regulate greenhouse gas emissions and the extent to which federal courts may enforce those duties. In *AEP,* the Supreme Court held that plaintiffs seeking to limit greenhouse gas emissions may not do so under a common law theory, but must instead do so pursuant to the specific causes of action and substantive standards the Clean Air Act provides where the Act "speaks directly to the question at issue." 564 U.S. at 424. That is because "Congress designated an expert agency, here, EPA, as best suited to serve as primary regulator of greenhouse gas emissions" and left it to the agency to determine the "appropriate amount of regulation in any particular greenhouse gas-producing sector" after making an "informed assessment of the competing interests."

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[6] In denying the government's motion to dismiss, the district court rejected the government's reliance on *Kleppe v. New Mexico*, reasoning that "the furthest reaches of the power granted by the Property Clause have not yet been definitively resolved." Exhibit 1 at 48 (quoting *Kleppe*, 426 U.S. at 539). The uncertainty to which the *Kleppe* Court was referring "concern[s] not power over federal land but power over property outside federal land." *United States v. Bd. of County Comm'rs*, 843 F.3d 1208, 1212-13 (10th Cir. 2016), *cert. denied*, 138 S. Ct. 84 (2017). Nothing in *Kleppe* supports the view that Congress's power over its *own* property could be limited by judge-made common law. *Id.*

Id. at 427-28. The Court found that it would be improper to conclude "that federal judges may set limits on greenhouse gas emissions in [the] face of a law empowering EPA to set the same limits." *Id.* at 429; *see also Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 853, 856 (9th Cir. 2012) (affirming the dismissal of a village's claims against major emitters of CO_2 on the ground that *AEP* "determined that Congress has directly addressed the issue of domestic greenhouse gas emissions from stationary sources," thereby "displac[ing] federal common law"). The Supreme Court's reasoning applies with equal force here.

Indeed, the D.C. Circuit rejected a nearly identical public trust claim as "insubstantial, implausible, [and] completely devoid of merit" in a recent suit brought in the District of Columbia by some of the same individuals who are Plaintiffs and their counsel here. *Alec L. ex rel. Loorz v. McCarthy*, 561 Fed. Appx. 8 (D.C. Cir.), *cert. denied*, 135 S. Ct. 774 (2014). In *Alec L.*, the plaintiffs alleged that several Executive Branch departments and agencies had violated their alleged fiduciary duties to preserve and protect the atmosphere as a commonly shared public resource under the public trust doctrine. The district court dismissed the complaint, and the D.C. Circuit summarily affirmed. *Id.* at 7. Relying on *PPL Montana*, 565 U.S. at 603-04, the court determined that "the public trust doctrine remains a matter of state law" and therefore could not provide even a basis for federal court subject-matter jurisdiction. *Alec L.*, 561 Fed. Appx. at 8; *see also id.* ("Dismissal for lack of

subject-matter jurisdiction because of the inadequacy of [a] federal claim is proper . . . when the claim is 'so insubstantial, implausible, foreclosed by prior decisions of this Court, or otherwise completely devoid of merit as not to involve a federal controversy'" (quoting *Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 89 (1998))).

D. The government has no other means of obtaining relief from unconstitutional and improper discovery and trial.

Mandamus is an appropriate remedy to correct the district court's egregious errors because the government has no adequate means to obtain relief from the court's refusal to dismiss this case and to prevent the impending discovery and trial that would themselves violate constitutional and statutory limits on agency decisionmaking.

Both the Supreme Court and this Court have previously concluded that similar concerns warrant immediate intervention. In *Cheney*, the Supreme Court concluded that "mandamus standards are broad enough to allow a court of appeals to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." 542 U.S. at 382; *see also id.* (recognizing the "paramount necessity of protecting the Executive Branch from vexatious litigation that might distract it from the energetic performance of its constitutional duties"). And in *Credit Suisse*, this Court granted mandamus relief where a district court refused to dismiss a case against the Swiss bank and then compelled the bank to

respond to discovery requests that would have violated Swiss banking-secrecy and other laws. *See* 130 F.3d at 1346 ("Requiring the Banks to choose between being in contempt of court and violating Swiss law clearly constitutes severe prejudice that could not be remedied on direct appeal.").

Here, as of last Friday, the district court has now denied a protective order from discovery. As a result, defendant agencies must now proceed with burdensome discovery in advance of an imminent 50-day trial while, at the same time, violating the procedures imposed by the APA on agency decisionmaking and the separation of powers. Requiring federal agencies to articulate factual assessments and positions on national environmental and energy policy through depositions, requests for admissions, and other private discovery devices—and ultimately at a 50-day trial—is flatly barred by the APA's rules requiring a challenge to be directed to specific agency actions based on record review. Imposing such requirements would also violate the APA's carefully reticulated scheme for agencies to make factual assessments and policy determinations through rulemaking and adjudication in matters within their jurisdiction and is fundamentally inconsistent with the constitutional separation of powers. Such discovery and trial "clearly constitutes severe prejudice that could not be remedied on appeal." *Credit Suisse*, 130 F.3d at 1346.

1. Requiring agencies to make factual assessments and take policy positions in discovery and trial conflicts with the APA's provisions regulating rulemaking and adjudication.

The APA sets forth a "comprehensive regulation of procedures" for agency decision-making. *Wong Yang Sung v. McGrath*, 339 U.S. 33, 36, *modified*, 339 U.S. 908 (1950); *see also* 5 U.S.C. §§ 551-554. "Time and again," the Supreme Court has explained that the APA establishes the exclusive procedural requirements for agency decisionmaking, and courts are not free to alter those requirements. *Perez v. Mortg. Bankers Ass'n*, 135 S. Ct. 1199, 1207 (2015) (internal quotation marks and citation omitted); *see also Vermont Yankee Nuclear Power Corp. v. NRDC, Inc.*, 435 U.S. 519, 546 (1978). To require agencies to comply with discovery seeking official positions on matters of factual assessment and questions of policy and then participate in a 50-day trial to create an "enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," ECF No. 7 at 94, would impermissibly conflict with the procedures prescribed by the APA and deprive the public of the ability to provide input where the APA's rulemaking provisions or agency procedures require.

In pending discovery requests, for example, Plaintiffs seek to depose under Federal Rule 30(b)(6) an official representative of the Department of Transportation on the agencies' official positions on the agency's "role in implementing President Trump's America First Energy Strategy, including President Trump's Executive

Order to Create Energy Independence," ECF No. 217-6 at 6, and have the agency "admi[t]" propositions such as "[p]etroleum use in the transportation sector in the United States is expected to remain at about 13.5 million barrels per day through 2040 and beyond," ECF No. 217-9 at 19. If discovery proceeds in this case, the agencies' official statements and conclusions on such topics would be offered without public input from other stakeholders or any of the relevant orderly procedures of agency decisionmaking contemplated by the APA. *See* 5 U.S.C. §§ 553, 554. Those and similar required responses to discovery thus would be in direct contravention of Congress's judgment in the APA and the agencies' respective organic statutes to vest such determinations in the agencies' administrative processes in the first instance. Indeed, beyond discovery, a trial on such matters directly in court against the defendant agencies (much less the President) would be fundamentally inconsistent with the APA and the agencies' organic statutes.

Just as a court cannot expand the APA's procedural requirements, *see Perez*, 135 S. Ct. at 1207, it likewise cannot authorize their violation. *See, e.g.*, *In re SEC ex rel. Glotzer*, 374 F.3d 184, 188-92 (2d Cir. 2004) (refusing to authorize discovery request directed at federal agency that violated APA requirements); *cf. AEP*, 564 U.S. at 428 (noting, in rejecting climate change-related claim, that courts "may not . . . issue rules under notice-and-comment procedures"). Absent intervention from this Court, the district court's denial of a protective order will have just that effect.

2. Discovery and trial would violate the separation of powers.

Discovery and trial in this case would also violate the Constitution's separation of powers. Even before the enactment of the APA, the Supreme Court recognized that permitting an agency's "findings to be attacked or supported in court by new evidence would substitute the court for the administrative tribunal," *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 444 (1930), a step that would improperly allow the court to "usurp[] the agency's function," *Unemployment Comp. Comm'n v. Aragon*, 329 U.S. 143, 155 (1946); *see also National Broad. Co. v. United States*, 319 U.S. 190, 227 (1943) (stating that the "court below correctly held that its inquiry was limited to review of the evidence before the Commission" in a challenge to agency action under the First Amendment). Moreover, "in cases where Congress has simply provided for review, without setting forth the standards to be used or the procedures to be followed," the Supreme Court "has held that consideration is to be confined to the administrative record and that no de novo proceeding may be held." *United States v. Carlo Bianchi & Co.*, 373 U.S. 709, 715 (1963); *see also Dickinson v. Zurko*, 527 U.S. 150, 155 (1999); *Ninilchik Traditional Council v. United States*, 227 F.3d 1186, 1194 (9th Cir. 2000) (explaining that APA judicial review provisions "function[] as a default judicial review standard").

Limiting review to the agency record of agency action, limited by the scope of the agency's authority conferred by Congress in its organic statute, reflects

fundamental separation-of-powers principles. This suit, in which Plaintiffs seek discovery in aid of requiring the defendant agencies (and the President) to develop and implement a comprehensive, government-wide climate policy, wholly outside the congressionally prescribed statutory framework, runs roughshod over those principles. It violates the vesting of the "legislative Power" in Congress to the extent it would require agencies to transgress the substantive and procedural constraints imposed on them by statute. And to the extent it seeks to require the President and Executive agencies to develop and implement such policies, it violates the Constitution's vesting of "executive Power . . . in a President of the United States." U.S. Const. art. II, § 1.

As part of the executive power, the "President and those who assist him must be free to explore alternatives in the process of shaping policies and making decisions and to do so in a way many would be unwilling to express except privately." *United States v. Nixon*, 418 U.S. 683, 708 (1974). That principle is also reflected in the Opinion Clause of the Constitution, which vests in the President the exclusive power to "require the Opinion . . . of the principal Officer in each of the executive Departments, upon any subject relating to the duties of their respective offices." U.S. Const. art. II, § 2, cl. 1; *see also Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 641 n.9 (1952) (Jackson, J., concurring) (describing President's power under the Opinion Clause). The Recommendations Clause of the

Constitution similarly vests the President with power to "recommend to" Congress for "Consideration such Measures as he shall judge necessary and expedient." U.S. Const. art. II, § 3. Like the Opinion Clause, the Recommendations Clause presupposes that the President "must possess more extensive sources of information" than the other branches. Joseph Story, *Commentaries on the Constitution of the United States* § 807 (Ronald D. Rotunda & John E. Nowak eds., Carolina Acad. Press 1987) (1833).

By contrast, courts exercising the judicial power "may not commission scientific studies or convene groups of experts for advice," and accordingly "lack the scientific, economic, and technological resources an agency can utilize in coping with" complex policy problems. *AEP*, 564 U.S. at 428. Just as the President may not compel an advisory opinion from a court on a question of law, *see, e.g., Flast v. Cohen*, 392 U.S. 83, 96 n.14 (1968), a court may not compel the opinion of an executive official on a question of policy. Similarly, because the President's duty requires him to recommend only what "*he* shall judge necessary and expedient," U.S. Const. art. II, § 3 (emphasis added), the Constitution makes clear that this exclusively executive power must remain free from interference. The Supreme Court accordingly has rejected discovery demands that "threaten substantial intrusions on the process by which those in closest operational proximity to the

President advise the President." *Cheney*, 542 U.S. at 381 (internal quotation marks and citation omitted).

Plaintiffs seek to probe the views of federal agencies concerning questions of national environmental and energy policy and to require them to make factual and predictive judgments outside the scope of governing procedures and authority. Allowing Plaintiffs to exploit the civil litigation system to marshal the policy positions of federal agencies would displace the President in his superintendence of the Executive Branch and encroach on his exclusive authority to elicit the views of federal agencies in formulating national policies for addressing important issues of general concern. Congress may not "encroach[] upon a power that the text of the Constitution commits in explicit terms to the President," *Public Citizen v. U.S. Dep't of Justice*, 491 U.S. 440, 482 (1989) (Kennedy, J., concurring), and neither may the federal judiciary. The Court should grant mandamus relief to prevent the irreparable harm that would be caused by such intrusions.

II. At a minimum, discovery and trial should be stayed pending consideration of the government's dispositive motions.

At a minimum, the Court should direct the district court to stay discovery and trial pending resolution of the government's motion for judgment on the pleadings and its motion for summary judgment, giving this Court an opportunity for interlocutory review. The government's motion for judgment on the pleadings is currently set for hearing before the district court on July 18. Under the court's local

rules, the government's motion for summary judgment will be fully briefed and ripe for hearing on the same date, and the government has asked the court to hear argument on that motion on July 18 as well. *See* ECF No. 305. A favorable ruling on either motion would terminate the litigation, or substantially narrow it to allow challenges only to specifically identifiable agency action, thus eliminating any occasion for discovery or trial. At the very least, such a ruling would substantially affect the scope of any trial or discovery. *See Jarvis v. Regan*, 833 F.2d 149, 155 (9th Cir. 1987) (finding district court did not abuse its discretion in staying discovery pending resolution of a motion to dismiss when the motion did not raise factual issues).

A full or partial grant of those motions could remove the need for the government to identify experts and produce the expert reports that are due in the coming weeks, or substantially reduce the scope of such reports to whatever claims might conceivably survive and permit a court to require such efforts. This Court has frequently affirmed similar stays of discovery while dispositive motions are pending, where the only alleged harm would be the unwarranted burden of discovery. *See, e.g.*, *Rutman Wine Co. v. E. & J. Gallo Winery*, 829 F.2d 729, 738 (9th Cir. 1987) ("It is sounder practice to determine whether there is any reasonable likelihood that plaintiffs can construct a claim before forcing the parties to undergo the expense of discovery."); *Wood v. McEwen*, 644 F.2d 797, 801-02 (9th Cir. 1981) (upholding

grant of protective order suspending discovery where the legal sufficiency of plaintiff's complaint was challenged). A stay is plainly warranted here where the discovery and subsequent trial would violate constitutional and statutory requirements applicable to the defendant agencies.

In similar circumstances, the Supreme Court recently held that this Court erred in denying the government's petition for a writ of mandamus against district court orders that would have required the government to produce certain materials before the district court had resolved the government's threshold arguments for dismissal. *See In re United States*, 138 S. Ct. 443 (2017). In that case, the district court refused to stay all discovery until it resolved the government's motion to dismiss on justiciability grounds, among others, and it ordered the expansion of the administrative record that the government had produced. *Id.* at 444. After this Court denied the government's mandamus petition challenging those orders, the government renewed its arguments in the Supreme Court in a petition for mandamus (or, in the alternative, a petition for certiorari) and further sought a stay of all discovery and the administrative-record order pending consideration of its petition. *Id.* The Supreme Court unanimously vacated the denial of mandamus, remanding with instructions that the district court first rule on the government's threshold arguments and then "consider certifying that ruling for interlocutory appeal under 29 U.S.C. § 1292(b) if appropriate." *Id.* at 445.

The same course is appropriate here if the Court declines at this stage to order dismissal of the case entirely. Both of the government's pending dispositive motions present multiple arguments (on justiciability and other grounds) that, if accepted by the district court, would eliminate any need for any expansion of the record in this case; both can be resolved without any further discovery. A stay of discovery and trial pending final resolution of the dispositive motions will not prejudice Plaintiffs. Because Plaintiffs' alleged injuries stem from the cumulative effects of CO_2 emissions from every source in the world over decades, whatever additions to the global atmosphere that may somehow be attributed to Defendants over the time it takes to resolve the government's pending motions are plainly *de minimis* and not a source of irreparable harm. For those reasons, if the Court does not order dismissal of this case outright at this point, it should at least instruct the district court to stay all discovery and trial until the government's dispositive motions are finally resolved and to consider certifying any rulings on those motions for interlocutory appeal under 28 U.S.C. § 1292(b).

III. The Court should stay discovery and trial pending resolution of this petition.

The government also asks this Court to invoke its authority under the All Writs Act, 28 U.S.C. § 1651, to immediately stay all discovery and trial while it considers this mandamus petition. *See also* 9th Cir. General Order 6.8(a) (motions panel "may also issue a stay or injunction pending further consideration of the

application").[7] Whether to issue a stay is "an exercise of judicial discretion . . . to be guided by sound legal principles," *Nken v. Holder*, 556 U.S. 418, 433-34 (2009) (internal quotation marks omitted), based on four factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987); *see also Leiva-Perez v. Holder*, 640 F.3d 962, 970 (9th Cir. 2011) (*Nken* requires a showing of irreparable harm, but applies a balancing test showing "that irreparable harm is probable and either: (a) a strong likelihood of success on the merits and that the public interest does not weigh heavily against a stay; or (b) a substantial case on the merits and that the balance of hardships tips sharply in the petitioner's favor"). Each of these factors counsels in favor of a stay.

The arguments set out above show that Defendants have a strong likelihood of success in obtaining mandamus. Absent a stay, the President and the federal departments and agencies that are subject to the discovery propounded by Plaintiffs will be irreparably harmed by being forced to proceed with burdensome discovery in advance of an imminent 50-day trial while, at the same time, violating their

[7] While Federal Rule of Appellate Procedure 8(a)(1) does not expressly refer to a stay pending review of a petition for a writ of mandamus under Rule 21, Defendants have nonetheless asked the district court for a stay pending resolution of this petition.

obligations under the APA and the Constitution. Most immediately, the government must identify experts by July 12 and produce expert reports rebutting Plaintiffs' 18 expert witnesses by August 13. ECF No. 196. Those expert reports opine on wide-ranging topics from the merits *vel non* of implementing a carbon tax (ECF No. 266-1 at 33-35) to the technological and economic feasibility of converting 100% of the United States' energy from fossil fuels to renewable energy for all sectors by 2050 (ECF No. 261-1 at 4-11). Plaintiffs also have not withdrawn their requests for admission propounded on the Departments of Interior, Agriculture, Transportation, Defense, and Energy, or their Rule 30(b)(6) notices seeking an official designee from the same agencies to testify to each agency's positions on various aspects of climate change and the agency's view of its role in implementing the President's energy policies. ECF No. 217-6 at 6. Indeed, Plaintiffs have promised that more discovery requests on similar topics will be served soon. ECF No. 247 at 4.

For the reasons discussed above, a stay of proceedings during the pendency of this mandamus petition is not likely to appreciably harm Plaintiffs. Finally, the public interest strongly favors a stay, because absent such relief the Executive Branch and its agencies (including the Executive Office of the President) would be subject to continued unlawful discovery and forced to divert substantial resources away from their essential function of "faithfully execut[ing]" the law. U.S. Const. art. II, § 3.

Given the impending obligations related to the government's experts and the rapidly approaching trial date, the government respectfully requests an expedited ruling from this Court on this request for a stay and an immediate administrative stay while the Court considers the government's stay request. Absent relief from this Court on the government's stay request or mandamus petition by Monday, July 16, the government will have little choice but to seek further relief from the Supreme Court.

CONCLUSION

For the foregoing reasons, the petition should be granted, and the district court should be directed to dismiss the case. At a minimum, all discovery and trial should be stayed until the government's pending motions for judgment on the pleadings and summary judgment are resolved by the district court and any higher courts, and the district court should be instructed, if it denies either motion, to consider certifying its order for interlocutory appeal under 28 U.S.C. § 1292(b). Finally, this Court should grant a stay of discovery and trial in the district court while it considers this petition and an immediate administrative stay while the Court considers the government's stay request.

Dated: July 5, 2018.

Respectfully submitted,

s/ Eric Grant
JEFFREY H. WOOD
Acting Assistant Attorney General
ERIC GRANT
Deputy Assistant Attorney General
ANDREW C. MERGEN
ROBERT J. LUNDMAN
Attorneys
Environment & Natural Resources Division
U.S. Department of Justice

Counsel for Petitioners

STATEMENT OF RELATED CASES

There is one related case within the meaning of Circuit Rule 28-2.6, namely, Defendants' prior petition for a writ of mandamus: *In re United States*, 884 F.3d 830 (9th Cir. 2018) (No. 17-71692).

Form 8. Certificate of Compliance Pursuant to 9th Circuit Rules 28.1-1(f), 29-2(c)(2) and (3), 32-1, 32-2 or 32-4 for Case Number 18-____

Note: This form must be signed by the attorney or unrepresented litigant *and attached to the end of the brief.*

I certify that (*check appropriate option*):

☐ This brief complies with the length limits permitted by Ninth Circuit Rule 28.1-1.
The brief is [ ] words or [ ] pages, excluding the portions exempted by Fed. R. App. P. 32(f), if applicable. The brief's type size and type face comply with Fed. R. App. P. 32(a)(5) and (6).

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The brief is [ ] words or [ ] pages, excluding the portions exempted by Fed. R. App. P. 32(f), if applicable, and is filed by (1) ☐ separately represented parties; (2) ☐ a party or parties filing a single brief in response to multiple briefs; or (3) ☐ a party or parties filing a single brief in response to a longer joint brief filed under Rule 32-2(b). The brief's type size and type face comply with Fed. R. App. P. 32(a)(5) and (6).

☐ This brief complies with the longer length limit authorized by court order dated [ ]
The brief's type size and type face comply with Fed. R. App. P. 32(a)(5) and (6). The brief is [ ] words or [ ] pages, excluding the portions exempted by Fed. R. App. P. 32(f), if applicable.

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The brief is [ ] words or [ ] pages, excluding the portions exempted by Fed. R. App. P. 32(f), if applicable. The brief's type size and type face comply with Fed. R. App. P. 32(a)(5) and (6).

Signature of Attorney or Unrepresented Litigant [s/ Eric Grant] Date [Jul 5, 2018]

("s/" plus typed name is acceptable for electronically-filed documents)

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on July 5, 2018.

I further certify that on July 5, 2018, a notice of the filing of the foregoing (including a complete copy of the foregoing) will be filed in underlying proceeding in the United States District Court for the District of Oregon in compliance with Federal Rule of Appellate Procedure 21(a)(1), and that all parties to the proceeding will be served with that notice through the district court's CM/ECF system. In addition, a courtesy copy of the foregoing has been provided via e-mail to the following counsel for Plaintiffs:

Julia A. Olson
(415) 786-4825
juliaaolson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Andrea K. Rodgers
(206) 696-2851
andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

Philip L. Gregory
(650) 278-2957
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

s/ Eric Grant
Eric Grant

Counsel for Petitioners

No. 18-_____

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

In re UNITED STATES OF AMERICA, et al.

UNITED STATES OF AMERICA, et al.,
Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON,
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, et al.,
Real Parties in Interest.

On Petition for a Writ of Mandamus to the United States District Court
for the District of Oregon (No. 6:15-cv-1517-TC)

EXHIBITS TO PETITION FOR A WRIT OF MANDAMUS AND EMERGENCY MOTION FOR A STAY OF DISCOVERY AND TRIAL

JEFFREY H. WOOD
Acting Assistant Attorney General
ERIC GRANT
Deputy Assistant Attorney General
ANDREW C. MERGEN
ROBERT J. LUNDMAN
Attorneys
Environment & Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-0943
eric.grant@usdoj.gov

Counsel for Petitioners

INDEX OF EXHIBITS

1. District court's Opinion and Order denying Federal Defendants' Motion to Dismiss, ECF No. 83 (Nov. 10, 2016) (available at *Juliana v. United States*, 217 F. Supp. 2d 1224 (D. Or. 2016)).
2. Ninth Circuit's Opinion denying Defendants' previous mandamus petition, No. 17-71692 (Mar. 7, 2018) (available at *In re United States*, 884 F.3d 830 (9th Cir. 2018)).
3. Excerpts of Reporter's Transcript of Proceedings (Apr. 12, 2018).
4. Excerpts of Reporter's Transcript of Proceedings (May 10, 2018).
5. Excerpts of Reporter's Transcript of Proceedings (May 23, 2018).
6. Magistrate judge's Order denying Defendants' Motion for a Protective Order and for a Stay of All Discovery, ECF No. 212 (May 25, 2018).
7. District court's Order affirming the foregoing order of the magistrate judge, ECF No. 300 (June 29, 2018).

Exhibit 1

District court's Opinion and Order denying
Federal Defendants' Motion to Dismiss, ECF No. 83 (Nov. 10, 2016)
(available at *Juliana v. United States*, 217 F. Supp. 2d 1224 (D. Or. 2016))

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, et al.,

Plaintiffs,

v.

UNITED STATES OF AMERICA, et al,

Defendants.

Case No. 6:15-cv-01517-TC
OPINION AND ORDER

AIKEN, Judge:[1]

Plaintiffs in this civil rights action are a group of young people between the ages of eight and nineteen ("youth plaintiffs"); Earth Guardians, an association of young environmental activists; and

[1] Student externs worked on each stage of the preparation of this opinion, from initial background research to final copyedits. I would be remiss if I did not acknowledge the invaluable contributions of Daniel Bodden (University of Kentucky), Elizabeth Jacklin (University of Oregon School of Law), Ann Richan Metler (Willamette University College of Law), James Mullins (University of Washington School of Law), Jessy R. Nations (University of Washington School of Law), Lydeah Negro (Lewis & Clark Law School), and Eleanor J. Vincent (University of Oregon School of Law.)

Dr. James Hansen, acting as guardian for future generations.[2] Plaintiffs filed this action against defendants the United States, President Barack Obama, and numerous executive agencies. Plaintiffs allege defendants have known for more than fifty years that the carbon dioxide ("CO_2") produced by burning fossil fuels was destabilizing the climate system in a way that would "significantly endanger plaintiffs, with the damage persisting for millenia." First. Am. Compl. ¶ 1. Despite that knowledge, plaintiffs assert defendants, "[b]y their exercise of sovereign authority over our country's atmosphere and fossil fuel resources, . . . permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels, . . . deliberately allow[ing] atmospheric CO_2 concentrations to escalate to levels unprecedented in human history[.]" *Id.* ¶ 5. Although many different entities contribute to greenhouse gas emissions, plaintiffs aver defendants bear "a higher degree of responsibility than any other individual, entity, or country" for exposing plaintiffs to the dangers of climate change. *Id.* ¶ 7. Plaintiffs argue defendants' actions violate their substantive due process rights to life, liberty, and property, and that defendants have violated their obligation to hold certain natural resources in trust for the people and for future generations.

Plaintiffs assert there is a very short window in which defendants could act to phase out fossil fuel exploitation and avert environmental catastrophe. They seek (1) a declaration their constitutional and public trust rights have been violated and (2) an order enjoining defendants from violating those rights and directing defendants to develop a plan to reduce CO_2 emissions.

Defendants moved to dismiss this action for lack of subject matter jurisdiction and failure

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[2] Although plaintiffs in this lawsuit hale from a number of different states, venue is proper in the District of Oregon. The majority of youth plaintiffs, including lead plaintiff Kelsey Juliana, reside in the District of Oregon. First Am. Compl. ¶¶ 16, 23, 31, 35, 44, 47, 50, 53, 57, 60. In addition, plaintiff Earth Guardians has a chapter in Eugene, Oregon.

to state a claim. Doc. 27. Intervenors the National Association of Manufacturers, the American Fuel & Petrochemical Manufacturers, and the American Petroleum Institute moved to dismiss on the same grounds. Doc. 19. After oral argument, Magistrate Judge Coffin issued his Findings and Recommendation ("F&R") and recommended denying the motions to dismiss. Doc. 68. Judge Coffin then referred the matter to me for review pursuant to 28 U.S.C. § 636 and Federal Rule of Civil Procedure 72. Doc. 69. Defendants and intervenors filed objections (docs. 73 & 74), and on September 13, 2016, this Court heard oral argument.

For the reasons set forth below, I adopt Judge Coffin's F&R as elaborated in this opinion and deny the motions to dismiss.

BACKGROUND

This is no ordinary lawsuit. Plaintiffs challenge the policies, acts, and omissions of the President of the United States, the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation ("DOT"), the Department of Agriculture, the Department of Commerce, the Department of Defense, the Department of State, and the Environmental Protection Agency ("EPA"). This lawsuit challenges decisions defendants have made across a vast set of topics — decisions like whether and to what extent to regulate CO_2 emissions from power plants and vehicles, whether to permit fossil fuel extraction and development to take place on federal lands, how much to charge for use of those lands, whether to give tax breaks to the fossil fuel industry, whether to subsidize or directly fund that industry, whether to fund the construction of fossil fuel infrastructure such as natural gas pipelines at home and abroad, whether to permit the export and import of fossil fuels from and to the United States, and whether to

authorize new marine coal terminal projects. Plaintiffs assert defendants' decisions on these topics have substantially caused the planet to warm and the oceans to rise. They draw a direct causal line between defendants' policy choices and floods, food shortages, destruction of property, species extinction, and a host of other harms.

This lawsuit is not about proving that climate change is happening or that human activity is driving it. For the purposes of this motion, those facts are undisputed.[3] The questions before the Court are whether defendants are responsible for some of the harm caused by climate change, whether plaintiffs may challenge defendants' climate change policy in court, and whether this Court can direct defendants to change their policy without running afoul of the separation of powers doctrine.

STANDARDS

The Magistrates Act authorizes a district court to "accept, reject or modify, in whole or in part, the findings or recommendations made by the magistrate judge." 28 U.S.C. § 636(b)(1). When a party objects to any portion of the magistrate's findings and recommendation, the district court must review *de novo* that portion of the magistrate judge's report. Fed. R. Civ. P. 72(b)(3); *see also*

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[3] For the purposes of this motion, I proceed on the understanding that climate change exists, is caused by humans, and poses a serious threat to our planet. Defendants open their Objections to Judge Coffin's F&R by stating that "[c]limate change poses a monumental threat to Americans' health and welfare by driving long-lasting changes in our climate, leading to an array of severe negative effects, which will worsen over time." Fed. Defs.' Obj. to F&R 1 (doc. 78). In the 2015 State of the Union address, defendant President Barack Obama declared "[n]o challenge . . . poses a greater threat to future generations than climate change." President Barack Obama, Remarks in State of the Union Address (Jan. 20, 2015), *available at* www.whitehouse.gov/the-press-office/2015/01/20/remarks-president-state-union-address-january-20-2015 (last visited Nov. 7, 2016). When asked at oral argument if they agreed that human-caused climate change poses a serious threat, intervenors declined to take a clear position. All parties agree, however, that a dispute over the existence of climate change is not at the heart of this case.

McDonnell Douglas Corp. v. Commodore Bus. Machs., Inc., 656 F.2d 1309, 1313 (9th Cir. 1981) (for dispositive motions, "the statute grants the broadest possible discretion to the reviewing district court").

Under Federal Rule of Civil Procedure 12(b)(1), a district court must dismiss an action if subject matter jurisdiction is lacking. A motion to dismiss under Rule 12(b)(1) may attack either the allegations of the complaint or the "existence of subject matter in fact." *Thornhill Publ'g Co., Inc. v. Gen. Tel. & Elec. Corp.*, 594 F.2d 730, 733 (9th Cir. 1979). The party seeking to invoke the district court's jurisdiction bears the burden of establishing subject matter jurisdiction. *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377 (1994).

Under Federal Rule of Civil Procedure 12(b)(6), a complaint is construed in favor of the plaintiff, and its factual allegations are taken as true. *Daniels-Hall v. Nat'l Educ. Ass'n*, 629 F.3d 992, 998 (9th Cir. 2010). However, the court need not accept as true "conclusory" allegations or unreasonable inferences. *Id.* Thus, "for a complaint to survive a motion to dismiss, the non-conclusory factual content, and reasonable inferences from that content, must be plausibly suggestive of a claim entitling the plaintiff to relief." *Moss v. U.S. Secret Serv.*, 572 F.3d 962, 969 (9th Cir. 2009) (quotation marks omitted). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). "[O]nce a claim has been stated adequately, it may be supported by showing any set of facts consistent with the allegations in the complaint." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 563 (2007).

DISCUSSION

Judge Coffin recommended denying defendants' and intervenors' motions to dismiss and

holding that plaintiffs' public trust and due process claims may proceed. Defendants and intervenors object to those recommendations on a number of grounds. They contend plaintiffs' claims must be dismissed for lack of jurisdiction because the case presents non-justiciable political questions, plaintiffs lack standing to sue, and federal public trust claims cannot be asserted against the federal government. They further argue plaintiffs have failed to state a claim on which relief can be granted. I first address the threshold challenges to jurisdiction, and then proceed to address the viability of plaintiffs' due process and public trust claims.

I. *Political Question*

If a case presents a political question, federal courts lack subject matter jurisdiction to decide that question. *Corrie v. Caterpillar, Inc.*, 503 F.3d 974, 982 (9th Cir. 2007). The political question doctrine is "primarily a function of the separation of powers." *Baker v. Carr,* 369 U.S. 186, 210 (1962). This limitation on the federal courts was recognized in *Marbury v. Madison,* 5 U.S. (1 Cranch) 137, 170 (1803), in which Chief Justice Marshall wrote, "[q]uestions, in their nature political, or which are, by the constitution and laws, submitted to the executive, can never be made in this court." However, the scope of the political question doctrine should not be overstated. As Alexis de Tocqueville observed, "[t]here is hardly any political question in the United States that sooner or later does not turn into a judicial question." 1 Alexis de Tocqueville, Democracy in America 440 (Liberty Fund 2012).

In *Baker,* the Supreme Court identified six criteria, each of which could individually signal the presence of a political question:

> [(1) A] textually demonstrable constitutional commitment of the issue to a coordinate political department; [(2)] a lack of judicially discoverable and manageable standards for resolving it; [(3)] the impossibility of deciding without an initial policy

> determination of a kind clearly for nonjudicial discretion; [(4)] the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; [(5)] an unusual need for unquestioning adherence to a political decision already made; or [(6)] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker, 369 U.S. at 217. The *Baker* tests "are probably listed in descending order of both importance and certainty." *Vieth v. Jubelirer*, 541 U.S. 267, 278 (2004) (plurality op.). The factors overlap, with the analyses "often collapsing into one another." *Alperin v. Vatican Bank*, 410 F.3d 532, 544 (9th Cir. 2005). The "common underlying inquiry" is whether "the question is one that can properly be decided by the judiciary." *Id.*

Determining whether the political question doctrine requires abstention calls on a court to balance profoundly important interests. On the one hand, the separation of powers is fundamental to our system of government, known "[e]ven before the birth of this country" to be "a defense against tyranny." *Loving v. United States*, 517 U.S. 748, 756 (1996). It is a "basic principle of our constitutional scheme that one branch of the Government may not intrude upon the central prerogatives of another." *Id.* at 757. On the other hand, "[t]he decision to deny access to judicial relief" should never be made "lightly," because federal courts "have the power, and ordinarily the obligation, to decide cases and controversies properly presented to them." *Alperin*, 410 F.3d at 539 (quoting *Liu v. Rep. of China*, 892 F.2d 1419, 1433 (9th Cir. 1989) and *W.S. Kirkpatrick & Co. v. Envt'l Tectonics Corp., Int'l*, 493 U.S. 400, 409 (1990)). Accordingly, a court cannot simply err on the side of declining to exercise jurisdiction when it fears a political question may exist; it must instead diligently map the precise limits of jurisdiction.

Climate change, energy policy, and environmental regulation are certainly "political" in the

sense that they have "motivated partisan and sectional debate during important portions of our history." *U.S. Dep't of Commerce v. Montana*, 503 U.S. 442, 458 (1992). But a case does not present a political question merely because it "raises an issue of great importance to the political branches." *Id.* Instead, dismissal on political question grounds is appropriate only if one of the *Baker* considerations is "inextricable" from the case. *Baker*, 369 U.S. at 217. As a result, federal courts regularly adjudicate claims that arise in connection with politically charged issues. *See, e.g.*, *Jewel v. Nat'l Sec. Agency*, 673 F.3d 902, 912 (9th Cir. 2011) (electronic surveillance); *Chiles v. Thornburgh*, 865 F.2d 1197, 1216 (11th Cir. 1989) (detention of undocumented immigrants); *Planned Parenthood Fed'n of Am., Inc. v. Agency for Int'l Dev.*, 838 F.2d 649, 656 (2d Cir. 1988) (international funding for birth control and abortion). In each of the above cases, the court engaged in "discriminating inquiry into the precise facts" before concluding the controversy was justiciable. *Baker*, 369 U.S. at 217. A similar rigorous analysis is necessary here.

A. *First* Baker *Factor*

The first *Baker* factor requires abstention "[w]hen a case would require a court to decide an issue whose resolution is textually committed to a coordinate political department" because "the court lacks authority to resolve that issue." *Zivotofsky ex rel. Zivotofsky v. Clinton*, 132 S. Ct. 1421, 1431 (2012) (Sotomayor, J., concurring). Since *Baker*, the Supreme Court has found such "textual commitment" in very few cases. In *Nixon v. United States*, 506 U.S. 224 (1993), a former federal judge sought to challenge the Senate's processes for taking evidence during impeachment trials. *Id.* at 226. The Court found his claim nonjusticiable due to the Constitution's clear statement granting the Senate "the sole Power to try all Impeachments." *Id.* at 229 (quoting U.S. Const. art. I, § 3, cl. 6). The Court found the provision's use of the word "sole" to be "of considerable significance."

Id. at 231. The Court also discussed the history of the clause at issue, noting that the "Framers labored over the question of where the impeachment power should lie" and "at least two considered" — and rejected — placing that power within the federal judiciary. *Id.* at 233.

In *Davis v. Passman*, 442 U.S. 228, 235 n.11 (1979), the Court characterized the Speech or Debate Clause as the "paradigm example" of a "textually demonstrable constitutional commitment." That clause provides that Senators and Representatives, "for any Speech or Debate in either House, . . . shall not be questioned in any other place." U.S. Const. Art. I, § 6, cl. 1. The Court explained that the clause plainly shields statements of federal legislators made during speech or debate in committees or on the House or Senate floor from *any* sort of judicial review, and thus speaks "directly to . . . separation-of-powers concerns." *Davis*, 442 U.S. at 235 n.11.

Most recently, in *Zivotofsky*, the Court held that the Constitution gives the president the exclusive authority to recognize foreign nations and governments. 135 S. Ct. at 2086. The Court acknowledged that the Constitution does not use the term "recognition." *Id.* at 2084. Nonetheless, the Court determined that the Constitution granted the recognition power to the Executive Branch "[a]s a matter of constitutional structure." *Id.* at 2085. The Court concluded that the clauses giving the president exclusive authority to receive ambassadors and to negotiate treaties implicitly granted the recognition power. *Id.* at 2086. That determination rested in part on the Court's conclusion that recognition was uniquely "a topic on which the Nation much speak with one voice." *Id.* at 2086 (quotation marks and ellipsis omitted). If Congress had the power to decline to recognize a foreign state the Executive had decided to recognize, the president would be unable to assure that foreign state that its ambassadors would be received, its officials would be immune from suit in federal court, and it would be permitted to initiate lawsuits in the United States to vindicate its rights. *Id.*

In issuing its decision, the Court expressly declined to hold that the Constitution gives the president the "unbounded power" to "conduct diplomatic relations" and exercise "the bulk of foreign-affairs powers." *Id.* at 2089.

Unlike in the constitutional provisions at issue *Nixon* and *Passman*, the constitutional provisions cited here contain nothing approaching a clear reference to the subject matter of this case. The Constitution does not mention environmental policy, atmospheric emissions, or global warming. And unlike in *Zivotofksy*, climate change policy is not a fundamental power on which any other power allocated exclusively to other branches of government rests. Intervenors correctly point out that the Constitution gives the political branches authority over commerce, foreign relations, national defense, and federal lands — all areas affected by climate change policy. *See* U.S. Const. art. I, § 8 cl. 3 (Congress has authority to "regulate commerce with foreign nations, and among the several states"); *Zivotofsky*, 135 S. Ct. at 2084-86 (discussing various constitutional provisions granting the Executive Branch foreign relations authority); U.S. Const. art. I, § 8 cl. 11-16 (detailing Congress's powers relating to war and the military); U.S. Const. art. II, § 2, cl. 1 (President is commander in chief of armed forces); U.S. Const. art. IV, § 3, cl. 2 (Congress has power to "dispose of and make all needful rules and regulations" regarding federal land). But holding the first *Baker* factor applies in any case relating to these topic areas would permit the exception to swallow the rule. The question is not whether a case *implicates* issues that appear in the portions of the Constitution allocating power to the Legislative and Executive Branches — such a test would, by definition, shield nearly all legislative and executive action from legal challenge. Rather, the question is whether adjudicating a claim would require the Judicial Branch to second-guess decisions committed exclusively to another branch of government.

In the lower courts, the first *Baker* factor has found its broadest application in foreign policy cases. *See, e.g.*, *Corrie*, 503 F.3d at 983 ("Whether to grant military or other aid to a foreign nation is a political decision inherently entangled with the conduct of foreign relations."); *Gonzalez-Vera v. Kissinger*, 449 F.3d 1260, 1263 (D.C. Cir. 2006) (decision to take "drastic measures" to keep Chilean dictator Augusto Pinochet in power was a foreign policy decision textually committed to the Executive Branch); *Sadowski v. Bush*, 293 F. Supp. 2d 15, 21 (D. C. Cir. 2003) (decision to go to war in Afghanistan was not justiciable, "primarily because war powers have been explicitly committed to the political branches"). As a result, I give special consideration to the argument that granting plaintiffs' requested relief would usurp the Executive Branch's foreign relations authority. Climate change policy has global implications and so is sometimes the subject of international agreements. But unlike the decisions to go to war, take action to keep a particular foreign leader in power, or give aid to another country, climate change policy is not *inherently*, or even primarily, a foreign policy decision. Moreover, in the foreign policy context, *Baker* expressly warned against framing the "textually committed" inquiry too broadly. *See Baker*, 369 U.S. at 211 ("[I]t is error to suppose that every case or controversy which touches foreign relations lies beyond judicial cognizance.") The first *Baker* factor does not apply.

B. *Second and Third* Baker *Factors*

"The second and third *Baker* factors reflect circumstances in which a dispute calls for decisionmaking beyond courts' competence." *Zivotofsky*, 132 S. Ct. at 1432 (Sotomayor, J., concurring). "When a court is given no standard by which to adjudicate a dispute, or cannot resolve a dispute in the absence of a yet-unmade policy determination charged to a political branch, resolution of the suit is beyond the judicial role envisioned by Article III." *Id.*

Defendants' and intervenors' arguments on the second and third *Baker* factors can be divided into two main points. First, intervenors contend the Court cannot set a permissible emissions level without making *ad hoc* policy determinations about how to weigh competing economic and environmental concerns. But plaintiffs do not ask this Court to pinpoint the "best" emissions level; they ask this Court to determine what emissions level would be sufficient to redress their injuries. That question can be answered without any consideration of competing interests. *Cf. Coleman v. Schwarzenegger*, 2010 WL 99000, *1 (E.D. Cal. & N.D. Cal. Jan. 12, 2010) (requiring state to reduce the population of adult prisons to 137.5% of their total design capacity, a target which "extend[ed] no further than necessary to correct the violation of California inmates' federal constitutional rights"). The science may well be complex, but logistical difficulties are immaterial to the political question analysis. *See Alperin*, 410 F.3d at 552, 555 ("[T]he crux of th[e political question] inquiry is . . . not whether the case is unmanageable in the sense of being large, complicated, or otherwise difficult to tackle from a logistical standpoint," but rather whether "a legal framework exists by which courts can evaluate . . . claims in a reasoned manner.").

Second, intervenors aver the Court would have to choose which agencies and sectors should reduce emissions, and by how much. At oral argument, intervenors contended this would require review of every environmental rule and regulation in the last one hundred years. These arguments mischaracterize the relief plaintiffs seek. Plaintiffs do not seek to have this Court direct any individual agency to issue or enforce any particular regulation. Rather, they ask the Court to declare the United States' current environmental policy infringes their fundamental rights, direct the agencies to conduct a consumption-based inventory of United States CO_2 emissions, and use that inventory to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions

and draw down excess atmospheric CO_2 so as to stabilize the climate system and protect the vital resources on which Plaintiffs now and in the future will depend." First Am. Compl. at 94. This Court could issue the requested declaration without directing any individual agency to take any particular action.

Finally, defendants and intervenors contend that plaintiffs' failure to identify violations of precise statutory or regulatory provisions leaves this court without any legal standard by which to judge plaintiffs' claims. Plaintiffs could have brought a lawsuit predicated on technical regulatory violations, but they chose a different path. As masters of their complaint, they have elected to assert constitutional rather than statutory claims. Every day, federal courts apply the legal standards governing due process claims to new sets of facts. The facts in this case, though novel, are amenable to those well-established standards. Neither the second nor the third *Baker* factor divests this Court of jurisdiction.

In the political question section of their objections to Judge Coffin's F&R, defendants assert the allegations in the complaint are not specific enough to put them on notice of plaintiffs' claims. This argument relates to the second and third *Baker* factors and the competence of this Court to adjudicate those claims, considerations which are addressed above. The argument also touches on concerns about causation and redressability, which are discussed in Section II of this opinion. However, the argument is also phrased in terms common to cases governing general pleading standards. *See Twombly*, 550 U.S. at 555 (complaint in federal court must contain enough information to "give the defendant fair notice" of both the claim and the "grounds upon which it rests" (quoting *Conley v. Gibson*, 355 U.S. 41, 47 (1957)). To the extent defendants challenge the First Amended Complaint as inadequately pleaded, that challenge fails. This is not a typical

environmental case. Plaintiffs are not arguing defendants issued any particular permit in violation of a statutory provision in the Clean Air Act or the Clean Water Act. They are not arguing any specific tax break, royalty rate, or contract runs afoul of an agency's governing regulations. Rather, the theory of plaintiffs' case is much broader: it is that defendants' *aggregate actions* violate their substantive due process rights and the government's public trust obligations. That theory, which requires no citation to particular statutory or regulatory provisions, is clear from the face of the First Amended Complaint.

C. *Fourth through Sixth* Baker *Factors*

The fourth through sixth *Baker* factors "address circumstances in which prudence may counsel against a court's resolution of an issue presented." *Zivotofsky*, 132 S. Ct. at 1432 (Sotomayor, J., concurring). Only in "rare" cases will *Baker*'s "final factors alone render a case nonjusticiable." *Id.* at 1434.

Intervenors contend the fourth *Baker* factor, which concerns a court expressing lack of respect to another branch of government, applies in this case. They argue that because the Executive and Legislative branches have taken numerous steps to address climate change, a ruling in plaintiffs' favor would be disrespectful to those efforts. Intervenors would have this Court hold the political question doctrine prevents a court from determining whether the federal government has violated a plaintiff's constitutional rights so long as the government has taken some steps to mitigate the damage. However, intervenors cite no cases — and this Court is aware of none — to support such a broad application of the fourth *Baker* factor. Rather, courts have found the fourth factor applies in cases asking a court to "question the good faith with which another branch attests to the authenticity of its internal acts." *Id.* at 1433. The fourth factor has also been held relevant when

"judicial resolution of a question would contradict prior decisions taken by a political branch in those limited contexts where such contradiction would seriously interfere with important governmental interests." *Kadic v. Karadzic*, 70 F.3d 232, 249 (2d Cir. 1995).

Consistent with those formulations, federal appellate courts have found the fourth *Baker* factor present when judicial adjudication of a claim would be wholly incompatible with foreign-relations decisions made by one of the political branches. *See, e.g.*, *Whiteman v. Dorotheum GmbH & Co. KG*, 431 F.3d 57, 59 (2d Cir. 2005) (political question doctrine prevented court from adjudicating claims against Austrian government for seizure of property from Jewish families during World War II because two presidential administrations had "committed the United States to a policy of resolving Holocaust-era restitution claims through international agreements rather than litigation."); *Schneider v. Kissinger*, 412 F.3d 190, 198 (D.C. Cir. 2005) (political question doctrine barred review of Executive Branch decision to participate in covert operations in Chile, a decision that had already been the subject of congressional inquiry).

Although the United States has made international commitments regarding climate change, granting the relief requested here would be fully consistent with those commitments. There is no contradiction between promising other nations the United States will reduce CO_2 emissions and a judicial order directing the United States to go beyond its international commitments to *more aggressively* reduce CO_2 emissions. Because this Court could grant plaintiffs' requested relief without expressing disrespect for the Executive Branch's international climate change agreements, the fourth *Baker* factor does not apply.

Neither intervenors nor defendants suggest the fifth or sixth *Baker* factors apply here. Nonetheless, I address those factors because federal courts have an "independent obligation to assure

[them]selves of" the existence of subject matter jurisdiction. *Rosson v. Fitzgerald (In re Rosson)*, 545 F.3d 764, 769 n.5 (9th Cir. 2008). On the face of the complaint, I see no evidence of an "unusual need for unquestioning adherence to a political decision already made" or any "potentiality of embarrassment from multifarious pronouncements by various departments on one question." *Baker*, 369 U.S. at 217. I conclude neither of the two final *Baker* factors deprives this Court of subject matter jurisdiction.

D. *Summary: This Case Does Not Raise a Nonjusticiable Political Question*

There is no need to step outside the core role of the judiciary to decide this case. At its heart, this lawsuit asks this Court to determine whether defendants have violated plaintiffs' constitutional rights. That question is squarely within the purview of the judiciary. *See INS v. Chadha*, 462 U.S. 919, 941 (1983) (judiciary is bound to determine whether the political branches have "chosen a constitutionally permissible means of implementing [their] power"); *Jewel*, 673 F.3d at 912 (although lawsuit challenging federal agencies' surveillance practices "strikes at the heart of a major public policy controversy," claims were justiciable because they were "straightforward claims of statutory and constitutional rights, not political questions").

This case shares some key features with *Baker* itself. In *Baker*, a group of voters challenged a statute governing the apportionment of state legislative districts. 369 U.S. at 188-95. Sixty years of population growth without legislative reapportionment had led to some votes carrying much more weight than others. *Id.* at 192-93. Here, the majority of youth plaintiffs are minors who cannot vote and must depend on others to protect their political interests. Thus, as amicus the League of Women Voters persuasively argues, the youth plaintiffs' claims are similar to the *Baker* claims because they are "rooted in a 'debasement of their votes' and an accompanying diminishment of their voice in

representational government." Br. for the League of Women Voters in the United States et al. as Amici Curiae at 19-20 (doc. 79-1).[4] In *Baker*, the Court acknowledged that the plaintiffs' claims had political dimensions and ramifications — but nonetheless concluded none of the *Baker* factors was inextricable from the case. 369 U.S. at 209. Similarly, as discussed in detail above, this case raises political issues yet is not barred by the political question doctrine.

Should plaintiffs prevail on the merits, this Court would no doubt be compelled to exercise great care to avoid separation-of-powers problems in crafting a remedy. The separation of powers might, for example, permit the Court to direct defendants to ameliorate plaintiffs' injuries but limit its ability to specify precisely how to do so. *Cf. S. Burlington Cnty. N.A.A.C.P. v. Mt. Laurel Twp.*, 336 A.2d 713, 734 (N.J. 1975) (leaving to municipality "in the first instance at least" the determination of how to remedy the constitutional problems with a local zoning ordinance). That said, federal courts retain broad authority "to fashion practical remedies when confronted with complex and intractable constitutional violations." *Brown v. Plata*, 563 U.S. 493, 526 (2011). In any event, speculation about the difficulty of crafting a remedy could not support dismissal at this early stage. *See Baker*, 369 U.S. at 198 ("Beyond noting that we have no cause at this stage to doubt the District Court will be able to fashion relief if violations of constitutional rights are found, it is improper now to consider what remedy would be most appropriate if appellants prevail at trial.") Because no *Baker* factor is inextricable from the merits of this case, the political question doctrine is not a barrier to plaintiffs' claims.

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[4] The motion of the League of Women Voters of the United States and the League of Women Voters of Oregon to appear as amici curiae (doc. 79) is granted.

II. *Standing to Sue*

"A threshold question in every federal case is . . . whether at least one plaintiff has standing." *Thomas v. Mundell*, 572 F.3d 756, 760 (9th Cir. 2009) (citation and quotation marks omitted). Standing requires a plaintiff to allege "such a personal stake in the outcome of the controversy as to warrant [the] invocation of federal-court jurisdiction and to justify exercise of the court's remedial powers[.]" *Warth v. Seldin*, 442 U.S. 490, 498 (1975). To demonstrate standing, a plaintiff must show (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. *Lujan v. Defenders of Wildlife,* 504 U.S. 555, 560 (1992). A plaintiff must support each element of the standing test "with the manner and degree of evidence required at the successive stages of the litigation." *Id.* at 561. Accordingly, at the motion to dismiss stage "general allegations" suffice to establish standing because those allegations are presumed to "embrace those specific facts that are necessary to support the claim." *Id.* (citation and quotation marks omitted).

A. *Injury in Fact*

In an environmental case, a plaintiff cannot demonstrate injury in fact merely by alleging injury to the environment; there must be an allegation that the challenged conduct is harming (or imminently will harm) the plaintiff. *Friends of the Earth, Inc. v. Laidlaw Envt'l Servs. (TOC), Inc.*, 528 U.S. 167, 181 (2000). For example, a plaintiff may meet the injury in fact requirement by alleging the challenged activity "impairs his or her economic interests or aesthetic and environmental well-being." *Wash. Envt'l Council v. Bellon*, 732 F.3d 1131, 1140 (9th Cir. 2013) (quotation marks omitted and alterations normalized).

Plaintiffs adequately allege injury in fact. Lead plaintiff Kelsey Juliana alleges algae blooms harm the water she drinks, and low water levels caused by drought kill the wild salmon she eats. First Am. Compl. ¶¶ 17-18. Plaintiff Xiuhtezcatl Roske-Martinez alleges increased wildfires and extreme flooding jeopardize his personal safety. *Id.* ¶ 21. Plaintiff Alexander Loznak alleges record-setting temperatures harm the health of the hazelnut orchard on his family farm, an important source of both revenue and food for him and his family. *Id.* ¶ 26. Plaintiff Jacob Lebel alleges drought conditions required his family to install an irrigation system at their farm. *Id.* ¶ 32. Plaintiff Zealand B. alleges he has been unable to ski during the winter as a result of decreased snowpack. *Id.* ¶ 38. Plaintiff Sahara V. alleges hot, dry conditions caused by forest fires aggravate her asthma. *Id.* ¶ 46.

The most recent allegations of injury appear in the supplemental declaration of plaintiff Jayden F., a thirteen-year-old resident of Rayne, Louisiana. Jayden alleges that at five o'clock the morning of August 13, 2016, her siblings woke her up. Decl. Jayden F. ¶ 5 Sept. 7, 2016 (doc. 78). She stepped out of bed into ankle-deep water. By the end of the day,

> Floodwaters were pouring into our home through every possible opening. We tried to stop it with towels, blankets, and boards. The water was flowing down the hallway, into my Mom's room and my sisters' room. The water drenched my living room and began to cover our kitchen floor. Our toilets, sinks, and bathtubs began to overflow with awful smelling sewage because our town's sewer system also flooded. Soon the sewage was everywhere. We had a stream of sewage and water running through our house.

Id. ¶ 8. With no shelters available and nowhere else to go, the family remained in the flooded house for weeks. *Id.* ¶ 10. The floodwaters eventually receded, but the damage remains: the carpets are soaked with sewage water. *Id.* ¶ 12. The water-logged walls must be torn down to prevent the growth of black mold. *Id.* The entire family sleeps together in the living room because the bedrooms are uninhabitable. *Id.* ¶ 15. Jayden alleges the storm that destroyed her home "ordinarily

would happen once every 1,000 years, but is happening now as a result of climate change." *Id.* ¶ 2.

The government contends these injuries are not particular to plaintiffs because they are caused by climate change, which broadly affects the entire planet (and all people on it) in some way. According to the government, this renders plaintiffs' injuries nonjusticiable generalized grievances. *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1387 n.3 (2014) (explaining that generalized grievances do not meet Article III's case or controversy requirement).

The government misunderstands the generalized grievance rule. As the Ninth Circuit recently explained, federal courts lack jurisdiction to hear a case when the harm at issue is "not only widely shared, but is also of an abstract and indefinite nature — for example, harm to the common concern for obedience to the law." *Novak v. United States*, 795 F.3d 1012, 1018 (9th Cir. 2015) (quoting *Fed. Elec. Comm'n v. Akins*, 524 U.S. 11, 23 (1998)). Standing alone, "the fact that a harm is widely shared does not necessarily render it a generalized grievance." *Jewel*, 673 F.3d at 909; *see also Massachusetts v. EPA*, 549 U.S. 497, 517 (2007) ("[I]t does not matter how many persons have been injured by the challenged action" so long as "the party bringing suit shows that the action injures him in a concrete and personal way." (quotation marks omitted and alterations normalized)); *Akins*, 524 U.S. at 24 ("[A]n injury . . . . widely shared . . . does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where sufficiently concrete, may count as an 'injury in fact.'"); *Covington v. Jefferson Cnty.*, 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring) ("[T]he most recent Supreme Court precedent appears to have rejected the notion that injury to all is injury to none for standing purposes."); *Pye v. United States*, 269 F.3d 459, 469 (4th Cir. 2001) ("So long as the plaintiff . . . has a concrete and particularized injury, it does not matter that legions of other persons have the same injury."). Indeed, even if "the experience at the

root of [the] complaint was shared by virtually every American," the inquiry remains whether that shared experience caused an injury that is concrete and particular *to the plaintiff*. *Jewel*, 673 F.3d at 910. Applying the correct formulation of the generalized grievance rule, plaintiffs' alleged injuries — harm to their personal, economic and aesthetic interests — are concrete and particularized, not abstract or indefinite.

That leaves imminence. Plaintiffs must demonstrate standing for each claim they seek to press and for each form of relief sought. *Daimler Chrysler Corp. v. Cuno,* 547 U.S. 332, 352 (2006). Because plaintiffs seek injunctive relief, they must show their injuries are "ongoing or likely to recur." *Consumer Fin. Prot. Bureau v. Gordon*, 819 F.3d 1179, 1197 (9th Cir. 2016) (quoting *FTC v. Evans Prods. Co.*, 775 F.2d 1084, 1087 (9th Cir. 1985)). They have met this requirement. The complaint alleges that "[t]he present level of CO_2 and its warming, both realized and latent, are already in the zone of danger." First Am. Compl. ¶ 8. It also alleges that "our country is now in a period of carbon overshoot, with early consequences that are already threatening and that will, in the short term, rise to unbearable unless Defendants take immediate action[.]" *Id.* ¶ 10 (quotation marks omitted). Youth plaintiffs each allege harm that is ongoing and likely to continue in the future. *See, e.g.*, *id.* ¶ 17 (alleging current harm and harm "[i]n the coming decades" from ocean acidification and rising sea levels); *id.* ¶ 45 (alleging damage to freshwater resources now and in the future "if immediate action is not taken" to reduce CO_2 emissions). This is sufficient to satisfy the imminence requirement.

By alleging injuries that are concrete, particularized, and actual or imminent, plaintiffs have satisfied the first prong of the standing test.

B. *Causation*

The second requirement of standing is causation. A plaintiff must show the injury alleged is "fairly traceable" to the challenged action of the defendant and not the result of "the independent action of some third party not before the court." *Lujan*, 504 U.S. at 560 (citation and quotation marks omitted). Although a defendant's action need not be the sole source of injury to support standing, *Barnum Timber Co. v. EPA*, 633 F.3d 894, 901 (9th Cir. 2011), "[t]he line of causation between the defendant's action and the plaintiff's harm must be more than attenuated," *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 867 (9th Cir. 2012) (citations and quotation marks omitted). However, a "causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible." *Id.* (citations, quotation marks, and bracket omitted).

The government contends plaintiffs have not adequately alleged causation, relying on the Ninth Circuit's decision in *Bellon*. In that case, environmental advocacy groups sought to compel the Washington State Department of Ecology and other regional agencies "to regulate greenhouse gas emissions" ("GHGs") from five oil refineries. *Bellon*, 732 F.3d at 1135. The court held plaintiffs lacked standing to sue because the causal link between the agencies' regulatory decisions and the plaintiffs' injuries was "too attenuated." *Id.* at 1141. The court explained the special challenge of showing causation with respect to the production of greenhouse gases:

> Greenhouse gases, once emitted from a specific source, quickly mix and disperse in the global atmosphere and have a long atmospheric lifetime. Current research on how greenhouse gases influence global climate change has focused on the cumulative environmental effects from aggregate regional or global sources. But there is limited scientific capability in assessing, detecting, or measuring the relationship between a certain GHG emission source and localized climate impacts in a given region.

Id. at 1143. The court noted that the five oil refineries at issue were responsible for just under six percent of total greenhouse gas emissions produced in the state of Washington, and quoted the state's expert's declaration that the effect of those emissions on global climate change was "scientifically indiscernible, given the emission levels, the dispersal of GHGs world-wide, and the absence of any meaningful nexus between Washington refinery emissions and global GHG concentrations now or as projected in the future." *Id.* at 1144 (quotation marks omitted). The court concluded the "causal chain [wa]s too tenuous to support standing." *Id.*

This case is distinguishable from *Bellon* in two important respects. First, the procedural posture is different. In *Bellon*, the appeal was taken from a grant of summary judgment. *Id.* at 1138. That procedural posture is underscored by the court's reliance on expert declarations in rendering its decision. Plaintiffs have alleged a causal relationship between their injuries and defendants' conduct. At this stage, I am bound to accept those allegations as true. This rule appropriately acknowledges the limits of the judiciary's expertise: at the motion to dismiss stage, a federal court is in no position to say it is impossible to introduce evidence to support a well-pleaded causal connection. *See Connecticut v. Am. Elec. Power Co., Inc.*, 582 F.3d 309, 347 (2d Cir. 2009) (holding that causation in climate change cases is "best left to the rigors of evidentiary proof at a future stage of the proceedings, rather than dispensed with as a threshold question of constitutional standing"), *rev'd on other grounds*, *Am. Elec. Power Co., Inc. v. Connecticut*, 564 U.S. 410, 429 (2011). I note, too, that climate science is constantly evolving. *See* Kirsten Engel & Jonathan Overpeck, *Adaptation and the Courtroom: Judging Climate Science*, 3 Mich. J. Envt'l & Admin. L. 1, 25 (2013) (although "climate impacts at the regional and local levels are subject, among other things, to the uncertainties of downscaling techniques[,] . . . our knowledge of the climate is

developing at a breakneck pace.") As a result, I cannot interpret *Bellon* — which relied on a summary judgment record developed more than five years ago — to forever close the courthouse doors to climate change claims.

Second, the emissions at issue in this case, unlike the emissions at issue in *Bellon*, make up a significant share of global emissions. In *Bellon*, as noted, the five oil refineries were responsible for just under six percent of the greenhouse gas emissions generated in the state of Washington. The Ninth Circuit recently explained that in *Bellon*, "causation was lacking because the defendant oil refineries were such minor contributors to greenhouse gas emissions, and the independent third-party causes of climate change were so numerous, that the contribution of the defendant oil refineries was 'scientifically undiscernable.'" *WildEarth Guardians v. U.S. Dep't of Agric.*, 795 F.3d 1148, 1158 (9th Cir. 2015) (quoting *Bellon*, 732 F.3d at 1144). Here, by contrast, plaintiffs' chain of causation rests on the core allegation that defendants are responsible for a substantial share of worldwide greenhouse gas emissions. Plaintiffs allege that over the 263 years between 1751 and 2014, the United States produced more than twenty-five percent of global CO_2 emissions. First Am. Compl. ¶ 151. Greenhouse gas emissions produced in the United States continue to increase. *Id.* ¶ 152. In 2012, the United States was the second largest producer and consumer of energy in the world. *Id.* ¶ 160. *Bellon*'s reasoning, which rested on a determination the oil refineries were "minor contributors" to climate change, does not apply. *WildEarth Guardians*, 795 F.3d at 1158.

The government broadly asserts that *Bellon* rejected "the argument that allegations that a source 'contributed' to climate change are sufficient to satisfy Article III's causation requirement[.]" Fed. Defs.' Mem. of Points & Auth. in Supp. of Mot. Dismiss at 12 (doc. 27-1). Not so. *Bellon* rejected — *at the summary judgment stage* — "vague, conclusory" statements purporting to establish

a causal relationship between the emissions of five refineries and the plaintiffs' injuries. 732 F.3d at 1142. Although the Constitution did not require the *Bellon* plaintiffs to "connect each molecule to their injuries," it demanded more than "simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries[.]" *Id.* at 1142-43.

The causal chain alleged by plaintiffs here is conclusory, but that is because they have not yet had the opportunity to present evidence. And unlike in *Bellon*, plaintiffs' causation allegations are not vague. At oral argument, plaintiffs explained that their theory of causation has two components. The first relates to defendants' affirmative acts. Specifically, plaintiffs allege that fossil fuel combustion accounts for approximately ninety-four percent of United States CO_2 emissions. First Am. Compl. ¶ 158. Defendants lease public lands for oil, gas, and coal production; undercharge royalties in connection with those leases; provide tax breaks to companies to encourage fossil fuel development; permit the import and export of fossil fuels; and incentivize the purchase of sport utility vehicles. *Id.* ¶¶ 164, 166, 171, 173, 181, 190. Here, the chain of causation is: fossil fuel combustion accounts for the lion's share of greenhouse gas emissions produced in the United States; defendants have the power to increase or decrease those emissions; and defendants use that power to engage in a variety of activities that actively cause and promote higher levels of fossil fuel combustion.

The second component of plaintiffs' causation theory involves defendants' failure to act in areas where they have authority to do so. Plaintiffs allege that together, power plants and transportation produce nearly two-thirds of CO_2 emissions in the United States. *Id.* ¶ 115 (transportation produces approximately twenty-seven percent of annual emissions); *id.* ¶ 125 (power

plants produce roughly thirty-seven percent of annual emissions). Plaintiffs also allege DOT and EPA have broad power to set emissions standards in these sectors. So the chain of causation is: DOT and EPA have jurisdiction over sectors producing sixty-four percent of United States emissions, which in turn constitute roughly fourteen percent of emissions worldwide; they allow high emissions levels by failing to set demanding standards; high emissions levels cause climate change; and climate change causes plaintiffs' injuries.

Each link in these causal chains may be difficult to prove, but the "spectre of difficulty down the road does not inform [the] justiciability determination at this early stage of the proceedings." *Alperin*, 410 F.3d at 539. At the pleading stage, plaintiffs have adequately alleged a causal link between defendants' conduct and the asserted injuries.

C. *Redressability*

The final prong of the standing inquiry is redressability. The causation and redressability prongs of the standing inquiry "overlap and are two facets of a single causation requirement." *Bellon*, 732 F.3d at 1146 (citation and quotation marks omitted). They are distinct in that causation "examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief." *Id.* A plaintiff need not show a favorable decision is certain to redress his injury, but must show a substantial likelihood it will do so. *Id.* It is sufficient for the redressability inquiry to show that the requested remedy would "slow or reduce" the harm. *Massachusetts,* 549 U.S. at 525 (citing *Larson v. Valente,* 456 U.S. 228, 243 n.15 (1982)).

The declaratory and injunctive relief plaintiffs request meets this standard. Most notably, plaintiffs ask this Court to "[o]rder Defendants to prepare and implement an enforceable national

remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2[.]" First Am. Compl. ¶ 94. If plaintiffs can show, as they have alleged, that defendants have control over a quarter of the planet's greenhouse gas emissions, and that a reduction in those emissions would reduce atmospheric CO_2 and slow climate change, then plaintiffs' requested relief would redress their injuries.

Bellon is not to the contrary. In *Bellon*, the court concluded the plaintiff's injuries would continue unabated even if the five oil refineries shut down, repeating its conclusion that the effect of the emissions produced by those refineries on global emissions levels was "scientifically indiscernable." 732 F.3d at 1147 (quotation marks omitted). Thus, *Bellon*'s redressability holding, like its causation holding, rested on a factor not present here: that the defendants were minor contributors to global climate change. Accordingly, *Bellon*'s reasoning does not apply.

Defendants and intervenors essentially argue that because many entities contribute to global warming, an injunction operating on one entity — even a major player — would offer no guarantee of an overall reduction in greenhouse gas emissions. But whether the Court could guarantee an overall reduction in greenhouse gas emissions is the wrong inquiry for at least two reasons. First, redressability does not require certainty, it requires only a substantial likelihood that the Court could provide meaningful relief. Second, the possibility that some other individual or entity might later cause the same injury does not defeat standing — the question is whether the injury *caused by the defendant* can be redressed.

Redressability in this case is scientifically complex, particularly in light of the specter of "irreversible climate change," wherein greenhouse gas emissions above a certain level push the planet past "points of no return, beyond which irreversible consequences become inevitable, out of

humanity's control." Hansen Decl. ¶ 13 & Ex. 2 at 13 Sept. 10, 2015 (docs. 7-1 & 7-3) (quotation marks omitted). This raises a host of questions, among them: What part of plaintiffs' injuries are attributable to causes beyond this Court's control? Even if emissions increase elsewhere, will the magnitude of plaintiffs' injuries be less if they obtain the relief they seek in this lawsuit? When would we reach this point of no return, and do defendants have it within their power to avert reaching it even without cooperation from third parties? All of these questions are inextricably bound up in the causation inquiry, and none of them can be answered at the motion to dismiss stage.

Plaintiffs ask this Court to "order Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." First Am. Compl. ¶ 12 (emphasis omitted). Construing the complaint in plaintiffs' favor, they allege that this relief would at least partially redress their asserted injuries. Youth plaintiffs have adequately alleged they have standing to sue.[5]

III. *Due Process Claims*[6]

The Due Process Clause of the Fifth Amendment to the United States Constitution bars the federal government from depriving a person of "life, liberty, or property" without "due process of

[5] Defendants and intervenors also challenge the standing of future generations plaintiffs on a number of grounds. It is not necessary to address these arguments because once a federal court concludes one plaintiff has standing, it need not determine whether the remaining plaintiffs have standing. *Nat'l Ass'n of Optometrists & Opticians LensCrafters, Inc. v. Brown*, 567 F.3d 521, 523 (9th Cir. 2009).

[6] Plaintiffs' due process claims encompass asserted equal protection violations and violations of unenumerated rights secured by the Ninth Amendment. For simplicity's sake, this opinion refers to these claims collectively as "due process claims."

law." U.S. Const. amend. V. Plaintiffs allege defendants have violated their due process rights by "directly caus[ing] atmospheric CO_2 to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Plaintiffs[,]" First Am. Compl. ¶ 279; "knowingly endanger[ing] Plaintiffs' health and welfare by approving and promoting fossil fuel development, including exploration, extraction, production, transportation, importation, exportation, and combustion," *id.* ¶ 280; and, "[a]fter knowingly creating this dangerous situation for Plaintiffs, . . . continu[ing] to knowingly enhance that danger by allowing fossil fuel production, consumption, and combustion at dangerous levels," *id.* ¶ 284.

Defendants and intervenors challenge plaintiffs' due process claims on two grounds. First, they assert any challenge to defendants' affirmative actions (*i.e.* leasing land, issuing permits) cannot proceed because plaintiffs have failed to identify infringement of a fundamental right or discrimination against a suspect class of persons. Second, they argue plaintiffs cannot challenge defendants' inaction (*i.e.*, failure to prevent third parties from emitting CO_2 at dangerous levels) because defendants have no affirmative duty to protect plaintiffs from climate change.

A. *Infringement of a Fundamental Right*

When a plaintiff challenges affirmative government action under the due process clause, the threshold inquiry is the applicable level of judicial scrutiny. *Witt v. Dep't of the Air Force*, 527 F.3d 806, 813 (9th Cir. 2008). The default level of scrutiny is rational basis, which requires a reviewing court to uphold the challenged governmental action so long as it "implements a rational means of achieving a legitimate governmental end[.]" *Kim v. United States*, 121 F.3d 1269, 1273 (9th Cir. 1997) (quotation marks omitted). When the government infringes a "fundamental right," however, a reviewing court applies strict scrutiny. *Witt*, 527 F.3d at 817. Substantive due process "forbids

the government to infringe certain 'fundamental' liberty interests *at all*, no matter what process is provided, unless the infringement is narrowly tailored to serve a compelling state interest." *Reno v. Flores*, 507 U.S. 292, 302 (1993) (emphasis in original). It appears undisputed by plaintiffs, and in any event is clear to this Court, that defendants' affirmative actions would survive rational basis review. Resolution of this part of the motions to dismiss therefore hinges on whether plaintiffs have alleged infringement of a fundamental right.[7]

Fundamental liberty rights include both rights enumerated elsewhere in the Constitution and rights and liberties which are either (1) "deeply rooted in this Nation's history and tradition" or (2) "fundamental to our scheme of ordered liberty[.]" *McDonald v. City of Chicago, Ill.*, 561 U.S. 742, 767 (2010) (internal citations, quotations, and emphasis omitted). The Supreme Court has cautioned that federal courts must "exercise the utmost care whenever we are asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed into" judicial policy preferences. *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997) (citation and quotation marks omitted).

This does not mean that "new" fundamental rights are out of bounds, though. When the Supreme Court broke new legal ground by recognizing a constitutional right to same-sex marriage, Justice Kennedy wrote that

> The nature of injustice is that we may not always see it in our own times. The generations that wrote and ratified the Bill of Rights . . . did not presume to know the extent of freedom in all its dimensions, and so they entrusted to future generations

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[7] Strict scrutiny also is triggered by an allegation that the government discriminated on the basis of a suspect classification, regardless of whether the government action infringed a fundamental right. *Green v. City of Tucson*, 340 F.3d 891, 896 (9th Cir. 2003). Because I conclude that plaintiffs have alleged a violation of their fundamental rights, I need not address whether youth or future generations are suspect classifications for equal protection purposes.

> a charter protecting the right of all persons to enjoy liberty as we learn its meaning. When new insight reveals discord between the Constitution's central protections and a received legal stricture, a claim to liberty must be addressed.

Obergefell v. Hodges, 135 S. Ct. 2584, 2598 (2015). Thus, "[t]he identification and protection of fundamental rights is an enduring part of the judicial duty to interpret the Constitution . . . [that] has not been reduced to any formula." *Id.* (citation and quotation marks omitted). In determining whether a right is fundamental, courts must exercise "reasoned judgment," keeping in mind that "[h]istory and tradition guide and discipline this inquiry but do not set its outer boundaries." *Id.* The genius of the Constitution is that its text allows "future generations [to] protect . . . the right of all persons to enjoy liberty as we learn its meaning." *Id.*

Often, an unenumerated fundamental right draws on more than one Constitutional source. The idea is that certain rights may be necessary to enable the exercise of other rights, whether enumerated or unenumerated. In *Roe v. Wade*, 410 U.S. 113, 152-53 (1973), the Court exhaustively chronicled the jurisprudential history of the fundamental right to privacy — another right not mentioned in the text of the Constitution. *Roe*'s central holding rests on the Due Process Clause of the Fourteenth Amendment. *Id.* at 153. But the Court also found "roots" of the right to privacy in the First Amendment, the Fourth Amendment, the Fifth Amendment, the penumbras of the Bill of Rights, and the Ninth Amendment. *Id.* at 152. Similarly, in *Obergefell*, the Court's recognition of a fundamental right to marry was grounded in an understanding of marriage as a right underlying and supporting other vital liberties. *See* 135 S. Ct. at 2599 ("[I]t would be contradictory to recognize a right to privacy with respect to other matters of family life and not with respect to the decision to enter the relationship that is at the foundation of the family in our society." (citation and quotation marks omitted)); *id.* at 2601 ("[M]arriage is a keystone of our social order.").

Exercising my "reasoned judgment," *id.* at 2598, I have no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society. Just as marriage is the "foundation of the family," a stable climate system is quite literally the foundation "of society, without which there would be neither civilization nor progress." *Id.* (quoting *Maynard v. Hill*, 125 U.S. 190, 211 (1888)); *cf. Minors Oposa v. Sec'y of the Dep't of Envt'l & Natural Res.*, G.R. No. 101083, 33 I.L.M. 173, 187-88 (S.C., Jul. 30, 1993) (Phil.) (without "a balanced and healthful ecology," future generations "stand to inherit nothing but parched earth incapable of sustaining life.").

Defendants and intervenors contend plaintiffs are asserting a right to be free from pollution or climate change, and that courts have consistently rejected attempts to define such rights as fundamental. Defendants and intervenors mischaracterize the right plaintiffs assert. Plaintiffs do not object to the government's role in producing *any* pollution or in causing *any* climate change; rather, they assert the government has caused pollution and climate change on a catastrophic level, and that if the government's actions continue unchecked, they will permanently and irreversibly damage plaintiffs' property, their economic livelihood, their recreational opportunities, their health, and ultimately their (and their children's) ability to live long, healthy lives. Echoing *Obergefell*'s reasoning, plaintiffs allege a stable climate system is a necessary condition to exercising other rights to life, liberty, and property.

In framing the fundamental right at issue as the right to a climate system capable of sustaining human life, I intend to strike a balance and to provide some protection against the constitutionalization of all environmental claims. On the one hand, the phrase "capable of sustaining human life" should not be read to require a plaintiff to allege that governmental action will result in

the extinction of humans as a species. On the other hand, acknowledgment of this fundamental right does not transform any minor or even moderate act that contributes to the warming of the planet into a constitutional violation. In this opinion, this Court simply holds that where a complaint alleges governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem, it states a claim for a due process violation. To hold otherwise would be to say that the Constitution affords no protection against a government's knowing decision to poison the air its citizens breathe or the water its citizens drink. Plaintiffs have adequately alleged infringement of a fundamental right.

B. *"Danger Creation" Challenge to Inaction*

With limited exceptions, the Due Process Clause does not impose on the government an affirmative obligation to act, even when "such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual." *DeShaney v. Winnebago Cnty. Dep't of Soc. Servs.*, 489 U.S. 189, 196 (1989). This rule is subject to two exceptions: "(1) the 'special relationship' exception; and (2) the 'danger creation' exception." *L.W. v. Grubbs*, 974 F.2d 119, 121 (9th Cir. 1992). The "special relationship" exception provides that when the government takes an individual into custody against his or her will, it assumes some responsibility to ensure that individual's safety. *Id.* The "danger creation" exception permits a substantive due process claim when government conduct "places a person in peril in deliberate indifference to their safety[.]" *Penilla v. City of Huntington Park*, 115 F.3d 707, 709 (9th Cir. 1997). Plaintiffs purport to challenge the government's failure to limit third-party CO_2 emissions pursuant to the danger creation *DeShaney* exception.

In the Ninth Circuit, a plaintiff challenging government inaction on a danger creation theory must first show the "state actor create[d] or expose[d] an individual to a danger which he or she would not have otherwise faced." *Kennedy v. City of Ridgefield*, 439 F.3d 1055, 1061 (9th Cir. 2006). The state action must place the plaintiff "in a worse position than that in which he would have been had the state not acted at all." *Pauluk v. Savage*, 836 F.3d 1117, 1125 (9th Cir. 2016) (quotation marks omitted and alterations normalized). Second, the plaintiff must show the "state actor . . . recognize[d]" the unreasonable risks to the plaintiff and "actually intend[ed] to expose the plaintiff to such risks without regard to the consequences to the plaintiff." *Campbell v. Wash. Dep't of Soc. & Health Servs.*, 671 F.3d 837, 846 (9th Cir. 2011) (brackets and quotation marks omitted). The defendant must have acted with "[d]eliberate indifference," which "requires a culpable mental state more than gross negligence." *Pauluk*, 836 F.3d at 1125 (quotation marks omitted).

Plaintiffs allege that "[a]cting with full appreciation of the consequences of their acts, Defendants knowingly caused, and continue to cause, dangerous interference with our atmosphere and climate system." First Am. Compl. ¶ 85. They allege this danger stems, "in substantial part, [from] Defendants' historic and continuing permitting, authorizing, and subsidizing of fossil fuel extraction, production, transportation, and utilization." *Id.* ¶ 279. Plaintiffs allege defendants acted "with full appreciation" of the consequences of their acts, *id.* ¶¶ 278-79, specifically "[harm to] Plaintiffs' dignity, including their capacity to provide for their basic human needs, safely raise families, practice their religious and spiritual beliefs, maintain their bodily integrity, and lead lives with access to clean air, water, shelter, and food." *Id.* ¶ 283. In the face of these risks, plaintiffs allege defendants "have had longstanding, actual knowledge of the serious risks of harm and have failed to take necessary steps to address and ameliorate the known, serious risk to which they have

exposed Plaintiffs." *Id.* ¶ 285. In sum: plaintiffs allege defendants played a unique and central role in the creation of our current climate crisis; that they contributed to the crisis with full knowledge of the significant and unreasonable risks posed by climate change;[8] and that the Due Process Clause therefore imposes a special duty on defendants to use their statutory and regulatory authority to reduce greenhouse gas emissions. Accepting the allegations of the complaint as true, plaintiffs have adequately alleged a danger creation claim.

Defendants argue the *DeShaney* exceptions are inapplicable when the actor is the federal government rather than a state government. It is true that *DeShaney* was a section 1983 case and that the Ninth Circuit cases interpreting the *DeShaney* exceptions are also section 1983 cases. But in *DeShaney*, the Supreme Court was mapping the contours of the Due Process Clause, not section 1983. Defendants have cited no case or legal principle to justify limiting *DeShaney* to the section 1983 context.

Next, defendants contend application of the *DeShaney* danger creation exception in this context would permit plaintiffs to "raise a substantive due process claim to challenge virtually any government program" — for example, to challenge foreign policy decisions that heighten or exacerbate international tensions, or to health and safety regulations the plaintiff deems insufficiently

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[8] At oral argument, plaintiffs supplied the Court with a timeline documenting purported evidence of defendants' knowledge of climate change. The timeline, which dates back to 1955, includes the 1988 testimony of Dr. James Hansen before the Senate Committee on Energy and Natural Resources. Dr. Hansen, who appears in this lawsuit as a guardian for his granddaughter and for future generations, testified about rising global temperatures and their relationship to human activity. First Session on the Greenhouse Effect and Global Climate Change Before the Comm. on Energy & Natural Res., 100th Cong. 39 (1988). He urged legislators to take action to limit greenhouse gas emissions. *Id.* at 158. Dr. Hansen's testimony was preceded by a statement from Senator Dale Bumpers of Arkansas, who bemoaned, "We're not going to have a lot of political support for this. Nobody wants to take on the automobile industry. Nobody wants to take on any of the industries that produce the things we throw up into the atmosphere." *Id.* at 38.

stringent. Fed. Defs.' Obj. 18. Defendants fail to recognize that *DeShaney* imposes rigorous proof requirements. A plaintiff asserting a danger-creation due process claim must show (1) the government's acts created the danger to the plaintiff; (2) the government *knew* its acts caused that danger; and (3) the government with *deliberate indifference* failed to act to prevent the alleged harm. These stringent standards are sufficient safeguards against the flood of litigation concerns raised by defendants — indeed, they pose a significant challenge for plaintiffs in this very lawsuit.[9]

Questions about difficulty of proof, however, must be left for another day. At the motion to dismiss stage, I am bound to accept the factual allegations in the complaint as true. Plaintiffs have alleged that defendants played a significant role in creating the current climate crisis, that defendants acted with full knowledge of the consequences of their actions, and that defendants have failed to correct or mitigate the harms they helped create in deliberate indifference to the injuries caused by climate change. They may therefore proceed with their substantive due process challenge to defendants' failure to adequately regulate CO_2 emissions.

IV. *Public Trust Claims*

In its broadest sense, the term "public trust" refers to the fundamental understanding that no government can legitimately abdicate its core sovereign powers. *See Stone v. Mississippi*, 101 U.S. 814, 820 (1879) ("[T]he power of governing is a trust committed by the people to the government, no part of which can be granted away.") The public trust doctrine rests on the fundamental principle that "[e]very succeeding legislature possesses the same jurisdiction and power with respect to [the public interest] as its predecessors." *Newton v. Mahoning Cnty. Comm'rs*, 100 U.S. 548, 559 (1879).

[9] There are other barriers to asserting defendants' hypothetical danger-creation claims. For example, as discussed in Part I of this opinion, the political question doctrine sharply limits judicial review of decisions inherently entangled with the conduct of foreign relations.

The doctrine conceives of certain powers and obligations — for example, the police power — as inherent aspects of sovereignty. *Id.* at 554. Permitting the government to permanently give one of these powers to another entity runs afoul of the public trust doctrine because it diminishes the power of future legislatures to promote the general welfare.

Plaintiffs' public trust claims arise from the particular application of the public trust doctrine to essential natural resources. With respect to these core resources, the sovereign's public trust obligations prevent it from "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." Br. of Amici Curiae Global Catholic Climate Movement and Leadership Council of Women Religious at 3 (footnote omitted) (doc. 51-1). Application of the public trust doctrine to natural resources predates the United States of America. Its roots are in the Institutes of Justinian, part of the Corpus Juris Civilis, the body of Roman law that is the "foundation for modern civil law systems." Timothy G. Kearley, *Justice Fred Blume and the Translation of Justinian's Code*, 99 Law Libr. J. 525, ¶ 1 (2007). The Institutes of Justinian declared "the following things are by natural law common to all — the air, running water, the sea, and consequently the seashore." J. Inst. 2.1.1 (J.B. Moyle trans.). The doctrine made its way to the United States through the English common law. *See Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 284 (1997) ("American law adopted as its own much of the English law respecting navigable waters, including the principle that submerged lands are held for a public purpose."); *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 473 (1988) ("At common law, the title and dominion in lands flowed by the tide water were in the King for the benefit of the nation . . . Upon the American Revolution, these rights, charged with a like trust, were vested in the original States within their respective borders[.]" (quoting *Shively v. Bowlby*, 152 U.S. 1, 57 (1894)); Joseph L. Sax,

The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 Mich. L. Rev. 471, 475-76 (1970) (discussing the history of the public trust doctrine in the United States).

The first court in this country to address the applicability of the public trust doctrine to natural resources was the New Jersey Supreme Court, in 1821. The court explained that public trust assets were part of a taxonomy of property:

> Every thing susceptible of property is considered as belonging to the nation that possesses the country, as forming the entire mass of its wealth. But the nation does not possess all those things in the same manner. By very far the greater part of them are divided among the individuals of the nation, and become *private property*. Those things not divided among the individuals still belong to the nation, and are called *public property*. Of these, again, some are reserved for the necessities of the state, and are used for the public benefit, and those are called "*the domain of the crown or of the republic,*" others remain common to all the citizens, who take of them and use them, each according to his necessities, and according to the laws which regulate their use, and are called *common property*. Of this latter kind, according to the writers upon the law of nature and of nations, and upon the civil law, are the air, the running water, the sea, the fish, and the wild beasts.

Arnold v. Mundy, 6 N.J.L. 1, 71 (N.J. 1821) (emphasis in original).

The seminal United States Supreme Court case on the public trust is *Illinois Central Railroad Company v. Illinois*, 146 U.S. 387 (1892). The Illinois legislature had conveyed to the Illinois Central Railroad Company title to part of the submerged lands beneath the harbor of Chicago, with the intent to give the company control over the waters above the submerged lands "against any future exercise of power over them by the state." *Id.* at 452. The Supreme Court held the legislature's attempt to give up its title to lands submerged beneath navigable waters was either void on its face or always subject to revocation. *Id.* at 453. "The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them . . . than it can abdicate its police powers in the administration of government and the preservation of the peace."

Id. In light of the "immense value" the harbor of Chicago carried for the people of Illinois, the "idea that its legislature can deprive the state of control over its bed and waters, and place the same in the hands of a private corporation" could not "be defended." *Id.* at 454.

The natural resources trust operates according to basic trust principles, which impose upon the trustee a fiduciary duty to "protect the trust property against damage or destruction." George G. Bogert et al., Bogert's Trusts and Trustees, § 582 (2016). The trustee owes this duty equally to both current and future beneficiaries of the trust. Restatement (Second) of Trusts § 183 (1959). In natural resources cases, the trust property consists of a set of resources important enough to the people to warrant public trust protection. *See* Mary C. Wood, A Nature's Trust: Environmental Law for a New Ecological Age 167-75 (2014). The government, as trustee, has a fiduciary duty to protect the trust assets from damage so that current and future trust beneficiaries will be able to enjoy the benefits of the trust. *Id.* The public trust doctrine is generally thought to impose three types of restrictions on governmental authority:

> [F]irst, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.

Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 477 (1970).

This lawsuit is part of a wave of recent environmental cases asserting state and national governments have abdicated their responsibilities under the public trust doctrine. *See, e.g., Alec L. v. Jackson*, 863 F. Supp. 2d 11 (D.D.C. 2012); *Sanders-Reed ex rel. Sanders-Reed v. Martinez*, 350 P.3d 1221 (N.M. Ct. App. 2015); *Kanuk ex rel. Kanuk v. State, Dep't of Natural Res.*, 335 P.3d 1088

(Alaska 2014); *Chernaik v. Kitzhaber*, 328 P.3d 799 (Or. Ct. App. 2014). These lawsuits depart from the "traditional" public trust litigation model, which generally centers on the second restriction, the prohibition against alienation of a public trust asset. Instead, plaintiffs assert defendants have violated their duties as trustees by nominally retaining control over trust assets while actually allowing their depletion and destruction, effectively violating the first and third restrictions by excluding the public from use and enjoyment of public resources.

Defendants and intervenors argue the public trust doctrine has no application in this case. They advance four arguments: (1) the atmosphere, the central natural resource at issue in this lawsuit, is not a public trust asset; (2) the federal government, unlike the states, has no public trust obligations; (3) any common-law public trust claims have been displaced by federal statutes; and (4) even if there is a federal public trust, plaintiffs lack a right of action to enforce it. I address each contention in turn.

A. *Scope of Public Trust Assets*

The complaint alleges defendants violated their duties as trustees by failing to protect the atmosphere, water, seas, seashores, and wildlife. First Am. Compl. ¶ 309. Defendants and intervenors argue plaintiffs' public trust claims fail because the complaint focuses on harm to the atmosphere, which is not a public trust asset. I conclude that it is not necessary at this stage to determine whether the atmosphere is a public trust asset because plaintiffs have alleged violations of the public trust doctrine in connection with the territorial sea.[10]

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[10] To be clear, today's opinion should not be taken to suggest that the atmosphere is not a public trust asset. The Institutes of Justinian included the air in the list of assets "by natural law common to all." J. Inst. 2.1.1 (J.B. Moyle trans.). The New Jersey Supreme Court in *Arnold* similarly included air in its list of "common property." 6 N.J.L. at 71. Even Supreme Court case law suggests the atmosphere may properly be deemed part of the public trust *res*. *See United*

The federal government holds title to the submerged lands between three and twelve miles from the coastlines of the United States. *See* Restatement (Third) of The Foreign Relations Law of the United States § 511(a) (1987) (international law permits a nation to claim as its territorial sea an area up to twelve miles from its coast); Presidential Proclamation of Dec. 27, 1988, No. 5928, 3 C.F.R. § 547 (1989) (President Reagan expanding United States' claim from three-mile territorial sea to twelve-mile territorial sea); 43 U.S.C. § 1312 (seaward boundary of a coastal state is "a line

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States v. Causby, 328 U.S. 256, 261 (1946) (holding that private rights to airspace have "no place in the modern world" because recognition of such claims would "transfer into private ownership that to which only the public has a just claim.") The dearth of litigation focusing on atmosphere may reflect the limited state of scientific knowledge rather than signal a determination that the air is outside the scope of the public trust. *See* Mary C. Wood, *Atmospheric Trust Litigation Across the World*, *in* Fiduciary Duty and the Atmospheric Trust 113 (Ken Coghill et al. Eds. 2012) (hypothesizing that the atmosphere does not appear in early public trust case law because air was long thought to be indestructible and incapable of privatization).

Even if the atmosphere was not always considered a public trust asset, some courts have concluded the doctrine should "be molded and extended to meet changing conditions and needs of the public it was created to benefit." *Matthews v. Bay Head Improvement Ass'n*, 471 A.2d 355, 365 (N.J. 1984) (citation and quotation marks omitted). Just last year, Judge Hollis Hill reasoned that it "misses the point" to mechanically rely on what has been identified as a public trust asset in the past because "[t]he navigable waters and the atmosphere are intertwined and to argue a separation of the two, or to argue that [greenhouse gas] emissions do not affect navigable waters is nonsensical." *Foster v. Wash. Dep't of Ecology*, No. 14-2-25295-1, slip op. at 8 (Wash. King Cnty. Super. Ct. Nov. 19, 2015). At least one state court has held in recent years that "the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property." *Robinson Twp., Wash. Cnty., Pa. v. Pennsylvania*, 83 A.3d 901, 955 (Pa. Sup. Ct. 2013).

The Supreme Court arguably endorsed this pragmatic approach to the identification of trust assets in *Illinois Central*, where it held, contrary to English common law, that lakes and rivers unaffected by the ebb and flow of the tide could be navigable waters within the meaning of the public trust doctrine. 146 U.S. at 436 (English rule for determining navigability would not work in the United States, which contains "rivers [that] are navigable for great distances above the flow of the tide — indeed, for hundreds of miles").

three geographical miles distant from its coast line"). Time and again, the Supreme Court has held that the public trust doctrine applies to "lands beneath tidal waters." *See Phillips Petroleum Co.*, 484 U.S. at 474 (discussing *Shively*, 152 U.S. at 57 and *Knight v. U.S. Land Ass'n*, 142 U.S. 161, 183 (1891)); *Alabama v. Texas*, 347 U.S. 272, 278 (1954) (Black, J., dissenting) ("In ocean waters bordering our country, if nowhere else, day-to-day national power — complete, undivided, flexible, and immediately available — is an essential attribute of federal sovereignty."); *id.* at 282 (Douglas, J., dissenting) ("Thus we are dealing here with incidents of national sovereignty . . . . The authority over [the sea] can no more be abdicated than any of the other great powers of the Federal Government. It is to be exercised for the benefit of the whole."); *see also* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 556 (1970) (public trust law covers "that aspect of the public domain below the low-water mark on the margin of the sea and the great lakes, the waters over those lands, and the waters within rivers and streams of any consequence"). Because a number of plaintiffs' injuries relate to the effects of ocean acidification and rising ocean temperatures,[11] they have adequately alleged harm to public trust assets.

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[11] *See, e.g.*, First Am. Compl. ¶ 16 ("An important part of Kelsey's diet includes food that comes from the marine waters and freshwater rivers, including salmon, cod, tuna, clams, mussels, and crab."); *id.* ¶ 27 ("Other food sources for Alex, including crab and seafood, are negatively impacted by ocean acidification, warming, and sea level rise caused by Defendants."); *id.* ¶ 33 ("Ocean acidification caused by Defendants has already begun to adversely impact shellfish along the coast, and is predicted to take its toll on crab, mussels, and all shelled seafood."); *id.* ¶ 45 ("On the Oregon coast, Sahara enjoys climbing rocks and sand dunes, swimming, and tidepooling to see marine life. Sahara's enjoyment of these activities is being increasingly harmed in the future by sea level rise, greater erosion, enhanced ocean acidification, and increased water temperatures.").

B. *Applicability of Public Trust to the Federal Government*

Defendants and intervenors contend that in the United States, the public trust doctrine applies only to the states and not to the federal government. This argument rests primarily on a passing statement in *PPL Montana, LLC v. Montana*, 565 U.S. 576 (2012). A close examination of that case reveals that it cannot fairly be read to foreclose application of the public trust doctrine to assets owned by the federal government.

PPL Montana was not a public trust case. Its central concern was the equal footing doctrine. PPL Montana, LLC used three rivers flowing through the state of Montana for hydroelectric projects. *Id.* at 580. Montana sought rent for the use of the riverbeds, arguing it had gained title to the rivers pursuant to the equal footing doctrine when it became a state in 1889. *Id.* The Montana Supreme Court granted summary judgment on title to Montana. On writ of certiorari to the United States Supreme Court, review hinged on whether the rivers in question were "navigable" in 1889, because the "title consequences of the equal-footing doctrine" are that "[u]pon statehood, the State gains title within its borders to the beds of waters then navigable (or tidally influenced . . .)[.]" *Id.* at 589-90. The Court reversed and remanded, holding that the Montana courts had applied the wrong methodology for determining navigability.

In addition to its main argument that the rivers were navigable, Montana argued that denying it title to the riverbeds in dispute would "undermine the public trust doctrine." *Id.* at 601. The Supreme Court rejected this argument in short order:

> Unlike the equal-footing doctrine, . . . which is the constitutional foundation for the navigability rule of riverbed title, the public trust doctrine remains a matter of state law, subject as well to the federal power to regulate vessels and navigation under the Commerce Clause and admiralty power. While equal-footing cases have noted that the State takes title to the navigable waters and their beds in trust for the public, the

> contours of that public trust do not depend upon the Constitution. Under accepted principles of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine.

Id. at 603 (citations omitted).

Defendants and intervenors take the phrase "the public trust doctrine remains a matter of state law," and interpret it in isolation to foreclose all federal public trust claims. That is not a plausible interpretation of *PPL Montana*. The Court was simply stating that federal law, not state law, determined whether Montana has title to the riverbeds, and that if Montana had title, state law would define the scope of Montana's public trust obligations. *PPL Montana* said nothing at all about the viability of federal public trust claims with respect to federally-owned trust assets.

In a string citation, *PPL Montana* cited *Coeur d'Alene*, 521 U.S. at 285, and *Appleby v. City of New York*, 271 U.S. 364, 395 (1926), for the proposition that *Illinois Central* "was necessarily a statement of Illinois law." 132 S. Ct. at 1235. That statement is not surprising given the nature of the public trust doctrine. Public trust obligations are inherent aspects of sovereignty; it follows that any case applying the public trust doctrine to a particular state is necessarily a statement of that state's law rather than a statement of the law of another sovereign. In *Coeur d'Alene*, the Supreme Court explained that even though *Illinois Central* interpreted Illinois law, its central tenets could be applied broadly (for example, to Idaho) because it "invoked the principle in American law recognizing the weighty public interests in submerged lands." 521 U.S. at 285. The Court then detailed how the American public trust doctrine, which has diverged from the English public trust doctrine in important ways, has developed as "a natural outgrowth of the perceived public character of submerged lands, a perception which underlies and informs the principle that these lands are tied

in a unique way to sovereignty." *Id.* at 286. There is no reason why the central tenets of *Illinois Central* should apply to another state, but not to the federal government.

Defendants and intervenors also contend recognizing a federal public trust claim is contrary to *United States v. 32.42 Acres of Land, More or Less, Located in San Diego County, California*, 683 F.3d 1030, 1038 (9th Cir. 2012), which repeated *PPL Montana*'s statement that "the public trust doctrine remains a matter of state law" in concluding that the federal government's eminent domain powers trumped any state-law public trust concerns. That case did not foreclose a federal public trust claim, however, because the Ninth Circuit *expressly* declined to address the viability of the federal public trust the district court imposed on the federal government after it ruled the land could be taken pursuant to eminent domain. *Id.* at 1033 & 1039 n.2.

In 2012, the federal district court for the District of Columbia held the public trust doctrine does not apply to the federal government. *Alec L.* was substantially similar to the instant action: five youth plaintiffs and two environmental advocacy organizations sued a variety of heads of federal agencies, alleging the defendants had "wasted and failed to preserve and protect the atmosphere Public Trust asset." 863 F. Supp. 2d at 12. The court dismissed the suit with prejudice, holding the plaintiffs' federal public trust claims were foreclosed by *PPL Montana*'s statement that "the public trust doctrine remains a mater of state law." *Id.* at 15 (quoting *PPL Montana*, 565 U.S. at 603). The court also relied on the D.C. Circuit's observation that "'[i]n this country the public trust doctrine has developed almost exclusively as a matter of state law.'" *Id.* (quoting *District of Columbia v. Air Florida, Inc.*, 750 F.2d 1077, 1082 (D.C. Cir. 1984)). In an unpublished memorandum decision, the D.C. Circuit affirmed, holding that "[t]he Supreme Court in *PPL Montana* . . . directly and categorically rejected any federal constitutional foundation for that doctrine, without qualification

or reservation." *Alec L. ex rel. Loorz v. McCarthy*, 561 F. App'x 7, 8 (D.C. Cir. 2014).

I am not persuaded by the reasoning of the *Alec L.* courts. As explained above, a close reading of *PPL Montana* reveals that it says nothing about the viability of federal public trust claims. And in *Air Florida*, the D.C. Circuit emphasized that "we imply no opinion regarding either the applicability of the public trust doctrine to the federal government or the appropriateness of using the doctrine to afford trustees a means for recovering from tortfeasors the cost of restoring public waters to their pre-injury condition." 750 F.2d at 1084.

Two federal courts — the district courts for the Northern District of California and the District of Massachusetts — have concluded the public trust doctrine applies to the federal government. The decisions, from the 1980s, concerned the federal government's acquisition of various state-owned public trust assets — for example, submerged land beneath navigable rivers or tidelands — through the power of eminent domain. The courts held that the federal government has no public trust obligations under *state* law, but does take the land subject to a *federal* public trust. As one court explained, "[t]he trust is of such a nature that it can be held only by the sovereign, and can only be destroyed by the destruction of the sovereign." *United States v. 1.58 Acres of Land Situated in the City of Boston, Suffolk Cnty., Mass.*, 523 F. Supp. 120, 124 (D. Mass. 1981). Through eminent domain, the federal government "may take property . . . in 'full fee simple' insofar as no other principal may hold a greater right to such land. It must be recognized, however, that the federal government is as restricted as the Commonwealth in its ability to abdicate to private individuals" its title to the land. *Id.* at 124-25. In other words, "[b]y condemnation, the United States simply acquires the land subject to the public trust as though no party had held an interest in the land before." *City of Alameda v. Todd Shipyards Corp.*, 635 F. Supp. 1447, 1450 (N.D. Cal.

1986). *32.42 Acres of Land* is wholly consistent with these opinions; in that case, the Ninth Circuit held that when the federal government condemns state land, it takes title free and clear of any *state* public trust obligations — and that to hold otherwise would violate the Supremacy Clause by subjugating the federal eminent domain power to state public trust law. 683 F.3d at 1038. As noted, however, the court said nothing about the lower court's determination that the condemned tidelands had been taken subject to a federal public trust. *32.42 Acres of Land*, 683 F.3d at 1033 & 1039 n.2.

I am persuaded that the *City of Alameda* and *1.58 Acres of Land* courts were correct. Their decisions rested on the history of the public trust doctrine and the public trust's unique relationship to sovereignty. I can think of no reason why the public trust doctrine, which came to this country through the Roman and English roots of our civil law system, would apply to the states but not to the federal government.

Defendants' final argument is that recognition of a federal public trust doctrine cannot be reconciled with *Kleppe v. New Mexico*, 426 U.S. 529, 539 (1976), in which the Supreme Court stated that "[t]he power over public land" entrusted to Congress by the Property Clause of the United States Constitution is "without limitations." Again, defendants take the Supreme Court's statement out of context. In *Kleppe*, New Mexico challenged the federal government's authority to regulate and protect wild horses and burros, arguing that the Constitution granted Congress only the power to "dispose of and make incidental rules regarding the use of federal property" and "the power to protect" the federal property itself, *i.e.*, the land but not animals living on it. 426 U.S. at 536. The Supreme Court rejected New Mexico's attempt to limit Congress's power to regulate wildlife living on federal lands. It is in that context that the Court stated the "power over public land" was "without limitations." *Id.* at 539. Indeed, in the *very same sentence* the Supreme Court acknowledged that

"the furthest reaches of the power granted by the Property Clause have not yet been definitively resolved[.]" *Id.* The Supreme Court in *Kleppe* simply did not have before it the question whether the Constitution grants the federal government unlimited authority to do whatever it wants with any parcel of federal land, regardless of whether its actions violate individual constitutional rights or run afoul of public trust obligations.

The federal government, like the states, holds public assets — at a minimum, the territorial seas — in trust for the people. Plaintiffs' federal public trust claims are cognizable in federal court.

C. *Displacement of Public Trust Claims*

Defendants and intervenors next argue that any common-law public trust claims have been displaced by a variety of acts of Congress, including the Clean Air Act and the Clean Water Act. For this proposition, they rely on *American Electric Power Company, Inc. v. Connecticut*, 564 U.S. 410 (2011) ("*AEP*"). In *AEP*, the plaintiffs sued five power companies, alleging the companies' CO_2 emissions were a public nuisance under federal common law. *Id.* at 415. The Supreme Court held the nuisance claim could not proceed because "the Clean Air Act and the EPA actions it authorizes displace any federal common law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants." *Id.* at 424.

Defendants and intervenors contend that *AEP* controls the displacement analysis. The district court in *Alec L.* agreed with them.[12] The court relied heavily on *AEP*'s statement that the Clean Air Act displaces "'any federal common law right'" to challenge CO_2 emissions, and also discussed at length the *AEP* court's concerns that authorizing a judicial order setting CO_2 emissions limits would require federal judges to make decisions involving competing policy interests — decisions an

[12] The D.C. Circuit did not address the displacement question on appeal.

"expert agency 'is surely better equipped to [make] than individual district judges issuing ad hoc, case-by-case injunctions.'" *Alec L.*, 863 F. Supp. 2d at 16 (quoting *AEP*, 564 U.S. at 424, 428).

I am not persuaded by the *Alec L.* court's reasoning regarding displacement. In *AEP*, the Court did not have public trust claims before it and so it had no cause to consider the differences between public trust claims and other types of claims. Public trust claims are unique because they concern inherent attributes of sovereignty. The public trust imposes on the government an obligation to protect the *res* of the trust. A defining feature of that obligation is that it cannot be legislated away. Because of the nature of public trust claims, a displacement analysis simply does not apply.

The interplay between Congress's decision to grant regulatory authority to various federal agencies and the authority of the courts to adjudicate public trust claims raises weightier concerns. Those concerns go to whether this case presents a nonjusticiable political question, and have been addressed in Section I of this opinion.

D. *Enforceability of Public Trust Obligations in Federal Court*

As a final challenge to plaintiffs' public trust claims, defendants contend that even if the public trust doctrine applies to the federal government, plaintiffs lack a cause of action to enforce the public trust obligations. Relatedly, defendants argue that creation of a right of action to permit plaintiffs to assert their claims in federal court would be an exercise in federal common law-making subject to the same statutory displacement arguments outlined above.

In order to evaluate the merits of these arguments, I must first locate the source of plaintiffs' public trust claims. I conclude plaintiffs' public trust rights both predated the Constitution and are secured by it. *See* Gerald Torres & Nathan Bellinger, *The Public Trust: The Law's DNA*, 4 Wake Forest J. L. & Pol'y 281, 288-94 (2014).

The public trust doctrine defines inherent aspects of sovereignty. The Social Contract theory, which heavily influenced Thomas Jefferson and other Founding Fathers, provides that people possess certain inalienable rights and that governments were established by consent of the governed for the purpose of securing those rights.[13] Accordingly, the Declaration of Independence and the Constitution did not *create* the rights to life, liberty, or the pursuit of happiness — the documents are, instead, vehicles for protecting and promoting those already-existing rights. *Cf. Robinson Twp.*, 83 A.3d at 948 (plurality opinion) (rights expressed in the public trust provision of Pennsylvania Constitution are "preserved rather than created" by that document); *Minors Oposa*, 33 I.L.M. at 187 (the right of future generations to a "balanced and healthful ecology" is so basic that it "need not even be written in the Constitution for [it is] assumed to exist from the inception of humankind"). Governments, in turn, possess certain powers that permit them to safeguard the rights of the people; these powers are inherent in the authority to govern and cannot be sold or bargained away. One example is the police power. *Stone*, 101 U.S. at 817. Another is the status as trustee pursuant to the

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[13] The Founding Fathers were also influenced by intergenerational considerations. They believed the inalienable rights to life, liberty, and property were rooted in a philosophy of intergenerational equity. Thomas Jefferson, for example, thought that each generation had the obligation to pass the natural estate undiminished to future generations. *See* Br. of Amicus Curiae John Davidson at 21-25 (doc. 60). In a 1789 letter to James Madison, Jefferson wrote that "no man can, by natural right, oblige lands he occupied . . . to the payments of debts contracted by him. For if he could, he might, during his own life, eat up the usufruct of the lands for several generations to come, and then the lands would belong to the dead, and not to than the living, which would be the reverse of our principle. What is true of every member of the society individually is true of them all collectively, since the rights of the whole can be no more than the sum of the rights of the individuals." Letter from Thomas Jefferson to James Madison, Sept. 6, 1789, *in* The Founders' Constitution (Philip B. Kurland & Ralph Lerner, eds.) (1986), *available at* press-pubs.uchicago.edu/founders/documents/v1ch2s23.html (last visited Nov. 7, 2016). Although I find it unnecessary today to address the standing of future generations or the merits of plaintiffs' argument that youth and posterity are suspect classifications, I am mindful of the intergenerational dimensions of the public trust doctrine in issuing this opinion.

public trust doctrine. *Illinois Central*, 146 U.S. at 459-60.

Although the public trust predates the Constitution, plaintiffs' right of action to enforce the government's obligations as trustee arises from the Constitution. I agree with Judge Coffin that plaintiffs' public trust claims are properly categorized as substantive due process claims. As explained, the Due Process Clause's substantive component safeguards fundamental rights that are "implicit in the concept of ordered liberty" or "deeply rooted in this Nation's history and tradition." *McDonald*, 561 U.S. at 761, 767 (internal citations, quotations, and emphasis omitted). Plaintiffs' public trust rights, related as they are to inherent aspects of sovereignty and the consent of the governed from which the United States' authority derives, satisfy both tests. Because the public trust is not enumerated in the Constitution, substantive due process protection also derives from the Ninth Amendment. *See* U.S. Const. amend. IX ("The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people."); *Raich v. Gonzalez*, 500 F.3d 850, 861-66 (9th Cir. 2007) (considering whether the right to use medical marijuana was a fundamental right safeguarded by the Ninth Amendment and the Fifth Amendment's substantive due process clause). But it is the Fifth Amendment that provides the right of action.

Plaintiffs' claims rest "directly on the Due Process Clause of the Fifth Amendment." *Davis*, 442 U.S. at 243 (1979); *see also Carlson v. Green*, 446 U.S. 14, 18 (1980) ("[T]he victims of a constitutional violation by a federal agent have a right to recover damages against the official in federal court despite the absence of any statute conferring such a right.") They may, therefore, be asserted in federal court.

CONCLUSION

Throughout their objections, defendants and intervenors attempt to subject a lawsuit alleging

constitutional injuries to case law governing statutory and common-law environmental claims. They are correct that plaintiffs likely could not obtain the relief they seek through citizen suits brought under the Clean Air Act, the Clean Water Act, or other environmental laws. But that argument misses the point. This action is of a different order than the typical environmental case. It alleges that defendants' actions and inactions — whether or not they violate any specific statutory duty — have so profoundly damaged our home planet that they threaten plaintiffs' fundamental constitutional rights to life and liberty.

A deep resistance to change runs through defendants' and intervenors' arguments for dismissal: they contend a decision recognizing plaintiffs' standing to sue, deeming the controversy justiciable, and recognizing a federal public trust and a fundamental right to climate system capable of sustaining human life would be unprecedented, as though that alone requires its dismissal. This lawsuit may be groundbreaking, but that fact does not alter the legal standards governing the motions to dismiss. Indeed, the seriousness of plaintiffs' allegations underscores how vitally important it is for this Court to apply those standards carefully and correctly.

Federal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it. As Judge Goodwin recently wrote,

> The current state of affairs . . . reveals a wholesale failure of the legal system to protect humanity from the collapse of finite natural resources by the uncontrolled pursuit of short-term profits. . . . [T]he modern judiciary has enfeebled itself to the point that law enforcement can rarely be accomplished by taking environmental predators to court. . . .
>
> The third branch can, and should, take another long and careful look at the barriers to litigation created by modern doctrines of subject-matter jurisdiction and deference to the legislative and administrative branches of government.

Alfred T. Goodwin, *A Wake-Up Call for Judges*, 2015 Wis. L. Rev. 785, 785-86, 788 (2015).

Judge Goodwin is no stranger to highly politicized legal disputes. Nearly fifty years ago, he authored the landmark opinion that secured Oregon's ocean beaches for public use. Private landowners wanted to construct fences and otherwise keep private the beaches in front of their properties; they brought suit to challenge an Oregon state law requiring public access to all dry sand beaches. *State ex rel. Thornton v. Hay*, 462 P.2d 671, 672-73 (Or. 1969). Writing for five of the six members of the Oregon Supreme Court, then-Justice Goodwin rooted his determination the beaches were public property in a concept from English common law:

> Because so much of our law is the product of legislation, we sometimes lose sight of the importance of custom as a source of law in our society. It seems particularly appropriate in the case at bar to look to an ancient and accepted custom in this state as the source of a rule of law. The rule in this case, based upon custom, is salutary in confirming a public right, and at the same time it takes from no man anything which he has a legitimate reason to regard as exclusively his.[14]

Id. at 678.

In an argument with strong echoes in defendants' and intervenors' objections here, the plaintiff private property owner contended it was "constitutionally impermissible . . . to dredge up an inapplicable, ancient English doctrine that has been universally rejected in modern America." Kathryn A. Straton, *Oregon's Beaches: A Birthright Preserved* 65 (Or. State Parks & Recreation 1977). The Oregon Supreme Court was not persuaded by this call to judicial conservatism. Because of the application of an ancient doctrine, Oregon's beaches remain open to the public now and forever.

---

[14] The sixth justice concurred in the judgment. He found the English rule of custom useful by analogy, but would have held the beaches were public property pursuant to the public trust doctrine. *Hay*, 462 P.2d at 679 (Denecke, J., concurring) ("These rights of the public in tidelands and in the beds of navigable streams have been called 'jus publicum' and we have consistently and recently reaffirmed their existence.").

"A strong and independent judiciary is the cornerstone of our liberties." These words, spoken by Oregon Senator Mark O. Hatfield, are etched into the walls of the Portland United States courthouse for the District of Oregon. The words appear on the first floor, a daily reminder that it is "emphatically the province and duty of the judicial department to say what the law is." *Marbury*, 5 U.S. at 177. Even when a case implicates hotly contested political issues, the judiciary must not shrink from its role as a coequal branch of government.

I ADOPT Judge Coffin's Findings & Recommendation (doc. 68), as elaborated in this opinion. Defendants' Motion to Dismiss (doc. 27) and Intervenors' Motion to Dismiss (doc. 19) are DENIED.

IT IS SO ORDERED.

Dated this 10th day of November 2016.

Ann Aiken
United States District Judge

Exhibit 2

Ninth Circuit's Opinion denying Defendants'
previous mandamus petition, No. 17-71692 (Mar. 7, 2018)
(available at *In re United States*, 884 F.3d 830 (9th Cir. 2018))

FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

IN RE UNITED STATES OF AMERICA,	No. 17-71692
UNITED STATES OF AMERICA; CHRISTY GOLDFUSS, in her official capacity as Director of the Council on Environmental Quality; MICK MULVANEY, in his official capacity as Director of the Office of Management and Budget; JOHN HOLDREN, DR., in his official capacity as Director of the Office of Science and Technology Policy; RICK PERRY, in his official capacity as Secretary of Energy; U.S. DEPARTMENT OF THE INTERIOR; RYAN ZINKE, in his official capacity as Secretary of Interior; U.S. DEPARTMENT OF TRANSPORTATION; ELAINE CHAO, in her official capacity as Secretary of Transportation; U.S. DEPARTMENT OF AGRICULTURE; SONNY PERDUE, in his official capacity as Secretary of Agriculture; U.S. DEPARTMENT OF COMMERCE; WILBUR ROSS, in his official capacity as Secretary of Commerce; U.S. DEPARTMENT OF DEFENSE; JIM MATTIS, in his official	D.C. No. 6:15-cv-01517-TC-AA OPINION

capacity as Secretary of Defense; U.S. DEPARTMENT OF STATE; OFFICE OF THE PRESIDENT OF THE UNITED STATES; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. DEPARTMENT OF ENERGY; DONALD J. TRUMP, in his official capacity as President of the United States; THE NATIONAL ASSOCIATION OF MANUFACTURERS; AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS; AMERICAN PETROLEUM INSTITUTE,

Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON, EUGENE,

Respondent,

KELSEY CASCADIA ROSE JULIANA; XIUHTEZCATL TONATIUH M., through his Guardian Tamara Roske-Martinez; ALEXANDER LOZNAK; JACOB LEBEL; ZEALAND B., through his Guardian Kimberly Pash-Bell; AVERY M., through her Guardian Holly McRae; SAHARA V., through her Guardian Toa Aguilar; KIRAN ISAAC OOMMEN; TIA MARIE HATTON; ISAAC V., through his

Guardian Pamela Vergun; MIKO V., through her Guardian Pamela Vergun; HAZEL V., through her Guardian Margo Van Ummersen; SOPHIE K., through her Guardian Dr. James Hansen; JAIME B., through her Guardian Jamescita Peshlakai; JOURNEY Z., through his Guardian Erika Schneider; VICTORIA B., through her Guardian Daisy Calderon; NATHANIEL B., through his Guardian Sharon Baring; AJI P., through his Guardian Helaina Piper; LEVI D., through his Guardian Leigh-Ann Draheim; JAYDEN F., through her Guardian Cherri Foytlin; NICHOLAS V., through his Guardian Marie Venner; EARTH GUARDIANS, a nonprofit organization; FUTURE GENERATIONS, through their Guardian Dr. James Hansen,

Real Parties in Interest.

Appeal from the United States District Court
for the District of Oregon
Ann L. Aiken, District Judge, Presiding

Argued and Submitted December 11, 2017
San Francisco, California

Filed March 7, 2018

Before: Sidney R. Thomas, Chief Judge, and Marsha S. Berzon and Michelle T. Friedland, Circuit Judges.[*]

Opinion by Chief Judge Thomas

SUMMARY[**]

Mandamus

The panel denied without prejudice a petition for a writ of mandamus in which federal defendants sought an order directing the district court to dismiss a case seeking various environmental remedies.

Twenty-one plaintiffs brought suit against defendants – the United States, and federal agencies and officials – alleging that the defendants contributed to climate change in violation of the plaintiffs' constitutional rights. The defendants argued that allowing the case to proceed would result in burdensome discovery obligations on the federal government that would threaten the separation of powers.

The panel held that the defendants did not satisfy the five factors in *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650 (9th Cir.

[*] Following the retirement of Judge Kozinski, Judge Friedland was randomly drawn to replace him on the panel. She has read the briefs, reviewed the record, and watched a video recording of the oral argument held on December 11, 2017.

[**] This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

1977), at this stage of the litigation. Specifically, the panel held that mandamus relief was inappropriate where the district court had not issued a single discovery order, nor had the plaintiffs filed a single motion seeking to compel discovery. The panel also held that any merits errors were correctable through the ordinary course of litigation. The panel further held that there was no controlling Ninth Circuit authority on any of the theories asserted by plaintiffs, and this weighed strongly against a finding of clear error for mandamus purposes. Finally, the panel held that district court's order denying a motion to dismiss on the pleadings did not present the possibility that the issue of first impression raised by the case would evade appellate review. The panel concluded that the issues that the defendants raised on mandamus were better addressed through the ordinary course of litigation.

COUNSEL

Eric Grant (argued), Deputy Assistant Attorney General; Andrew C. Mergen, David C. Shilton, and Robert J. Lundman, Appellate Section; Jeffrey H. Wood, Acting Assistant Attorney General; Environment & Natural Resources Division, United States Department of Justice, Washington, D.C.; for Petitioners.

Julia Ann Olson (argued), Wild Earth Advocates, Eugene, Oregon; Philip L. Gregory, Cotchett Pitre & McCarthy LLP, Burlingame, California; for Real Parties in Interest.

William John Snape III and David Hunter, American University, Washington College of Law, Washington, D.C.,

for Amici Curiae Center for International Environmental Law and Environmental Law Alliance Worldwide—US.

David Bookbinder, Niskanen Center, Washington, D.C., for Amicus Curiae Niskanen Center.

Courtney B. Johnson, Crag Law Center, Portland, Oregon, for Amici Curiae League of Women Voters of the United States and League of Women Voters of Oregon.

Sarah H. Burt, Earthjustice, San Francisco, California; Patti Goldman, Earthjustice, Seattle, Washington; for Amicus Curiae EarthRights International, Center for Biological Diversity, Defenders of Wildlife, and Union of Concerned Scientists.

James R. May and Erin Daly, Dignity Rights Project, Widener University, Delaware Law School, Wilmington, Delaware; Rachael Paschal Osborn, Vashon, Washington; for Amici Curiae Law Professors.

Joanne Spalding, Sierra Club, Oakland, California; Alejandra Nuñez and Andres Restrepo, Sierra Club, Washington, D.C.; for Amicus Curiae Sierra Club.

Charles M. Tebbutt, Law Offices of Charles M. Tebbutt P.C., Eugene, Oregon, for Amici Curiae Global Catholic Climate Movement; Leadership Conference of Women Religious; Interfaith Power and Light; The Sisters of Mercy of the Americas' Institute Leadership Team; Sisters of Mercy Northeast Leadership Team; Interfaith Moral Action on Climate; Franciscan Action Network; The National Religious Coalition for Creation Care and Interfaith Oceans; The Faith Alliance for Climate Solutions; Eco-Justice Ministries; San

Francisco Zen Center; The Shalom Center; GreenFaith; The Office of Apostolic Action & Advocacy; Christian life Community-USA; and Quaker Earthcare Witness.

Zachary B. Corrigan, Food & Water Watch Inc., Washington, D.C., for Amici Curiae Food & Water Watch Inc., Friends of the Earth—US, and Greenpeace Inc.

OPINION

THOMAS, Chief Judge:

In this petition for a writ of mandamus, the defendants ask us to direct the district court to dismiss a case seeking various environmental remedies. The defendants argue that allowing the case to proceed will result in burdensome discovery obligations on the federal government that will threaten the separation of powers. We have jurisdiction over this petition pursuant to the All Writs Act, 28 U.S.C. § 1651. Because the defendants have not met the high bar for mandamus relief, we deny the petition.

I

Twenty-one young plaintiffs brought suit against the United States, the President, and various Executive Branch officials and agencies, alleging that the defendants have contributed to climate change in violation of the plaintiffs' constitutional rights. They allege that the defendants have known for decades that carbon dioxide emissions from the burning of fossil fuels destabilize the climate. The plaintiffs aver that the defendants have nevertheless enabled and continue to enable, through various government policies, the

burning of fossil fuels, allowing atmospheric carbon dioxide concentrations to reach historically unprecedented levels. They allege that climate change is injuring them and will continue to injure them. The plaintiffs claim that, in light of these facts, the defendants have violated their constitutional rights.

The defendants moved to dismiss the suit for lack of jurisdiction and for failure to state a claim. The district court denied the motion. The court held that the plaintiffs plausibly alleged that they have Article III standing, did not raise non-justiciable political questions, and asserted plausible claims under the Due Process Clause of the Fifth Amendment.

The defendants moved the district court to stay the litigation and to certify its order for interlocutory appeal pursuant to 28 U.S.C. § 1292(b). The district court denied the motions. Anticipating burdensome discovery, the defendants petitioned this Court for a writ of mandamus and requested a stay of the litigation. In their petition, the defendants ask that we direct the district court to dismiss the case. We granted the request for a stay and now consider the petition.

II

"The writ of mandamus is a drastic and extraordinary remedy reserved for really extraordinary causes." *In re Van Dusen*, 654 F.3d 838, 840 (9th Cir. 2011) (quoting *Ex parte Fahey*, 332 U.S. 258, 259–60 (1947)) (internal quotation marks omitted). "[O]nly exceptional circumstances amounting to a judicial usurpation of power or a clear abuse of discretion will justify the invocation of this extraordinary remedy." *Cheney v. U.S. Dist. Ct.*, 542 U.S. 367, 380 (2004) (internal quotation marks and citations omitted). In

considering whether to grant a writ of mandamus, we are guided by the five factors identified in *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650 (9th Cir. 1977):

> (1) whether the petitioner has no other means, such as a direct appeal, to obtain the desired relief;
>
> (2) whether the petitioner will be damaged or prejudiced in any way not correctable on appeal;
>
> (3) whether the district court's order is clearly erroneous as a matter of law;
>
> (4) whether the district court's order is an oft repeated error or manifests a persistent disregard of the federal rules; and
>
> (5) whether the district court's order raises new and important problems or issues of first impression.

Perry v. Schwarzenegger, 591 F.3d 1147, 1156 (9th Cir. 2010) (citing *Bauman*, 557 F.2d at 654–55). "All factors are not relevant in every case and the factors may point in different directions in any one case." *Christensen v. U.S. Dist. Ct.*, 844 F.2d 694, 697 (9th Cir. 1988).

III

The defendants do not satisfy the *Bauman* factors at this stage of the litigation. The issues that the defendants raise on mandamus are better addressed through the ordinary course

of litigation. We therefore decline to exercise our discretion to grant mandamus relief. *See San Jose Mercury News, Inc. v. U.S. Dist. Ct.*, 187 F.3d 1096, 1099 (9th Cir. 1999) ("Mandamus review is at bottom discretionary—even where [all] the *Bauman* factors are satisfied, the court may deny the petition.").

A

The first *Bauman* factor is whether the petitioner will "ha[ve] no other means . . . to obtain the desired relief." *Perry*, 591 F.3d at 1156. This factor ensures that a writ of mandamus will not "be used as a substitute for appeal even though hardship may result from delay and perhaps unnecessary trial." *Schlagenhauf v. Holder*, 379 U.S. 104, 110 (1964) (internal citation omitted). Here, the defendants argue that mandamus is their only means of obtaining relief from potentially burdensome discovery.

The defendants' argument fails because the district court has not issued a single discovery order, nor have the plaintiffs filed a single motion seeking to compel discovery. Rather, the parties have employed the usual meet-and-confer process of resolving discovery disputes. *See* Fed. R. Civ. P. 37(a)(1). Indeed, both sides have submitted declarations attesting that they have thus far resolved a number of discovery disputes without either side asking the district court for an order. Indeed, the plaintiffs have withdrawn a number of requests for production. The defendants rely on informal communications as to the scope of discovery—in particular, the plaintiffs' litigation hold and demand letter—but the plaintiffs have clarified that these communications were not discovery requests.

If a specific discovery dispute arises, the defendants can challenge that specific discovery request on the basis of privilege or relevance. *See McDaniel v. U.S. Dist. Ct.*, 127 F.3d 886, 888–89 (9th Cir. 1997) (per curiam) (holding that mandamus "is not the State's only adequate means of relief" from burdensome discovery because, "as discovery proceeds, the State is not foreclosed from making routine challenges to specific discovery requests on the basis of privilege or relevance"). In addition, the defendants can seek protective orders, as appropriate, under Federal Rule of Civil Procedure 26(c).

Mandamus relief is inappropriate where the party has never sought relief before the district court to resolve a discovery dispute. As we have noted, "courts of appeals cannot afford to become involved with the daily details of discovery." *In re Anonymous Online Speakers*, 661 F.3d 1168, 1173 (9th Cir. 2011) (quoting *Perry*, 591 F.3d at 1157). Rather, we have only granted mandamus relief to review discovery orders in exceptional circumstances. *Id.* And neither we nor the Supreme Court have ever done so before a party has filed a motion for a protective order in the district court or prior to the issuance of a discovery order by the district court. The defendants will have ample remedies if they believe a specific discovery request from the plaintiffs is too broad or burdensome. Absent any discovery order from the district court, or even any attempt to seek one, however, the defendants have not shown that they have no other means of obtaining relief from burdensome or otherwise improper discovery.

The defendants rely on two cases in which a writ of mandamus issued because of alleged discovery burdens: *Cheney*, and *Credit Suisse v. U.S. Dist. Ct.*, 130 F.3d 1342

(9th Cir. 1997). In both cases, the district courts had issued orders compelling document production. *Cheney*, 542 U.S. at 376, 379 (defendant moved for a protective order, but district court issued order allowing discovery to proceed); *Credit Suisse*, 130 F.3d at 1346 (district court issued order compelling defendants to respond to discovery requests).[1]

Absent any district court order concerning discovery, mandamus relief is inappropriate. If the defendants become aggrieved by a future discovery order, they can seek mandamus relief as to that order. But their current request for mandamus relief is entirely premature. The defendants have not satisfied the first *Bauman* factor.

B

The second *Bauman* factor is whether the petitioner "will be damaged or prejudiced in any way not correctable on appeal." *Perry*, 591 F.3d at 1156. To satisfy this factor, the defendants "must demonstrate some burden . . . other than the mere cost and delay that are the regrettable, yet normal, features of our imperfect legal system." *DeGeorge v. U.S. Dist. Ct.*, 219 F.3d 930, 935 (9th Cir. 2000) (alteration in original) (quoting *Calderon v. U.S. Dist. Ct.*, 163 F.3d 530, 535 (9th Cir. 1998) (en banc)). Prejudice serious enough to warrant mandamus relief "includes situations in which one's

[1] The defendants also raised, via a letter filed after argument, the Supreme Court's recent summary disposition in an appeal challenging a discovery order. *See In re United States*, 138 S. Ct. 443 (2017). When the government filed a petition for mandamus in that case, the district court had compelled the government to complete the administrative record over the government's opposition that the administrative record was already complete and had deferred ruling on the defendants' earlier motion to dismiss. Neither circumstance exists here.

'claim will obviously be moot by the time an appeal is possible,' or in which one 'will not have the ability to appeal.'" *Id.* (quoting *Calderon*, 163 F.3d at 535).

The defendants argue that holding a trial on the plaintiffs' claims and allowing the district court potentially to grant relief would threaten the separation of powers. We are not persuaded that simply allowing the usual legal processes to go forward will have that effect in a way not correctable on appellate review.

First, to the extent the defendants argue that the President himself has been named as a defendant unnecessarily and that defending this litigation would unreasonably burden him, this argument is premature because the defendants never moved in the district court to dismiss the President as a party. *See United States v. U.S. Dist. Ct.*, 384 F.3d 1202, 1205 (9th Cir. 2004) (explaining that there is no injustice from declining to consider a new issue on mandamus review because a petitioner may still be able to raise the issue below). Nor has any formal discovery been sought against the President.

To the extent that the defendants are arguing that executive branch officials and agencies in general should not be burdened by this lawsuit, Congress has not exempted the government from the normal rules of appellate procedure, which anticipate that sometimes defendants will incur burdens of litigating cases that lack merit but still must wait for the normal appeals process to contest rulings against them. The United States is a defendant in close to one-fifth

of the civil cases filed in federal court.[2] The government cannot satisfy the burden requirement for mandamus simply because it, or its officials or agencies, is a defendant.

Distilled to its essence, the defendants' argument is that it is a burden to defend against the plaintiffs' claims, which they contend are too broad to be legally sustainable. That well may be. But, as noted, litigation burdens are part of our legal system, and the defendants still have the usual remedies before the district court for nonmeritorious litigation, for example, seeking summary judgment on the claims. And if relief is not forthcoming, any legal error can be remedied on appeal. "The first two criteria articulated in *Bauman* are designed to insure that mandamus, rather than some other form of relief, is the appropriate remedy." *In re Cement Antitrust Litig. (MDL No. 296)*, 688 F.2d 1297, 1301 (9th Cir. 1982), *aff'd sub nom. Arizona v. U.S. Dist. Ct.*, 459 U.S. 1191 (1983) (mem.). Because the merits errors now asserted are correctable through the ordinary course of litigation, the defendants have not satisfied the second *Bauman* factor.

C

The third *Bauman* factor is whether the district court's order "is clearly erroneous as a matter of law." *Perry*, 591 F.3d at 1156. Our review of this factor "is significantly deferential and [this factor] is not met unless the reviewing court is left with a definite and firm conviction that a mistake

[2] *See* U.S. Courts, *Federal Judicial Caseload Statistics 2017*, http://www.uscourts.gov/statistics-reports/federal-judicial-caseload-statistics-2017 (last visited Feb. 14, 2018) (The United States was a defendant in 56,987 of the 292,076 civil cases filed in federal court in the 12-month period ending March 31, 2017.).

has been committed." *In re Bundy*, 840 F.3d 1034, 1041 (9th Cir. 2016) (quoting *In re United States*, 791 F.3d 945, 955 (9th Cir. 2015)).

"The absence of controlling precedent weighs strongly against a finding of clear error [for mandamus purposes]." *In re Van Dusen*, 654 F.3d 838, 845 (9th Cir. 2011). Here, the defendants concede that there is no controlling Ninth Circuit authority on any of the theories asserted by the plaintiffs. Indeed, the defendants strongly argue that the theories are unprecedented. Thus, the absence of controlling precedent in this case weighs strongly against a finding of clear error. *Id*.

We also underscore that this case is at a very early stage, and that the defendants have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders. Once the litigation proceeds, the defendants will have ample opportunity to raise and litigate any legal objections they have.

However, absent controlling precedent, we decline to exercise our discretion to intervene at this stage of the litigation to review preliminary legal decisions made by the district court or otherwise opine on the merits.

D

The fourth *Bauman* factor is whether the district court's order is "an oft repeated error or manifests a persistent disregard of the federal rules." *Perry*, 591 F.3d at 1156. Absent controlling authority, there is no "oft-repeated error" in this case, *In re Swift Transp. Co.*, 830 F.3d at 917, and the

defendants do not contend that the district court violated any federal rule. The defendants do not satisfy the fourth factor.

E

The final factor is whether the district court's order "raises new and important problems or issues of first impression." *Perry*, 591 F.3d at 1156. In general, we have relied upon this factor when there is a "novel and important question" that "may repeatedly evade review." *Id.* at 1159; *see also In re Cement Antitrust Litig.*, 688 F.2d at 1304–05 ("[A]n important question of first impression will evade review unless it is considered under our supervisory mandamus authority. Moreover, that question may continue to evade review in other cases as well.").

There is little doubt that the legal theories asserted in this case raise issues of first impression. But the district court's order denying a motion to dismiss on the pleadings—which is all that has happened thus far—does not present the possibility that those issues will evade appellate review. The defendants have not satisfied the fifth *Bauman* factor.

IV

There is enduring value in the orderly administration of litigation by the trial courts, free of needless appellate interference. In turn, appellate review is aided by a developed record and full consideration of issues by the trial courts. If appellate review could be invoked whenever a district court denied a motion to dismiss, we would be quickly overwhelmed with such requests, and the resolution of cases would be unnecessarily delayed.

We are mindful that some of the plaintiffs' claims as currently pleaded are quite broad, and some of the remedies the plaintiffs seek may not be available as redress. However, the district court needs to consider those issues further in the first instance. Claims and remedies often are vastly narrowed as litigation proceeds; we have no reason to assume this case will be any different. Nor would the defendants be precluded from reasserting a challenge to standing, particularly as to redressability, once the record is more fully developed, or from seeking mandamus in the future, if circumstances justify it. And the defendants retain the option of asking the district court to certify orders for interlocutory appeal of later rulings, pursuant to 28 U.S.C. § 1292(b).

Because petitioners have not satisfied the *Bauman* factors, we deny the petition without prejudice. Absent any discovery order, the mandamus petition is premature insofar as it is premised on a fear of burdensome discovery. The issues pertaining to the merits of this case can be resolved by the district court, in a future appeal, or, if extraordinary circumstances later present themselves, by mandamus relief. For these reasons, we decline to exercise our discretion to grant mandamus relief at this stage of the litigation.

PETITION DENIED WITHOUT PREJUDICE.

Exhibit 3

Excerpts of Reporter's Transcript of Proceedings (Apr. 12, 2018)

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

THE HON. THOMAS M. COFFIN, JUDGE PRESIDING

KELSEY CASCADIA, ROSE JULIANA, et al.,

Plaintiffs,

v.

UNITED STATES OF AMERICA, et al.,

Defendants.

No. 6:15-cv-01517-TC

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EUGENE, OREGON

THURSDAY, APRIL 12, 2018

PAGES 1 - 36

Kristi L. Anderson
Official Federal Reporter
United States Courthouse
405 East Eighth Avenue
Eugene, Oregon 97401
(541) 431-4112
Kristi_Anderson@ord.uscourts.gov

report is admitted, and we have the opportunity to probe whether or not the report should be admitted at that point.

So I --

THE COURT: Do you have any objection to the parties submitting their reports to the court in advance of the beginning of trial?

MS. PIROPATO: No, we don't object to that, Your Honor.

THE COURT: All right. So you -- when you say possible streamlined examination of experts, what did you have in mind with that?

MS. OLSON: Your Honor, what we had in mind was having a very brief direct examination that highlights key aspects of the expert report with the understanding that the court is already familiar with the expert reports and then proceed to cross-examination by defense counsel.

THE COURT: Okay. Well, obviously Judge Aiken will be dealing with these issues.

In terms of the length of trial, you say assuming a six-hour day, 20 court days per side. So you are talking roughly four weeks per side.

MS. OLSON: That's plaintiffs' position, Your Honor. I believe defense counsel yesterday in our meet and confer thought that it would be closer to 25 court days per side.

THE COURT: So five weeks per side in essence. Is that your view as well?

MS. PIROPATO: Yes, Your Honor, with the understanding that if we don't need five weeks, we don't use the five weeks. But given the amount of testimony from individual plaintiffs, the amount of expert testimony, we felt like it would be wise to put a buffer in.

THE COURT: Okay. All right. Well, fortunately it's a court trial, not a jury trial, so we can be very flexible with the scheduling.

No. 2, you have a question mark. Any further appellate proceedings? Is that a question for the government?

MR. DUFFY: I believe that it is.

THE COURT: Couldn't be to me.

MR. DUFFY: This provides a good point for us to raise -- I said we had five points and one of the points we wanted to raise today, the United States has 90 days to determine whether it's going to seek further appellate review, so until June 5th.

That decision has not been made, and as Your Honor is aware, our position throughout has been --

THE COURT: When is the deadline for that decision under the 90 days?

MR. DUFFY: I believe it's June 5th.

Exhibit 4

Excerpts of Reporter's Transcript of Proceedings (May 10, 2018)

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, et al.,

Plaintiffs,

v.

THE UNITED STATES OF AMERICA, et al.,

Defendants.

No. 6:15-CV-1517-TC

REPORTER'S TRANSCRIPT OF PROCEEDINGS

BEFORE THE HONORABLE JUDGE COFFIN

May 10, 2018

Thursday

10:00 A.M.

-o0o-

Jan R. Duiven, CSR, FCRR, CRC

CC Court Reporting

172 East 8th Avenue

Eugene, Oregon 97401

541/485-0111

work on the protective order. We've been working with NARA, and I think we have a workaround that I think we should meet and confer around in the first instance.

THE COURT: Yeah. Because this is pretty standard, isn't it? Medical records and --

MS. PIROPATO: Yeah, your Honor. We're not -- let's be clear. We're not saying that this won't be under a protective order. We're just trying to find the simplest mechanism to get to where we need to get to. So thank you.

THE COURT: All right. You bet.

MR. GREGORY: Excuse me, your Honor. This is -- I think what counsel was just saying is we're not going to have a protective order today. They're going to talk to us and then they're going to go back to their superiors, which is what we've been hearing since last summer. And that's why we're trying to get a definite date by which the defendants will say, Here's the protective order we'll sign. So --

THE COURT: Here's -- here's the big picture. October 29, 2018, trial starts unless some higher court says no. So from this perspective, October 29, 2018, the trial starts.

Now, the Government is the one that is eager to get your experts reports, et cetera, and so it's in the Government's best interest, it seems to me, to come up with a protective order that allows you to share that as expeditiously as possible. If the Government drags its feet on that, this Court is not going to extend the trial date based upon any complaints that, Oh, we're not prepared. So get to work, folks, and get prepared. That's my advice.

All right. Let's -- what else do we need to talk about here? Depositions of plaintiffs' experts.

MS. OLSON: Your Honor, we've been in the process of identifying dates our experts are unavailable for depositions starting in June and through September.

THE COURT: Where are the depositions going to take place?

MS. OLSON: We -- we've agreed --

THE COURT: Are they all over or where?

MS. OLSON: We've agreed for experts we'll largely be going to where the experts are, except for the international experts we will bring

Exhibit 5

Excerpts of Reporter's Transcript of Proceedings (May 23, 2018)

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

THE HON. ANN AIKEN, JUDGE PRESIDING

KELSEY CASCADIA ROSE JULIANA, et al.,	)	
Plaintiffs,	)	
v.	)	No. 6:15-cv-01517-TC
UNITED STATES OF AMERICA, et al.,	)	
Defendants.	)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EUGENE, OREGON

WEDNESDAY, MAY 23, 2018

PAGES 1 - 20

Kristi L. Anderson
Official Federal Reporter
United States Courthouse
405 East Eighth Avenue
Eugene, Oregon 97401
(541) 431-4112
Kristi_Anderson@ord.uscourts.gov

15:03:47 look at it yet. And so the default rules are 21 days and then 14 for a reply.

But I didn't really -- well, we can discuss that issue. I don't know if the plaintiffs have even had an 15:04:01 opportunity to meaningfully review it yet.

THE COURT: Oh, come on. And I mean it honestly. If you filed it last night, nobody has had a chance to meaningfully look at it.

So let's just everybody take it down to dealing as 15:04:15 lawyers practicing in the federal court with courtesy and professionalism right now.

So I am going to take all the issues as Ms. Olson -- I am going to handle all those issues in a hearing resolving the three issues in July or hearing the 15:04:34 arguments and handling it through an oral argument in July.

So whatever briefing -- whatever else is needed for the briefing of those issues, we'll take it up -- we'll hear those arguments in July.

And then we'll start the calendar, and you can 15:04:47 assume that we are going to -- we'll set an oral argument, and it may well be that we set oral argument at the time of trial on the summary judgment motions.

I will take a look at my schedule along with the other things that I have to take care of this summer and 15:05:03 other commitments so that we can be prepared for those

15:05:05 issues.

But as we have talked about in this case before, we are not delaying the trial at this point. We are moving forward. And we can -- I have done a lot of patent cases, and a lot of the patent work is done on the legal pleadings as well as the factual determinations, and you can certainly determine how terms are used on a legal basis and then apply those terms to the facts. And that may be what we need to do in terms of setting a hearing in a trial in this particular case.

So I am prepared to take these issues up one at a time, and I am setting the three issues that have been raised and filed and are in the process of being briefed to be heard and argued on July 17th or 18th or some other date that everybody can agree on. That's one.

With a new summary judgment motion filed last night, we'll go through the regular course of addressing that and putting -- you know, getting a hearing date for that at some later date because we'll be prepared for that and we are going to do it in an orderly fashion.

Anyone have anything else they need to add? So I guess we are waiting on -- so are you clear, Ms. Olson, about what you need to respond to? And I am also -- if something changes because I am, of course, watching and seeing whether or not or when, at what hour the petition is

filed on the 5th of June because that affects our work as well. And so I am waiting for that and I will take up if there's -- if there's additional need to move the briefing schedule at that point, I am happy to have another conference call.

MS. OLSON: Okay. Thank you, Your Honor.

And plaintiffs will likely meet and confer with defendants on the timing of the motion for summary judgment that was filed to see if we can work out a briefing schedule and a proposal to the court on when it should be heard, and if we can't come to agreement, we will file a motion for an extension regarding that Rule 56 motion.

THE COURT: Yep. Even just filing it last night it puts this case way -- you know, in terms of argument, way into the fall regardless.

So people have made some decisions, and we are just -- we have got a trial date and we are moving forward. People need to get their discovery done. Judge Coffin has assured me that's ongoing and people are doing their discovery work. So I was kind of surprised to hear today that that's somewhat on hold. I certainly hope people will be ready for trial in October because I know Judge Coffin has worked very hard to keep on it track.

So if there's anything I can do today to be clear or be more helpful about underscoring that he has my full

15:08:03 authority to manage this case and he has been gracious in his time and willingness to do so, please ask me now.

MS. OLSON: Your Honor, this is Julia Olson.

I would like to raise one issue related to

15:08:20 plaintiffs' depositions.

During our last meet and confer with the defendants we had agreed upon three weeks during the summer when we would have the 21 plaintiffs available for depositions because the defendants have said they would like

15:08:36 to depose all 21 plaintiffs. And one of those weeks is the first week in June because some of our plaintiffs have limited availability this summer. And we received a letter in the past couple of days from counsel stating that they are no longer prepared to take plaintiffs' depositions the

15:08:58 first week of June on the basis that discovery is improper in this case.

And so we are having issues with our ability to come to agreement on dates for depositions and even a protective order over confidential information regarding our

15:09:19 young plaintiffs so that we are at a bit of a stalemate on these issues with defense counsel.

THE COURT: I am sending this right back to Judge Coffin. This is a discovery issue. This is what he is managing. I think he's not going to be particularly

15:09:35 happy to hear what I have just heard, but I am going to give

Exhibit 6

Magistrate judge's Order denying Defendants' Motion for a Protective Order and for a Stay of All Discovery, ECF No. 212 (May 25, 2018)

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

KELSEY CASCADE ROSE JULIANA; et al., 6:15-cv-1517-TC

Plaintiffs, ORDER

v.

The UNITED STATES OF AMERICA; et al.,

Defendants.

COFFIN, Magistrate Judge:

Before the court is defendants' motion for a protective order and for a stay of discovery. (#196). In essence, defendants' motion is based on the assertion that "Plaintiff's claim must proceed under the [Administrative Procedure Act] APA" and APA claims must be reviewed solely on the Administrative record. Thus "APA plaintiffs are ... not entitled to discovery ...." Defendants' Motion For A Protective Order And For A Stay Of Discovery (#196) at p. 10.

But the plaintiffs' complaint does not contain an APA claim. No such claim is pleaded, and the defendants have no ability to edit the complaint to cobble the claim into one fo their choosing

to derail discovery. The plaintiffs' claims in this case, which have survived previous efforts by the defendants to dismiss, are claims based on alleged violations of their constitutional rights. As to these claims, the court has denied the defendants' earlier motion to dismiss, an order which defendants challenged through writ of mandamus to the Ninth Circuit, which was denied. The Ninth Circuit further noted the case should proceed through discovery and the normal process of trial and the development of a record before any appellate review would be appropriate.

The defendants' motion for a protective order and stay is simply a recasting of their position that the plaintiffs' claims should all be dismissed and the District Court should revisit its previous ruling to the contrary.

Beyond whatever procedural impediments exist to the to the government's efforts to reconstruct its motion to dismiss under a different theory, this court is not at all persuaded by their argument that the APA is the sole avenue of relief for the plaintiffs for the asserted violations of their constitutional rights.

Indeed, the District Court has already rejected this very argument on its Order denying defendants' motion to dismiss:

> Plaintiffs could have brought a lawsuit predicated on technical regulatory violations, but they chose a different path. As masters of their complaint, they have elected to assert constitutional rather than statutory claims. Every day, federal courts apply the legal standards governing due process claims to new sets of facts. The facts in this case, though novel, are amenable to those well-established standards.

Order dated November 10, 2017 (#83) at p. 13.

In sum, defendants' efforts to transform plaintiffs' constitutional claims into an APA case to bar discovery is unavailing.

Finally, the defendants argue that the separation of powers doctrine justifies an order barring

or staying all discovery in this case based on wholly hypothetical scenarios that may implicate matters of privilege during the discovery process. Under such rationale, the government could avoid all discovery in any litigation in which it is named as a defendant simply by asserting hypothetical discovery requests that a litigant might make during the litigation. Should a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request. None has arisen so far in this particular case that the parties have been unable to resolve in the meet and confer process that the court is aware of.

The motion for a protective order and stay of all discovery is hereby denied.

CONCLUSION

For the reasons stated above, defendants' motion for a protective order and stay (#196) is denied.

DATED this 25 day of May 2018.

THOMAS M. COFFIN
United States Magistrate Judge

Exhibit 7

District court's Order affirming the foregoing order of the magistrate judge, ECF No. 300 (June 29, 2018)

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, et al.,

Plaintiffs,

v.

THE UNITED STATES OF AMERICA, et al.,

Defendants.

Civ. No. 6:15-cv-01517-AA

ORDER

AIKEN, District Judge.

On May 9, 2018, Defendants filed a Motion for Protective Order and Motion for Stay of All Discovery. ECF No. 196. On May 25, 2018, Magistrate Judge Coffin denied Defendants' motion.[1] ECF No. 212. Defendants have filed Objections to Judge Coffin's Order, ECF No. 215, Plaintiffs have filed their Response, ECF No. 242, and the matter is now before this Court.

In accordance with Rule 72(a), "[w]hen a pretrial matter not dispositive of a party's claim or defense is referred to a magistrate judge to hear and decide, the magistrate judge must promptly conduct the required proceedings and, when appropriate, issue a written order stating the decision." Fed. R. Civ. P. 72(a). The standard of review for an order with objections is "clearly erroneous" or "contrary to law." 28 U.S.C. § 636(b)(1)(A); Fed. R. Civ. P. 72(a).

[1] Defendants complain, *inter alia*, that Judge Coffin denied their motion without allowing them the opportunity to file a reply. The Local Rules of the District of Oregon do not permit replies in support of discovery motions. LR 26-3(c) ("Unless otherwise directed by the Court, a movant may not file a reply supporting a discovery motion."). The timing of Judge Coffin's ruling was therefore appropriate.

The Court has carefully reviewed Judge Coffin's order in light of Defendants' objections. The Court concludes that the order is not clearly erroneous or contrary to law. Accordingly, the Court AFFIRMS Magistrate Judge Coffin's Order, ECF No. 212, denying Defendants' Motion for Protective Order and Stay of All Discovery, ECF No.196. The Court declines to certify this decision for interlocutory appeal under 28 U.S.C. § 1292(b).

It is so ORDERED and DATED this 29th day of June, 2018.

ANN AIKEN
United States District Judge

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on July 5, 2018.

I further certify that on July 5, 2018, a notice of the filing of the foregoing (including a complete copy of the foregoing) will be filed in underlying proceeding in the United States District Court for the District of Oregon in compliance with Federal Rule of Appellate Procedure 21(a)(1), and that all parties to the proceeding will be served with that notice through the district court's CM/ECF system. In addition, a courtesy copy of the foregoing has been provided via e-mail to the following counsel for Plaintiffs:

Julia A. Olson
(415) 786-4825
juliaaolson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Andrea K. Rodgers
(206) 696-2851
andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

Philip L. Gregory
(650) 278-2957
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

s/ Eric Grant
Eric Grant

Counsel for Petitioners

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
601 D Street NW
Washington, DC 20004
(202) 305-0445
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA, *et al.*,
Defendants.

Case No. 6:15-cv-01517-TC

DEFENDANTS' MOTION FOR A STAY PENDING A PETITION FOR A WRIT OF MANDAMUS

Expedited Hearing Requested

Defendants hereby move for a stay of all discovery and trial pending resolution of the mandamus petition that Defendants are concurrently filing in the Ninth Circuit. Defendants have conferred with Plaintiffs regarding this motion and Plaintiffs have indicated they oppose the requested stay. Plaintiffs also oppose Defendants' request for an expedited hearing on this motion.

INTRODUCTION

Given the numerous statutory and constitutional impediments to discovery against the government in this case—and the potential for ending the litigation through dispositive motions—the government previously moved for a protective order against all discovery and a stay of discovery pending resolution of the government's dispositive motions. ECF No. 196. Magistrate Judge Coffin denied that motion, erroneously construing this Court's prior orders as rejecting arguments the government had not previously made and denying the government's request for a stay without any explanation. ECF No. 212. On June 29, 2018, this Court summarily affirmed Magistrate Judge Coffin's order on the basis that "the order is not clearly erroneous or contrary to law." ECF No. 300. Without a stay, the government now faces discovery that is unlawful and unnecessary for the reasons articulated in its pending objections and its pending dispositive motions.

There is no justification for subjecting the government to discovery that the government submits is unlawful and unnecessary before ruling on the pending motions that would eliminate the occasion for such discovery. Because this Court has declined to grant such relief, the government intends to seek mandamus relief—including dismissal of the litigation—from the Ninth Circuit. Because mandamus relief could end the litigation, the government respectfully requests the Court to enter a stay of all further discovery and trial pending resolution of the mandamus petition, as the

Ninth Circuit did when considering the government's prior mandamus petition in this case. *See United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d 830, 838 (9th Cir. 2018).

RELEVANT BACKGROUND

The Court is familiar with the background and procedural history of this case. As relevant here, Plaintiffs brought this action against President Obama (for whom President Trump was later substituted), the Executive Office of the President, and eight federal agencies for allegedly violating their rights under the Constitution and purported federal public trust law. Am. Compl., ECF No. 7. Plaintiffs ask this Court to, *inter alia*, order Defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." *Id.*, Prayer for Relief ¶ 7. Defendants moved to dismiss Plaintiffs' claims on several grounds, including lack of standing, failure to state a cognizable constitutional claim, and failure to state a claim on a public trust theory. ECF No. 27. This Court denied that motion, and declined to certify its order for interlocutory appeal. ECF Nos. 68, 83, 172.

Defendants petitioned the Ninth Circuit for a writ of mandamus. The court of appeals stayed the litigation for seven-and-a-half months, but ultimately denied the petition without prejudice. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d 830, 838 (9th Cir. 2018). Specifically, the court "decline[d] to exercise [its] discretion to grant mandamus relief at [that] stage of the litigation," in part because no discovery requests had yet been filed. *Id.* at 835, 838. The court explained, however, that "[c]laims and remedies often are vastly narrowed as litigation proceeds," and that it had "no reason to assume this case will be any different." *Id.* at 838. The court also reiterated that Defendants could continue to "raise and litigate any legal objections they have," including by "seek[ing] protective orders," moving to "dismiss the President as a

party," and seeking "summary judgment on the claims." *Id.* at 835-38. The court added that Defendants remain free to "seek[] mandamus in the future." *Id.* at 838.

The government has now moved for each of the forms of relief contemplated by the Ninth Circuit, as well as a stay of discovery pending resolution of those motions. ECF Nos. 195 (Motion for Judgment on the Pleadings), 196 (Motion for a Protective Order and Stay of Discovery), 207 (Motion for Summary Judgement). Neither of the dispositive motions has yet been resolved by this Court. Magistrate Judge Coffin, however, denied the motion for a protective order and for a stay of discovery pending resolution of the government's dispositive motions. ECF No. 212. On June 29, 2018, this Court summarily affirmed. ECF No. 300.

ARGUMENT

Given the impending discovery obligations, the rapidly approaching trial date, and this Court's decision not to grant a protective order from discovery or even stay such discovery pending resolution of the dispositive motions, the government has little choice but to seek further review—including dismissal of the litigation—by filing a petition for a writ of mandamus in the Ninth Circuit. *See* ECF No. 215 at 4. Because the favorable resolution of such a petition would end the case, all further discovery and trial should be stayed pending the Ninth Circuit's disposition of the petition, as the Ninth Circuit ordered when the government previously petitioned for mandamus in this case. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d at 834. The government therefore respectfully requests that this Court postpone all further discovery and trial pending resolution of a petition for a writ of mandamus.[1]

[1] Although Fed. R. App. P. 8(a)(1) does not expressly refer to a stay pending review of a petition for a writ of mandamus under Fed. R. App. P. 21, Defendants nevertheless believe it appropriate to ask this Court for a stay before asking the court of appeals to enter a stay pending disposition of the government's mandamus petition.

Whether to issue a stay is "an exercise of judicial discretion . . . to be guided by sound legal principles," *Nken v. Holder*, 556 U.S. 418, 433-34 (2009) (internal citations omitted), based on the following factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987); *see Leiva-Perez v. Holder*, 640 F.3d 962, 970 (9th Cir. 2011). Each of these factors weighs in favor of a stay of the litigation pending resolution of a petition for a writ of mandamus.

With respect to the first factor, the arguments set out in the government's previous mandamus petition and its dispositive motions show that Defendants have a strong likelihood of success in obtaining mandamus to prevent the unprecedented trial and remedy, and related discovery, sought by Plaintiffs in this case. ECF Nos. 177-1, 195, 207. Although the Ninth Circuit denied the government's prior mandamus petition, the court of appeals made clear that Defendants could seek mandamus again after attempting to narrow or dismiss Plaintiffs' claims through specified procedural steps, including moving to dismiss the President, seeking protective orders, and seeking summary judgment on the claims. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d at 835-38. Given that the government has taken all of the procedural steps contemplated by the Ninth Circuit, *see id.*, but now faces imminent harm without any action by Plaintiffs or this Court to narrow or dismiss Plaintiffs' claims, the government is likely to obtain mandamus relief from the court of appeals.

The other stay factors are readily satisfied, as indicated by the Ninth Circuit's entry of a stay pending resolution of the government's prior mandamus petition. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d at 834. Indeed, as the government explained in its objections to the magistrate judge's denial of a protective order, the discovery and trial currently contemplated

in this case are categorically improper and unlawful because (1) Plaintiffs' claims are fundamentally challenges to agency action or inaction subject to record review under the Administrative Procedure Act ("APA"), (2) requiring agencies to take positions on substantive policy issues through discovery and district court litigation would contravene the procedural requirements imposed by the APA for agency decisionmaking, and (3) directing agency officials to provide an assessment of substantive policy questions and potential responses would violate the separation of powers, in particular by invading the President's exclusive constitutional authority to "require the Opinion . . . of the principal Officer in each of the executive Departments, upon any Subject relating to the Duties of their respective Offices," U.S. Const. art. II, § 2, cl. 1, and to "recommend to" Congress for "Consideration such Measures as he shall judge necessary and expedient," U.S. Const. art. II, art. II, § 3. *See* ECF No. 215. At a minimum, the government has explained that, given the serious questions surrounding the lawfulness of these proceedings, further discovery and trial should be stayed pending resolution of the government's dispositive motions—which will soon be fully briefed and ripe for this Court's consideration.[2]

In the absence of a stay, however, the government will be subject to the very discovery that it contends is unlawful in its motion for a protective order, and that would be unnecessary if Plaintiffs' claims were rejected through either of the pending dispositive motions. There is no justification for subjecting a litigant to potentially unlawful discovery before ruling on pending motions that would eliminate the occasion for that discovery and would "clearly constitute[]

[2] The Court has set argument on the motion for judgment on the pleadings for July 18, 2018. ECF No. 214. The motion for summary judgment will be fully briefed by July 12, 2018. ECF No. 239. The government has requested that its motion for summary judgment be set for argument at the July 18 hearing. ECF No. 305. Plaintiffs oppose that request, *id.*, and the Court has not yet ruled on it.

severe prejudice that could not be remedied on appeal." *Credit Suisse v. U.S. Dist. Ct.*, 130 F.3d 1342, 1346 (9th Cir. 1997). Considerations of judicial efficiency would preclude such an approach in an ordinary case. *See, e.g.*, *Rutman Wine Co. v. E. & J. Gallo Winery*, 829 F.2d 729, 738 (9th Cir. 1987). The impropriety of subjecting a party to potentially unlawful discovery challenged in pending motions is greatly heightened where, as here, the objections are raised by the government. *Cf. In re United States*, 138 S. Ct. 443, 444-45 (2017). Not only would subjecting the government to the potentially unlawful discovery at issue here entail a significant waste of public resources, it would also be contrary to (1) the requirements of the APA governing both agency consideration of legal, factual, and policy issues and judicial review of final agency action and inaction; and (2) the constitutional separation of powers. *See Cheney v. U.S. Dist. Court for D.C.*, 542 U.S. 367, 381 (2004).

By contrast, a stay of the litigation during the pendency of the mandamus petition is not likely to appreciably harm Plaintiffs, who waited years to challenge the conduct that they allege is unconstitutional, and who are being harmed (if at all) only in tiny incremental amounts given the long-run nature of climate change. Finally, the public interest strongly favors a stay, because absent such relief the Executive Branch and its agencies (including the Executive Office of the President) would be subject to continued unlawful discovery and forced to divert substantial resources away from their essential function of "faithfully execut[ing]" the law. U.S. Const. art. II, § 3.

CONCLUSION

For the foregoing reasons, the Court should stay all further discovery and trial pending resolution of the government's petition for a writ of mandamus.

Dated: July 5, 2018

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Clare Boronow
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

Certificate of Service

I hereby certify that on July 5, 2018 I filed the foregoing with the Clerk of Court via the CM/ECF system, which will provide service to all attorneys of record.

/s/ Clare Boronow
Clare Boronow
Attorney for Defendants

No. 17A-_____

IN THE SUPREME COURT OF THE UNITED STATES

UNITED STATES OF AMERICA, ET AL., APPLICANTS

v.

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

APPLICATION FOR A STAY PENDING DISPOSITION BY THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT OF A PETITION FOR A WRIT OF MANDAMUS TO THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON AND ANY FURTHER PROCEEDINGS IN THIS COURT AND REQUEST FOR AN ADMINISTRATIVE STAY

NOEL J. FRANCISCO
Solicitor General
Counsel of Record
Department of Justice
Washington, D.C. 20530-0001
SupremeCtBriefs@usdoj.gov
(202) 514-2217

PARTIES TO THE PROCEEDING

Petitioners (defendants in the district court, and mandamus petitioners in the court of appeals) are the United States of America; Donald J. Trump, in his official capacity as the President of the United States; Office of the President of the United States; the Director of Council on Environmental Quality; Mick Mulvaney, in his official capacity as the Director of the Office of Management and Budget; the Director of the Office of Science and Technology Policy; U.S. Department of Agriculture; Sonny Perdue, in his official capacity as the Secretary of Agriculture; U.S. Department of Commerce; Wilbur Ross, in his official capacity as the Secretary of Commerce; U.S. Department of Defense; James N. Mattis, in his official capacity as the Secretary of Defense; U.S. Department of Energy; Rick Perry, in his official capacity as the Secretary of Energy; U.S. Environmental Protection Agency (EPA); Andrew R. Wheeler, in his official capacity as the Acting Administrator of the EPA; U.S. Department of the Interior; Ryan Zinke, in his official capacity as the Secretary of the Interior; U.S. Department of State; Michael R. Pompeo, in his official capacity as the Secretary of State; U.S. Department of Transportation; and Elaine Chao, in her official capacity as the Secretary of Transportation.

Respondent in this Court is the United States District Court for the District of Oregon. Respondents also include Kelsey

Cascadia Rose Juliana; Xiuhtezcatl Tonatiuh M., through his Guardian Tamara Roske-Martinez; Alexander Loznak; Jacob Lebel; Zealand B., through his Guardian Kimberly Pash-Bell; Avery M., through her Guardian Holly McRae; Sahara V., through her Guardian Toña Aguilar; Kiran Isaac Oommen; Tia Marie Hatton; Isaac V., through his Guardian Pamela Vergun; Miko V., through her Guardian Pamela Vergun; Hazel V., through her Guardian Margo Van Ummersen; Sophie K., through her Guardian Dr. James Hansen; Jaime B., through her Guardian Jamescita Peshlakai; Journey Z., through his Guardian Erika Schneider; Victoria B., through her Guardian Daisy Calderon; Nathaniel B., through his Guardian Sharon Baring; Aji P., through his Guardian Helaina Piper; Levi D., through his Guardian Leigh-Ann Draheim; Jayden F., through her Guardian Cherri Foytlin; Nicholas V., through his Guardian Marie Venner; Earth Guardians, a nonprofit organization; and future generations, through their Guardian Dr. James Hansen (collectively plaintiffs in the district court, and real parties in interest in the court of appeals).

IN THE SUPREME COURT OF THE UNITED STATES

_____

No. 17A-_____

UNITED STATES OF AMERICA, ET AL., APPLICANTS

v.

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

_____

APPLICATION FOR A STAY PENDING DISPOSITION BY THE
UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT
OF A PETITION FOR A WRIT OF MANDAMUS TO THE
UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON
AND ANY FURTHER PROCEEDINGS IN THIS COURT
AND REQUEST FOR AN ADMINISTRATIVE STAY

_____

Pursuant to Rule 23 of the Rules of this Court and the All Writs Act, 28 U.S.C. 1651, the Solicitor General, on behalf of the United States, the President of the United States, the Executive Office of the President, the U.S. Environmental Protection Agency, the U.S. Departments of Agriculture, Commerce, Defense, Energy, the Interior, State, and Transportation, and all other federal parties, respectfully applies for a stay of discovery and trial in the United States District Court for the District of Oregon, pending the disposition of the government's petition for a writ of mandamus filed on July 5, 2018, in the United States Court of Appeals for the Ninth Circuit and any further proceedings in this

Court. Petitioners also request an administrative stay pending the Court's consideration of this stay application.

This suit is an attempt to redirect federal environmental and energy policies through the courts rather than through the political process, by asserting a new and unsupported fundamental due process right to certain climate conditions. Rather than challenging any specific agency action or inaction (save one), the plaintiffs allege that the "affirmative aggregate acts" of the federal defendants for the past 50 years in the area of fossil-fuel production and use are causing a "dangerous climate system" and systematically violating their asserted substantive due process rights. Am. Compl. ¶ 289. The plaintiffs ask the district court to address these alleged wrongs by ordering the President and the defendant agencies to prepare and implement a national remedial plan, without regard to the procedural and substantive limitations of those agencies' organic statutes and the Administrative Procedure Act (APA), and by retaining jurisdiction indefinitely to ensure compliance.

Remarkably, the district court has allowed this improper suit to proceed for nearly three years over the repeated objections of the government and has now set aside 50 trial days this fall for the plaintiffs' requested "Trial of the Century."[1] In 2016, the court refused to dismiss the plaintiffs' claims, concluding that

[1] Youth v. Gov, Draw #youthvgov., http://www.youthvgov.org/artist-search/ (last visited July 16, 2018).

the plaintiffs had adequately pleaded facts sufficient to establish Article III standing, that the plaintiffs had stated a violation of an asserted fundamental right to "a climate system capable of sustaining human life," App., infra, 27a, and that the court could remedy that violation by ordering defendants to "move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system," id. at 24a-25a.

After the district court declined to certify its ruling for interlocutory appeal, the government immediately sought from the Ninth Circuit a writ of mandamus ordering dismissal. That court declined to intervene. The court of appeals observed that no order concerning discovery had yet issued and the government had not yet moved for a protective order, to dismiss the President, or for summary judgment. In the court's view, there remained the opportunity for the government to raise and re-raise legal objections to the plaintiffs' claims and for the district court to reconsider its prior decisions, including whether the claims are "too broad to be legally sustainable" and whether this litigation must be "focus[ed] * * * on specific governmental decisions and orders." App., infra, 61a-62a. The court of appeals stated that it expected the claims to be "vastly narrowed as litigation

proceed[ed]" beyond that "very early stage" of litigation. Id. at 62a-63a.

Following the Ninth Circuit's decision, the government took every step contemplated by that court in its decision. In a motion for judgment on the pleadings, the government moved to dismiss the President and made two additional arguments for why the plaintiffs' claims in this case are not justiciable. In a motion for summary judgment, the government restated its prior objections to the plaintiffs' standing and to the merits of their claims, permitting the district court to reconsider those rulings on the basis of a more developed record. And the government moved for a protective order against all discovery, explaining that discovery is categorically inappropriate because it would violate the APA's judicial-review provisions, as well as the APA's comprehensive regulation of agency decisionmaking and the Constitution's separation of powers.

Meanwhile, the plaintiffs have done nothing to narrow their claims or focus them on specifically identified agency actions. Nonetheless, the district court summarily denied the government's motion for a protective order and denied the government's request for a stay pending consideration of the two dispositive motions that would obviate the occasion for any discovery. The court has repeatedly stated its expectation that, absent intervention from a higher court, trial will begin in just over three months and will likely proceed for 50 trial days.

In light of these developments, on July 5, 2018, the government again petitioned the Ninth Circuit for mandamus relief, requesting an order directing dismissal of this ill-conceived suit or, at a minimum, an order directing the district court to stay all discovery and trial pending the resolution of the government's pending dispositive motions. In accordance with Supreme Court Rule 23.3, the government also separately moved in the district court and the court of appeals for a stay of discovery and trial pending disposition of its petition for a writ of mandamus filed in the court of appeals. The district court has not yet acted on the government's motion. After briefing from the parties, the Ninth Circuit yesterday denied the government's motion for a stay.

The standards for granting a stay pending consideration of a matter in the court of appeals are readily met in this case. If the Ninth Circuit does not grant the government's mandamus petition, this Court is likely to grant review to consider the district court's manifestly wrong recognition of a new fundamental substantive due process right to certain climate conditions in the context of litigation over which the district court lacks jurisdiction under Article III and that is otherwise deeply flawed as a procedural matter. Absent relief from the Ninth Circuit or this Court, the government will be forced to participate in a highly compacted period of discovery and trial preparation followed by a 50-day trial, all of which will itself violate bedrock limitations on agency decisionmaking and the judicial

process imposed by the APA and the separation of powers. In light of these impending harms, the Court is therefore likely to order dismissal of this suit or, at a minimum, direct the district court to stay discovery and trial until the government's pending dispositive motions are resolved. In contrast to the obvious harms to the government, respondents can make no credible claim of imminent, irreparable harm. Their alleged injuries stem from the cumulative effects of CO_2 emissions from every source in the world over decades; whatever additions to the global atmosphere that may somehow be attributed to the government over the time it takes to resolve the pending mandamus petition are plainly de minimis.

Accordingly, the government requests that this Court stay discovery and trial pending the Ninth Circuit's consideration of the government's mandamus petition and any further proceedings in this Court. Alternatively, given the numerous manifest defects in this suit and the district court's egregious errors, the government respectfully submits that the Court may wish to construe this application as a petition for a writ of mandamus or as a petition for a writ of certiorari from the Ninth Circuit's prior mandamus decision and directly order dismissal of this suit or a stay of discovery and trial until the government's pending dispositive motions are resolved.

STATEMENT

1. The plaintiffs below (respondents in this Court) are 21 minor individuals, an organization known as Earth Guardians, and

future generations (by and through their self-appointed guardian Dr. James Hansen). They filed this suit in 2015 against President Obama, the Executive Office of the President, and numerous Cabinet-level Executive agencies, alleging that these Executive officials and agencies contributed to climate change in violation of rights that respondents assert under the Fifth and Ninth Amendments to the Constitution and an asserted federal public-trust doctrine. Am. Compl. ¶¶ 277-310. Respondents allege that the federal defendants (now President Trump and officials in his Administration) have, through action and inaction, enabled the combustion of fossil fuels, which releases greenhouse gases into the atmosphere. Id. ¶ 1. With one exception, respondents do not challenge any specific agency actions, such as agency orders, permits, adjudications, or rulemakings, or even any failure to undertake any specific required actions. Instead, they challenge what they term the government's "aggregate actions," id. ¶ 129, which they assert have caused "climate instability" that injures their prospects for long and healthy lives, id. ¶ 288.

Respondents ask the district court to declare that they have the right under the Constitution to a particular climate system and to require that the Executive Branch "prepare a consumption-based inventory of U.S. CO_2 emissions" and "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." Am. Compl. 94. In addition, they ask the court to retain jurisdiction for an

indefinite period of time to monitor the government's compliance with this "national remedial plan." Ibid.

2. In November 2016, the district court denied the government's motion to dismiss respondents' claims for lack of jurisdiction and failure to state a claim. App., infra, 1a-53a. The court found that respondents had established Article III standing by alleging that they had been harmed by the effects of climate change through increased droughts, wildfires, and flooding; and that the government's regulation of (and failure to further regulate) fossil fuels had caused respondents' injuries. The court determined that it could redress those injuries by "order[ing] [the government] to cease [its] permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." Id. at 24a-25a (citation omitted); see id. at 19a-25a.

On the merits, the district court concluded that respondents had stated a claim under the Fifth Amendment's Due Process Clause and a federal public-trust doctrine. App., infra, 25a-38a. The court found in the Fifth Amendment's protection against the deprivation of "life, liberty, or property, without due process of law," U.S. Const. Amend. V, a previously unrecognized fundamental

right to a "climate system capable of sustaining human life," and the court determined that respondents had adequately alleged infringement of that fundamental right, App., infra, 27a. The court further determined that respondents had adequately stated a claim under a federal public-trust doctrine, which it held imposes a judicially enforceable prohibition on the federal government against "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." Id. at 30a (citation omitted). Respondents' claims under this doctrine, the court concluded, are also "properly categorized as substantive due process claims." Id. at 38a.

3. The government petitioned the Ninth Circuit for a writ of mandamus ordering dismissal, contending that the district court's order denying the motion to dismiss contravened fundamental limitations on judicial review imposed by Article III of the Constitution and clearly erred in recognizing a sweeping new fundamental right to certain climate conditions under the Due Process Clause. The government further requested a stay of the litigation pending the court of appeals' consideration of the mandamus petition.

On July 25, 2017, the court of appeals granted the government's request for a stay. App., infra, 54a. But on March 7, 2018, the court ultimately "decline[d] to exercise [its] discretion to grant mandamus relief at th[at] stage of the litigation." App., infra, 63a; see id. at 55a-63a. In its

decision, the court recognized that "some of [respondents'] claims as currently pleaded are quite broad, and some of the remedies [respondents] seek may not be available as redress." Id. at 62a. The court reasoned, however, that "the district court need[ed] to consider those issues further in the first instance." Id. at 63a. The court of appeals "underscore[d] that this case [wa]s at a very early stage, and that the [government] [would] have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders." Id. at 62a. The court of appeals observed that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that it had "no reason to assume this case will be any different." Id. at 63a. And the court stated that the governmental defendants could continue to "raise and litigate any legal objections they have," id. at 62a, including by challenging future discovery orders; moving to "dismiss the President as a party"; "reasserting a challenge to standing, particularly as to redressability"; "seeking mandamus in the future"; or "asking the district court to certify orders for interlocutory appeal of later rulings," id. at 61a, 63a.

On May 29, 2018, Justice Kennedy extended the time within which to file a petition for a writ of certiorari to review the Ninth Circuit's decision to and including July 5. On June 25, Justice Kennedy further extended the time within which to file a

petition for a writ of certiorari to review the Ninth Circuit's decision to and including August 4, 2018.

4. Following the court of appeals' decision, the government filed a series of motions in the district court as contemplated by the Ninth Circuit's decision.

First, the government filed a motion for judgment on the pleadings, reiterating its prior arguments for dismissal: respondents lack standing, and their novel assertion of judicially enforceable fundamental rights to a particular climate system lacks any support in the Constitution or this Nation's history and tradition. See D. Ct. Doc. 195, at 6-7 (May 9, 2018). The government also set forth three new grounds for dismissing some or all of respondents' claims: (1) the President must be dismissed because the court lacks jurisdiction to enjoin him in the performance of his official duties; (2) all of respondents' claims must be dismissed because the APA provides the mechanism for challenging the federal administrative actions that underlie respondents' claims, but respondents fail to challenge discrete, identified agency actions or alleged failures to act, as the APA requires; and (3) in any event, respondents' claims and requested relief violate the constitutional separation of powers by effectively requiring the district court to usurp the role of Congress in enacting a government-wide regulatory framework and the President in calling on the expertise and resources of the Executive Branch to formulate environmental and energy policies

and to make recommendations to Congress concerning changes to laws governing those policies. Id. at 7-25.

Second, on the same day, the government filed a motion for a protective order barring all discovery or, at a minimum, a stay of all discovery pending resolution of its motion for judgment on the pleadings and its forthcoming motion for summary judgment. D. Ct. Doc. 196, at 1-2 (May 9, 2018). The government argued that, because this case may proceed only under the APA, judicial review must be based on the administrative record of specifically identified actions or decisions, and therefore no discovery is proper. Id. at 9-14. The government also contended that, even if review were not otherwise limited to the administrative record of specific agency actions, discovery in this case would be independently barred by the procedural requirements that the APA imposes on agency fact-finding and decisionmaking and the separation of powers. Id. at 14-19. Finally, the government argued that, at a minimum, the district court should stay all discovery until the court ruled on the government's pending motion for judgment on the pleadings and its forthcoming motion for summary judgment, the granting of which would either eliminate any occasion for discovery or substantially affect its scope. Id. at 19-20.

Third, the government filed a motion for summary judgment, arguing that (1) respondents lack standing both as a matter of law and as judged against the evidentiary record; (2) respondents have

failed to identify a right of action for their claims apart from the APA and have not satisfied the APA's requirement to challenge discrete agency actions or inactions; and (3) respondents' claims fail on the merits. D. Ct. Doc. 207, at 5-19, 24-30 (May 22, 2018). In addition, the government contended that it was entitled to summary judgment because, even aside from respondents' lack of standing, this suit is not a case or controversy within the meaning of Article III. Id. at 20-24.

5. In the meantime, both respondents and the district court wholly failed to narrow or focus the claims in this case. Immediately following the court of appeals' prior decision, the district court ordered the parties to proceed with discovery, and it set an opening trial date of October 29, 2018. D. Ct. Doc. 189 (Mar. 26, 2018); D. Ct. Doc. 192 (Apr. 12, 2018). The court indicated its expectation that the trial will last for approximately 50 trial days. See, e.g., 4/12/18 Tr. 8 (Coffin, J.) (estimating "five weeks per side in essence"). And the court has repeatedly made clear that it has no intention of delaying trial. See, e.g., 5/23/18 Tr. 16 (Aiken, J.) ("[A]s we have talked about in this case before, we are not delaying the trial at this point. We are moving forward."); id. at 17 ("[W]e have got a trial date and we are moving forward."); 5/10/18 Tr. 27 (Coffin, J.) ("[H]ere's the big picture. October 29, 2018, trial starts unless some higher court says no."); D. Ct. Doc. 239 (June 14, 2018) (Aiken, J.) (denying request to extend the trial date for the same

period as extension of time for respondents to oppose summary judgment).

At the same time, the district court extended the deadline for respondents to respond to the government's motion for judgment on the pleadings to June 15, D. Ct. Doc. 210 (May 23, 2018), and set argument on that motion for July 18, D. Ct. Doc. 214 (May 30, 2018). It similarly extended the deadline for respondents to respond to the government's motion for summary judgment until June 28. D. Ct. Doc. 240 (June 14, 2018). After the government filed its mandamus petition, the court granted the government's request to set argument on the motion for summary judgment for the July 18 hearing. D. Ct. Doc. 316 (July 13, 2018).

Meanwhile, in April 2018, respondents served the government with 17 expert reports. In May 2018, respondents served 413 requests for admissions (RFAs) and Federal Rule of Civil Procedure 30(b)(6) deposition notices on the U.S. Departments of Agriculture, the Interior, and Transportation. These RFAs are broad in scope, seeking admissions dating back to the 1960s on topics such as whether, in the agencies' views, certain resources are "at risk"; and admissions concerning "cultural services" such as "spiritual renewal[] and aesthetic enjoyment." See, e.g., D. Ct. Doc. 194-3, at 17 (May 8, 2018); D. Ct. Doc. 194-4, at 29. Among the topics noticed for the Rule 30(b)(6) depositions, respondents demanded that the government designate witnesses to express the defendant agencies' official positions on "[a]ny

analysis or evaluation" related to "atmospheric CO2 concentrations, climate change targets, or greenhouse gas emission" that "would avoid endangerment of human health and welfare for current and future generations," as well as on the role of the agencies in implementing President Trump's energy policy. D. Ct. Doc. 196-1, at 6 (capitalization omitted) (Rule 30(b)(6) notice of deposition of U.S. Department of the Interior); D. Ct. Doc. 196-2, at 6 (capitalization omitted) (Rule 30(b)(6) notice of deposition of U.S. Department of Agriculture); D. Ct. Doc. 217-6, at 6 (June 4, 2018) (capitalization omitted) (Rule 30(b)(6) notice of deposition of U.S. Department of Transportation).

In June 2018, respondents served similar RFAs and nearly identical Rule 30(b)(6) deposition notices on the U.S. Departments of Energy and Defense. When the government sought a protective order with respect to the May RFAs and deposition notices on multiple grounds, respondents refused to withdraw the requests but asked the district court to hold the government's responses in abeyance while respondents seek to obtain the same information through contention interrogatories and requests for judicial notice. D. Ct. Doc. 247, at 2-4 (June 25, 2018).

6. Magistrate Judge Coffin denied the government's motion for a protective order for all discovery or, at a minimum, a stay of all discovery pending resolution of the government's motions for judgment on the pleadings and summary judgment. App., infra,

64a-66a. Judge Coffin determined that respondents' complaint does not assert claims arising under the APA because their claims are "based on alleged violations of their constitutional rights." Id. at 65a. He expressed the view that the district court had already rejected the government's argument that respondents must bring their claims under the APA. Ibid. And he refused to grant a protective order based on the separation of powers, ruling instead that "[s]hould a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request." Id. at 66a. Judge Coffin denied the government's request for a stay of discovery without explanation. Ibid.

On June 29, the district court summarily affirmed Judge Coffin's order, stating that it had "carefully reviewed [that] order in light of [the government's] objections" and "conclude[d] that the order is not clearly erroneous or contrary to law." App., infra, 68a; see id. at 67a-68a. The court provided no additional explanation for its decision. Also without explanation, the court "decline[d] to certify [its] decision for interlocutory appeal under 28 U.S.C. § 1292(b)." Id. at 68a. Meanwhile, the government's trial-preparation burdens continue, as the October trial date fast approaches. Among other obligations, the government is required to provide expert reports to respondents by August 13, 2018. D. Ct. Doc. 192.

7. On July 5, the government again petitioned the Ninth Circuit for a writ of mandamus and a stay pending the court's consideration of the government's petition. The government explained that, in an effort to terminate or narrow this case, it had taken every step that the Ninth Circuit had contemplated in its prior decision. And yet respondents had failed to narrow their claims in any respect, and the district court's orders made clear that this case will not be terminated or respondents will not be required to narrow their manifestly overbroad claims in time to have any meaningful effect on discovery or trial. Accordingly, the government asked the Ninth Circuit (1) to direct the district court to dismiss this case or (2) at a minimum, to direct the district court to stay all discovery and trial pending the resolution of the government's dispositive motions, and consider certifying for interlocutory appeal any rulings on those motions, and (3) to stay all discovery and trial while the court of appeals considered the government's mandamus petition.

The court of appeals ordered respondents to respond to the government's stay request by July 10, with the government to file any reply the following day. On July 16, the court denied the stay request, stating that it would rule on the government's mandamus petition "on an expedited basis." App., infra, 69a. The court has not yet ordered a response to the government's mandamus petition.

ARGUMENT

The government respectfully requests that this Court grant a stay of all discovery and trial pending the Ninth Circuit's resolution of the government's petition for a writ of mandamus and any further proceedings in this Court. The government also respectfully requests an administrative stay pending this Court's ruling on this application for a stay. Under this Court's Rule 23 and the All Writs Act, 28 U.S.C. 1651, a single Justice or the Court has authority to enter a stay pending proceedings in a court of appeals.[2] In considering an application for such a stay, the Court or Circuit Justice considers whether four Justices are likely to vote to grant a writ of certiorari if the court of appeals ultimately rules against the applicant; whether five Justices would then likely conclude that the case was erroneously decided below; and whether, on balancing the equities, the injury asserted by the applicant outweighs the harm to the other parties or the public. See San Diegans for the Mt. Soledad Nat'l War Mem'l v. Paulson, 548 U.S. 1301, 1302 (2006) (Kennedy, J., in chambers); Hilton v. Braunskill, 481 U.S. 770, 776 (1987) (traditional stay factors). All of those factors support a stay here.

1. This Court is likely to grant review if the court of appeals denies the government's petition for mandamus. The

[2] See, e.g., Trump v. International Refugee Assistance Project, 138 S. Ct. 542 (2017); West Virginia v. EPA, 136 S. Ct. 1000 (2016); Stephen M. Shapiro et al., Supreme Court Practice § 17.6, at 881-884 (10th ed. 2013).

district court has egregiously erred in declaring a never-before-recognized fundamental right to a particular climate system that lacks any support in the Constitution, this Court's precedents, or this Nation's history and tradition. It has done so in the context of litigation over which the court lacks Article III jurisdiction in multiple respects and is otherwise fundamentally procedurally flawed. Absent relief from the Ninth Circuit or this Court, this litigation is barreling toward an extremely compacted period of discovery that, in one form or another, will force the government to violate its obligations under the APA and the separation of powers, followed immediately by a 50-day trial that would itself violate the same constraints. If the court of appeals sanctions such a dramatic "depart[ure] from the accepted and usual course of judicial proceedings," an exercise of this Court's supervisory power would be warranted. Sup. Ct. R. 10(a).

2. Moreover, if the court of appeals denies the government's petition, a majority of this Court will likely reverse the Ninth Circuit's denial of mandamus relief or issue a writ of mandamus directly to the district court. As this Court has observed, the traditional use of mandamus has been "to confine the court against which mandamus is sought to a lawful exercise of its prescribed jurisdiction." Cheney v. United States Dist. Court, 542 U.S. 367, 380 (2004) (brackets and citation omitted). Moreover, mandamus may also be justified by errors "amounting to a judicial 'usurpation of power'" or a "clear abuse of discretion."

Ibid. (citation omitted). A court may issue a writ of mandamus when the petitioner establishes that (1) the petitioner's "right to issuance of the writ is 'clear and indisputable'"; (2) "no other adequate means [exist] to attain the relief he desires"; and (3) "the writ is appropriate under the circumstances." Hollingsworth v. Perry, 558 U.S. 183, 190 (2010) (per curiam) (quoting Cheney, 542 U.S. at 380-381) (brackets in original). Each of those prerequisites for mandamus relief is met here.

a. The government's right to the dismissal of this case is "clear and indisputable." Perry, 558 U.S. at 190 (citation omitted). Respondents' implausible and far-reaching claims are procedurally and substantially defective in at least three ways.

i. Most fundamentally, the district court lacks jurisdiction over respondents' claims. "[N]o principle is more fundamental to the judiciary's proper role in our system of government than the constitutional limitation of federal-court jurisdiction to actual cases or controversies." DaimlerChrysler Corp. v. Cuno, 547 U.S. 332, 341 (2006) (quoting Raines v. Byrd, 521 U.S. 811, 818 (1997)). This suit fails to qualify as a "Case[]" or "Controvers[y]" within the meaning of Article III for two independent reasons. U.S. Const. Art. III, § 2, Cl. 1.

First, respondents lack Article III standing. To demonstrate standing, respondents must prove that (1) they "have suffered an injury in fact," i.e., "an invasion of a legally protected interest which is (a) concrete and particularized, and (b) actual or

imminent, not conjectural or hypothetical"; (2) the injury is "fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court"; and (3) it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-561 (1992) (citations, footnote, and internal quotation marks omitted; brackets in original). The purpose of these standing requirements is "to prevent the judicial process from being used to usurp the powers of the political branches." Clapper v. Amnesty Int'l USA, 568 U.S. 398, 408 (2013). "In keeping with that purpose," a court's inquiry must be "'especially rigorous when reaching the merits of the dispute would force [it] to decide whether an action taken by one of the other two branches of the Federal Government was unconstitutional.'" Ibid. (citation omitted). Respondents cannot establish any of the standing requirements here.

Respondents assert "generalized grievance[s]," not "concrete and particularized" injuries sufficient to satisfy the first prong of the standing analysis. See, e.g., Lexmark Int'l, Inc. v. Static Control Components, Inc., 134 S. Ct. 1377, 1386, 1387 n.3 (2014); Lance v. Coffman, 549 U.S. 437, 439 (2007) (per curiam); Cuno, 547 U.S. at 344-346. This Court has made clear that "standing to sue may not be predicated upon an interest * * * which is held in common by all members of the public, because of the necessarily

abstract nature of the injury all citizens share." Schlesinger v. Reservists Comm. to Stop the War, 418 U.S. 208, 220 (1974). The injuries that respondents claim all involve the diffuse effects of a generalized phenomenon on a global scale that are the same as those felt by any other person in their communities, in the United States, or throughout the world at large.

Moreover, respondents cannot establish that the government policies they challenge -- expressed in broad and undifferentiated terms, rather than directed to discrete agency actions -- caused their asserted injuries. See Defenders of Wildlife, 504 U.S. at 560. Respondents principally complain of the government's regulation (or lack thereof) of private parties not before the district court. Among their widely scattered objections, for example, respondents claim that the United States subsidizes the fossil-fuel industry. Am. Compl. ¶¶ 171-178. But when a plaintiff's alleged harms may have been caused directly by the conduct of parties other than the defendants (and only indirectly by the defendants), it is "substantially more difficult to meet the minimum requirement of Art. III: to establish that, in fact, the asserted injury was the consequence of the defendants' actions, or that prospective relief will remove the harm." Warth v. Seldin, 422 U.S. 490, 504-505 (1975). And respondents cannot establish a causal link between the amorphously described policy decisions and the specific harms that they allege, as opposed to the independent

actions by private persons both within and outside the United States.

Finally, even if respondents could somehow establish injury-in-fact and causation, they could not establish that it is likely that their asserted injuries could be redressed by an order of a federal court. Indeed, respondents have not even begun to articulate a remedy that a federal court would have authority to award and that could move the needle on the complex phenomenon of global climate change, much less likely redress their alleged injuries. See, e.g., Simon v. Eastern Kentucky Welfare Rights Org., 426 U.S. 26, 40-46 (1976) (holding that plaintiffs challenging tax subsidies for hospitals serving indigent patients lacked standing where they could only speculate on whether a change in policy would "result in [the plaintiffs] receiving the hospital services they desire"). The district court assumed that it had the authority to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." App., infra, 41a (quoting Am. Compl. 94). But neither respondents nor the court cited any legal authority that would permit such a usurpation of legislative and executive authority by an Article III court.

Second, quite aside from these fatal flaws with respect to standing, this suit simply is not one that a federal court may entertain consistent with the Constitution. The "judicial Power of the United States," U.S. Const. Art. III, § 1, is "'one to

render dispositive judgments'" in "cases and controversies" as defined by Article III. Plaut v. Spendthrift Farm, Inc., 514 U.S. 211, 218-219 (1995) (citation omitted). It can "come into play only in matters that were the traditional concern of the courts at Westminster" and only when those matters arise "in ways that to the expert feel of lawyers constituted 'Cases' or 'Controversies.'" Vermont Agency of Natural Res. v. United States ex rel. Stevens, 529 U.S. 765, 774 (2000) (citation omitted).

Respondents' suit is not such a case or controversy cognizable under Article III. Respondents ask the district court to review and assess the entirety of Congress's and the Executive Branch's programs and policies relating to climate change and then to undertake to pass upon the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. See, e.g., Am. Compl. ¶¶ 277-310. No federal court, nor the courts at Westminster, has ever purported to use the "judicial Power" to perform such a review -- and for good reason: the Constitution commits to Congress the power to enact comprehensive government-wide measures of the sort respondents seek. And it commits to the President the power to oversee the Executive Branch in its administration of existing law and to draw on its expertise and formulate policy proposals for changing existing law. Such functions are not the province of Article III courts. See U.S. Const. Art. I, § 1; id. Art. II, § 2, Cl. 1; id. § 3; cf. Cheney, 542 U.S. at 385.

Respondents appeal to the district court's equitable powers as justifying the review they seek in this case. But a federal court's equitable powers are "subject to restrictions: the suit must be within the traditional scope of equity as historically evolved in the English Court of Chancery." Guaranty Trust Co. v. York, 326 U.S. 99, 105 (1945). The relief respondents request is plainly not of the sort "traditionally accorded by courts of equity." Grupo Mexicano de Desarrollo, S.A. v. Alliance Bond Fund, Inc., 527 U.S. 308, 319 (1999). "There simply are certain things that courts, in order to remain courts, cannot and should not do." Missouri v. Jenkins, 515 U.S. 70, 132 (1995) (Thomas, J., concurring). One of those things is "running Executive Branch agencies." Id. at 133. And it surely includes running all of them.

ii. Beyond these limitations imposed by Article III, a suit challenging an agency's regulatory measures would have to be targeted at specifically identified agency actions or alleged failures to act, and review would have to be based on the administrative record for those actions. The APA provides that a "person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. 702. The APA authorizes a reviewing court to "hold unlawful and set aside agency action" that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance

with law" or "contrary to constitutional right, power, privilege, or immunity," 5 U.S.C. 706(2)(A)-(B), and to "compel agency action unlawfully withheld or unreasonably delayed," 5 U.S.C. 706(1). The APA thus provides a "comprehensive remedial scheme" for a "person 'adversely affected' * * * by agency action" or alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. Western Radio Servs. Co. v. United States Forest Serv., 578 F.3d 1116, 1122-1123 (9th Cir. 2009) (citation omitted), cert. denied, 559 U.S. 1106 (2010); see Wilkie v. Robbins, 551 U.S. 537, 551-554 (2007) (describing the APA as the remedial scheme for vindicating complaints against "unfavorable agency actions"); Webster v. Doe, 486 U.S. 592, 607 n.* (1988) (Scalia, J., dissenting) (explaining that the APA "is an umbrella statute governing judicial review of all federal agency action" and that "if review is not available under the APA it is not available at all").

Respondents allege that a vast number of (mostly unspecified) "agency action[s]" and inactions spanning the last several decades are, in the words of the APA, "contrary to constitutional right." 5 U.S.C. 702, 706(2)(B). As currently formulated, however, respondents' claims cannot proceed under the APA, because the APA allows only for challenges to "circumscribed, discrete" final agency action, not the sort of "broad programmatic attack" on agency policies that respondents assert here. Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 62, 64 (2004) (SUWA); see

Lujan v. National Wildlife Fed'n, 497 U.S. 871, 891 (1990). Respondents expressly cast their claims as a challenge to "affirmative aggregate actions" by the numerous defendant agencies that "permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels." Am. Compl. ¶¶ 1, 5. A challenge to "aggregate actions" is the antithesis of the "discrete agency action" that this Court has explained must be challenged under the APA. SUWA, 542 U.S. at 64.

Respondents suggest that they can evade the APA's limitations because the Constitution itself provides the right of action for constitutional claims. Am. Compl. ¶ 13. But this Court has never held that the Constitution itself provides an across-the-board right of action for all constitutional claims -- and especially for the sweeping constitutional claims concerning governmental regulation that respondents advance here and the sweeping relief they seek. Cf. Armstrong v. Exceptional Child Ctr., Inc., 135 S. Ct. 1378, 1384 (2015) ("[T]he Supremacy Clause does not confer a right of action."). Federal courts do have equitable authority in some circumstances "to enjoin unlawful executive action." Id. at 1385. But that equitable power is "subject to express and implied statutory limitations." Ibid. Thus, "[w]here Congress has created a remedial scheme for the enforcement of a particular federal right," courts "have, in suits against federal officers, refused to supplement that scheme with one created by the judiciary." Seminole Tribe of Fla. v. Florida, 517 U.S. 44, 74

(1996). Here, even if the equitable authority of an Article III court could ever extend to a case of this sort, the APA provides "express * * * statutory limitations" that "'foreclose,'" Armstrong, 135 S. Ct. at 1385 (citation omitted), respondents' asserted constitutional claims against the broad and largely unspecified "aggregate actions" of the federal government as a whole, Am. Compl. ¶ 129.

iii. Even if a court could reach the merits of respondents' constitutional theories, they plainly fail. In denying the government's motion to dismiss, the district court concluded that respondents stated two related constitutional claims based on substantive due process: (1) a previously unidentified judicially enforceable fundamental right to "a climate system capable of sustaining human life"; and (2) a federal public-trust doctrine to the same effect. App., infra, 27a; see id. at 25a-38a. Those claims are baseless.

This Court has instructed courts considering novel due process claims to "'exercise the utmost care whenever * * * asked to break new ground in this field,' lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences, and lest important issues be placed "outside the arena of public debate and legislative action." Washington v. Glucksberg, 521 U.S. 702, 720 (1997) (citation omitted). The Court has "regularly observed that the Due Process Clause specially protects those fundamental rights and liberties which are,

objectively, 'deeply rooted in this Nation's history and tradition.'" Id. at 720-721 (citation omitted). The district court's recognition of an "unenumerated fundamental right" to "a climate system capable of sustaining human life," App., infra, 26a-27a, is entirely without basis in this Nation's history or tradition. It threatens to wrest fundamental policy issues of energy development and environmental regulation affecting everyone in the country from "the arena of public debate and legislative action," Glucksberg, 521 U.S. at 720, and to thrust them into the supervision of the federal courts -- indeed, here, into a single district court at the behest of a handful of individuals, a person purporting to act on behalf of future generations, and a single environmental organization, advancing just one perspective on the complex issues involved.

The district court relied principally on the Court's recognition of a fundamental right to same-sex marriage in Obergefell v. Hodges, 135 S. Ct. 2584 (2015). App., infra, 26a. There is no relationship, however, between a distinctly personal and circumscribed right to same-sex marriage and the alleged right to a climate system capable of sustaining human life that apparently would run indiscriminately to every individual in the United States. The right recognized by the district court has no relationship to any right as "fundamental as a matter of history and tradition" as the right to marry recognized in Obergefell. 135 S. Ct. at 2602. Nor was the Obergefell Court's recognition of

that narrow right an invitation to abandon the cautious approach to recognizing new fundamental rights that is demanded by the Court's prior decisions.

Respondents' public-trust claim fares no better. The roots of a public-trust doctrine "trace to Roman civil law and its principles can be found in the English common law on public navigation and fishing rights over tidal lands and in the state laws of this country." PPL Montana, LLC v. Montana, 565 U.S. 576, 603 (2012). Where it applies, such a doctrine generally holds that the sovereign "owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." National Audubon Soc'y v. Superior Court, 658 P.2d 709, 718 (Cal.), cert. denied, 464 U.S. 977 (1983) (citation and internal quotation marks omitted).

Respondents attempt to invoke that doctrine to impose judicially enforceable, extra-statutory obligations on the federal government's regulation of the fossil-fuel industry and its alleged effects on the atmosphere. They fail, however, to identify a single decision applying the public-trust doctrine in this novel manner. And even if such a doctrine could ever dictate a sovereign's regulation of private parties, respondents' claim would be unavailing because, as this Court has repeatedly recognized, the public-trust doctrine is purely a matter of state law and pertains only to a State's functions. See, e.g., PPL Montana, 565 U.S. at 603 ("[T]he public trust doctrine remains a

matter of state law.") (citing Idaho v. Coeur d'Alene Tribe of Idaho, 521 U.S. 261, 285 (1997)). Indeed, the D.C. Circuit recently concluded that a nearly identical public-trust claim was so insubstantial that it could not provide even a basis for federal court subject-matter jurisdiction. See Alec L. ex rel. Loorz v. McCarthy, 561 Fed. Appx. 7, 8 (per curiam), cert. denied, 135 S. Ct. 774 (2014).

iv. Finally, even if the Court were hesitant at this moment to direct dismissal in light of all these defects, it is likely at least to direct the district court to stay discovery and trial pending resolution of the government's motion for judgment on the pleadings and its motion for summary judgment. A favorable ruling on either motion would terminate the litigation or substantially narrow it to allow challenges only to specifically identifiable agency action under the APA, thus eliminating any occasion for discovery or trial. At the very least, such a ruling would substantially affect the scope of any trial or discovery, including the government's expert reports that are due in the coming weeks.

In similar circumstances, this Court recently held that the Ninth Circuit erred in denying the government's petition for a writ of mandamus against district court orders that would have required the government to produce certain materials before the district court had resolved the government's threshold arguments for dismissal. See In re United States, 138 S. Ct. 443 (2017) (per curiam). In that case, the district court had refused to

stay all discovery pending resolution of the government's motion to dismiss the case as nonjusticiable and the court ordered the expansion of the administrative record that the government had produced. Id. at 444. After the Ninth Circuit denied the government's mandamus petition challenging those orders, this Court unanimously vacated the decision, remanding with instructions that the district court first rule on the government's threshold arguments and then "consider certifying that ruling for interlocutory appeal under 28 U.S.C. § 1292(b) if appropriate." Id. at 445. At the very least, the same relief is warranted here.

b. Mandamus is an appropriate remedy to correct the district court's egregious errors because the government has no adequate means to obtain relief from the court's refusal to dismiss this litigation or to prevent the impending discovery and trial. This Court observed in Cheney that mandamus may be used to correct a "judicial 'usurpation of power,'" 542 U.S. at 380 (citation omitted), and "mandamus standards are broad enough to allow a court of appeals to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities," id. at 382; see ibid. (recognizing the "paramount necessity of protecting the Executive Branch from vexatious litigation that might distract it from the energetic performance of its constitutional duties"). Here, as a result of the district court's denial of a protective order, the defendant agencies will now be required to proceed with discovery and, in

all likelihood, participate in a fast-approaching 50-day trial that is not only flatly inconsistent with the APA's rules requiring a challenge to be directed to specific agency actions based on record review, but would also (i) violate the APA's carefully reticulated scheme for agencies to make factual assessments and policy determinations through rulemaking and adjudication in matters within their jurisdiction and (ii) contravene the constitutional separation of powers.

i. The APA sets forth a "comprehensive regulation of procedures" for agency decisionmaking. Wong Yang Sung v. McGrath, 339 U.S. 33, 36, modified, 339 U.S. 908 (1950); see 5 U.S.C. 551-554. "Time and again," this Court has explained that the APA establishes the exclusive procedural requirements for agency decisionmaking, and courts are not free to alter those requirements. Perez v. Mortgage Bankers Ass'n, 135 S. Ct. 1199, 1207 (2015). To require agencies to comply with discovery seeking official positions on factual assessments and questions of policy concerning the climate and then participate in a trial to impose on them an "enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," Am. Compl. 94, would impermissibly conflict with the procedures prescribed by the APA and deprive other interested parties and the public of the ability to provide input where the APA's rulemaking provisions or agency procedures require.

In pending discovery requests, for example, respondents seek to depose under Rule 30(b)(6) an official representative of the U.S. Department of Transportation on the agency's "role in implementing President Trump's America First Energy Plan," D. Ct. Doc. 217-6, at 6, and have the agency "admi[t]" propositions such as "[p]etroleum use in the transportation sector in the United States is expected to remain at about 13.5 million barrels per day through 2040 and beyond," D. Ct. Doc. 217-9, at 19 (capitalization omitted). If discovery proceeds in this case, the agencies' official statements and conclusions on such topics would be offered without public input from other stakeholders and without any of the relevant orderly procedures of agency decisionmaking contemplated by the APA. See 5 U.S.C. 553, 554. Those and similar required responses to discovery thus would be in direct contravention of Congress's judgment in the APA and the agencies' respective organic statutes to vest such determinations in the agencies' administrative processes in the first instance. And trial on such matters seeking to bind the defendant agencies (much less the President) would be fundamentally inconsistent with the APA and the agencies' organic statutes.

ii. Discovery and trial in this case would also violate the Constitution's separation of powers. Even before the enactment of the APA, this Court recognized that permitting an agency's "findings to be attacked or supported in court by new evidence would substitute the court for the administrative tribunal," Tagg

Bros. & Moorhead v. United States, 280 U.S. 420, 444 (1930), a step that would improperly allow the court to "usurp[] the agency's function," Unemployment Comp. Comm'n v. Aragon, 329 U.S. 143, 155 (1946). Moreover, "in cases where Congress has simply provided for review, without setting forth the standards to be used or the procedures to be followed," the Court "has held that consideration is to be confined to the administrative record and that no de novo proceeding may be held." United States v. Carlo Bianchi & Co., 373 U.S. 709, 715 (1963).

Limiting judicial review to the administrative record of actions taken within the scope of the agency's authority as conferred by Congress in its organic statute reflects fundamental separation-of-powers principles. This suit, in which respondents seek discovery in aid of requiring the defendant agencies (and the President) to develop and implement a comprehensive, government-wide climate policy outside the congressionally prescribed statutory framework runs roughshod over those principles. It violates the vesting of the "legislative Power" in Congress to the extent it would require agencies to transgress the substantive and procedural constraints imposed on them by statute. U.S. Const. Art. I, § 1. And to the extent it seeks to require the President and Executive agencies to develop and implement such policies, it violates the Constitution's vesting of "executive Power * * * in a President of the United States." Id. Art. II, § 1, Cl. 1.

Allowing respondents to simply file a complaint in federal court and then leverage the civil litigation system to marshal the views of federal agencies on broad questions concerning climate conditions and national environmental and energy policies would displace the President in his superintendence of the Executive Branch and encroach on his exclusive authority to elicit the views of federal agencies in formulating national policies for addressing important issues of general concern. See U.S. Const. Art. II, § 2, Cl. 1 (vesting in the President the exclusive power to "require the Opinion * * * of the principal Officer in each of the executive Departments, upon any Subject relating to the Duties of their respective Offices"); id. § 3 (vesting the President with power to "recommend to" Congress for "Consideration such Measures as he shall judge necessary and expedient"). Just as the President may not compel an advisory opinion from a court on a question of law, see, e.g., Flast v. Cohen, 392 U.S. 83, 96 & n.14 (1968), a court may not compel the opinions and proposals of executive officials on such matters. The Court should grant mandamus relief to prevent the irreparable harm that would be caused by such intrusions.

3. The balance of equities strongly supports granting a stay of discovery and trial pending consideration of the government's mandamus petition. Absent a stay, the government will be forced to proceed with burdensome discovery on a highly compressed timeframe and to prepare for (and eventually

participate in) a fast-approaching 50-day trial while, at the same time, violating its obligations under the APA and transgressing the separation of powers under the Constitution. Most immediately, by August 13 the government must produce expert reports rebutting respondents' 17 expert witnesses. Respondents' expert reports opine on wide-ranging topics from the merits vel non of implementing a carbon tax, D. Ct. Doc. 266-1, at 33-35 (June 28, 2018), to the technological and economic feasibility of converting 100% of the United States' energy from fossil fuels to renewable energy for all sectors by 2050, D. Ct. Doc. 261-1, at 4-11 (June 28, 2018). Respondents also have not withdrawn their requests for admission propounded on the U.S. Departments of Agriculture, Defense, Energy, the Interior, and Transportation or their Rule 30(b)(6) notices seeking an official designee from the same agencies to testify to each agency's positions on various aspects of climate change and the agency's view of its role in implementing the President's energy policies. See pp. 14-15, supra. Indeed, respondents have promised that more discovery requests on similar topics will be served soon, D. Ct. Doc. 247, at 4, all of which are unlawful and unnecessary.

By contrast, respondents can make no credible claim that a relatively brief stay to decide the government's petition will cause them irreparable harm. Because respondents' alleged injuries stem from the cumulative effects of CO_2 emissions from every source in the world over decades, whatever additions to the

global atmosphere that may somehow be attributed to the defendant agencies over the time it takes to resolve the government's pending petition are plainly de minimis in context and not a source of irreparable harm.

CONCLUSION

For the foregoing reasons, this Court should stay discovery and trial pending the court of appeals' disposition of the government's petition for a writ of mandamus and any further proceedings in this Court. Alternatively, the Court should construe this application as a petition for a writ of mandamus to the district court, or as a petition for a writ of certiorari seeking review of the Ninth Circuit's prior mandamus decision (App., infra, 55a-63a), and it should order that the district court dismiss this suit or that the district court stay discovery and trial until the government's pending dispositive motions are resolved and then consider certifying for interlocutory appeal any rulings on those motions. The government also requests that this Court enter an administrative stay pending its consideration of this stay application.

Respectfully submitted.

NOEL J. FRANCISCO
Solicitor General

JULY 2018

APPENDIX

Order Denying Motion to Dismiss (D. Or. Nov. 10, 2016).....1a

Order Granting Stay (9th Cir. July 25, 2017).....54a

Opinion Denying Petition for a Writ of Mandamus
(9th Cir. Mar. 7, 2018) 55a

Order Denying Motion for Protective Order and Stay
(D. Or. May 25, 2018) 64a

Order Affirming Denial of Motion for Protective Order
and Stay (D. Or. June 29, 2018) 67a

Order Denying Stay (9th Cir. July 16, 2018).....69a

(citing *Int'l Ass'n of Machinists v. Street*, 367 U.S. 740, 761, 81 S.Ct. 1784, 6 L.Ed.2d 1141 (1961) and Hughes Tool Co., 104 N.L.R.B. 318, 324–25 (1953) ("[A] union could not assess nonmembers for costs arising from contract negotiations for the latter are the exclusive duty and prerogative of the certified representative which the nonmember minority is both entitled to and bound under.")). As the *Sweeney* Court explained:

> The powers of the bargaining representative are 'comparable to those possessed by a legislative body both to create and restrict the rights of those whom it represents.' The duty of fair representation is therefore a 'corresponding duty' imposed in exchange for the powers granted to the Union as an exclusive representative. It seems disingenuous not to recognize that the Union's position as a sole representative comes with a set of powers and benefits as well as responsibilities and duties.

Id. (quoting *Steele v. Louisville & N.R. Co.*, 323 U.S. 192, 65 S.Ct. 226, 89 L.Ed. 173 (1944)).

Because Local 370 is "fully and adequately compensated by its rights as the sole and exclusive member at the negotiating table," Local 370 fails to state a Fifth Amendment claim. *Id.*

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED:

1. Defendant's Motion to Dismiss FAC (Dkt. 16) is **GRANTED**. This case is dismissed in its entirety, with prejudice.
2. Defendant's Motion to Dismiss Complaint (Dkt. 11) is **MOOT** and is therefore **DENIED.**



Kelsey Cascadia Rose JULIANA, et al., Plaintiffs,

v.

UNITED STATES of America, et al, Defendants.

Case No. 6:15–cv–01517–TC

United States District Court, D. Oregon, Eugene Division.

Signed 11/10/2016

Background: Environmental activists who were too young to vote, and purported guardian for future generations, brought action for declaratory and injunctive relief against United States, the President, and numerous executive agencies, alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system, and asserting violations of substantive due process and defendants' obligation to hold natural resources in public trust. The District Court, Coffin, United States Magistrate Judge, 2016 WL 183903, allowed industry associations to intervene as defendants. Defendants and intervenors filed motions to dismiss for lack of subject matter jurisdiction and for failure to state a claim.

Holdings: The District Court, Aiken, J., adopted the report and recommendation of Coffin, United States Magistrate Judge, and held that:

(1) a nonjusticiable political question was not raised;

(2) activists alleged a concrete and particularized injury, as required for Article III standing;

(3) the alleged injury was imminent;

(4) the right to a climate system capable of sustaining human life is a fundamental right protected by substantive due process;

(5) activists stated a claim for a substantive due process violation based on a danger creation theory;

(6) activists adequately alleged harm to public trust assets;

(7) the public trust doctrine can apply to the federal government; and

(8) activists had a right of action to enforce the public trust doctrine.

Motions denied.

1. Federal Courts ⚿2078, 2080

A motion to dismiss for lack of subject matter jurisdiction may attack either the allegations of the complaint or the existence of subject matter in fact. Fed. R. Civ. P. 12(b)(1).

2. Federal Courts ⚿2081

The party seeking to invoke the district court's jurisdiction bears the burden of establishing subject matter jurisdiction.

3. Constitutional Law ⚿2580

If a case presents a political question, federal courts lack subject matter jurisdiction to decide that question.

4. Constitutional Law ⚿2580

The political question doctrine, as basis for abstention by federal courts, is primarily a function of the constitutional separation of powers.

5. Constitutional Law ⚿2580

Six criteria, each of which could individually signal the presence of a nonjusticiable political question, are: (1) a textually demonstrable constitutional commitment of the issue to a coordinate political department; (2) a lack of judicially discoverable and manageable standards for resolving it; (3) the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; (4) the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; (5) an unusual need for unquestioning adherence to a political decision already made; or (6) the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

6. Constitutional Law ⚿2330

Constitutional separation of powers is fundamental to the system of government, known even before the birth of the country to be a defense against tyranny.

7. Constitutional Law ⚿2332

Under separation of powers, it is a basic principle of the constitutional scheme that one branch of the government may not intrude upon the central prerogatives of another.

8. Constitutional Law ⚿2580

The decision to deny access to judicial relief, based on the political question doctrine, should never be made lightly, because federal courts have the power, and ordinarily the obligation, to decide cases and controversies properly presented to them; accordingly, a court cannot simply err on the side of declining to exercise jurisdiction when it fears a political question may exist, and it must instead diligently map the precise limits of jurisdiction. U.S. Const. art. 3, § 2, cl. 1.

9. Constitutional Law ⚿2580

A case does not present a nonjusticiable political question merely because it raises an issue of great importance to the political branches; instead, dismissal on political question grounds is appropriate only if one of the considerations for finding a political question is inextricable from the case.

10. Declaratory Judgment ⚿203

There was no textually demonstrable constitutional commitment, to a coordinate political department, of issue of whether greenhouse gas emissions from carbon di-

oxide, produced by burning fossil fuels, were destabilizing the climate system, as would provide basis for nonjusticiability under political question doctrine, in environmental activists' action for declaratory and injunctive relief against President and executive branch agencies, asserting substantive due process claim; Constitution did not mention environmental policy, atmospheric emissions, or global warming, and climate change policy was not a fundamental power on which any other power allocated exclusively to other branches of government rested. U.S. Const. Amend. 5.

11. Declaratory Judgment ⚿203

Environmental activists were not asking federal court to pinpoint the best greenhouse gas emissions level, and thus, action for declaratory and injunctive relief against President and executive branch agencies, asserting substantive due process claim alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system, did not suffer from lack of judicially discoverable and manageable standards or from impossibility of making a decision without an initial policy determination of a kind clearly for nonjudicial discretion, as would provide basis for nonjusticiability under political question doctrine; activists were seeking a determination of what emissions level would be sufficient to redress their injuries, which question could be answered without any consideration of competing interests. U.S. Const. Amend. 5.

12. Declaratory Judgment ⚿203

Environmental activists were not asking the federal court to choose which agencies and sectors should reduce greenhouse gas emissions, and by how much, and thus, action for declaratory and injunctive relief against President and executive branch agencies, asserting substantive due process claim alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system, did not suffer from lack of judicially discoverable and manageable standards or from impossibility of making a decision without an initial policy determination of a kind clearly for nonjudicial discretion, as would provide basis for nonjusticiability under political question doctrine; activists were asking federal court to direct the agencies to conduct a consumption-based inventory of carbon dioxide emissions and use that inventory to prepare and implement an enforceable national remedial plan. U.S. Const. Amend. 5.

13. Declaratory Judgment ⚿203

Environmental activists' action concerning climate change, by asserting a constitutional claim against President and executive branch agencies for violation of substantive due process, rather than asserting violations of precise statutes or regulations, did not present a claim for which judicially discoverable and manageable standards for resolution were lacking, as would provide basis for nonjusticiability under political question doctrine, in action for declaratory and injunctive relief, alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; every day, federal courts applied legal standards governing due process claims to new sets of facts. U.S. Const. Amend. 5.

14. Declaratory Judgment ⚿319

While environmental activists did not cite particular statutory or regulatory provisions, the allegations in their complaint were specific enough to put President and executive branch agencies on notice of their claims, as required under general pleading standards, in action for declaratory and injunctive relief, alleging that greenhouse gas emissions from carbon di-

oxide, produced by burning fossil fuels, were destabilizing the climate system; activists' theory was that defendants' aggregate actions violated their substantive due process rights and government's public trust obligations. U.S. Const. Amend. 5; Fed. R. Civ. P. 8, 12.

15. Declaratory Judgment ⚿203

Even if executive and legislative branches had taken numerous steps to address climate change, judicial resolution of environmental activists' action concerning climate change, asserting a constitutional claim against President and executive branch agencies for violation of substantive due process, would not express a lack of respect for another branch of government, as would provide basis for nonjusticiability under political question doctrine, in action for declaratory and injunctive relief, alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system. U.S. Const. Amend. 5.

16. Federal Courts ⚿2073

Federal courts have an independent obligation to assure themselves of the existence of subject matter jurisdiction.

17. Declaratory Judgment ⚿203

A nonjusticiable political question was not raised in action concerning climate change, brought by environmental activists who were too young to vote, alleging a substantive due process violation and seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system. U.S. Const. Amend. 5.

18. Constitutional Law ⚿2450

Despite constitutional separation of powers, federal courts retain broad authority to fashion practical remedies when confronted with complex and intractable constitutional violations.

19. Declaratory Judgment ⚿328

Speculation about the difficulty of crafting a remedy without violating constitutional separation of powers did not support early-stage dismissal on a motion asserting lack of subject matter jurisdiction, based on political question doctrine, in environmental activists' action concerning climate change, alleging a substantive due process violation and seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system. U.S. Const. Amend. 5; Fed. R. Civ. P. 12(b)(1).

20. Federal Civil Procedure ⚿103.2

A threshold question in every federal case is whether at least one plaintiff has standing.

21. Federal Civil Procedure ⚿103.2

Standing requires a plaintiff to allege such a personal stake in the outcome of the controversy as to warrant the invocation of federal-court jurisdiction and to justify exercise of the court's remedial powers.

22. Federal Civil Procedure ⚿103.2, 103.3

To demonstrate Article III standing, a plaintiff must show: (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. U.S. Const. art. 3, § 2, cl. 1.

23. Federal Civil Procedure ⚿103.2

A plaintiff must support each element of the test for Article III standing with the

manner and degree of evidence required at the successive stages of the litigation. U.S. Const. art. 3, § 2, cl. 1.

24. Federal Civil Procedure ⚿103.5, 1829

At the motion to dismiss stage, general allegations suffice to establish Article III standing, because those allegations are presumed to embrace those specific facts that are necessary to support the claim. U.S. Const. art. 3, § 2, cl. 1; Fed. R. Civ. P. 12(b)(1).

25. Environmental Law ⚿651

In an environmental case, a plaintiff cannot demonstrate injury in fact, as element for Article III standing, merely by alleging injury to the environment; there must be an allegation that the challenged conduct is harming or imminently will harm the plaintiff. U.S. Const. art. 3, § 2, cl. 1.

26. Environmental Law ⚿656

Environmental activists who were too young to vote sufficiently alleged injury in fact, as element for Article III standing, in action alleging a substantive due process violation and seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; activists alleged harm to their personal, economic, and aesthetic interests that were concrete and particularized, not abstract or indefinite, and that harms to youths and future generations were greater. U.S. Const. art. 3, § 2, cl. 1; U.S. Const. Amend. 5.

27. Federal Civil Procedure ⚿103.2, 103.4

Federal courts lack jurisdiction to hear a case, because the injury in fact element for Article III standing is not satisfied, where the harm at issue is not only widely shared, but is also of an abstract and indefinite nature, for example, harm to the common concern for obedience to the law. U.S. Const. art. 3, § 2, cl. 1.

28. Federal Civil Procedure ⚿103.4

The fact that a harm is widely shared, alone, does not necessarily render it a generalized grievance that is insufficient to satisfy the injury-in-fact element for Article III standing. U.S. Const. art. 3, § 2, cl. 1.

29. Federal Civil Procedure ⚿103.2

Even if the experience at the root of the complaint is shared by virtually every American, the inquiry regarding the injury-in-fact element for Article III standing remains whether that shared experience caused an injury that is concrete and particular to the plaintiff. U.S. Const. art. 3, § 2, cl. 1.

30. Federal Civil Procedure ⚿103.2

Plaintiffs must demonstrate Article III standing for each claim they seek to press and for each form of relief sought. U.S. Const. art. 3, § 2, cl. 1.

31. Injunction ⚿1044

Plaintiffs seeking injunctive relief must show their injuries are ongoing or likely to recur.

32. Declaratory Judgment ⚿300
Environmental Law ⚿656

Environmental activists sufficiently alleged the imminence of their injuries, for purposes of injury-in-fact element for Article III standing, in action alleging a substantive due process violation and seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; complaint alleged that present level of carbon dioxide and its warming, both realized and latent, were

already in zone of danger, and that early consequences of carbon overshoot were already threatening and would, in the short term, rise to an unbearable level unless immediate action was taken by defendants. U.S. Const. art. 3, § 2, cl. 1; U.S. Const. Amend. 5.

33. Federal Civil Procedure ⚿103.3

Although a defendant's action need not be the sole source of injury, to support the causation element for Article III standing, the line of causation between the defendant's action and the plaintiff's harm must be more than attenuated. U.S. Const. art. 3, § 2, cl. 1.

34. Federal Civil Procedure ⚿103.3

A causal chain does not fail, for purposes of Article III standing, simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible. U.S. Const. art. 3, § 2, cl. 1.

35. Environmental Law ⚿656

Environmental activists satisfied causation element for Article III standing, in action alleging a substantive due process violation and seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; the emissions at issue, produced in the United States, allegedly made up one-fourth of global emissions, and activists' theory of causation involved both defendants' affirmative acts and their failure to act. U.S. Const. art. 3, § 2, cl. 1; U.S. Const. Amend. 5.

36. Federal Civil Procedure ⚿103.3

A plaintiff need not show a favorable decision is certain to redress his injury, in order to establish Article III standing, but must show a substantial likelihood it will do so. U.S. Const. art. 3, § 2, cl. 1.

37. Federal Civil Procedure ⚿103.3

It is sufficient, for the redressability element for Article III standing, to show that the requested remedy would slow or reduce the harm. U.S. Const. art. 3, § 2, cl. 1.

38. Environmental Law ⚿656

Environmental activists satisfied redressability element for Article III standing, in action alleging a substantive due process violation and seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; activists alleged that defendants controlled over one-fourth of planet's greenhouse gas emissions, and they were asking the court to order defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric carbon dioxide. U.S. Const. art. 3, § 2, cl. 1; U.S. Const. Amend. 5.

39. Federal Civil Procedure ⚿103.3

The possibility that some other individual or entity might later cause the same injury does not defeat the redressability element for Article III standing; the question is whether the injury caused by the defendant can be redressed. U.S. Const. art. 3, § 2, cl. 1.

40. Federal Civil Procedure ⚿103.2

Once a federal court concludes one plaintiff has Article III standing, it need not determine whether the remaining plaintiffs have standing. U.S. Const. art. 3, § 2, cl. 1.

41. Constitutional Law ⚿3877, 3901

When a plaintiff challenges affirmative government action under the Due Process Clause, the threshold inquiry is the applicable level of judicial scrutiny, and the

default level of scrutiny is rational basis, which requires a reviewing court to uphold the challenged governmental action so long as it implements a rational means of achieving a legitimate governmental end. U.S. Const. Amend. 5.

42. Constitutional Law ⚿3901

When the government infringes a fundamental right, a reviewing court applies strict scrutiny for a due process violation. U.S. Const. Amend. 5.

43. Constitutional Law ⚿3901

Substantive due process forbids the government to infringe certain fundamental liberty interests at all, no matter what process is provided, unless the infringement is narrowly tailored to serve a compelling state interest. U.S. Const. Amend. 5.

44. Constitutional Law ⚿3894

Fundamental liberty rights, protected by the substantive component of the Due Process Clause, include both rights enumerated elsewhere in the Constitution and rights and liberties which are either: (1) deeply rooted in the Nation's history and tradition, or (2) fundamental to the scheme of ordered liberty. U.S. Const. Amend. 5.

45. Constitutional Law ⚿3894

Federal courts must exercise the utmost care whenever they are asked to break new ground in the field of substantive due process, lest the liberty protected by the Due Process Clause be subtly transformed into judicial policy preferences. U.S. Const. Amend. 5.

46. Constitutional Law ⚿3894

The identification and protection of fundamental rights protected by the substantive component of the Due Process Clause is an enduring part of the judicial duty to interpret the Constitution, which has not been reduced to any formula. U.S. Const. Amend. 5.

47. Constitutional Law ⚿3894

In determining whether a right is fundamental, for purposes of substantive due process, courts must exercise reasoned judgment, keeping in mind that history and tradition guide and discipline this inquiry but do not set its outer boundaries. U.S. Const. Amend. 5.

48. Constitutional Law ⚿4320
Environmental Law ⚿700

The right to a climate system capable of sustaining human life was fundamental to a free and ordered society, and thus, strict scrutiny for a violation of substantive due process was applicable, in environmental activists' action seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; a stable climate system was quite literally the foundation of society, without which there would be neither civilization nor progress. U.S. Const. Amend. 5.

49. Constitutional Law ⚿4048

With limited exceptions, the Due Process Clause does not impose on the government an affirmative obligation to act, even when such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual. U.S. Const. Amend. 5.

50. Constitutional Law ⚿4049, 4050

There are two exceptions to the general rule that the Due Process Clause does not impose on the government an affirmative obligation to act: (1) the special relationship exception, and (2) the danger creation exception. U.S. Const. Amend. 5.

51. Constitutional Law ⚿4049

The special relationship exception, to the general rule that the Due Process

Clause does not impose on the government an affirmative obligation to act, provides that when the government takes an individual into custody against his or her will, it assumes some responsibility to ensure that individual's safety. U.S. Const. Amend. 5.

52. Constitutional Law ⚿4050

The danger creation exception, to the general rule that the Due Process Clause does not impose on the government an affirmative obligation to act, permits a substantive due process claim when government conduct places a person in peril in deliberate indifference to their safety. U.S. Const. Amend. 5.

53. Constitutional Law ⚿4050

A plaintiff challenging government inaction on a danger creation theory of a violation of substantive due process must show the government actor created or exposed the plaintiff to a danger which he or she would not have otherwise faced; the government action must place the plaintiff in a worse position than that in which he or she would have been had the government not acted at all. U.S. Const. Amend. 5.

54. Constitutional Law ⚿4050

When challenging government inaction on a danger creation theory of a violation of substantive due process, the plaintiff must show the government actor recognized the unreasonable risks to the plaintiff and actually intended to expose the plaintiff to such risks without regard to the consequences to the plaintiff; the government actor must have acted with deliberate indifference, which requires a culpable mental state more than gross negligence. U.S. Const. Amend. 5.

55. Constitutional Law ⚿4320
Environmental Law ⚿700

Environmental activists stated a claim for a substantive due process violation based on a danger creation theory, in action seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system; activists alleged that defendants knowingly, with full appreciation of the consequences, caused, and continued to cause, dangerous interference with the atmosphere and climate system by permitting, authorizing, and subsidizing fossil fuel extraction, production, transportation, and utilization. U.S. Const. Amend. 5.

56. Public Lands ⚿7

In its broadest sense, the term "public trust," in context of public trust doctrine, refers to the fundamental understanding that the federal government cannot legitimately abdicate its core sovereign powers.

See publication Words and Phrases for other judicial constructions and definitions.

57. Public Lands ⚿7

The public trust doctrine rests on the fundamental principle that every succeeding legislature possesses the same jurisdiction and power with respect to the public interest as its predecessors.

58. Public Lands ⚿7

The public trust doctrine conceives of certain powers and obligations, such as the police power, as inherent aspects of sovereignty, and recognizes that permitting the government to permanently give one of these powers to another entity diminishes the power of future legislatures to promote the general welfare.

59. Public Lands ⚿7

With respect to essential natural resources, the sovereign's public trust obligations prevent it from depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens.

60. Public Lands ⚿7

The public trust doctrine, with respect to natural resources, operates according to basic trust principles, which impose upon the trustee a fiduciary duty to protect the trust property against damage or destruction, and the trustee owes this duty equally to both current and future beneficiaries of the trust.

61. Public Lands ⚿7

The public trust doctrine is generally thought to impose three types of restrictions on governmental authority: (1) the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; (2) the property may not be sold, even for a fair cash equivalent; and (3) the property must be maintained for particular types of uses.

62. Declaratory Judgment ⚿203
Water Law ⚿2651

Allegation of environmental activists, that the federal government was failing to protect the territorial sea, involved a public trust asset, for purposes of stating a claim for violation of public trust doctrine, in action seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system. 43 U.S.C.A. § 1312.

63. Water Law ⚿2660

The public trust doctrine applies to lands beneath tidal waters.

64. Declaratory Judgment ⚿203
Water Law ⚿2651

Environmental activists, by alleging injuries relating to effects of ocean acidification and rising ocean temperatures, adequately alleged harm to public trust assets, for purposes of stating a claim for violation of public trust doctrine, in action seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system.

65. Public Lands ⚿7

The public trust doctrine can apply to the federal government.

66. Constitutional Law ⚿4320
Environmental Law ⚿700

Environmental activists' right of action, to enforce the federal government's obligations as trustee under the public trust doctrine, arose from the Due Process Clause's substantive component, in action seeking declaratory and injunctive relief against President and executive branch agencies, based on allegations that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing the climate system. U.S. Const. Amend. 5.

67. Federal Civil Procedure ⚿103.2, 103.4

Even when a case falls within the constitutional boundaries for Article III standing, a plaintiff may still lack standing under the prudential principles by which the judiciary seeks to avoid deciding questions of broad social import where no individual rights would be vindicated, and to limit access to the federal courts to those litigants best suited to assert a particular claim. U.S. Const. art. 3, § 2, cl. 1.

68. Constitutional Law ⚿3896

Substantive due process rights are limited by careful respect for the teachings of history and recognition of the basic values that underlie society, and therefore, only official conduct that shocks the conscience is cognizable as a due process violation. U.S. Const. Amend. 5.

Julia A. Olson, Wild Earth Advocates, Daniel M. Galpern, Law Offices of Daniel M. Galpern, Eugene, OR, Philip L. Gregory, Cotchett, Pitre & McCarthy, LLP, Burlingame, CA, for Plaintiffs.

Sean C. Duffy, U.S. Department of Justice, Washington, DC, for Defendants.

OPINION AND ORDER

Aiken, Judge:[1]

Plaintiffs in this civil rights action are a group of young people between the ages of eight and nineteen ("youth plaintiffs"); Earth Guardians, an association of young environmental activists; and Dr. James Hansen, acting as guardian for future generations.[2] Plaintiffs filed this action against defendants the United States, President Barack Obama, and numerous executive agencies. Plaintiffs allege defendants have known for more than fifty years that the carbon dioxide ("CO_2") produced by burning fossil fuels was destabilizing the climate system in a way that would "significantly endanger plaintiffs, with the damage persisting for millenia." First. Am. Compl. ¶ 1. Despite that knowledge, plaintiffs assert defendants, "[b]y their exercise of sovereign authority over our country's atmosphere and fossil fuel resources, . . . permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels, . . . deliberately allow[ing] atmospheric CO_2 concentrations to escalate to levels unprecedented in human history[.]" *Id.* ¶ 5. Although many different entities contribute to greenhouse gas emissions, plaintiffs aver defendants bear "a higher degree of responsibility than any other individual, entity, or country" for exposing plaintiffs to the dangers of climate change. *Id.* ¶ 7. Plaintiffs argue defendants' actions violate their substantive due process rights to life, liberty, and property, and that defendants have violated their obligation to hold certain natural resources in trust for the people and for future generations.

Plaintiffs assert there is a very short window in which defendants could act to phase out fossil fuel exploitation and avert environmental catastrophe. They seek (1) a declaration their constitutional and public trust rights have been violated and (2) an order enjoining defendants from violating those rights and directing defendants to develop a plan to reduce CO_2 emissions.

Defendants moved to dismiss this action for lack of subject matter jurisdiction and failure to state a claim. Doc. 27. Intervenors the National Association of Manufacturers, the American Fuel & Petrochemical Manufacturers, and the American Petroleum Institute moved to dismiss on the same grounds. Doc. 19. After oral argument, Magistrate Judge Coffin issued his Findings and Recommendation ("F & R") and recommended denying the motions to dismiss. Doc. 68. Judge Coffin then referred the matter to me for review pursuant to 28 U.S.C. § 636 and Federal Rule of Civil Procedure 72. Doc. 69. Defendants and interve-

1. Student externs worked on each stage of the preparation of this opinion, from initial background research to final copyedits. I would be remiss if I did not acknowledge the invaluable contributions of Daniel Bodden (University of Kentucky), Elizabeth Jacklin (University of Oregon School of Law), Ann Richan Metier (Willamette University College of Law), James Mullins (University of Washington School of Law), Jessy R. Nations (University of Washington School of Law), Lydeah Negro (Lewis & Clark Law School), and Eleanor J. Vincent (University of Oregon School of Law.)

2. Although plaintiffs in this lawsuit hale from a number of different states, venue is proper in the District of Oregon. The majority of youth plaintiffs, including lead plaintiff Kelsey Juliana, reside in the District of Oregon. First Am. Compl. ¶¶ 16, 23, 31, 35, 44, 47, 50, 53, 57, 60. In addition, plaintiff Earth Guardians has a chapter in Eugene, Oregon.

nors filed objections (docs. 73 & 74), and on September 13, 2016, this Court heard oral argument.

For the reasons set forth below, I adopt Judge Coffin's F & R as elaborated in this opinion and deny the motions to dismiss.

BACKGROUND

This is no ordinary lawsuit. Plaintiffs challenge the policies, acts, and omissions of the President of the United States, the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation ("DOT"), the Department of Agriculture, the Department of Commerce, the Department of Defense, the Department of State, and the Environmental Protection Agency ("EPA"). This lawsuit challenges decisions defendants have made across a vast set of topics—decisions like whether and to what extent to regulate CO_2 emissions from power plants and vehicles, whether to permit fossil fuel extraction and development to take place on federal lands, how much to charge for use of those lands, whether to give tax breaks to the fossil fuel industry, whether to subsidize or directly fund that industry, whether to fund the construction of fossil fuel infrastructure such as natural gas pipelines at home and abroad, whether to permit the export and import of fossil fuels from and to the United States, and whether to authorize new marine coal terminal projects. Plaintiffs assert defendants' decisions on these topics have substantially caused the planet to warm and the oceans to rise. They draw a direct causal line between defendants' policy choices and floods, food shortages, destruction of property, species extinction, and a host of other harms.

This lawsuit is not about proving that climate change is happening or that human activity is driving it. For the purposes of this motion, those facts are undisputed.[3] The questions before the Court are whether defendants are responsible for some of the harm caused by climate change, whether plaintiffs may challenge defendants' climate change policy in court, and whether this Court can direct defendants to change their policy without running afoul of the separation of powers doctrine.

STANDARDS

The Magistrates Act authorizes a district court to "accept, reject or modify, in whole or in part, the findings or recommendations made by the magistrate judge." 28 U.S.C. § 636(b)(1). When a party objects to any portion of the magistrate's findings and recommendation, the district court must review *de novo* that portion of the magistrate judge's report. Fed. R. Civ. P. 72(b)(3); *see also McDonnell Douglas Corp. v. Commodore Bus. Machs., Inc.*, 656 F.2d 1309, 1313 (9th Cir. 1981) (for dispositive motions, "the statute

3. For the purposes of this motion, I proceed on the understanding that climate change exists, is caused by humans, and poses a serious threat to our planet. Defendants open their Objections to Judge Coffin's F & R by stating that "[c]limate change poses a monumental threat to Americans' health and welfare by driving long-lasting changes in our climate, leading to an array of severe negative effects, which will worsen over time," Fed. Defs.' Obj. to F & R 1 (doc. 78). In the 2015 State of the Union address, defendant President Barack Obama declared "[n]o challenge ... poses a greater threat to future generations than climate change," President Barack Obama, Remarks in State of the Union Address (Jan. 20, 2015), *available at* www.whitehouse.gov/the-press-office/2015/01/20/remarks-president-state-union-address-january-20–2015 (last visited Nov. 7, 2016). When asked at oral argument if they agreed that human-caused climate change poses a serious threat, intervenors declined to take a clear position. All parties agree, however, that a dispute over the existence of climate change is not at the heart of this case.

grants the broadest possible discretion to the reviewing district court").

[1, 2] Under Federal Rule of Civil Procedure 12(b)(1), a district court must dismiss an action if subject matter jurisdiction is lacking. A motion to dismiss under Rule 12(b)(1) may attack either the allegations of the complaint or the "existence of subject matter in fact." *Thornhill Publ'g Co., Inc. v. Gen. Tel. & Elec. Corp.*, 594 F.2d 730, 733 (9th Cir. 1979). The party seeking to invoke the district court's jurisdiction bears the burden of establishing subject matter jurisdiction. *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377, 114 S.Ct. 1673, 128 L.Ed.2d 391 (1994).

Under Federal Rule of Civil Procedure 12(b)(6), a complaint is construed in favor of the plaintiff, and its factual allegations are taken as true. *Daniels–Hall v. Nat'l Educ. Ass'n*, 629 F.3d 992, 998 (9th Cir. 2010), However, the court need not accept as true "conclusory" allegations or unreasonable inferences. *Id.* Thus, "for a complaint to survive a motion to dismiss, the non-conclusory factual content, and reasonable inferences from that content, must be plausibly suggestive of a claim entitling the plaintiff to relief." *Moss v. U.S. Secret Serv.*, 572 F.3d 962, 969 (9th Cir. 2009) (quotation marks omitted). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S.Ct. 1937, 173 L.Ed.2d 868 (2009). "[O]nce a claim has been stated adequately, it may be supported by showing any set of facts consistent with the allegations in the complaint." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 563, 127 S.Ct. 1955, 167 L.Ed.2d 929 (2007).

DISCUSSION

Judge Coffin recommended denying defendants' and intervenors' motions to dismiss and holding that plaintiffs' public trust and due process claims may proceed. Defendants and intervenors object to those recommendations on a number of grounds. They contend plaintiffs' claims must be dismissed for lack of jurisdiction because the case presents non-justiciable political questions, plaintiffs lack standing to sue, and federal public trust claims cannot be asserted against the federal government. They further argue plaintiffs have failed to state a claim on which relief can be granted. I first address the threshold challenges to jurisdiction, and then proceed to address the viability of plaintiffs' due process and public trust claims.

I. *Political Question*

[3, 4] If a case presents a political question, federal courts lack subject matter jurisdiction to decide that question. *Corrie v. Caterpillar, Inc.*, 503 F.3d 974, 982 (9th Cir. 2007). The political question doctrine is "primarily a function of the separation of powers." *Baker v. Carr*, 369 U.S. 186, 210, 82 S.Ct. 691, 7 L.Ed.2d 663 (1962). This limitation on the federal courts was recognized in *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 170, 2 L.Ed. 60 (1803), in which Chief Justice Marshall wrote, "[q]uestions, in their nature political, or which are, by the constitution and laws, submitted to the executive, can never be made in this court." However, the scope of the political question doctrine should not be overstated. As Alexis de Tocqueviile observed, "[t]here is hardly any political question in the United States that sooner or later does not turn into a judicial question." 1 Alexis de Tocqueviile, Democracy in America 440 (Liberty Fund 2012).

[5] In *Baker*, the Supreme Court identified six criteria, each of which could indi-

vidually signal the presence of a political question:

> [(1) A] textually demonstrable constitutional commitment of the issue to a coordinate political department; [(2)] a lack of judicially discoverable and manageable standards for resolving it; [(3)] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; [(4)] the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; [(5)] an unusual need for unquestioning adherence to a political decision already made; or [(6)] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker, 369 U.S. at 217, 82 S.Ct. 691. The *Baker* tests "are probably listed in descending order of both importance and certainty." *Vieth v. Jubelirer*, 541 U.S. 267, 278, 124 S.Ct. 1769, 158 L.Ed.2d 546 (2004) (plurality op.). The factors overlap, with the analyses "often collapsing into one another." *Alperin v. Vatican Bank*, 410 F.3d 532, 544 (9th Cir. 2005). The "common underlying inquiry" is whether "the question is one that can properly be decided by the judiciary." *Id.*

[6–8] Determining whether the political question doctrine requires abstention calls on a court to balance profoundly important interests. On the one hand, the separation of powers is fundamental to our system of government, known "[e]ven before the birth of this country" to be "a defense against tyranny." *Loving v. United States*, 517 U.S. 748, 756, 116 S.Ct. 1737, 135 L.Ed.2d 36 (1996). It is a "basic principle of our constitutional scheme that one branch of the Government may not intrude upon the central prerogatives of another." *Id.* at 757, 116 S.Ct. 1737. On the other hand, "[t]he decision to deny access to judicial relief" should never be made "lightly," because federal courts "have the power, and ordinarily the obligation, to decide cases and controversies properly presented to them." *Alperin*, 410 F.3d at 539 (quoting *Liu v. Rep. of China*, 892 F.2d 1419, 1433 (9th Cir. 1989) and *W.S. Kirkpatrick & Co. v. Envt'l Tectonics Corp., Int'l*, 493 U.S. 400, 409, 110 S.Ct. 701, 107 L.Ed.2d 816 (1990)). Accordingly, a court cannot simply err on the side of declining to exercise jurisdiction when it fears a political question may exist; it must instead diligently map the precise limits of jurisdiction.

[9] Climate change, energy policy, and environmental regulation are certainly "political" in the sense that they have "motivated partisan and sectional debate during important portions of our history." *U.S. Dep't of Commerce v. Montana*, 503 U.S. 442, 458, 112 S.Ct. 1415, 118 L.Ed.2d 87 (1992). But a case does not present a political question merely because it "raises an issue of great importance to the political branches." *Id.* Instead, dismissal on political question grounds is appropriate only if one of the *Baker* considerations is "inextricable" from the case. *Baker*, 369 U.S. at 217, 82 S.Ct. 691. As a result, federal courts regularly adjudicate claims that arise in connection with politically charged issues. *See, e.g., Jewel v. Nat'l Sec. Agency*, 673 F.3d 902, 912 (9th Cir. 2011) (electronic surveillance); *Chiles v. Thornburgh*, 865 F.2d 1197, 1216 (11th Cir. 1989) (detention of undocumented immigrants); *Planned Parenthood Fed'n of Am, Inc. v. Agency for Int'l Dev.*, 838 F.2d 649, 656 (2d Cir. 1988) (international funding for birth control and abortion). In each of the above cases, the court engaged in "discriminating inquiry into the precise facts" before concluding the controversy was justiciable. *Baker*, 369 U.S. at 217, 82 S.Ct. 691. A similar rigorous analysis is necessary here.

A. *First* Baker *Factor*

The first *Baker* factor requires abstention "[w]hen a case would require a court to decide an issue whose resolution is textually committed to a coordinate political department" because "the court lacks authority to resolve that issue." *Zivotofsky ex rel Zivotofsky v. Clinton*, 566 U.S. 189, 132 S.Ct. 1421, 1431, 182 L.Ed.2d 423 (2012) (Sotomayor, J., concurring). Since *Baker*, the Supreme Court has found such "textual commitment" in very few cases. In *Nixon v. United States*, 506 U.S. 224, 113 S.Ct. 732, 122 L.Ed.2d 1 (1993), a former federal judge sought to challenge the Senate's processes for taking evidence during impeachment trials. *Id.* at 226, 113 S.Ct. 732. The Court found his claim nonjusticiable due to the Constitution's clear statement granting the Senate "the sole Power to try ail Impeachments." *Id.* at 229, 113 S.Ct. 732 (quoting U.S. Const, art. I, § 3, cl. 6). The Court found the provision's use of the word "sole" to be "of considerable significance." *Id.* at 231, 113 S.Ct. 732. The Court also discussed the history of the clause at issue, noting that the "Framers labored over the question of where the impeachment power should lie" and "at least two considered"—and rejected—placing that power within the federal judiciary. *Id.* at 233, 113 S.Ct. 732.

In *Davis v. Passman*, 442 U.S. 228, 235 n.11, 99 S.Ct. 2264, 60 L.Ed.2d 846 (1979), the Court characterized the Speech or Debate Clause as the "paradigm example" of a "textually demonstrable constitutional commitment." That clause provides that Senators and Representatives, "for any Speech or Debate in either House, ... shall not be questioned in any other place." U.S. Const. Art. I, § 6, cl. 1. The Court explained that the clause plainly shields statements of federal legislators made during speech or debate in committees or on the House or Senate floor from *any* sort of judicial review, and thus speaks "directly to ... separation-of-powers concerns." *Davis*, 442 U.S. at 235 n.11, 99 S.Ct. 2264.

Most recently, in *Zivotofsky ex rel. Zivotofsky v. Kerry*, the Court held that the Constitution gives the president the exclusive authority to recognize foreign nations and governments. —— U.S. ——, 135 S.Ct. at 2086, 192 L.Ed.2d 83. The Court acknowledged that the Constitution does not use the term "recognition." *Id.* at 2084. Nonetheless, the Court determined that the Constitution granted the recognition power to the Executive Branch "[a]s a matter of constitutional structure." *Id.* at 2085. The Court concluded that the clauses giving the president exclusive authority to receive ambassadors and to negotiate treaties implicitly granted the recognition power. *Id.* at 2086. That determination rested in part on the Court's conclusion that recognition was uniquely "a topic on which the Nation much speak with one voice." *Id.* at 2086 (quotation marks and ellipsis omitted). If Congress had the power to decline to recognize a foreign state the Executive had decided to recognize, the president would be unable to assure that foreign state that its ambassadors would be received, its officials would be immune from suit in federal court, and it would be permitted to initiate lawsuits in the United States to vindicate its rights. *Id.* In issuing its decision, the Court expressly declined to hold that the Constitution gives the president the "unbounded power" to "conduct diplomatic relations" and exercise "the bulk of foreign-affairs powers." *Id.* at 2089.

[10] Unlike in the constitutional provisions at issue *Nixon* and *Passman*, the constitutional provisions cited here contain nothing approaching a clear reference to the subject matter of this case. The Constitution does not mention environmental policy, atmospheric emissions, or global warming. And unlike in *Zivotofksy*, climate

change policy is not a fundamental power on which any other power allocated exclusively to other branches of government rests. Intervenors correctly point out that the Constitution gives the political branches authority over commerce, foreign relations, national defense, and federal lands—all areas affected by climate change policy. *See* U.S. Const, art. I, § 8 cl. 3 (Congress has authority to "regulate commerce with foreign nations, and among the several states"); *Zivotofsky*, 135 S.Ct. at 2084–86 (discussing various constitutional provisions granting the Executive Branch foreign relations authority); U.S. Const. art. I, § 8 cl. 11–16 (detailing Congress's powers relating to war and the military); U.S. Const, art. II, § 2, cl. 1 (President is commander in chief of armed forces); U.S. Const. art. IV, § 3, cl. 2 (Congress has power to "dispose of and make all needful rules and regulations" regarding federal land). But holding the first *Baker* factor applies in any case relating to these topic areas would permit the exception to swallow the rule. The question is not whether a case *implicates* issues that appear in the portions of the Constitution allocating power to the Legislative and Executive Branches—such a test would, by definition, shield nearly all legislative and executive action from legal challenge, Rather, the question is whether adjudicating a claim would require the Judicial Branch to second-guess decisions committed exclusively to another branch of government.

In the lower courts, the first *Baker* factor has found its broadest application in foreign policy cases. *See, e.g., Corrie*, 503 F.3d at 983 ("Whether to grant military or other aid to a foreign nation is a political decision inherently entangled with the conduct of foreign relations."); *Gonzalez–Vera v. Kissinger*, 449 F.3d 1260, 1263 (D.C. Cir. 2006) (decision to take "drastic measures" to keep Chilean dictator Augusto Pinochet in power was a foreign policy decision textually committed to the Executive Branch); *Sadowski v. Bush*, 293 F.Supp.2d 15, 21 (D.C. Cir. 2003) (decision to go to war in Afghanistan was not justiciable, "primarily because war powers have been explicitly committed to the political branches"), As a result, I give special consideration to the argument that granting plaintiffs' requested relief would usurp the Executive Branch's foreign relations authority. Climate change policy has global implications and so is sometimes the subject of international agreements. But unlike the decisions to go to war, take action to keep a particular foreign leader in power, or give aid to another country, climate change policy is not *inherently*, or even primarily, a foreign policy decision. Moreover, in the foreign policy context, *Baker* expressly warned against framing the "textually committed" inquiry too broadly. *See Baker*, 369 U.S. at 211, 82 S.Ct. 691 ("[I]t is error to suppose that every case or controversy which touches foreign relations lies beyond judicial cognizance.") The first *Baker* factor does not apply.

B. *Second and Third* Baker *Factors*

"The second and third *Baker* factors reflect circumstances in which a dispute calls for decisionmaking beyond courts' competence." *Zivotofsky*, 132 S.Ct. at 1432 (Sotomayor, J., concurring). "When a court is given no standard by which to adjudicate a dispute, or cannot resolve a dispute in the absence of a yet-unmade policy determination charged to a political branch, resolution of the suit is beyond the judicial role envisioned by Article III." *Id.*

[11] Defendants' and intervenors' arguments on the second and third *Baker* factors can be divided into two main points. First, intervenors contend the Court cannot set a permissible emissions level without making *ad hoc* policy determinations about how to weigh competing economic and environmental concerns. But

plaintiffs do not ask this Court to pinpoint the "best" emissions level; they ask this Court to determine what emissions level would be sufficient to redress their injuries. That question can be answered without any consideration of competing interests. *Cf. Coleman v. Schwarzenegger*, 2010 WL 99000, *1 (E.D. Cal. & N.D. Cal. Jan. 12, 2010) (requiring state to reduce the population of adult prisons to 137.5% of their total design capacity, a target which "extend[ed] no further than necessary to correct the violation of California inmates' federal constitutional rights"). The science may well be complex, but logistical difficulties are immaterial to the political question analysis. *See Alperin*, 410 F.3d at 552, 555 ("[T]he crux of th[e political question] inquiry is ... not whether the case is unmanageable in the sense of being large, complicated, or otherwise difficult to tackle from a logistical standpoint," but rather whether "a legal framework exists by which courts can evaluate ... claims in a reasoned manner.").

[12] Second, intervenors aver the Court would have to choose which agencies and sectors should reduce emissions, and by how much. At oral argument, intervenors contended this would require review of every environmental rule and regulation in the last one hundred years. These arguments mischaracterize the relief plaintiffs seek. Plaintiffs do not seek to have this Court direct any individual agency to issue or enforce any particular regulation. Rather, they ask the Court to declare the United States' current environmental policy infringes their fundamental rights, direct the agencies to conduct a consumption-based inventory of United States CO_2 emissions, and use that inventory to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 so as to stabilize the climate system and protect the vital resources on which Plaintiffs now and in the future will depend." First Am. Compl. at 94. This Court could issue the requested declaration without directing any individual agency to take any particular action.

[13] Finally, defendants and intervenors contend that plaintiffs' failure to identify violations of precise statutory or regulatory provisions leaves this court without any legal standard by which to judge plaintiffs' claims, Plaintiffs could have brought a lawsuit predicated on technical regulatory violations, but they chose a different path. As masters of their complaint, they have elected to assert constitutional rather than statutory claims. Every day, federal courts apply the legal standards governing due process claims to new sets of facts. The facts in this case, though novel, are amenable to those well-established standards. Neither the second nor the third *Baker* factor divests this Court of jurisdiction.

[14] In the political question section of their objections to Judge Coffin's F & R, defendants assert the allegations in the complaint are not specific enough to put them on notice of plaintiffs' claims. This argument relates to the second and third *Baker* factors and the competence of this Court to adjudicate those claims, considerations which are addressed above. The argument also touches on concerns about causation and redressability, which are discussed in Section II of this opinion. However, the argument is also phrased in terms common to cases governing general pleading standards. *See Twombly*, 550 U.S. at 555, 127 S.Ct. 1955 (complaint in federal court must contain enough information to "give the defendant fair notice" of both the claim and the "grounds upon which it rests" (quoting *Conley v. Gibson*, 355 U.S. 41, 47, 78 S.Ct. 99, 2 L.Ed.2d 80 (1957)). To the extent defendants challenge the First Amended Complaint as inadequately pleaded, that challenge fails. This is not a

typical environmental case, Plaintiffs are not arguing defendants issued any particular permit in violation of a statutory provision in the Clean Air Act or the Clean Water Act. They are not arguing any specific tax break, royalty rate, or contract runs afoul of an agency's governing regulations. Rather, the theory of plaintiffs' case is much broader: it is that defendants' *aggregate actions* violate their substantive due process rights and the government's public trust obligations. That theory, which requires no citation to particular statutory or regulatory provisions, is clear from the face of the First Amended Complaint.

C. *Fourth through Sixth* Baker *Factors*

The fourth through sixth *Baker* factors "address circumstances in which prudence may counsel against a court's resolution of an issue presented." *Zivotofsky*, 132 S.Ct. at 1432 (Sotomayor, J., concurring). Only in "rare" cases will *Baker*'s "final factors alone render a case nonjusticiable." *Id.* at 1434.

[15] Intervenors contend the fourth *Baker* factor, which concerns a court expressing lack of respect to another branch of government, applies in this case. They argue that because the Executive and Legislative branches have taken numerous steps to address climate change, a ruling in plaintiffs' favor would be disrespectful to those efforts. Intervenors would have this Court hold the political question doctrine prevents a court from determining whether the federal government has violated a plaintiff's constitutional rights so long as the government has taken some steps to mitigate the damage. However, intervenors cite no cases—and this Court is aware of none—to support such a broad application of the fourth *Baker* factor. Rather, courts have found the fourth factor applies in cases asking a court to "question the good faith with which another branch attests to the authenticity of its internal acts." *Id.* at 1433. The fourth factor has also been held relevant when "judicial resolution of a question would contradict prior decisions taken by a political branch in those limited contexts where such contradiction would seriously interfere with important governmental interests." *Kadic v. Karadzic*, 70 F.3d 232, 249 (2d Cir. 1995).

Consistent with those formulations, federal appellate courts have found the fourth *Baker* factor present when judicial adjudication of a claim would be wholly incompatible with foreign-relations decisions made by one of the political branches. *See, e.g., Whiteman v. Dorotheum GmbH & Co. KG*, 431 F.3d 57, 59 (2d Cir. 2005) (political question doctrine prevented court from adjudicating claims against Austrian government for seizure of property from Jewish families during World War II because two presidential administrations had "committed the United States to a policy of resolving Holocaust-era restitution claims through international agreements rather than litigation."); *Schneider v. Kissinger*, 412 F.3d 190, 198 (D.C. Cir. 2005) (political question doctrine barred review of Executive Branch decision to participate in covert operations in Chile, a decision that had already been the subject of congressional inquiry).

Although the United States has made international commitments regarding climate change, granting the relief requested here would be fully consistent with those commitments. There is no contradiction between promising other nations the United States will reduce CO_2 emissions and a judicial order directing the United States to go beyond its international commitments to *more aggressively* reduce CO_2 emissions. Because this Court could grant plaintiffs' requested relief without expressing disrespect for the Executive Branch's

international climate change agreements, the fourth *Baker* factor does not apply.

[16] Neither intervenors nor defendants suggest the fifth or sixth *Baker* factors apply here. Nonetheless, I address those factors because federal courts have an "independent obligation to assure [them]selves of" the existence of subject matter jurisdiction. *Rosson v. Fitzgerald (In re Rosson)*, 545 F.3d 764, 769 n.5 (9th Cir. 2008). On the face of the complaint, I see no evidence of an "unusual need for unquestioning adherence to a political decision already made" or any "potentiality of embarrassment from multifarious pronouncements by various departments on one question." *Baker*, 369 U.S. at 217, 82 S.Ct. 691. I conclude neither of the two final *Baker* factors deprives this Court of subject matter jurisdiction.

D. *Summary: This Case Does Not Raise a Nonjusticiable Political Question*

[17] There is no need to step outside the core role of the judiciary to decide this case. At its heart, this lawsuit asks this Court to determine whether defendants have violated plaintiffs' constitutional rights. That question is squarely within the purview of the judiciary. *See INS v. Chadha*, 462 U.S. 919, 941, 103 S.Ct. 2764, 77 L.Ed.2d 317 (1983) (judiciary is bound to determine whether the political branches have "chosen a constitutionally permissible means of implementing [their] power"); *Jewel*, 673 F.3d at 912 (although lawsuit challenging federal agencies' surveillance practices "strikes at the heart of a major public policy controversy," claims were justiciable because they were "straightforward claims of statutory and constitutional rights, not political questions").

This case shares some key features with *Baker* itself, In *Baker*, a group of voters challenged a statute governing the apportionment of state legislative districts. 369 U.S. at 188–95, 82 S.Ct. 691. Sixty years of population growth without legislative reapportionment had led to some votes carrying much more weight than others. *Id.* at 192–93, 82 S.Ct. 691. Here, the majority of youth plaintiffs are minors who cannot vote and must depend on others to protect their political interests. Thus, as amicus the League of Women Voters persuasively argues, the youth plaintiffs' claims are similar to the *Baker* claims because they are "rooted in a 'debasement of their votes' and an accompanying diminishment of their voice in representational government." Br. for the League of Women Voters in the United States et al. as Amici Curiae at 19–20 (doc. 79–1).[4] In *Baker*, the Court acknowledged that the plaintiffs' claims had political dimensions and ramifications—but nonetheless concluded none of the *Baker* factors was inextricable from the case. 369 U.S. at 209, 82 S.Ct. 691. Similarly, as discussed in detail above, this case raises political issues yet is not barred by the political question doctrine.

[18, 19] Should plaintiffs prevail on the merits, this Court would no doubt be compelled to exercise great care to avoid separation-of-powers problems in crafting a remedy. The separation of powers might, for example, permit the Court to direct defendants to ameliorate plaintiffs' injuries but limit its ability to specify precisely how to do so. *Cf. S. Burlington Cnty. N.A.A.C.P. v. Mt. Laurel Twp.*, 67 N.J. 151, 336 A.2d 713, 734 (1975) (leaving to municipality "in the first instance at least" the determination of how to remedy the constitutional problems with a local zoning ordinance). That said, federal courts retain

4. The motion of the League of Women Voters of the United States and the League of Women Voters of Oregon to appear as amici curiae (doc. 79) is granted.

broad authority "to fashion practical remedies when confronted with complex and intractable constitutional violations." *Brown v. Plata*, 563 U.S. 493, 526, 131 S.Ct. 1910, 179 L.Ed.2d 969 (2011). In any event, speculation about the difficulty of crafting a remedy could not support dismissal at this early stage. *See Baker*, 369 U.S. at 198, 82 S.Ct. 691 ("Beyond noting that we have no cause at this stage to doubt the District Court will be able to fashion relief if violations of constitutional rights are found, it is improper now to consider what remedy would be most appropriate if appellants prevail at trial.") Because no *Baker* factor is inextricable from the merits of this case, the political question doctrine is not a barrier to plaintiffs' claims.

II. *Standing to Sue*

[20–24] "A threshold question in every federal case is . . . whether at least one plaintiff has standing." *Thomas v. Mundell*, 572 F.3d 756, 760 (9th Cir. 2009) (citation and quotation marks omitted). Standing requires a plaintiff to allege "such a personal stake in the outcome of the controversy as to warrant [the] invocation of federal-court jurisdiction and to justify exercise of the court's remedial powers[.]" *Warth v. Seldin*, 422 U.S. 490, 498, 95 S.Ct. 2197, 45 L.Ed.2d 343 (1975). To demonstrate standing, a plaintiff must show (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision, *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992). A plaintiff must support each element of the standing test "with the manner and degree of evidence required at the successive stages of the litigation." *Id.* at 561, 112 S.Ct. 2130. Accordingly, at the motion to dismiss stage "general allegations" suffice to establish standing because those allegations are presumed to "embrace those specific facts that are necessary to support the claim." *Id.* (citation and quotation marks omitted).

A. *Injury in Fact*

[25] In an environmental case, a plaintiff cannot demonstrate injury in fact merely by alleging injury to the environment; there must be an allegation that the challenged conduct is harming (or imminently will harm) the plaintiff. *Friends of the Earth, Inc. v. Laidlaw Envt'l Servs. (TOC), Inc.*, 528 U.S. 167, 181, 120 S.Ct. 693, 145 L.Ed.2d 610 (2000). For example, a plaintiff may meet the injury in fact requirement by alleging the challenged activity "impairs his or her economic interests or aesthetic and environmental well-being." *Wash. Envt'l Council v. Bellon*, 732 F.3d 1131, 1140 (9th Cir. 2013) (quotation marks omitted and alterations normalized).

[26] Plaintiffs adequately allege injury in fact. Lead plaintiff Kelsey Juliana alleges algae blooms harm the water she drinks, and low water levels caused by drought kill the wild salmon she eats. First Am. Compl. ¶¶ 17–18. Plaintiff Xiuhtezcatl Roske–Martinez alleges increased wildfires and extreme flooding jeopardize his personal safety. *Id.* ¶ 21. Plaintiff Alexander Loznak alleges record-setting temperatures harm the health of the hazelnut orchard on his family farm, an important source of both revenue and food for him and his family. *Id.* ¶ 26. Plaintiff Jacob Lebel alleges drought conditions required his family to install an irrigation system at their farm. *Id.* ¶ 32. Plaintiff Zealand B. alleges he has been unable to ski during the winter as a result of decreased snowpack. *Id.* ¶ 38. Plaintiff Sahara V. alleges hot, dry conditions caused by forest fires aggravate her asthma. *Id.* ¶ 46.

The most recent allegations of injury appear in the supplemental declaration of plaintiff Jayden F., a thirteen-year-old resident of Rayne, Louisiana. Jayden alleges that at five o'clock the morning of August 13, 2016, her siblings woke her up. Decl. Jayden F. ¶ 5 Sept. 7, 2016 (doc. 78). She stepped out of bed into ankle-deep water. By the end of the day,

> Flood waters were pouring into our home through every possible opening. We tried to stop it with towels, blankets, and boards. The water was flowing down the hallway, into my Mom's room and my sisters' room. The water drenched my living room and began to cover our kitchen floor. Our toilets, sinks, and bathtubs began to overflow with awful smelling sewage because our town's sewer system also flooded. Soon the sewage was everywhere. We had a stream of sewage and water running through our house.

Id. ¶ 8. With no shelters available and nowhere else to go, the family remained in the flooded house for weeks. *Id.* ¶ 10. The floodwaters eventually receded, but the damage remains: the carpets are soaked with sewage water. *Id.* ¶ 12. The waterlogged walls must be torn down to prevent the growth of black mold. *Id.* The entire family sleeps together in the living room because the bedrooms are uninhabitable. *Id.* ¶ 15. Jayden alleges the storm that destroyed her home "ordinarily would happen once every 1,000 years, but is happening now as a result of climate change." *Id.* ¶ 2.

The government contends these injuries are not particular to plaintiffs because they are caused by climate change, which broadly affects the entire planet (and all people on it) in some way. According to the government, this renders plaintiffs' injuries nonjusticiable generalized grievances. *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, —— U.S. ——, 134 S.Ct. 1377, 1387 n.3, 188 L.Ed.2d 392 (2014) (explaining that generalized grievances do not meet Article III's case or controversy requirement).

[27–29] The government misunderstands the generalized grievance rule. As the Ninth Circuit recently explained, federal courts lack jurisdiction to hear a case when the harm at issue is "not only widely shared, but is also of an abstract and indefinite nature—for example, harm to the common concern for obedience to the law." *Novak v. United States*, 795 F.3d 1012, 1018 (9th Cir. 2015) (quoting *Fed. Elec. Comm'n v. Akins*, 524 U.S. 11, 23, 118 S.Ct. 1777, 141 L.Ed.2d 10 (1998)). Standing alone, "the fact that a harm is widely shared does not necessarily render it a generalized grievance." *Jewel*, 673 F.3d at 909; *see also Massachusetts v. EPA*, 549 U.S. 497, 517, 127 S.Ct. 1438, 167 L.Ed.2d 248 (2007) ("[I]t does not matter how many persons have been injured by the challenged action" so long as "the party bringing suit shows that the action injures him in a concrete and personal way." (quotation marks omitted and alterations normalized)); *Akins*, 524 U.S. at 24, 118 S.Ct. 1777 ("[A]n injury .... widely shared ... does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where sufficiently concrete, may count as an 'injury in fact.' "); *Covington v. Jefferson Cnty.*, 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring) ("[T]he most recent Supreme Court precedent appears to have rejected the notion that injury to all is injury to none for standing purposes."); *Pye v. United States*, 269 F.3d 459, 469 (4th Cir. 2001) ("So long as the plaintiff ... has a concrete and particularized injury, it does not matter that legions of other persons have the same injury."). Indeed, even if "the experience at the root of [the] complaint was shared by virtually every American," the inquiry remains whether that

shared experience caused an injury that is concrete and particular *to the plaintiff*. *Jewel*, 673 F.3d at 910. Applying the correct formulation of the generalized grievance rule, plaintiffs' alleged injuries—harm to their personal, economic and aesthetic interests—are concrete and particularized, not abstract or indefinite.

[30–32] That leaves imminence. Plaintiffs must demonstrate standing for each claim they seek to press and for each form of relief sought. *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 352, 126 S.Ct. 1854, 164 L.Ed.2d 589 (2006). Because plaintiffs seek injunctive relief, they must show their injuries are "ongoing or likely to recur." *Consumer Fin. Prot. Bureau v. Gordon*, 819 F.3d 1179, 1197 (9th Cir. 2016) (quoting *FTC v. Evans Prods. Co.*, 775 F.2d 1084, 1087 (9th Cir. 1985)). They have met this requirement. The complaint alleges that "[t]he present level of CO_2 and its warming, both realized and latent, are already in the zone of danger." First Am, Compl, ¶ 8. It also alleges that "our country is now in a period of carbon overshoot, with early consequences that are already threatening and that will, in the short term, rise to unbearable unless Defendants take immediate action[.]" *Id.* ¶ 10 (quotation marks omitted). Youth plaintiffs each allege harm that is ongoing and likely to continue in the future. *See, e.g., id.* ¶ 17 (alleging current harm and harm "[i]n the coming decades" from ocean acidification and rising sea levels); *id.* ¶ 45 (alleging damage to freshwater resources now and in the future "if immediate action is not taken" to reduce CO_2 emissions). This is sufficient to satisfy the imminence requirement.

By alleging injuries that are concrete, particularized, and actual or imminent, plaintiffs have satisfied the first prong of the standing test.

B. *Causation*

[33, 34] The second requirement of standing is causation. A plaintiff must show the injury alleged is "fairly traceable" to the challenged action of the defendant and not the result of "the independent action of some third party not before the court." *Lujan*, 504 U.S. at 560, 112 S.Ct. 2130 (citation and quotation marks omitted). Although a defendant's action need not be the sole source of injury to support standing, *Barnum Timber Co. v. EPA*, 633 F.3d 894, 901 (9th Cir. 2011), "[t]he line of causation between the defendant's action and the plaintiff's harm must be more than attenuated," *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 867 (9th Cir. 2012) (citations and quotation marks omitted). However, a "causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible." *Id.* (citations, quotation marks, and bracket omitted).

The government contends plaintiffs have not adequately alleged causation, relying on the Ninth Circuit's decision in *Bellon*. In that case, environmental advocacy groups sought to compel the Washington State Department of Ecology and other regional agencies "to regulate greenhouse gas emissions" ("GHGs") from five oil refineries. *Bellon*, 732 F.3d at 1135. The court held plaintiffs lacked standing to sue because the causal link between the agencies' regulatory decisions and the plaintiffs' injuries was "too attenuated." *Id.* at 1141. The court explained the special challenge of showing causation with respect to the production of greenhouse gases:

> Greenhouse gases, once emitted from a specific source, quickly mix and disperse in the global atmosphere and have a long atmospheric lifetime. Current research on how greenhouse gases influence global climate change has focused

> on the cumulative environmental effects from aggregate regional or global sources. But there is limited scientific capability in assessing, detecting, or measuring the relationship between a certain GHG emission source and localized climate impacts in a given region.

Id. at 1143. The court noted that the five oil refineries at issue were responsible for just under six percent of total greenhouse gas emissions produced in the state of Washington, and quoted the state's expert's declaration that the effect of those emissions on global climate change was "scientifically indiscernible, given the emission levels, the dispersal of GHGs worldwide, and the absence of any meaningful nexus between Washington refinery emissions and global GHG concentrations now or as projected in the future." *Id.* at 1144 (quotation marks omitted). The court concluded the "causal chain [wa]s too tenuous to support standing." *Id.*

This case is distinguishable from *Bellon* in two important respects. First, the procedural posture is different. In *Bellon*, the appeal was taken from a grant of summary judgment. *Id.* at 1138. That procedural posture is underscored by the court's reliance on expert declarations in rendering its decision. Plaintiffs have alleged a causal relationship between their injuries and defendants' conduct. At this stage, I am bound to accept those allegations as true. This rule appropriately acknowledges the limits of the judiciary's expertise: at the motion to dismiss stage, a federal court is in no position to say it is impossible to introduce evidence to support a well-pleaded causal connection. *See Connecticut v. Am. Elec. Power Co., Inc.*, 582 F.3d 309, 347 (2d Cir. 2009) (holding that causation in climate change cases is "best left to the rigors of evidentiary proof at a future stage of the proceedings, rather than dispensed with as a threshold question of constitutional standing"), *rev'd on other grounds, Am. Elec. Power Co., Inc. v. Connecticut*, 564 U.S. 410, 429, 131 S.Ct. 2527, 180 L.Ed.2d 435 (2011). 1 note, too, that climate science is constantly evolving. *See* Kirsten Engel & Jonathan Overpeck, *Adaptation and the Courtroom: Judging Climate Science*, 3 Mich. J. Envt'l & Admin. L. 1, 25 (2013) (although "climate impacts at the regional and local levels are subject, among other things, to the uncertainties of downscaling techniques[,] ... our knowledge of the climate is developing at a breakneck pace.") As a result, 1 cannot interpret *Bellon*—which relied on a summary judgment record developed more than five years ago—to forever close the courthouse doors to climate change claims.

[35] Second, the emissions at issue in this case, unlike the emissions at issue in *Bellon*, make up a significant share of global emissions, In *Bellon*, as noted, the five oil refineries were responsible for just under six percent of the greenhouse gas emissions generated in the state of Washington. The Ninth Circuit recently explained that in *Bellon*, "causation was lacking because the defendant oil refineries were such minor contributors to greenhouse gas emissions, and the independent third-party causes of climate change were so numerous, that the contribution of the defendant oil refineries was 'scientifically undiscernable.' " *WildEarth Guardians v. U.S. Dep't of Agric.*, 795 F.3d 1148, 1158 (9th Cir. 2015) (quoting *Bellon*, 732 F.3d at 1144). Here, by contrast, plaintiffs' chain of causation rests on the core allegation that defendants are responsible for a substantial share of worldwide greenhouse gas emissions. Plaintiffs allege that over the 263 years between 1751 and 2014, the United States produced more than twenty-five percent of global CO_2 emissions. First Am. Compl. ¶ 151. Greenhouse gas emissions produced in the United States continue to increase. *Id.* ¶ 152. In 2012, the United States was the second largest pro-

ducer and consumer of energy in the world. *Id.* ¶ 160. *Bellon*'s reasoning, which rested on a determination the oil refineries were "minor contributors" to climate change, does not apply. *WildEarth Guardians*, 795 F.3d at 1158.

The government broadly asserts that *Bellon* rejected "the argument that allegations that a source 'contributed' to climate change are sufficient to satisfy Article Ill's causation requirement[.]" Fed. Defs.' Mem. of Points & Auth. in Supp. of Mot. Dismiss at 12 (doc. 27–1). Not so. *Bellon* rejected—*at the summary judgment stage*—"vague, conclusory" statements purporting to establish a causal relationship between the emissions of five refineries and the plaintiffs' injuries. 732 F.3d at 1142. Although the Constitution did not require the *Bellon* plaintiffs to "connect each molecule to their injuries," it demanded more than "simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries[.]" *Id.* at 1142–43.

The causal chain alleged by plaintiffs here is conclusory, but that is because they have not yet had the opportunity to present evidence. And unlike in *Bellon*, plaintiffs' causation allegations are not vague. At oral argument, plaintiffs explained that their theory of causation has two components. The first relates to defendants' affirmative acts. Specifically, plaintiffs allege that fossil fuel combustion accounts for approximately ninety-four percent of United States CO_2 emissions. First Am. Compl. ¶ 158. Defendants lease public lands for oil, gas, and coal production; undercharge royalties in connection with those leases; provide tax breaks to companies to encourage fossil fuel development; permit the import and export of fossil fuels; and incentivize the purchase of sport utility vehicles. *Id.* ¶¶ 164, 166, 171, 173, 181, 190. Here, the chain of causation is: fossil fuel combustion accounts for the lion's share of greenhouse gas emissions produced in the United States; defendants have the power to increase or decrease those emissions; and defendants use that power to engage in a variety of activities that actively cause and promote higher levels of fossil fuel combustion.

The second component of plaintiffs' causation theory involves defendants' failure to act in areas where they have authority to do so. Plaintiffs allege that together, power plants and transportation produce nearly two-thirds of CO_2 emissions in the United States. *Id.* ¶ 115 (transportation produces approximately twenty-seven percent of annual emissions); *id.* ¶ 125 (power plants produce roughly thirty-seven percent of annual emissions). Plaintiffs also allege DOT and EPA have broad power to set emissions standards in these sectors. So the chain of causation is: DOT and EPA have jurisdiction over sectors producing sixty-four percent of United States emissions, which in turn constitute roughly fourteen percent of emissions worldwide; they allow high emissions levels by failing to set demanding standards; high emissions levels cause climate change; and climate change causes plaintiffs' injuries.

Each link in these causal chains may be difficult to prove, but the "spectre of difficulty down the road does not inform [the] justiciability determination at this early stage of the proceedings." *Alperin*, 410 F.3d at 539. At the pleading stage, plaintiffs have adequately alleged a causal link between defendants' conduct and the asserted injuries.

C. *Redressability*

[36, 37] The final prong of the standing inquiry is redressability. The causation and redressability prongs of the standing inquiry "overlap and are two facets of a

single causation requirement." *Bellon*, 732 F.3d at 1146 (citation and quotation marks omitted). They are distinct in that causation "examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief." *Id.* A plaintiff need not show a favorable decision is certain to redress his injury, but must show a substantial likelihood it will do so. *Id.* It is sufficient for the redressability inquiry to show that the requested remedy would "slow or reduce" the harm, *Massachusetts*, 549 U.S. at 525, 127 S.Ct. 1438 (citing *Larson v. Valente*, 456 U.S. 228, 243 n.15, 102 S.Ct. 1673, 72 L.Ed.2d 33 (1982)).

[38] The declaratory and injunctive relief plaintiffs request meets this standard. Most notably, plaintiffs ask this Court to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2[.]" First Am. Compl. ¶ 94. If plaintiffs can show, as they have alleged, that defendants have control over a quarter of the planet's greenhouse gas emissions, and that a reduction in those emissions would reduce atmospheric CO_2 and slow climate change, then plaintiffs' requested relief would redress their injuries.

Bellon is not to the contrary. In *Bellon*, the court concluded the plaintiff's injuries would continue unabated even if the five oil refineries shut down, repeating its conclusion that the effect of the emissions produced by those refineries on global emissions levels was "scientifically indiscernable." 732 F.3d at 1147 (quotation marks omitted), Thus, *Bellon*'s redressability holding, like its causation holding, rested on a factor not present here: that the defendants were minor contributors to global climate change. Accordingly, *Bellon*'s reasoning does not apply.

[39] Defendants and intervenors essentially argue that because many entities contribute to global warming, an injunction operating on one entity—even a major player—would offer no guarantee of an overall reduction in greenhouse gas emissions. But whether the Court could guarantee an overall reduction in greenhouse gas emissions is the wrong inquiry for at least two reasons. First, redressability does not require certainty, it requires only a substantial likelihood that the Court could provide meaningful relief. Second, the possibility that some other individual or entity might later cause the same injury does not defeat standing—the question is whether the injury *caused by the defendant* can be redressed.

Redressability in this case is scientifically complex, particularly in light of the specter of "irreversible climate change," wherein greenhouse gas emissions above a certain level push the planet past "points of no return, beyond which irreversible consequences become inevitable, out of humanity's control." Hansen Decl. ¶ 13 & Ex. 2 at 13 Sept. 10, 2015 (docs. 7–1 & 7–3) (quotation marks omitted). This raises a host of questions, among them: What part of plaintiffs' injuries are attributable to causes beyond this Court's control? Even if emissions increase elsewhere, will the magnitude of plaintiffs' injuries be less if they obtain the relief they seek in this lawsuit? When would we reach this point of no return, and do defendants have it within their power to avert reaching it even without cooperation from third parties? All of these questions are inextricably bound up in the causation inquiry, and none of them can be answered at the motion to dismiss stage.

[40] Plaintiffs ask this Court to "order Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out

CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." First Am. Compl. ¶ 12 (emphasis omitted). Construing the complaint in plaintiffs' favor, they allege that this relief would at least partially redress their asserted injuries. Youth plaintiffs have adequately alleged they have standing to sue.[5]

III. *Due Process Claims* [6]

The Due Process Clause of the Fifth Amendment to the United States Constitution bars the federal government from depriving a person of "life, liberty, or property" without "due process of law." U.S. Const. amend. V. Plaintiffs allege defendants have violated their due process rights by "directly caus[ing] atmospheric CO_2 to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Plaintiffs[,]" First Am. Compl. ¶ 279; "knowingly endanger[ing] Plaintiffs' health and welfare by approving and promoting fossil fuel development, including exploration, extraction, production, transportation, importation, exportation, and combustion," *id.* ¶ 280; and, "[a]fter knowingly creating this dangerous situation for Plaintiffs, ... continu[ing] to knowingly enhance that danger by allowing fossil fuel production, consumption, and combustion at dangerous levels," *id.* ¶ 284.

Defendants and intervenors challenge plaintiffs' due process claims on two grounds. First, they assert any challenge to defendants' affirmative actions (*i.e.* leasing land, issuing permits) cannot proceed because plaintiffs have failed to identify infringement of a fundamental right or discrimination against a suspect class of persons. Second, they argue plaintiffs cannot challenge defendants' inaction (*i.e.*, failure to prevent third parties from emitting CO_2 at dangerous levels) because defendants have no affirmative duty to protect plaintiffs from climate change.

A. *Infringement of a Fundamental Right*

[41–43] When a plaintiff challenges affirmative government action under the due process clause, the threshold inquiry is the applicable level of judicial scrutiny. *Witt v. Dep't of the Air Force*, 527 F.3d 806, 813 (9th Cir. 2008). The default level of scrutiny is rational basis, which requires a reviewing court to uphold the challenged governmental action so long as it "implements a rational means of achieving a legitimate governmental end[.]" *Kim v. United States*, 121 F.3d 1269, 1273 (9th Cir. 1997) (quotation marks omitted). When the government infringes a "fundamental right," however, a reviewing court applies strict scrutiny. *Witt*, 527 F.3d at 817. Substantive due process "forbids the government to infringe certain 'fundamental' liberty interests *at all*, no matter what process is provided, unless the infringement is narrowly tailored to serve a com-

5. Defendants and intervenors also challenge the standing of future generations plaintiffs on a number of grounds. It is not necessary to address these arguments because once a federal court concludes one plaintiff has standing, it need not determine whether the remaining plaintiffs have standing, *Nat'l Ass'n of Optometrists & Opticians LensCrafters, Inc. v. Brown*, 567 F.3d 521, 523 (9th Cir. 2009).

6. Plaintiffs' due process claims encompass asserted equal protection violations and violations of unenumerated rights secured by the Ninth Amendment. For simplicity's sake, this opinion refers to these claims collectively as "due process claims."

pelling state interest." *Reno v. Flores*, 507 U.S. 292, 302, 113 S.Ct. 1439, 123 L.Ed.2d 1 (1993) (emphasis in original). It appears undisputed by plaintiffs, and in any event is clear to this Court, that defendants' affirmative actions would survive rational basis review. Resolution of this part of the motions to dismiss therefore hinges on whether plaintiffs have alleged infringement of a fundamental right.[7]

[44, 45] Fundamental liberty rights include both rights enumerated elsewhere in the Constitution and rights and liberties which are either (1) "deeply rooted in this Nation's history and tradition" or (2) "fundamental to our scheme of ordered liberty[.]" *McDonald v. City of Chicago, Ill.*, 561 U.S. 742, 767, 130 S.Ct. 3020, 177 L.Ed.2d 894 (2010) (internal citations, quotations, and emphasis omitted). The Supreme Court has cautioned that federal courts must "exercise the utmost care whenever we are asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed into" judicial policy preferences. *Washington v. Glucksberg*, 521 U.S. 702, 720, 117 S.Ct. 2258, 138 L.Ed.2d 772 (1997) (citation and quotation marks omitted).

[46, 47] This does not mean that "new" fundamental rights are out of bounds, though. When the Supreme Court broke new legal ground by recognizing a constitutional right to same-sex marriage, Justice Kennedy wrote that

> The nature of injustice is that we may not always see it in our own times. The generations that wrote and ratified the Bill of Rights ... did not presume to know the extent of freedom in all its dimensions, and so they entrusted to future generations a charter protecting the right of all persons to enjoy liberty as we learn its meaning. When new insight reveals discord between the Constitution's central protections and a received legal stricture, a claim to liberty must be addressed.

Obergefell v. Hodges, —— U.S. ——, 135 S.Ct. 2584, 2598, 192 L.Ed.2d 609 (2015). Thus, "[t]he identification and protection of fundamental rights is an enduring part of the judicial duty to interpret the Constitution ... [that] has not been reduced to any formula." *Id.* (citation and quotation marks omitted). In determining whether a right is fundamental, courts must exercise "reasoned judgment," keeping in mind that "[h]istory and tradition guide and discipline this inquiry but do not set its outer boundaries." *Id.* The genius of the Constitution is that its text allows "future generations [to] protect ... the right of all persons to enjoy liberty as we learn its meaning," *Id.*

Often, an unenumerated fundamental right draws on more than one Constitutional source, The idea is that certain rights may be necessary to enable the exercise of other rights, whether enumerated or unenumerated. In *Roe v. Wade*, 410 U.S. 113, 152–53, 93 S.Ct. 705, 35 L.Ed.2d 147 (1973), the Court exhaustively chronicled the jurisprudential history of the fundamental right to privacy—another right not mentioned in the text of the Constitution. *Roe*'s central holding rests on the Due Process Clause of the Fourteenth Amendment. *Id.* at 153, 93 S.Ct. 705. But the Court also found "roots" of the right to privacy in the First Amendment, the

7. Strict scrutiny also is triggered by an allegation that the government discriminated on the basis of a suspect classification, regardless of whether the government action infringed a fundamental right. *Green v. City of Tucson*, 340 F.3d 891, 896 (9th Cir. 2003). Because I conclude that plaintiffs have alleged a violation of their fundamental rights, I need not address whether youth or future generations are suspect classifications for equal protection purposes.

Fourth Amendment, the Fifth Amendment, the penumbras of the Bill of Rights, and the Ninth Amendment. *Id.* at 152, 93 S.Ct. 705. Similarly, in *Obergefell*, the Court's recognition of a fundamental right to many was grounded in an understanding of marriage as a right underlying and supporting other vital liberties. *See* 135 S.Ct. at 2599 ("[I]t would be contradictory to recognize a right to privacy with respect to other matters of family life and not with respect to the decision to enter the relationship that is at the foundation of the family in our society." (citation and quotation marks omitted)); *id.* at 2601 ("[M]arriage is a keystone of our social order.").

[48] Exercising my "reasoned judgment," *id.* at 2598, I have no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society. Just as marriage is the "foundation of the family," a stable climate system is quite literally the foundation "of society, without which there would be neither civilization nor progress." *Id.* (quoting *Maynard v. Hill*, 125 U.S. 190, 211, 8 S.Ct. 723, 31 L.Ed. 654 (1888)); *cf. Minors Oposa v. Sec'y of the Dep't of Envt'l & Natural Res.*, G.R. No. 101083, 33 I.L.M. 173, 187–88 (S.C., Jul. 30, 1993) (Phil.) (without "a balanced and healthful ecology," future generations "stand to inherit nothing but parched earth incapable of sustaining life.").

Defendants and intervenors contend plaintiffs are asserting a right to be free from pollution or climate change, and that courts have consistently rejected attempts to define such rights as fundamental, Defendants and intervenors mischaracterize the right plaintiffs assert. Plaintiffs do not object to the government's role in producing *any* pollution or in causing *any* climate change; rather, they assert the government has caused pollution and climate change on a catastrophic level, and that if the government's actions continue unchecked, they will permanently and irreversibly damage plaintiffs' property, their economic livelihood, their recreational opportunities, their health, and ultimately their (and their children's) ability to live long, healthy lives. Echoing *Obergefell*'s reasoning, plaintiffs allege a stable climate system is a necessary condition to exercising other rights to life, liberty, and property.

In framing the fundamental right at issue as the right to a climate system capable of sustaining human life, I intend to strike a balance and to provide some protection against the constitutionalization of all environmental claims. On the one hand, the phrase "capable of sustaining human life" should not be read to require a plaintiff to allege that governmental action will result in the extinction of humans as a species. On the other hand, acknowledgment of this fundamental right does not transform any minor or even moderate act that contributes to the warming of the planet into a constitutional violation. In this opinion, this Court simply holds that where a complaint alleges governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem, it states a claim for a due process violation, To hold otherwise would be to say that the Constitution affords no protection against a government's knowing decision to poison the air its citizens breathe or the water its citizens drink. Plaintiffs have adequately alleged infringement of a fundamental right.

B. *"Danger Creation" Challenge to Inaction*

[49–52] With limited exceptions, the Due Process Clause does not impose on the government an affirmative obligation to act, even when "such aid may be neces-

sary to secure life, liberty, or property interests of which the government itself may not deprive the individual." *DeShaney v. Winnebago Cnty. Dep't of Soc. Servs.*, 489 U.S. 189, 196, 109 S.Ct. 998, 103 L.Ed.2d 249 (1989). This rule is subject to two exceptions: "(1) the 'special relationship' exception; and (2) the 'danger creation' exception," *L.W. v. Grubbs*, 974 F.2d 119, 121 (9th Cir. 1992). The "special relationship" exception provides that when the government takes an individual into custody against his or her will, it assumes some responsibility to ensure that individual's safety. *Id.* The "danger creation" exception permits a substantive due process claim when government conduct "places a person in peril in deliberate indifference to their safety[.]" *Penilla v. City of Huntington Park*, 115 F.3d 707, 709 (9th Cir. 1997). Plaintiffs purport to challenge the government's failure to limit third-party CO_2 emissions pursuant to the danger creation *DeShaney* exception.

[53, 54] In the Ninth Circuit, a plaintiff challenging government inaction on a danger creation theory must first show the "state actor create[d] or expose[d] an individual to a danger which he or she would not have otherwise faced." *Kennedy v. City of Ridgefield*, 439 F.3d 1055, 1061 (9th Cir. 2006), The state action must place the plaintiff "in a worse position than that in which he would have been had the state not acted at all." *Pauluk v. Savage*, 836 F.3d 1117, 1125 (9th Cir. 2016) (quotation marks omitted and alterations normalized). Second, the plaintiff must show the "state actor ... recognize[d]" the unreasonable risks to the plaintiff and "actually intend[ed] to expose the plaintiff to such risks without regard to the consequences to the plaintiff." *Campbell v. Wash. Dep't of Soc. & Health Servs.*, 671 F.3d 837, 846 (9th Cir. 2011) (brackets and quotation marks omitted). The defendant must have acted with "[d]eliberate indifference," which "requires a culpable mental state more than gross negligence." *Pauluk*, 836 F.3d at 1125 (quotation marks omitted).

[55] Plaintiffs allege that "[a]cting with full appreciation of the consequences of their acts, Defendants knowingly caused, and continue to cause, dangerous interference with our atmosphere and climate system." First Am. Compl. ¶ 85. They allege this danger stems, "in substantial part, [from] Defendants' historic and continuing permitting, authorizing, and subsidizing of fossil fuel extraction, production, transportation, and utilization." *Id.* ¶ 279. Plaintiffs allege defendants acted "with full appreciation" of the consequences of their acts, *id.* ¶¶ 278–79, specifically "[harm to] Plaintiffs' dignity, including their capacity to provide for their basic human needs, safely raise families, practice their religious and spiritual beliefs, maintain their bodily integrity, and lead lives with access to clean air, water, shelter, and food." *Id.* ¶ 283. In the face of these risks, plaintiffs allege defendants "have had longstanding, actual knowledge of the serious risks of harm and have failed to take necessary steps to address and ameliorate the known, serious risk to which they have exposed Plaintiffs." *Id.* ¶ 285. In sum: plaintiffs allege defendants played a unique and central role in the creation of our current climate crisis; that they contributed to the crisis with full knowledge of the significant and unreasonable risks posed by climate change;[8] and

8. At oral argument, plaintiffs supplied the Court with a timeline documenting purported evidence of defendants' knowledge of climate change. The timeline, which dates back to 1955, includes the 1988 testimony of Dr. James Hansen before the Senate Committee on Energy and Natural Resources. Dr. Hansen, who appears in this lawsuit as a guardian for his granddaughter and for future generations, testified about rising global temperatures and their relationship to human activity. First Session on the Greenhouse Effect and

that the Due Process Clause therefore imposes a special duty on defendants to use their statutory and regulatory authority to reduce greenhouse gas emissions. Accepting the allegations of the complaint as true, plaintiffs have adequately alleged a danger creation claim.

Defendants argue the *DeShaney* exceptions are inapplicable when the actor is the federal government rather than a state government. It is true that *DeShaney* was a section 1983 case and that the Ninth Circuit cases interpreting the *DeShaney* exceptions are also section 1983 cases. But in *DeShaney*, the Supreme Court was mapping the contours of the Due Process Clause, not section 1983. Defendants have cited no case or legal principle to justify limiting *DeShaney* to the section 1983 context.

Next, defendants contend application of the *DeShaney* danger creation exception in this context would permit plaintiffs to "raise a substantive due process claim to challenge virtually any government program"—for example, to challenge foreign policy decisions that heighten or exacerbate international tensions, or to health and safety regulations the plaintiff deems insufficiently stringent. Fed. Defs.' Obj. 18. Defendants fail to recognize that *DeShaney* imposes rigorous proof requirements. A plaintiff asserting a danger-creation due process claim must show (1) the government's acts created the danger to the plaintiff; (2) the government *knew* its acts caused that danger; and (3) the government with *deliberate indifference* failed to act to prevent the alleged harm. These stringent standards are sufficient safeguards against the flood of litigation concerns raised by defendants—indeed, they pose a significant challenge for plaintiffs in this very lawsuit.[9]

Questions about difficulty of proof, however, must be left for another day. At the motion to dismiss stage, I am bound to accept the factual allegations in the complaint as true. Plaintiffs have alleged that defendants played a significant role in creating the current climate crisis, that defendants acted with full knowledge of the consequences of their actions, and that defendants have failed to correct or mitigate the harms they helped create in deliberate indifference to the injuries caused by climate change. They may therefore proceed with their substantive due process challenge to defendants' failure to adequately regulate CO_2 emissions.

IV. *Public Trust Claims*

[56–58] In its broadest sense, the term "public trust" refers to the fundamental understanding that no government can legitimately abdicate its core sovereign powers. *See Stone v. Mississippi*, 101 U.S. 814, 820, 25 L.Ed. 1079 (1879) ("[T]he power of governing is a trust committed by the people to the government, no part of which can be granted away.") The public trust doctrine rests on the fundamental principle that "[e]very succeeding legislature possesses the same jurisdiction and power with respect to [the public interest] as its

Global Climate Change Before the Comm. on Energy & Natural Res., 100th Cong. 39 (1988). He urged legislators to take action to limit greenhouse gas emissions. *Id.* at 158. Dr. Hansen's testimony was preceded by a statement from Senator Dale Bumpers of Arkansas, who bemoaned, "We're not going to have a lot of political support for this. Nobody wants to take on the automobile industry. Nobody wants to take on any of the industries that produce the things we throw up into the atmosphere." *Id.* at 38.

9. There are other barriers to asserting defendants' hypothetical danger-creation claims. For example, as discussed in Part I of this opinion, the political question doctrine sharply limits judicial review of decisions inherently entangled with the conduct of foreign relations.

predecessors." *Newton v. Mahoning Cnty. Comm'rs*, 100 U.S. 548, 559, 25 L.Ed. 710 (1879). The doctrine conceives of certain powers and obligations—for example, the police power—as inherent aspects of sovereignty. *Id.* at 554. Permitting the government to permanently give one of these powers to another entity runs afoul of the public trust doctrine because it diminishes the power of future legislatures to promote the general welfare.

[59] Plaintiffs' public trust claims arise from the particular application of the public trust doctrine to essential natural resources. With respect to these core resources, the sovereign's public trust obligations prevent it from "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." Br. of Amici Curiae Global Catholic Climate Movement and Leadership Council of Women Religious at 3 (footnote omitted) (doc. 51–1). Application of the public trust doctrine to natural resources predates the United States of America. Its roots are in the Institutes of Justinian, part of the Corpus Juris Civilis, the body of Roman law that is the "foundation for modern civil law systems." Timothy G. Kearley, *Justice Fred Blume and the Translation of Justinian's Code*, 99 Law Libr. J. 525, ¶ 1 (2007). The Institutes of Justinian declared "the following things are by natural law common to all—the air, running water, the sea, and consequently the seashore." J. Inst. 2.1.1 (J.B. Moyle trans.). The doctrine made its way to the United States through the English common law. *See Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 284, 117 S.Ct. 2028, 138 L.Ed.2d 438 (1997) ("American law adopted as its own much of the English law respecting navigable waters, including the principle that submerged lands are held for a public purpose."); *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 473, 108 S.Ct. 791, 98 L.Ed.2d 877 (1988) ("At common law, the title and dominion in lands flowed by the tide water were in the King for the benefit of the nation . . . Upon the American Revolution, these rights, charged with a like trust, were vested in the original States within their respective borders[.]" (quoting *Shively v. Bowlby*, 152 U.S. 1, 57, 14 S.Ct. 548, 38 L.Ed. 331 (1894)); Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 475–76 (1970) (discussing the history of the public trust doctrine in the United States).

The first court in this country to address the applicability of the public trust doctrine to natural resources was the New Jersey Supreme Court, in 1821. The court explained that public trust assets were part of a taxonomy of property:

> Every thing susceptible of property is considered as belonging to the nation that possesses the country, as forming the entire mass of its wealth. But the nation does not possess all those things in the same manner. By very far the greater part of them are divided among the individuals of the nation, and become *private property.* Those things not divided among the individuals still belong to the nation, and are called *public property.* Of these, again, some are reserved for the necessities of the state, and are used for the public benefit, and those are called "*the domain of the crown or of the republic*," others remain common to all the citizens, who take of them and use them, each according to his necessities, and according to the laws which regulate their use, and are called *common property.* Of this latter kind, according to the writers upon the law of nature and of nations, and upon the civil law, are the air, the running water, the sea, the fish, and the wild beasts.

Arnold v. Mundy, 6 N.J.L. 1, 71 (N.J. 1821) (emphasis in original).

The seminal United States Supreme Court case on the public trust is *Illinois Central Railroad Company v. Illinois*, 146 U.S. 387, 13 S.Ct. 110, 36 L.Ed. 1018 (1892). The Illinois legislature had conveyed to the Illinois Central Railroad Company title to part of the submerged lands beneath the harbor of Chicago, with the intent to give the company control over the waters above the submerged lands "against any future exercise of power over them by the state." *Id.* at 452, 13 S.Ct. 110, The Supreme Court held the legislature's attempt to give up its title to lands submerged beneath navigable waters was either void on its face or always subject to revocation. *Id.* at 453, 13 S.Ct. 110. "The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them ... than it can abdicate its police powers in the administration of government and the preservation of the peace." *Id.* In light of the "immense value" the harbor of Chicago carried for the people of Illinois, the "idea that its legislature can deprive the state of control over its bed and waters, and place the same in the hands of a private corporation" could not "be defended." *Id.* at 454, 13 S.Ct. 110.

[60, 61] The natural resources trust operates according to basic trust principles, which impose upon the trustee a fiduciary duty to "protect the trust property against damage or destruction." George G. Bogert et al., Bogert's Trusts and Trustees, § 582 (2016). The trustee owes this duty equally to both current and future beneficiaries of the trust. Restatement (Second) of Trusts § 183 (1959). In natural resources cases, the trust property consists of a set of resources important enough to the people to warrant public trust protection. *See* Mary C. Wood, A Nature's Trust; Environmental Law for a New Ecological Age 167–75 (2014). The government, as trustee, has a fiduciary duty to protect the trust assets from damage so that current and future trust beneficiaries will be able to enjoy the benefits of the trust. *Id.* The public trust doctrine is generally thought to impose three types of restrictions on governmental authority:

> [F]irst, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.

Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 477 (1970).

This lawsuit is part of a wave of recent environmental cases asserting state and national governments have abdicated their responsibilities under the public trust doctrine. *See, e.g., Alec L. v. Jackson*, 863 F.Supp.2d 11 (D.D.C. 2012); *Sanders–Reed ex rel. Sanders–Reed v. Martinez*, 350 P.3d 1221 (N.M. Ct. App. 2015); *Kanuk ex rel. Kanuk v. State, Dep't of Natural Res.*, 335 P.3d 1088 (Alaska 2014); *Chernaik v. Kitzhaber*, 263 Or.App. 463, 328 P.3d 799 (2014). These lawsuits depart from the "traditional" public trust litigation model, which generally centers on the second restriction, the prohibition against alienation of a public trust asset. Instead, plaintiffs assert defendants have violated their duties as trustees by nominally retaining control over trust assets while actually allowing their depletion and destruction, effectively violating the first and third restrictions by excluding the public from use and enjoyment of public resources.

Defendants and intervenors argue the public trust doctrine has no application in this case. They advance four arguments:

(1) the atmosphere, the central natural resource at issue in this lawsuit, is not a public trust asset; (2) the federal government, unlike the states, has no public trust obligations; (3) any common-law public trust claims have been displaced by federal statutes; and (4) even if there is a federal public trust, plaintiffs lack a right of action to enforce it. I address each contention in turn.

A. *Scope of Public Trust Assets*

[62] The complaint alleges defendants violated their duties as trustees by failing to protect the atmosphere, water, seas, seashores, and wildlife. First Am. Compl. ¶ 309. Defendants and intervenors argue plaintiffs' public trust claims fail because the complaint focuses on harm to the atmosphere, which is not a public trust asset. I conclude that it is not necessary at this stage to determine whether the atmosphere is a public trust asset because plaintiffs have alleged violations of the public trust doctrine in connection with the territorial sea.[10]

[63, 64] The federal government holds title to the submerged lands between three and twelve miles from the coastlines of the United States. *See* Restatement (Third) of The Foreign Relations Law of the United States § 511(a) (1987) (international law permits a nation to claim as its territorial sea an area up to twelve miles from its

10. To be clear, today's opinion should not be taken to suggest that the atmosphere is not a public trust asset. The Institutes of Justinian included the air in the list of assets ''by natural law common to all.'' J. Inst. 2.1.1 (J.B. Moyle trans.). The New Jersey Supreme Court in *Arnold* similarly included air in its list of ''common property.'' 6 N.J.L. at 71. Even Supreme Court case law suggests the atmosphere may properly be deemed part of the public trust *res*. *See United States v. Causby*, 328 U.S. 256, 261, 66 S.Ct. 1062, 90 L.Ed. 1206 (1946) (holding that private rights to airspace have ''no place in the modern world'' because recognition of such claims would ''transfer into private ownership that to which only the public has a just claim.'') The dearth of litigation focusing on atmosphere may reflect the limited state of scientific knowledge rather than signal a determination that the air is outside the scope of the public trust. *See* Mary C. Wood, *Atmospheric Trust Litigation Across the World*, *in* Fiduciary Duty and the Atmospheric Trust 113 (Ken Coghill et al. Eds. 2012) (hypothesizing that the atmosphere does not appear in early public trust case law because air was long thought to be indestructible and incapable of privatization).

Even if the atmosphere was not always considered a public trust asset, some courts have concluded the doctrine should ''be molded and extended to meet changing conditions and needs of the public it was created to benefit.'' *Matthews v. Bay Head Improvement Ass'n*, 95 N.J. 306, 471 A.2d 355, 365 (1984) (citation and quotation marks omitted). Just last year, Judge Hollis Hill reasoned that it ''misses the point'' to mechanically rely on what has been identified as a public trust asset in the past because ''[t]he navigable waters and the atmosphere are intertwined and to argue a separation of the two, or to argue that [greenhouse gas] emissions do not affect navigable waters is nonsensical.'' *Foster v. Wash. Dep't of Ecology*, No. 14–2–25295–1, slip op. at 8, 2015 WL 7721362 (Wash. King Cnty. Super. Ct. Nov. 19, 2015). At least one state court has held in recent years that ''the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property.'' *Robinson Twp., Wash. Cnty., Pa. v. Pennsylvania*, 623 Pa. 564, 83 A.3d 901, 955 (Pa. Sup. Ct. 2013).

The Supreme Court arguably endorsed this pragmatic approach to the identification of trust assets in *Illinois Central*, where it held, contrary to English common law, that lakes and rivers unaffected by the ebb and flow of the tide could be navigable waters within the meaning of the public trust doctrine. 146 U.S. at 436, 13 S.Ct. 110 (English rule for determining navigability would not work in the United States, which contains ''rivers [that] are navigable for great distances above the flow of the tide—indeed, for hundreds of miles'').

coast); Presidential Proclamation of Dec. 27, 1988, No. 5928, 3 C.F.R. § 547 (1989) (President Reagan expanding United States' claim from three-mile territorial sea to twelve-mile territorial sea); 43 U.S.C. § 1312 (seaward boundary of a coastal state is "a line three geographical miles distant from its coast line"). Time and again, the Supreme Court has held that the public trust doctrine applies to "lands beneath tidal waters." *See Phillips Petroleum Co.*, 484 U.S. at 474, 108 S.Ct. 791 (discussing *Shively*, 152 U.S. at 57, 14 S.Ct. 548 and *Knight v. U.S. Land Ass'n*, 142 U.S. 161, 183, 12 S.Ct. 258, 35 L.Ed. 974 (1891)); *Alabama v. Texas*, 347 U.S. 272, 278, 74 S.Ct. 481, 98 L.Ed. 689 (1954) (Black, J., dissenting) ("In ocean waters bordering our country, if nowhere else, day-to-day national power—complete, undivided, flexible, and immediately available—is an essential attribute of federal sovereignty."); *id.* at 282, 74 S.Ct. 481 (Douglas, J., dissenting) ("Thus we are dealing here with incidents of national sovereignty .... The authority over [the sea] can no more be abdicated than any of the other great powers of the Federal Government. It is to be exercised for the benefit of the whole."); *see also* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law; Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 556 (1970) (public trust law covers "that aspect of the public domain below the low-water mark on the margin of the sea and the great lakes, the waters over those lands, and the waters within rivers and streams of any consequence"). Because a number of plaintiffs' injuries relate to the effects of ocean acidification and rising ocean temperatures,[11] they have adequately alleged harm to public trust assets.

B. *Applicability of Public Trust to the Federal Government*

[65] Defendants and intervenors contend that in the United States, the public trust doctrine applies only to the states and not to the federal government. This argument rests primarily on a passing statement in *PPL Montana, LLC v. Montana*, 565 U.S. 576, 132 S.Ct. 1215, 182 L.Ed.2d 77 (2012). A close examination of that case reveals that it cannot fairly be read to foreclose application of the public trust doctrine to assets owned by the federal government.

PPL Montana was not a public trust case. Its central concern was the equal footing doctrine. PPL Montana, LLC used three rivers flowing through the state of Montana for hydroelectric projects. *Id.* at 580, 132 S.Ct. 1215. Montana sought rent for the use of the riverbeds, arguing it had gained title to the rivers pursuant to the equal footing doctrine when it became a state in 1889. *Id.* The Montana Supreme Court granted summary judgment on title to Montana, On writ of certiorari to the United States Supreme Court, review hinged on whether the rivers in question were "navigable" in 1889, because the "title consequences of the equal-footing doctrine" are that "[u]pon statehood, the State gains title within its borders to the beds of

11. *See, e.g.*, First Am. Compl. ¶ 16 ("An important part of Kelsey's diet includes food that comes from the marine waters and freshwater rivers, including salmon, cod, tuna, clams, mussels, and crab."); *id.* ¶ 27 ("Other food sources for Alex, including crab and seafood, are negatively impacted by ocean acidification, warming, and sea level rise caused by Defendants."); *id.* ¶ 33 ("Ocean acidification caused by Defendants has already begun to adversely impact shellfish along the coast, and is predicted to take its toll on crab, mussels, and all shelled seafood."); *id.* ¶ 45 ("On the Oregon coast, Sahara enjoys climbing rocks and sand dunes, swimming, and tidepooling to see marine life. Sahara's enjoyment of these activities is being increasingly harmed in the future by sea level rise, greater erosion, enhanced ocean acidification, and increased water temperatures.").

waters then navigable (or tidally influenced . . .)[.]" *Id.* at 589–90, 132 S.Ct. 1215. The Court reversed and remanded, holding that the Montana courts had applied the wrong methodology for determining navigability.

In addition to its main argument that the rivers were navigable, Montana argued that denying it title to the riverbeds in dispute would "undermine the public trust doctrine." *Id.* at 601, 132 S.Ct. 1215. The Supreme Court rejected this argument in short order:

> Unlike the equal-footing doctrine, . . . which is the constitutional foundation for the navigability rule of riverbed title, the public trust doctrine remains a matter of state law, subject as well to the federal power to regulate vessels and navigation under the Commerce Clause and admiralty power. While equal-footing cases have noted that the State takes title to the navigable waters and their beds in trust for the public, the contours of that public trust do not depend upon the Constitution. Under accepted principles of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine.

Id. at 603, 132 S.Ct. 1215 (citations omitted).

Defendants and intervenors take the phrase "the public trust doctrine remains a matter of state law," and interpret it in isolation to foreclose all federal public trust claims. That is not a plausible interpretation of *PPL Montana.* The Court was simply stating that federal law, not state law, determined whether Montana has title to the riverbeds, and that if Montana had title, state law would define the scope of Montana's public trust obligations. *PPL Montana* said nothing at all about the viability of federal public trust claims with respect to federally-owned trust assets.

In a string citation, *PPL Montana* cited *Coeur d'Alene*, 521 U.S. at 285, 117 S.Ct. 2028, and *Appleby v. City of New York*, 271 U.S. 364, 395, 46 S.Ct. 569, 70 L.Ed. 992 (1926), for the proposition that *Illinois Central* "was necessarily a statement of Illinois law." 132 S.Ct. at 1235. That statement is not surprising given the nature of the public trust doctrine. Public trust obligations are inherent aspects of sovereignty; it follows that any case applying the public trust doctrine to a particular state is necessarily a statement of that state's law rather than a statement of the law of another sovereign. In *Coeur d'Alene*, the Supreme Court explained that even though *Illinois Central* interpreted Illinois law, its central tenets could be applied broadly (for example, to Idaho) because it "invoked the principle in American law recognizing the weighty public interests in submerged lands." 521 U.S. at 285, 117 S.Ct. 2028. The Court then detailed how the American public trust doctrine, which has diverged from the English public trust doctrine in important ways, has developed as "a natural outgrowth of the perceived public character of submerged lands, a perception which underlies and informs the principle that these lands are tied in a unique way to sovereignty." *Id.* at 286, 117 S.Ct. 2028. There is no reason why the central tenets of *Illinois Central* should apply to another state, but not to the federal government.

Defendants and intervenors also contend recognizing a federal public trust claim is contrary to *United States v. 32.42 Acres of Land, More or Less, Located in San Diego County, California*, 683 F.3d 1030, 1038 (9th Cir. 2012), which repeated *PPL Montana*'s statement that "the public trust doctrine remains a matter of state law" in concluding that the federal government's eminent domain powers trumped any

state-law public trust concerns. That case did not foreclose a federal public trust claim, however, because the Ninth Circuit *expressly* declined to address the viability of the federal public trust the district court imposed on the federal government after it ruled the land could be taken pursuant to eminent domain. *Id.* at 1033 & 1039 n. 2.

In 2012, the federal district court for the District of Columbia held the public trust doctrine does not apply to the federal government. *Alec L.* was substantially similar to the instant action: five youth plaintiffs and two environmental advocacy organizations sued a variety of heads of federal agencies, alleging the defendants had "wasted and failed to preserve and protect the atmosphere Public Trust asset." 863 F.Supp.2d at 12. The court dismissed the suit with prejudice, holding the plaintiffs' federal public trust claims were foreclosed by *PPL Montana*'s statement that "the public trust doctrine remains a matter of state law." *Id.* at 15 (quoting *PPL Montana*, 565 U.S. at 603, 132 S.Ct. 1215). The court also relied on the D.C. Circuit's observation that " '[i]n this country the public trust doctrine has developed almost exclusively as a matter of state law.' " *Id.* (quoting *District of Columbia v. Air Florida, Inc.*, 750 F.2d 1077, 1082 (D.C. Cir. 1984)). In an unpublished memorandum decision, the D.C. Circuit affirmed, holding that "[t]he Supreme Court in *PPL Montana* ... directly and categorically rejected any federal constitutional foundation for that doctrine, without qualification or reservation." *Alec L. ex rel. Loorz v. McCarthy*, 561 Fed.Appx. 7, 8 (D.C. Cir. 2014).

I am not persuaded by the reasoning of the *Alec L.* courts. As explained above, a close reading of *PPL Montana* reveals that it says nothing about the viability of federal public trust claims. And in *Air Florida*, the D.C. Circuit emphasized that "we imply no opinion regarding either the applicability of the public trust doctrine to the federal government or the appropriateness of using the doctrine to afford trustees a means for recovering from tortfeasors the cost of restoring public waters to their pre-injury condition." 750 F.2d at 1084.

Two federal courts—the district courts for the Northern District of California and the District of Massachusetts—have concluded the public trust doctrine applies to the federal government. The decisions, from the 1980s, concerned the federal government's acquisition of various state-owned public trust assets—for example, submerged land beneath navigable rivers or tidelands—through the power of eminent domain. The courts held that the federal government has no public trust obligations under *state* law, but does take the land subject to a *federal* public trust. As one court explained, "[t]he trust is of such a nature that it can be held only by the sovereign, and can only be destroyed by the destruction of the sovereign." *United States v. 1.58 Acres of Land Situated in the City of Boston, Suffolk Cnty., Mass.*, 523 F.Supp. 120, 124 (D. Mass. 1981). Through eminent domain, the federal government "may take property ... in 'full fee simple' insofar as no other principal may hold a greater right to such land, It must be recognized, however, that the federal government is as restricted as the Commonwealth in its ability to abdicate to private individuals" its title to the land. *Id.* at 124–25. In other words, "[b]y condemnation, the United States simply acquires the land subject to the public trust as though no party had held an interest in the land before." *City of Alameda v. Todd Shipyards Corp.*, 635 F.Supp. 1447, 1450 (N.D. Cal. 1986). *32.42 Acres of Land* is wholly consistent with these opinions; in that case, the Ninth Circuit held that when the federal government condemns state land, it takes title free and clear of any *state* public trust obligations—and that to hold

otherwise would violate the Supremacy Clause by subjugating the federal eminent domain power to state public trust law, 683 F.3d at 1038. As noted, however, the court said nothing about the lower court's determination that the condemned tidelands had been taken subject to a federal public trust. *32.42 Acres of Land*, 683 F.3d at 1033 & 1039 n.2.

I am persuaded that the *City of Alameda* and *1.58 Acres of Land* courts were correct. Their decisions rested on the history of the public trust doctrine and the public trust's unique relationship to sovereignty. I can think of no reason why the public trust doctrine, which came to this country through the Roman and English roots of our civil law system, would apply to the states but not to the federal government.

Defendants' final argument is that recognition of a federal public trust doctrine cannot be reconciled With *Kleppe v. New Mexico*, 426 U.S. 529, 539, 96 S.Ct. 2285, 49 L.Ed.2d 34 (1976), in which the Supreme Court stated that "[t]he power over public land" entrusted to Congress by the Property Clause of the United States Constitution is "without limitations." Again, defendants take the Supreme Court's statement out of context. In *Kleppe*, New Mexico challenged the federal government's authority to regulate and protect wild horses and burros, arguing that the Constitution granted Congress only the power to "dispose of and make incidental rules regarding the use of federal property" and "the power to protect" the federal property itself, *i.e.*, the land but not animals living on it. 426 U.S. at 536, 96 S.Ct. 2285. The Supreme Court rejected New Mexico's attempt to limit Congress's power to regulate wildlife living on federal lands. It is in that context that the Court stated the "power over public land" was "without limitations." *Id.* at 539, 96 S.Ct. 2285. Indeed, in the *very same sentence* the Supreme Court acknowledged that "the furthest reaches of the power granted by the Property Clause have not yet been definitively resolved[.]" *Id.* The Supreme Court in *Kleppe* simply did not have before it the question whether the Constitution grants the federal government unlimited authority to do whatever it wants with any parcel of federal land, regardless of whether its actions violate individual constitutional rights or run afoul of public trust obligations.

The federal government, like the states, holds public assets—at a minimum, the territorial seas—in trust for the people. Plaintiffs' federal public trust claims are cognizable in federal court.

C. *Displacement of Public Trust Claims*

Defendants and intervenors next argue that any common-law public trust claims have been displaced by a variety of acts of Congress, including the Clean Air Act and the Clean Water Act. For this proposition, they rely on *American Electric Power Company, Inc. v. Connecticut*, 564 U.S. 410, 131 S.Ct. 2527, 180 L.Ed.2d 435 (2011) ("*AEP*"). In *AEP*, the plaintiffs sued five power companies, alleging the companies' CO_2 emissions were a public nuisance under federal common law. *Id.* at 415, 131 S.Ct. 2527. The Supreme Court held the nuisance claim could not proceed because "the Clean Air Act and the EPA actions it authorizes displace any federal common law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants." *Id.* at 424, 131 S.Ct. 2527.

Defendants and intervenors contend that *AEP* controls the displacement analysis. The district court in *Alec L.* agreed with them.[12] The court relied heavily on *AEP*'s statement that the Clean Air Act displaces " 'any federal common law right' " to challenge CO_2 emissions, and

12. The D.C. Circuit did not address the displacement question on appeal.

also discussed at length the *AEP* court's concerns that authorizing a judicial order setting CO_2 emissions limits would require federal judges to make decisions involving competing policy interests—decisions an "expert agency 'is surely better equipped to [make] than individual district judges issuing ad hoc, case-by-case injunctions.'" *Alec L.*, 863 F.Supp.2d at 16 (quoting *AEP*, 564 U.S. at 424, 428, 131 S.Ct. 2527).

I am not persuaded by the *Alec L.* court's reasoning regarding displacement. In *AEP*, the Court did not have public trust claims before it and so it had no cause to consider the differences between public trust claims and other types of claims. Public trust claims are unique because they concern inherent attributes of sovereignty. The public trust imposes on the government an obligation to protect the *res* of the trust. A defining feature of that obligation is that it cannot be legislated away, Because of the nature of public trust claims, a displacement analysis simply does not apply.

The interplay between Congress's decision to grant regulatory authority to various federal agencies and the authority of the courts to adjudicate public trust claims raises weightier concerns. Those concerns go to whether this case presents a nonjusticiable political question, and have been addressed in Section I of this opinion.

D. *Enforceability of Public Trust Obligations in Federal Court*

As a final challenge to plaintiffs' public trust claims, defendants contend that even if the public trust doctrine applies to the federal government, plaintiffs lack a cause of action to enforce the public trust obligations. Relatedly, defendants argue that creation of a right of action to permit plaintiffs to assert their claims in federal court would be an exercise in federal common law-making subject to the same statutory displacement arguments outlined above.

In order to evaluate the merits of these arguments, I must first locate the source of plaintiffs' public trust claims. I conclude plaintiffs' public trust rights both predated the Constitution and are secured by it. *See* Gerald Tones & Nathan Bellinger, *The Public Trust: The Law's DNA*, 4 Wake Forest J. L. & Pol'y 281, 288–94 (2014).

The public trust doctrine defines inherent aspects of sovereignty. The Social Contract theory, which heavily influenced Thomas Jefferson and other Founding Fathers, provides that people possess certain inalienable lights and that governments were established by consent of the governed for the purpose of securing those rights.[13] Accordingly, the Declaration of

13. The Founding Fathers were also influenced by intergenerational considerations. They believed the inalienable rights to life, liberty, and property were rooted in a philosophy of intergenerational equity. Thomas Jefferson, for example, thought that each generation had the obligation to pass the natural estate undiminished to future generations. *See* Br. of Amicus Curiae John Davidson at 21–25 (doc. 60). In a 1789 letter to James Madison, Jefferson wrote that "no man can, by natural right, oblige lands he occupied ... to the payments of debts contracted by him. For if he could, he might, during his own life, eat up the usufruct of the lands for several generations to come, and then the lands would belong to the dead, and not to than the living, which would be the reverse of our principle. What is true of every member of the society individually is true of them all collectively, since the rights of the whole can be no more than the sum of the rights of the individuals." Letter from Thomas Jefferson to James Madison, Sept. 6, 1789, *in* The Founders' Constitution (Philip B. Kurland & Ralph Lerner, eds.) (1986), *available at* press-pubs.uchicago.edu/founders/documents/vlch2s23.html (last visited Nov. 7, 2016). Although I find it unnecessary today to address the standing of future generations or the merits of plaintiffs' argument that youth and posterity are suspect classifications, I am mindful of the intergen-

Independence and the Constitution did not *create* the rights to life, liberty, or the pursuit of happiness—the documents are, instead, vehicles for protecting and promoting those already-existing rights. *Cf. Robinson Twp.*, 83 A.3d at 948 (plurality opinion) (rights expressed in the public trust provision of Pennsylvania Constitution are "preserved rather than created" by that document); *Minors Oposa*, 33 I.L.M. at 187 (the right of future generations to a "balanced and healthful ecology" is so basic that it "need not even be written in the Constitution for [it is] assumed to exist from the inception of humankind"). Governments, in turn, possess certain powers that permit them to safeguard the rights of the people; these powers are inherent in the authority to govern and cannot be sold or bargained away. One example is the police power. *Stone*, 101 U.S. at 817. Another is the status as trustee pursuant to the public trust doctrine. *Illinois Central*, 146 U.S. at 459–60, 13 S.Ct. 110.

[66] Although the public trust predates the Constitution, plaintiffs' right of action to enforce the government's obligations as trustee arises from the Constitution. I agree with Judge Coffin that plaintiffs' public trust claims are properly categorized as substantive due process claims. As explained, the Due Process Clause's substantive component safeguards fundamental rights that are "implicit in the concept of ordered liberty" or "deeply rooted in this Nation's history and tradition," *McDonald*, 561 U.S. at 761, 767, 130 S.Ct. 3020 (internal citations, quotations, and emphasis omitted). Plaintiffs' public trust rights, related as they are to inherent aspects of sovereignty and the consent of the governed from which the United States' authority derives, satisfy both tests. Because the public trust is not enumerated in the Constitution, substantive due process protection also derives from the Ninth Amendment. *See* U.S. Const. amend. IX ("The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people."); *Raich v. Gonzales*, 500 F.3d 850, 861–66 (9th Cir. 2007) (considering whether the right to use medical marijuana was a fundamental right safeguarded by the Ninth Amendment and the Fifth Amendment's substantive due process clause). But it is the Fifth Amendment that provides the right of action.

Plaintiffs' claims rest "directly on the Due Process Clause of the Fifth Amendment." *Davis*, 442 U.S. at 243, 99 S.Ct. 2264 (1979); *see also Carlson v. Green*, 446 U.S. 14, 18, 100 S.Ct. 1468, 64 L.Ed.2d 15 (1980) ("[T]he victims of a constitutional violation by a federal agent have a right to recover damages against the official in federal court despite the absence of any statute conferring such a right.") They may, therefore, be asserted in federal court.

CONCLUSION

Throughout their objections, defendants and intervenors attempt to subject a lawsuit alleging constitutional injuries to case law governing statutory and common-law environmental claims. They are correct that plaintiffs likely could not obtain the relief they seek through citizen suits brought under the Clean Air Act, the Clean Water Act, or other environmental laws. But that argument misses the point. This action is of a different order than the typical environmental case. It alleges that defendants' actions and inactions—whether or not they violate any specific statutory duty—have so profoundly damaged our home planet that they threaten plaintiffs' fundamental constitutional rights to life and liberty.

erational dimensions of the public trust doctrine in issuing this opinion.

A deep resistance to change runs through defendants' and intervenors' arguments for dismissal: they contend a decision recognizing plaintiffs' standing to sue, deeming the controversy justiciable, and recognizing a federal public trust and a fundamental right to climate system capable of sustaining human life would be unprecedented, as though that alone requires its dismissal. This lawsuit may be groundbreaking, but that fact does not alter the legal standards governing the motions to dismiss. Indeed, the seriousness of plaintiffs' allegations underscores how vitally important it is for this Court to apply those standards carefully and correctly.

Federal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it. As Judge Goodwin recently wrote,

> The current state of affairs ... reveals a wholesale failure of the legal system to protect humanity from the collapse of finite natural resources by the uncontrolled pursuit of short-term profits.... [T]he modern judiciary has enfeebled itself to the point that law enforcement can rarely be accomplished by taking environmental predators to court....
>
> The third branch can, and should, take another long and careful look at the barriers to litigation created by modern doctrines of subject-matter jurisdiction and deference to the legislative and administrative branches of government.

Alfred T. Goodwin, *A Wake–Up Call for Judges*, 2015 Wis. L. Rev. 785, 785–86, 788 (2015).

Judge Goodwin is no stranger to highly politicized legal disputes. Nearly fifty years ago, he authored the landmark opinion that secured Oregon's ocean beaches for public use. Private landowners wanted to construct fences and otherwise keep private the beaches in front of their properties; they brought suit to challenge an Oregon state law requiring public access to all dry sand beaches. *State ex rel. Thornton v. Hay*, 254 Or. 584, 462 P.2d 671, 672–73 (1969). Writing for five of the six members of the Oregon Supreme Court, then-Justice Goodwin rooted his determination the beaches were public property in a concept from English common law:

> Because so much of our law is the product of legislation, we sometimes lose sight of the importance of custom as a source of law in our society. It seems particularly appropriate in the case at bar to look to an ancient and accepted custom in this state as the source of a rule of law. The rule in this case, based upon custom, is salutary in confirming a public right, and at the same time it takes from no man anything which he has a legitimate reason to regard as exclusively his.[14]

Id. at 678.

In an argument with strong echoes in defendants' and intervenors' objections here, the plaintiff private property owner contended it was "constitutionally impermissible ... to dredge up an inapplicable, ancient English doctrine that has been universally rejected in modern America." Kathryn A. Straten, *Oregon's Beaches: A Birthright Preserved* 65 (Or. State Parks & Recreation 1977). The Oregon Supreme Court was not persuaded by this call to judicial conservatism. Because of the application of an ancient doctrine, Oregon's

14. The sixth justice concurred in the judgment. He found the English rule of custom useful by analogy, but would have held the beaches were public property pursuant to the public trust doctrine. *Hay,* 462 P.2d at 679 (Denecke, J., concurring) ("These rights of the public in tidelands and in the beds of navigable streams have been called 'jus publicum' and we have consistently and recently reaffirmed their existence.").

beaches remain open to the public now and forever.

"A strong and independent judiciary is the cornerstone of our liberties." These words, spoken by Oregon Senator Mark O. Hatfield, are etched into the walls of the Portland United States courthouse for the District of Oregon. The words appear on the first floor, a daily reminder that it is "emphatically the province and duty of the judicial department to say what the law is." *Marbury*, 5 U.S. at 177. Even when a case implicates hotly contested political issues, the judiciary must not shrink from its role as a coequal branch of government.

I ADOPT Judge Coffin's Findings & Recommendation (doc. 68), as elaborated in this opinion, Defendants' Motion to Dismiss (doc. 27) and Intervenors' Motion to Dismiss (doc. 19) are DENIED.

IT IS SO ORDERED.

ORDER and FINDINGS & RECOMMENDATION

Coffin, Magistrate Judge:

The motions before the court are directed against a relatively unprecedented lawsuit that, in essence, seeks relief from government action and inaction that allegedly results in carbon pollution of the atmosphere, climate destabilization, and ocean acidification. The government action and inaction allegedly threatens catastrophic consequences which have already began and will progressively worsen in the near future.

Plaintiffs include a group of younger individuals (aged 8–19) who assert concrete harm from excessive carbon emissions. Also among the plaintiffs are associations of activists who assert they are beneficiaries of a federal public trust which is being harmed by allegedly substantial impairment and alienation of public trust resources through ongoing actions to allow fossil fuel exploitation. Finally, plaintiff Dr. James Hansen participates as a guardian for plaintiff "future generations."

Plaintiffs are suing the United States and various government officials and agencies because, they assert, the government has known for decades that carbon dioxide (CO_2) pollution has been causing catastrophic climate change and has failed to take necessary action to curtail fossil fuel emissions. Moreover, plaintiffs allege that the government and its agencies have taken action or failed to take action that has resulted in increased carbon pollution through fossil fuel extraction, production, consumption, transportation, and exportation. Plaintiffs assert that a reduction of global CO_2 concentrations to less than 350 parts per million is possible, but action must be taken immediately to prevent further ocean acidification and ocean warming. Plaintiffs allege the current actions and omissions of defendants make it extremely difficult for plaintiffs to protect their vital natural systems and a livable world. Consequently, plaintiffs seek immediate action to restore energy balance and implementation of a plan to put the nation on a trajectory (that if adhered to by other major emitters) will reduce atmospheric CO_2 concentrations to no more than 350 parts per million by 2100.

Plaintiffs assert the actions and omissions of defendants that increased CO_2 emissions "shock the conscience," and are infringing the plaintiffs' right to life and liberty in violation of their substantive due process rights. Plaintiffs also allege defendants have violated plaintiffs' equal protection rights embedded in the Fifth Amendment by denying them protections afforded to previous generations and by favoring short term economic interests of certain citizens. Plaintiffs further allege defendants' acts and omissions violate the implicit right, via the Ninth Amendment, to a stable climate and an ocean and atmo-

sphere free from dangerous levels of CO_2. Finally, plaintiffs allege defendants have violated a public trust doctrine, secured by the Ninth Amendment, by denying future generations essential natural resources.

Through this action, plaintiffs ask the court to:

> 1. Declare that Defendants have violated and are violating Plaintiffs' fundamental constitutional rights to life, liberty, and property by substantially causing or contributing to a dangerous concentration of CO_2 in the atmosphere, and that, in so doing, Defendants dangerously interfere with a stable climate system required by our nation and Plaintiffs alike;
>
> 2. Enjoin Defendants from further violations of the Constitution underlying each claim for relief;
>
> 3. Declare the Energy Policy Act, Section 201, to be unconstitutional on its face;
>
> 4. Declare DOE/FE Order No. 3041, granting long-term multi-contract authorization to Jordan Cove Energy for LNG exports from its Coos Bay terminal, to be unconstitutional as applied and set it aside;
>
> 5. Declare Defendants' public trust violations and enjoin Defendants from violating the public trust doctrine underlying each claim for relief;
>
> 6. Order Defendants to prepare a consumption-based inventory of U.S. CO_2 emissions;
>
> 7. Order Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 so as to stabilize the climate system and protect the vital resources on which Plaintiffs now and in the future will depend . . .

First Amended Complaint (# 7) at 94. Plaintiffs also seek to have this court retain jurisdiction over this action to monitor and enforce defendants' compliance with a national remedial plan and associated orders requiring the above.

In essence, plaintiffs assert a novel theory somewhere between a civil rights action and NEPA/Clean Air Act/Clean Water Act suit to force the government to take action to reduce harmful pollution. Although, plaintiffs, for the most part, do not challenge a specific agency action and urge the court to order government-wide action for the benefit of the earth and mankind, they also seek "other relief as the Court deems just and proper." Id.

The court has previously granted the National Association of Manufacturers (NAM), American Fuel & Petrochemical Manufacturers (AFPM), and American Petroleum Institute (API) motion to intervene in this action. These organizations represent various entities in the coal, oil, and gas industry, including businesses that extract, refine, and use such energy sources. The intervenors move to dismiss the amended complaint. The government similarly moves to dismiss all claims.[1]

Movants assert plaintiffs lack standing to bring this suit, raise non-justiciable political questions, and they fail to state a constitutional claim. In addition, the movants assert the public trust doctrine does not provide a cognizable federal cause of action.

A. Standing

Plaintiffs must demonstrate standing for each claim they seek to press and for each form of relief sought. DaimlerChrysler Corp. v. Cuno, 547 U.S. 332, 352, 126 S.Ct. 1854, 164 L.Ed.2d 589 (2006). At the

1. The government also moves to strike various exhibits to declarations and declarations submitted by plaintiffs in opposition to the motion to dismiss. This recommendation is made without resort to these materials. Accordingly, the motion to strike is denied.

pleading stage, general factual allegations of injury resulting from the defendant's conduct may suffice. Lujan v. Defenders of Wildlife, 504 U.S. 555, 561, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992). For Article III standing, plaintiffs must satisfy three "irreducible constitutional minimum" requirements: (1) they suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. *Id.* at 560–61, 112 S.Ct. 2130.

1. Concrete, Particularized, Imminent Injury

Plaintiffs allege that climate change endangers humanity and nature and is a consequence of human caused or influenced green house gases, primarily CO_2, derived from the combustion of fossil fuels. First Amended Complaint (FAC)(# 7) at ¶ 202. Plaintiffs allege because CO_2 persists in the atmosphere, future emissions will lead to severe impacts on children and future generations and the current level of CO_2 has already taken our country into the "danger zone." Id. At 206–07. Plaintiffs aver emissions must be rapidly and systematically reduced in order to avoid crossing the tipping points that set in motion disastrous, irrevocable impacts to human civilization and nature. Id. At 208. According to plaintiffs it will be nearly impossible for them to adapt to all of the current climate change impacts in the quick time-frame in which they will occur and that, therefore, "the survival and well-being of plaintiffs is significantly threatened by climate destabilization." Id. at ¶ 208, ¶ 211. Plaintiffs further allege that climate change is "already damaging human and natural systems, causing loss of life and pressing species to extinction." Id. at ¶ 213. Plaintiffs allege specifics regarding global changes that also lead to local harm such as: disintegration of both the West and East Antarctic ice sheets with concomitant sea level rise damaging coastal regions; changing rainfall and atmospheric conditions affecting water and heat distribution causing severe storm surges, floods, hurricanes, droughts, insect infestation, reduced crop yields, increased invasive vegetation, and fires; ocean acidification damaging sea life; increase in allergies, asthma, cancer, and other diseases; and harm to national security causing destabilization in various regions of the world. Id. at ¶¶ 213–241.

However, plaintiffs also assert injuries that are personal in nature such as: jeopardy to family farms resulting from the planned Jordan Cove gas line,[2] increased temperatures, and wildfires (FAC at ¶¶ 31–34, 23–30); lost recreational opportunities (e.g., FAC at ¶¶ 28–29, 31–34); and harm to family dwellings from superstorms (e.g., FAC at ¶ 71–72),[3] etc. See,

2. Following oral argument on the motions, the Federal Energy Regulatory Commission denied applications to locate the Jordan Cove Energy Project in Coos Bay, Oregon and its associated pipeline. The decision, balancing the need of the project against adverse impacts on landowners and the environment appears to be primarily based on a lack of current market need from natural gas customers in Asia. The applicants, Veresen Inc. and the Williams Partners, are free to reapply in the future and the Commission will reconsider the planned pipeline if they can demonstrate a market need for liquified natural gas. In addition, the applicants plan to file a request to rehear the decision. For purposes of the motion to dismiss, the court takes as true the allegations of an imminent threat from the proposed project.

3. Plaintiff Victoria B's allegations(in addition to other plaintiffs) raise another issue not addressed in the motions to dismiss regarding this court's jurisdiction to address harms arising outside of the district from action and inaction by various government agencies that often also arise outside of the District of Oregon. *See, e.g.,* FAC at ¶ 72–73 (damage to

Memorandum of Plaintiffs in Opposition to Federal Defendants' Motion to Dismiss (# 41) at pp. 29–33. While the personal harms are a consequence of the alleged broader harms, noted above, that does not discount the concrete harms already suffered by individual plaintiffs or likely to be suffered by these plaintiffs in particular in the future. See Federal Election Com'n v. Akins, 524 U.S. 11, 24, 118 S.Ct. 1777, 141 L.Ed.2d 10 (1998):

> Often the fact that an interest is abstract and the fact that it is widely shared go hand in hand. But their association is not invariable, and where a harm is concrete, though widely shared, the Court has found "injury in fact." See Public Citizen [v. U.S. Dept. of Justice], 491 U.S. [at 440,] 449–50, 109 S.Ct. at [2558,] 2564–2565[, 105 L.Ed.2d 377 (1989)] ("The fact that other citizens or groups of citizens might make the same complaint after unsuccessfully demanding disclosure . . . does not lessen [their] asserted injury"). Thus the fact that a political forum may be more readily available where an injury is widely shared (while counseling against, say, interpreting a statute as conferring standing) does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where sufficiently concrete, may count as an "injury in fact." This conclusion seems particularly obvious where (to use a hypothetical example) large numbers of individuals suffer the same common-law injury (say, a widespread mass tort), or where large numbers of voters suffer interference with voting rights conferred by law. C.f. Lujan, supra, at 572, 112 S.Ct. at 2142–2143: Shaw v. Hunt, 517 U.S. 899, 905, 116 S.Ct. 1894, 1900–1901, 135 L.Ed.2d 207 (1996).

The court must accept the allegations as true and those allegations plausibly allege harm, though widespread, that is concrete.

[67] Of course, federal courts are not forums in which to air generalized grievances about the conduct of government. See Flast v. Cohen, 392 U.S. 83, 106, 88 S.Ct. 1942, 20 L.Ed.2d 947 (1968). The constitutional limits on standing eliminate claims in which a plaintiff has failed to make out a case or controversy between himself and the defendant. In order to satisfy Art. III, a plaintiff must show that he personally has suffered some actual or threatened injury as a result of the putatively illegal conduct of the defendant. Duke Power Co. v. Carolina Environmental Study Group, Inc., 438 U.S. 59, 72, 98 S.Ct. 2620, 57 L.Ed.2d 595 (1978).

> Even when a case falls within these constitutional boundaries, a plaintiff may still lack standing under the prudential principles by which the judiciary seeks to avoid deciding questions of broad social import where no individual rights would be vindicated and to limit access to the federal courts to those litigants best suited to assert a particular claim. For example, a litigant normally must assert an injury that is peculiar to himself or to a distinct group of which he is a part, rather than one "shared in substantially equal measure by all or a large class of citizens." Warth v. Seldin, 422 U.S. at 499, 95 S.Ct. at 2205. He also must assert his own legal interests rather than those of third parties, [footnote omitted] Ibid. Accord, Arlington Heights v. Metropolitan Housing Dev. Corp., supra, 429 U.S. at 263, 97 S.Ct. at 561.

home and school in New York as a result of superstorm Sandy). While such allegations highlight the unwieldy nature of the case, the allegations establish that CO_2 emissions cross geographic boundaries and cause harm within the district and outside the district from many of the same sources regulated by the defendants.

Gladstone Realtors v. Village of Bellwood, 441 U.S. 91, 99–100, 99 S.Ct. 1601, 60 L.Ed.2d 66 (1979).

Given the allegations of direct or threatened direct harm, albeit shared by most of the population or future population, the court should be loath to decline standing to persons suffering an alleged concrete injury of a constitutional magnitude. See U.S. v. Students Challenging Regulatory Agency Procedures, 412 U.S. 669, 687, 93 S.Ct. 2405, 37 L.Ed.2d 254 (1973):

> standing is not to be denied simply because many people suffer the same injury. Indeed some of the cases on which we relied in Sierra Club demonstrated the patent fact that persons across the Nation could be adversely affected by major governmental actions. See, e.g., Environmental Defense Fund v. Hardin, 138 U.S.App.D.C. 391, 428 F.2d 1093, 1097 [(D.C. Cir. 1970)] (interests of consumers affected by decision of Secretary of Agriculture refusing to suspend registration of certain pesticides containing DDT); Reade v. Ewing, 205 F.2d 630, 631–632 [(2d Cir. 1953)] (interests of consumers of oleomargarine in fair labeling of product regulated by Federal Security Administration). To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody. We cannot accept that conclusion.

While the FAC identifies numerous climatic, meteorologic, and political harms that the Earth and its inhabitants will suffer as a result of the government's action and failure to act with respect to CO_2 emissions, the plaintiffs differentiate the impacts by alleging greater harm to youth and future generations.[4] At this stage of the proceedings, the allegations, which must be taken as true, establish action/inaction that injures plaintiffs in a concrete and personal way.

The debate about climate change and its impact has been before various political bodies for some time now. Plaintiffs give this debate justiciability by asserting harms that befall or will befall them personally and to a greater extent than older segments of society. It may be that eventually the alleged harms, assuming the correctness of plaintiffs' analysis of the impacts of global climate change, will befall all of us. But the intractability of the debates before Congress and state legislatures and the alleged valuing of short term economic interest despite the cost to human life, necessitates a need for the courts to evaluate the constitutional parameters of the action or inaction taken by the government. This is especially true when such harms have an alleged disparate impact on a discrete class of society.

To reiterate, at this stage of the proceedings the court must accept the allegations of concrete particularized harm or imminent threat of such harm as true. The question then becomes whether the alleged harm is traceable to defendants' conduct and whether the court can redress such harm.

2. Causation

As noted above, there must be a causal connection between the injury and the conduct of which plaintiffs complained. In other words, the injury has to be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court. Simon v. Eastern Ky. Welfare Rights Organization, 426 U.S. 26,

4. The plaintiffs essentially allege that the defendants have "discounted" emissions so as to pass on more severe impacts to younger and future generations to allow the present (and older) generations to reap the economic benefits of higher carbon emissions.

41–42, 96 S.Ct. 1917, 48 L.Ed.2d 450 (1976).

At the pleading stage, general factual allegations of injury resulting from the defendants' conduct may suffice because the court must presume that general allegations embrace those specific facts that are necessary to support the claim. Lujan v. Defenders of Wildlife, 504 U.S. 555, 561, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992). The government asserts that the association between the complained of conduct (such as subsidizing the fossil fuel industry, favorable revenue code provisions, allowing transport of fossil fuels, and authorizing fossil fuel combustion in the energy/refinery/transportation/manufacturing sectors) and the associated greenhouse gas emissions that ultimately cause the harm is tenuous and filled with countless intervening actions by unidentified third parties. However, as alleged, without the complained of conduct, the third parties would not be able to engage as extensively in the activities that allegedly cause climate change and the resulting harm.

To survive a motion to dismiss for lack of constitutional standing, plaintiffs must establish a line of causation between defendants' action and their alleged harm that is more than attenuated. Allen v. Wright, 468 U.S. 737, 757, 104 S.Ct. 3315, 82 L.Ed.2d 556 (1984). A causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible. Nat'l Audubon Soc., Inc. v. Davis, 307 F.3d 835, 849 (9th Cir.2002). In cases where a chain of causation involves numerous third parties whose independent decisions collectively have a significant effect on plaintiffs' injuries, the causal chain may be too weak to support standing at the pleading stage. See Allen, 468 U.S. at 759, 104 S.Ct. 3315.

But here, there is an alleged strong link between all the supposedly independent and numerous third party decisions given the government's regulation of CO_2 emissions. See, e.g., 42 U.S.C. § 7409 (providing the EPA the authority to regulate national ambient air quality standards for the attainment and maintenance of the public health); Massachusetts v. EPA, 549 U.S. 497, 127 S.Ct. 1438, 167 L.Ed.2d 248 (2007) (EPA has power to regulate greenhouse gas emissions). If the allegations in the complaint are to be believed, the failure to regulate the emissions has resulted in a danger of constitutional proportions to the public health. Presumably, sweeping regulations by this agency (the EPA) alone could result in curtailing of major CO_2 producing activities by not just the defendant agencies, but by the purported independent third parties as well.[5] At this pleading stage, the court need not sort out the necessity or propriety of all the various agencies and individuals to participate as defendants, at least with respect to issues of standing. For now, it is sufficient that EPA's action/inaction with respect to the regulation of greenhouse gases allegedly results in the numerous instances of emissions that purportedly cause or will cause the plaintiffs harm. Assuming lack of EPA or other government action to reduce emissions, the analysis turns to redressability.

5. The court is aware that there are administrative procedures to petition EPA to make rules and that a denial of that decision is reviewable by the courts. The plaintiffs have apparently not sought such rulemaking to limit CO_2 emissions, but the court does have jurisdiction to address alleged constitutional violations by government agencies and to provide equitable relief. C.f. Reeves Brothers, Inc. v. EPA, 956 F.Supp. 665 (W.D.Va.1995) (CERCLA general prohibition against federal court jurisdiction over challenges to remedial actions did not bar constitutional challenges to actions of EPA).

3. Redressability of the Injury

At this stage of the proceedings, the court's job is not to determine whether increased greenhouse gases have impacted the climate and will have dire consequences for future generations. The issue is whether the court can fashion a remedy to address that alleged harm should plaintiffs prove it. Redressability does not require certainty, but it does require a substantial likelihood that the injury will be redressed by a favorable judicial decision. Wolfson v. Brammer, 616 F.3d 1045, 1056 (9th Cir.2010).

Assuming plaintiffs are correct that the United States is responsible for about 25% of the global CO_2 emissions, the court cannot say, without the record being developed, that it is speculation to posit that a court order to undertake regulation of greenhouse gas emissions to protect the public health will not effectively redress the alleged resulting harm. The impact is an issue for the experts to present to the court after the case moves beyond the pleading stage. And although this court has no authority outside of its jurisdiction, it is worth noting that a Dutch court, on June 24, 2015, did order a reduction of greenhouse gas emissions nationwide by at least 25% by 2020. See Urgenda Foundation v. The State of The Netherlands, The Hague District Court, Chamber for Commercial Affairs, Case No. C/09/456689/HA ZA 13–1396 (June 24, 2015) (http://deeplink.rechtspraak.n1/uitspraak?id=ECLI:NL:RBDHA:2015:7196) (rejecting arguments that a reduction of Netherlands' emissions would be ineffectual in light of other nations' practices, observing that "The state should not hide behind the argument that the solution to the global climate problem does not depend solely on Dutch efforts. Any reduction of emissions contributes to the prevention of dangerous climate change and as a developed country the Netherlands should take the lead in this."). Thus, regulation by this country, in combination with regulation already being undertaken by other countries, may very well have sufficient impact to redress the alleged harms. The effect may or may not be scientifically indiscernible, but that is an issue better resolved at summary judgment or trial rather than on a motion to dismiss. See Washington Environmental Council v. Bellon, 732 F.3d 1131, 1142–43 (9th Cir.2013) (deciding at the summary judgment stage that numerous greenhouse gas sources inside and outside the U.S. contribute to the effect and that the nexus between the state's refinery emissions and localized impacts was too scientifically uncertain). Plaintiffs allege that expert evidence will show that the effect resulting from a court order for the government to take action to deter fossil fuel production and regulate emissions will have a discernible impact on the alleged constitutional harms likely to befall plaintiffs if the court does nothing.

At this stage, the court will not dismiss the premise that an order to regulate, per EPA's statutory authority to regulate CO_2, will result in that impact. The allegations establish that, for instance, the EPA's failure to regulate impacts the younger population within this district and it may very well be that an order to act to protect the public health as directed will address that harm.[6] Given the complexities of the allegations and the need for expert opinion to establish the harm associated with government action and the extent to which a court order can limit that harm, the issue may be better addressed at the summary judgment stage.

In sum, for the above reasons, the court should decline to dismiss the case for a lack of standing.

6. Plaintiffs allege that 'events, omissions, and harms giving rise to the claims herein arise in substantial part in this judicial district.' (FAC at ¶ 15)

B. Political Question

Closely related to the standing issue, is the issue of non-justiciable political questions. As plaintiffs note, "Standing is just the obverse of political question. If a litigant claims that an individual right has been invaded, the lawsuit by definition does not involve a political question." Plaintiffs' Memorandum in Opposition to Intervenors' Motion to Dismiss (# 56) at p. 16, n. 12 (citing Howard Fink & Mark Tushnet, *Federal Jurisdiction: Policy and Practice* 231 (2d ed.1987).

> It is apparent that several formulations which vary slightly according to the settings in which the questions arise may describe a political question, although each has one or more elements which identify it as essentially a function of the separation of powers. Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker v. Carr, 369 U.S. 186, 217, 82 S.Ct. 691, 7 L.Ed.2d 663 (1962).

While on the surface this case appears to implicate authority of the Congress, courts can order agencies delegated that authority (via Congress) to craft regulations, to engage in such process. Some defendant agencies have undertaken regulation of greenhouse gases allegedly exercising their discretion to prioritize relatively cheap energy over deleterious impacts to the environment. While courts cannot intervene to assert "better" policy, see, e.g., Massachusetts v. E.P.A., 549 U.S. at 533, 127 S.Ct. 1438 (once EPA has responded to a petition for rulemaking, its reasons for action or inaction must conform to the authorizing statute), they can address constitutional violations by government agencies and provide equitable relief. C.f. Reeves Brothers, Inc. v. EPA, 956 F.Supp. 665 (W.D.Va. 1995) (CERCLA general prohibition against federal court jurisdiction over challenges to remedial actions did not bar constitutional challenges to actions of EPA). The complaint does raise issues of whether government action/inaction violates the Constitution and these are issues committed to the courts rather than either of the political branches.

As implied above, the amended complaint's broad request for relief does implicate some unmanageable issues, but that does not bar the case completely. As also noted, at a minimum, the EPA is charged with regulating greenhouse gas emissions to protect the public health. While the efficacy of any proposed regulations is perhaps beyond the expertise of the court, it can evaluate the competing experts on either side of the issues and direct the EPA to take a hard look at the best available scientific evidence. The court need not dictate any regulations, only direct the EPA to adopt standards that prevent the alleged constitutional harm to the youth and future generation plaintiffs, should plaintiffs prevail in demonstrating such is possible.[7] Again, it is too early in the

7. Although not the route plaintiffs have expressly chosen in the prayer for remedies,

proceedings to determine whether the issue can be resolved without expressing lack of respect due to the executive branch in conducting its rule-making authority delegated it by Congress. The motion to dismiss, on this basis, should be denied at this time.

Turning to the next issue, plaintiffs' standing and the lack of political questions require a valid constitutional claim.

C. Valid Constitutional Claim

Defendants argue that there is no constitutional right to be free from CO_2 emissions, that the complaint fails to allege a classification appropriate for an equal protection claim, that the Ninth Amendment does not provide any substantive rights, and that the plaintiffs have failed to allege an otherwise complete lack of any rational basis for the purported aggregate action/inaction taken by defendants. However, at this stage of the proceedings, defendants take an overly simplistic approach in construing the constitutional claims raised by plaintiffs. The complaint does not assert a right to be free from CO_2 emissions.[8] Plaintiffs assert that the defendants' action/inaction with respect to their obligations regarding regulating environmental pollutants has violated their substantive due process rights and has done so in favor of older generations.

The Fifth Amendment provides in part that "no person shall ... be deprived of life, liberty, or property, without due process of law." U.S. Const. amend. V.

[68] Courts must employ caution and restraint when employing substantive due process protections to government action. See Moore v. City of East Cleveland, Ohio, 431 U.S. 494, 502, 97 S.Ct. 1932, 52 L.Ed.2d 531 (1977). However, courts must not abandon substantive due process rights either. Id. Accordingly, substantive due process rights are limited by careful respect for the teachings of history and recognition of the basic values that underlie our society. Id. at 503, 97 S.Ct. 1932. Therefore, only official conduct that "shocks the conscience" is cognizable as a due process violation. Porter v. Osborn, 546 F.3d 1131, 1137 (9th Cir.2008).

Generally, the Due Process Clause limits the government's power to act, but does not guarantee certain minimal levels of safety and security. DeShaney v. Winnebago County Dept. of Social Services, 489 U.S. 189, 195, 109 S.Ct. 998, 103 L.Ed.2d 249 (1989). The language of the Due Process Clause does not impose an affirmative obligation on the government to ensure that those interests do not come to harm through other means. Id. However, there is an exception where government action creates the danger. See L.W. v. Grubbs, 974 F.2d 119, 121–22 (9th Cir.1992). In such cases, deliberate indifference may suffice to establish a due process violation. See L.W. v. Grubbs, 92 F.3d 894, 896 (9th Cir.1996). Deliberate indifference requires creation of a dangerous situation with actual knowledge or willful ignorance of impending harm. Id. at 900. Plaintiffs

they have asked for "other relief [deemed] just and proper" and, the court can compel EPA to perform nondiscretionary acts or duties. 42 U.S.C. § 7604(a)(2); *see, e.g., Sierra Club v. Thomas,* 828 F.2d 783, 787–92 (D.C.Cir.1987). The court's authority in this regard demonstrates that simply ordering an agency to take action delegated it by Congress in order to avoid constitutional harms does implicate justiciability and negates a finding that the issue is committed solely to another branch of government.

8. Plaintiffs do, however, assert that future generations are a suspect class. The court should decline to create a new separate suspect class based on posterity. Nonetheless, the complaint does allege discrimination against a class of younger individuals with respect to a fundamental right protected by substantive due process.

allege that the defendants' action in this case has created a life-threatening situation and that defendants have willfully ignored long-standing and overwhelming scientific evidence of that impending harm to the young and future generations.

The government argues that the complaint fails to allege a clear and present danger of imminent harm, an overt government act that proximately causes the dangerous situation, deliberate indifference on the part of the government to plaintiffs' safety, or subsequent physical harm or loss of life. For purposes of a motion to dismiss, plaintiffs need only plead government action, or failure to act where it has a duty to do so, which creates a threat of imminent harm, and the government's deliberate indifference to that threat of harm.

In this case, the government has allegedly taken action through subsidies, regulations, etc. that creates massive CO_2 emissions, and has failed to limit such emissions despite a duty to do so. Plaintiffs further allege they are prevented any means of escape from the resulting climate that threatens their property, health, and even existence. As noted above, the EPA has a duty to regulate CO_2 emissions for the benefit of the public health and plaintiffs allege a deliberate indifference to the purported catastrophic risk to their health and well-being. Whether such action, or inaction in the face of a duty to act, shocks the conscience cannot be determined on a motion to dismiss, which is focused solely on the plaintiffs' complaint and is bereft of any evidentiary record.[9] Accordingly, the court should decline to dismiss the complaint for failure to allege a substantive due process claim.

D. Public Trust Doctrine

Similarly, the court should decline to dismiss any notions in the amended complaint that the Due Process Clause also provides a substantive right under the public trust doctrine. As noted above, the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, "deeply rooted in this Nation's history and tradition," Moore, 431 U.S. at 503, 97 S.Ct. 1932; Snyder v. Massachusetts, 291 U.S. 97, 105, 54 S.Ct. 330, 78 L.Ed. 674 (1934) ("so rooted in the traditions and conscience of our people as to be ranked as fundamental"), and "implicit in the concept of ordered liberty," such that "neither liberty nor justice would exist if they were sacrificed," Palko v. Connecticut, 302 U.S. 319, 325, 326, 58 S.Ct. 149, 82 L.Ed. 288 (1937).

Defendants argue that the Supreme Court and the Ninth Circuit have already foreclosed on the possibility of an independent cause of action under the doctrine against the federal government by a private individual. See PPL Montana, LLC v. Montana, 565 U.S. 576, 132 S.Ct. 1215, 1235, 182 L.Ed.2d 77 (2012) (the public trust doctrine remains a matter of state law); U.S. v. 32.42 Acres of Land. More or Less. Located in San Diego County, Cal., 683 F.3d 1030, 1038 (9th Cir.2012) (While the equal-footing doctrine is grounded in the Constitution, "the public trust doctrine remains a matter of state law").

However, the cases cited by defendants are distinguishable. In PPL Montana. LLC, the Supreme Court essentially held that the State of Montana did not hold title to riverbeds under segments of river that were non-navigable at the time of statehood. Under the equal footing doctrine,

9. For example, discovery may produce evidence regarding when defendants and intervenors were aware of the harmful effects of CO_2 emissions and whether the public was purposely misled about those effects, which evidence would be relevant to the "shocks the conscience" standard.

which is embedded in the Constitution, a State takes title to all riverbeds of navigable rivers upon statehood. In response to the State of Montana's argument that "denying the State title to the riverbeds here in dispute will undermine the public trust doctrine," the Court observed:

> While equal-footing cases have noted that the State takes title to the navigable waters and their beds in trust for the public, see Shively, 152 U.S. at 49, 15–17, 24, 46, 14 S.Ct. 548, the contours of that public trust do not depend upon the Constitution. Under accepted principles of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine.

PPL Montana, LLC, 132 S.Ct. at 1235.

In other words, Montana's argument essentially was an attempt to conflate the equal footing doctrine with the public trust doctrine resulting in the State having title to even non-navigable riverbeds pursuant to the latter doctrine. The Court merely rejected this contention as "apples and oranges," pointing out that the equal footing doctrine requires that a State take title to riverbeds of *navigable* rivers upon statehood, and that thereafter state law determines the scope of the public trust over such waters. The question whether the United States has public trust obligations for waters over which it alone has sovereignty (e.g., the territorial seas of its coastline) was simply not presented to or decided by the Court in PPL Montana, LLC.

The seminal case for the public trust doctrine is Illinois Cent. R. Co. v. State of Illinois, 146 U.S. 387, 13 S.Ct. 110, 36 L.Ed. 1018 (1892) which likewise implicated an equal footing question and in which the Court noted:

> That the state holds the title to the lands under the navigable waters of Lake Michigan, within its limits, in the same manner that the state holds title to soils under tide water, by the common law, we have already shown; and that title necessarily carries with it control over the waters above them, whenever the lands are subjected to use. But it is a title different in character from that which the state holds in lands intended for sale. It is different from the title which the United States hold in the public lands which are open to pre-emption and sale. It is a title held in trust for the people of the state, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein, freed from the obstruction or interference of private parties.

Id. at 452, 13 S.Ct. 110.

Once the State obtains sovereignty over navigable riverbeds, the United States has ceded all its title and thus the public trust doctrine governing the State's disposition of such lands "remains a matter of state law." PPL Montana, LLC, 132 S.Ct. at 1235.

Likewise, in U.S. v. 32.42 Acres of Land, More or Less, Located in San Diego County, Cal., the Ninth Circuit dealt with a case wherein the federal government exercised its powers of eminent domain to acquire San Diego Port District tidelands (for use by the United States Navy) which had been transferred to the State of California under the equal footing doctrine in 1850 when California was admitted to the Union. In response to the California Lands Commission argument that the public trust doctrine restricted the ability of both federal and State governments to alienate public trust lands free of the public trust, the Ninth Circuit held:

> While the equal-footing doctrine is grounded in the Constitution, "the public trust doctrine remains a matter of state law," the contours of which are determined by the states, not by the United States Constitution. PPL Montana, 565 U.S. 576, 132 S.Ct. 1215 at 1235, 182 L.Ed.2d 77. Holding that California's public trust interest in the Property survives the federal government's attempt to condemn it would subjugate the federal government's eminent domain power to California's state law public trust doctrine. See [U.S. v.]Carmack, 329 U.S. at[230,]240–42, 67 S.Ct. 252[, 91 L.Ed. 209 (1946)]; United States v. 11.037 Acres of Land, 685 F.Supp. 214, 217 (N.D.Cal.1988) (holding that California's public trust is extinguished by United States' declaration of taking because state law public trust is trumped by federal power). The Supremacy Clause prevents this outcome. U.S. Const., art. VI, cl. 2.

U.S. v. 32.42 Acres of Land, More or Less, Located in San Diego County, Cal., 683 F.3d at 1038.

I also note that in the 32.42 Acres case the district court had specifically found, over the government's objection, that a portion of the land acquired by the United States within the tidelands (4.88 acres) was acquired subject to its own federal trust. See Order dated April 28, 2006(# 24) at p. 11 in United States v. 32.42 Acres of Land, Case No. 05–cv–1137–DMS, (S.D.Cal. April 28, 2006) (emphases added). The government did not cross-appeal this part of the district court's order and it was not disturbed or addressed by the Ninth Circuit.

This case is different in that it does not at all implicate the equal footing doctrine or public trust obligations of the State of Oregon. The public trust doctrine invoked instead is directed against the United States and its unique sovereign interests over the territorial ocean waters and atmosphere of the nation.

The doctrine is deeply rooted in our nation's history and indeed predates it. See, e.g., Shively v. Bowlby, 152 U.S. 1, 14 S.Ct. 548, 38 L.Ed. 331 (1894) (recounting the American history of the doctrine). As observed in Shively :

> At common law, the title and the dominion in lands flowed by the tide were in the king for the benefit of the nation. Upon the settlement of the colonies, like rights passed to the grantees in the royal charters, in trust for the communities to be established. Upon the American Revolution, these rights, charged with a like trust, were vested in the original states within their respective borders, subject to the rights surrendered by the constitution to the United States.
>
> Upon the acquisition of a territory by the United States, whether by cession from one of the states, or by treaty with a foreign country, or by discovery and settlement, the same title and dominion passed to the United States, for the benefit of the whole people, and in trust for the several states to be ultimately created out of the territory.
>
> The new states admitted into the Union since the adoption of the constitution have the same rights as the original states in the tide waters, and in the lands under them, within their respective jurisdictions. The title and rights of riparian or littoral proprietors in the soil below high-water mark, therefore, are governed by the laws of the several states, subject to the rights granted to the United States by the Constitution.

Id. at 57–58, 14 S.Ct. 548.

While the scope of the public trust doctrine may only reach the low water mark on the regions of the sea and great lakes, the water over those lands, and the waters

and streams of any consequence, see, e.g., *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L.Rev. 471, 556 (1970), the complaint touches upon protected areas (territorial ocean waters at a minimum) impacted by the government's alleged conduct and harm to many plaintiffs given the alleged sea level rise, ocean acidification, and atmosphere change.

What emerges from an analysis of the public trust doctrine is that it is rare to find instances where the United States retains vestiges of trust obligations once territories become states and title vests in the newly formed state pursuant to the equal footing doctrine of the Constitution. Some guidance is found, however, in those cases wherein the United States has reacquired tidelands through eminent domain from the State. One such case is United States v. 32.42 Acres of Land, supra. Another is City of Alameda v. Todd Shipyards Corp., 635 F.Supp. 1447 (N.D.Cal.1986), wherein the court squarely held that "The United States may not abdicate the role of trustee for the public when it acquires land by condemnation." Id. at 1450. See also United States v. 1.58 Acres of Land Situated in City of Boston, Suffolk County, Com. of Mass., 523 F.Supp. 120, 124–25 (D.Mass.1981):

> we hold that the federal government may take property below the low water mark in "full fee simple" insofar as no other principal may hold a greater right to such land. It must be recognized, however, that the federal government is as restricted as the Commonwealth in its ability to abdicate to private individuals its sovereign jus publicum in the land. So restricted, neither the Commonwealth's nor the federal government's trust responsibilities are destroyed by virtue of this taking, since neither government has the power to destroy the trust or to destroy the other sovereign.

The court's intervention in this area may seemingly touch upon powers committed to Congress under Article IV, § 3, C1. 2 (Congress shall have the power to dispose and make all needful rules and regulations respecting the territory and other property of the United States). In addition, it is not for the courts to say how the trust in resources and the territory shall be administered, that is for Congress to determine. State of Alabama v. State of Texas, 347 U.S. 272, 273, 74 S.Ct. 481, 98 L.Ed. 689 (1954) (citing United States v. California, 332 U.S. 19, 27, 67 S.Ct. 1658, 91 L.Ed. 1889 (1947) ("the constitutional power of Congress under Article IV, § 3, C1. 2 is without limitation."). However, even defendant Department of the Interior has recognized limits on government control over the territorial sea. See United States Department of Justice, Office of Legal Counsel, Memorandum Opinion for the Solicitor Department of the Interior, *Administration of Coral Reef Resources in the Northwest Hawaiian Islands*, 2000 WL 34475732 at *7 (September 15, 2000) (the public trust doctrine, which the Court did not address in Alabama, might limit in some ways the extent of the Government's control over the territorial sea). The Department further noted that doctrine does grant the government power to exercise dominion over that area to protect it and its resources for public enjoyment and noted the government's role as public trustee. Id. And, as noted above, courts have noted and restricted the federal government's actions with respect to tidelands based on the federal public trust. United States v. 32.42 Acres of Land, Case No. 05–cv–1137–DMS, supra; City of Alameda v. Todd Shipyards Corp., 635 F.Supp. 1447, supra.

At the hearing on defendants and intervenors' motions to dismiss, the court their queried counsel whether, hypothetically, Congress could alienate the territorial wa-

ters of the United States off the West Coast to a private corporation, or whether that would implicate a public trust issue under the Constitution. Both parties suggested Congress could cede the territorial waters to a private corporation, and that PPL Montana, LLC, forecloses any argument that the public trust doctrine applies to the federal government.

As explained above, I cannot read PPL Montana, LLC, given the context of the argument being addressed by the Courts to have such a sweeping and profound effect.[10] Nor can I imagine that our coastal sea waters could possibly be privatized without implicating principles that reflect core values of our Constitution and the very essence of the purpose of our nation's government.

When combined with the EPA's duty to protect the public health from airborne pollutants and the government's public trust duties deeply ingrained in this country's history, the allegations in the complaint state, for purposes of a motion to dismiss, a substantive due process claim. At this stage of the proceedings, the court cannot say that the public trust doctrine does not provide at least some substantive due process protections for some plaintiffs within the navigable water areas of Oregon. Accordingly, the court should not dismiss any claims under the public trust doctrine to that extent.

The nascent nature of these proceedings dictate further development of the record before the court can adjudicate whether any claims or parties should not survive for trial. Accordingly, the court should deny the motions to dismiss.

CONCLUSION

For the reasons stated above, the intervenors' motion to dismiss (# 19) and the government's motion to dismiss (# 27) should be denied. The government's motion to strike (# 58) is denied.

This recommendation is not an order that is immediately appealable to the Ninth Circuit Court of appeals. Any notice of appeal pursuant to Rule 4(a)(1), Federal Rules of Appellate Procedure, should not be filed until entry of the district court's judgment or appealable order. The parties shall have fourteen (14) days from the date of service of a copy of this recommendation within which to file specific written objections with the court. Thereafter, the parties shall have fourteen (14) days within which to file a response to the objections. Failure to timely file objections to any factual determination of the Magistrate Judge will be considered as a waiver of a party's right to de novo consideration of the factual issues and will constitute a waiver of a party's right to appellate review of the findings of fact in an order or judgment entered pursuant to this recommendation.



10. In Shively, which the Court cited in its PPL Montana, LLC decision, expressly held that "[u]pon the acquisition of a territory by the United States, whether by cession from one of the states, or by treaty with a foreign country, or by discovery and settlement, the same title and dominion passed to the United States, for the benefit of the whole people, and in trust for the several states to be ultimately created out of the territory. Shively, 152 U.S. at 57, 14 S.Ct. 548. Thus, a federal public trust doctrine was recognized in Shively, and PPL Montana. LLC did not overrule this precedent.

FILED

JUL 25 2017

MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

In re: UNITED STATES OF AMERICA; et al.

UNITED STATES OF AMERICA; et al.,

Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON, EUGENE,

Respondent,

KELSEY CASCADIA ROSE JULIANA; et al.,

Real Parties in Interest.

No. 17-71692

D.C. No.
6:15-cv-01517-TC-AA
District of Oregon,
Eugene

ORDER

Before: GOODWIN, KOZINSKI, and BERZON, Circuit Judges.

The Court stays district court proceedings, temporarily, pending further order from this court. *See* Ninth Circuit Gen. Ord. 6.8(a).

The petition for a writ of mandamus and all other pending motions will be addressed by separate order.

by the post-appeal restitution proceedings." Because we reverse the district court's restitution award to PSM, the district court's rationale for denying Defendants' motion to retax is undermined, at least in part. Accordingly, we vacate the district court's denial and remand for further consideration in light of today's opinion.

III.

For the reasons set forth above:

1. In No. 15-55026 & 15-55087, we reverse the district court's December 17, 2014, order with respect to the order's award of $1.1 million in restitution to PSM.[9] We dismiss as moot PSM's appeal of the district court's denial of prejudgment interest. We affirm the December 17 order in all other respects, including as to the issue of QSA rescission.

2. In No. 15-55941, we reverse the district court's May 19, 2015, order awarding attorneys' fees to Defendants. In No. 15-55943, Defendants' appeal of the district court's reduction of the lodestar fee amount is dismissed as moot.

3. In No. 15-56184, because we reverse PSM's restitution award, we vacate the district court's July 14, 2015, order denying Defendants' motion to retax costs and remand for reconsideration in light of the changed circumstances.

4. In each of these five appeals, each party shall bear its own costs on appeal.

AFFIRMED in part, REVERSED in part, VACATED and REMANDED in part, and DISMISSED in part.



IN RE UNITED STATES of America,

United States of America; Christy Goldfuss, in her official capacity as Director of the Council on Environmental Quality; Mick Mulvaney, in his official capacity as Director of the Office of Management and Budget; John Holdren, Dr., in his official capacity as Director of the Office of Science and Technology Policy; Rick Perry, in his official capacity as Secretary of Energy; U.S. Department of the Interior; Ryan Zinke, in his official capacity as Secretary of Interior; U.S. Department of Transportation; Elaine Chao, in her official capacity as Secretary of Transportation; U.S. Department of Agriculture; Sonny Perdue, in his official capacity as Secretary of Agriculture; U.S. Department of Commerce; Wilbur Ross, in his official capacity as Secretary of Commerce; U.S. Department of Defense; Jim Mattis, in his official capacity as Secretary of Defense; U.S. Department of State; Office of the President of the United States; U.S. Environmental Protection Agency; U.S. Department of Energy; Donald J. Trump, in his official capacity as President of the United States; The National Association of Manufacturers; American Fuel & Petrochemical Manufacturers; American Petroleum Institute, Petitioners,

v.

United States District Court for the District of Oregon, Eugene, Respondent,

9. We recognize that, in awarding PSM a $700,000 offset, the district court also required PSM to return the account receivable to BAIC. This $700,000 formed a part of the award to PSM that we now reverse, and so we also reverse that aspect of the district court's order that required PSM to return the receivable to BAIC.

Kelsey Cascadia Rose Juliana; Xiuhtezcatl Tonatiuh M., through his Guardian Tamara Roske–Martinez; Alexander Loznak; Jacob Lebel; Zealand B., through his Guardian Kimberly Pash-Bell; Avery M., through her Guardian Holly McRae; Sahara V., through her Guardian Toa Aguilar; Kiran Isaac Oommen; Tia Marie Hatton; Isaac V., through his Guardian Pamela Vergun; Miko V., through her Guardian Pamela Vergun; Hazel V., through her Guardian Margo Van Ummersen; Sophie K., through her Guardian Dr. James Hansen; Jaime B., through her Guardian Jamescita Peshlakai; Journey Z., through his Guardian Erika Schneider; Victoria B., through her Guardian Daisy Calderon; Nathaniel B., through his Guardian Sharon Baring; Aji P., through his Guardian Helaina Piper; Levi D., through his Guardian Leigh-Ann Draheim; Jayden F., through her Guardian Cherri Foytlin; Nicholas V., through his Guardian Marie Venner; Earth Guardians, a nonprofit organization; Future Generations, through their Guardian Dr. James Hansen, Real Parties in Interest.

No. 17-71692

United States Court of Appeals,
Ninth Circuit.

Argued and Submitted December 11, 2017 San Francisco, California

Filed March 7, 2018

Background: Environmental activists who were too young to vote, and purported guardian for future generations, brought action for declaratory and injunctive relief against United States, President, and various Executive Branch officials and agencies, alleging that greenhouse gas emissions from carbon dioxide, produced by burning fossil fuels, were destabilizing climate system, and asserting violations of substantive due process and defendants' obligation to hold natural resources in public trust. Industry associations intervened. After the United States District Court for the District of Oregon, No. 6:15-cv-01517-TC-AA, Ann L. Aiken, J., 217 F.Supp.3d 1224, denied defendants' and intervenors' motions to dismiss, government defendants filed petition for writ of mandamus requiring district court to dismiss case.

Holding: The Court of Appeals, Thomas, Chief Judge, held that mandamus relief requiring district court to dismiss action was not warranted.

Petition denied.

1. Mandamus ⇨1, 26, 28

Writ of mandamus is drastic and extraordinary remedy reserved for really extraordinary causes, and only exceptional circumstances amounting to judicial usurpation of power or clear abuse of discretion will justify invocation of this extraordinary remedy.

2. Mandamus ⇨1

In considering whether to grant writ of mandamus requiring district court to take action, court should consider: (1) whether petitioner has no other means, such as direct appeal, to obtain desired relief; (2) whether petitioner will be damaged or prejudiced in any way not correctable on appeal; (3) whether district court's order is clearly erroneous as matter of law; (4) whether district court's order is oft repeated error or manifests persistent disregard of federal rules; and (5) whether district court's order raises new and important problems or issues of first impression.

3. Mandamus ⇨3(11), 11, 32

Federal agencies and officials were not entitled to mandamus relief requiring

district court to dismiss action alleging that government policies enabling carbon dioxide emissions from burning of fossil fuels contributed to climate change, in violation of plaintiffs' constitutional rights, despite government's contention that mandamus was only means of obtaining relief from potentially burdensome discovery and of avoiding violation of separation of powers, where district court had not issued any discovery orders, plaintiffs had not filed any motions to compel discovery, any merits errors were correctable through ordinary course of litigation, there was no controlling authority on theories asserted by plaintiffs, and there was no oft-repeated error in case.

4. Mandamus ⚿4(1)

Writ of mandamus may not be used as substitute for appeal even though hardship may result from delay and perhaps unnecessary trial.

5. Mandamus ⚿3(11), 32

Mandamus relief to avoid burdensome or improper discovery is inappropriate where party has never sought relief before district court to resolve discovery dispute.

6. Mandamus ⚿4(1)

For mandamus petitioner to show that it will be damaged or prejudiced in any way not correctable on appeal, it must demonstrate some burden other than mere cost and delay that are regrettable, yet normal, features of legal system.

7. Mandamus ⚿4(1)

Prejudice serious enough to warrant mandamus relief includes situations in which one's claim will obviously be moot by time appeal is possible, or in which one will not have ability to appeal.

8. Mandamus ⚿1

Absence of controlling precedent weighs strongly against finding of clear error for mandamus purposes.

Appeal from the United States District Court for the District of Oregon, Ann L. Aiken, District Judge, Presiding, D.C. No. 6:15-cv-01517-TC-AA

Eric Grant (argued), Deputy Assistant Attorney General; Andrew C. Mergen, David C. Shilton, and Robert J. Lundman, Appellate Section; Jeffrey H. Wood, Acting Assistant Attorney General; Environment & Natural Resources Division, United States Department of Justice, Washington, D.C.; for Petitioners.

Julia Ann Olson (argued), Wild Earth Advocates, Eugene, Oregon; Philip L. Gregory, Cotchett Pitre & McCarthy LLP, Burlingame, California; for Real Parties in Interest.

William John Snape III and David Hunter, American University, Washington College of Law, Washington, D.C., for Amici Curiae Center for International Environmental Law and Environmental Law Alliance Worldwide—US.

David Bookbinder, Niskanen Center, Washington, D.C., for Amicus Curiae Niskanen Center.

Courtney B. Johnson, Crag Law Center, Portland, Oregon, for Amici Curiae League of Women Voters of the United States and League of Women Voters of Oregon.

Sarah H. Burt, Earthjustice, San Francisco, California; Patti Goldman, Earthjustice, Seattle, Washington; for Amicus Curiae EarthRights International, Center for Biological Diversity, Defenders of Wildlife, and Union of Concerned Scientists.

James R. May and Erin Daly, Dignity Rights Project, Widener University, Delaware Law School, Wilmington, Delaware; Rachael Paschal Osborn, Vashon, Washington; for Amici Curiae Law Professors.

Joanne Spalding, Sierra Club, Oakland, California; Alejandra Nuñez and Andres Restrepo, Sierra Club, Washington, D.C.; for Amicus Curiae Sierra Club.

Charles M. Tebbutt, Law Offices of Charles M. Tebbutt P.C., Eugene, Oregon, for Amici Curiae Global Catholic Climate Movement; Leadership Conference of Women Religious; Interfaith Power and Light; The Sisters of Mercy of the Americas' Institute Leadership Team; Sisters of Mercy Northeast Leadership Team; Interfaith Moral Action on Climate; Franciscan Action Network; The National Religious Coalition for Creation Care and Interfaith Oceans; The Faith Alliance for Climate Solutions; Eco-Justice Ministries; San Francisco Zen Center; The Shalom Center; GreenFaith; The Office of Apostolic Action & Advocacy; Christian life Community-USA; and Quaker Earthcare Witness.

Zachary B. Corrigan, Food & Water Watch Inc., Washington, D.C., for Amici Curiae Food & Water Watch Inc., Friends of the Earth—US, and Greenpeace Inc.

Before: Sidney R. Thomas, Chief Judge, and Marsha S. Berzon and Michelle T. Friedland, Circuit Judges.*

OPINION

THOMAS, Chief Judge:

In this petition for a writ of mandamus, the defendants ask us to direct the district court to dismiss a case seeking various environmental remedies. The defendants argue that allowing the case to proceed will result in burdensome discovery obligations on the federal government that will threaten the separation of powers. We have jurisdiction over this petition pursuant to the All Writs Act, 28 U.S.C. § 1651. Because the defendants have not met the high bar for mandamus relief, we deny the petition.

I

Twenty-one young plaintiffs brought suit against the United States, the President, and various Executive Branch officials and agencies, alleging that the defendants have contributed to climate change in violation of the plaintiffs' constitutional rights. They allege that the defendants have known for decades that carbon dioxide emissions from the burning of fossil fuels destabilize the climate. The plaintiffs aver that the defendants have nevertheless enabled and continue to enable, through various government policies, the burning of fossil fuels, allowing atmospheric carbon dioxide concentrations to reach historically unprecedented levels. They allege that climate change is injuring them and will continue to injure them. The plaintiffs claim that, in light of these facts, the defendants have violated their constitutional rights.

The defendants moved to dismiss the suit for lack of jurisdiction and for failure to state a claim. The district court denied the motion. The court held that the plaintiffs plausibly alleged that they have Article III standing, did not raise non-justiciable political questions, and asserted plausible claims under the Due Process Clause of the Fifth Amendment.

The defendants moved the district court to stay the litigation and to certify its order for interlocutory appeal pursuant to 28 U.S.C. § 1292(b). The district court denied the motions. Anticipating burdensome discovery, the defendants petitioned this Court for a writ of mandamus and requested a stay of the litigation. In their petition,

* Following the retirement of Judge Kozinski, Judge Friedland was randomly drawn to replace him on the panel. She has read the briefs, reviewed the record, and watched a video recording of the oral argument held on December 11, 2017.

the defendants ask that we direct the district court to dismiss the case. We granted the request for a stay and now consider the petition.

II

[1, 2] "The writ of mandamus is a drastic and extraordinary remedy reserved for really extraordinary causes." *In re Van Dusen*, 654 F.3d 838, 840 (9th Cir. 2011) (quoting *Ex parte Fahey*, 332 U.S. 258, 259–60, 67 S.Ct. 1558, 91 L.Ed. 2041 (1947)) (internal quotation marks omitted). "[O]nly exceptional circumstances amounting to a judicial usurpation of power or a clear abuse of discretion will justify the invocation of this extraordinary remedy." *Cheney v. U.S. Dist. Ct.*, 542 U.S. 367, 380, 124 S.Ct. 2576, 159 L.Ed.2d 459 (2004) (internal quotation marks and citations omitted). In considering whether to grant a writ of mandamus, we are guided by the five factors identified in *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650 (9th Cir. 1977):

(1) whether the petitioner has no other means, such as a direct appeal, to obtain the desired relief;

(2) whether the petitioner will be damaged or prejudiced in any way not correctable on appeal;

(3) whether the district court's order is clearly erroneous as a matter of law;

(4) whether the district court's order is an oft repeated error or manifests a persistent disregard of the federal rules; and

(5) whether the district court's order raises new and important problems or issues of first impression.

Perry v. Schwarzenegger, 591 F.3d 1147, 1156 (9th Cir. 2010) (citing *Bauman*, 557 F.2d at 654–55). "All factors are not relevant in every case and the factors may point in different directions in any one case." *Christensen v. U.S. Dist. Ct.*, 844 F.2d 694, 697 (9th Cir. 1988).

III

[3] The defendants do not satisfy the *Bauman* factors at this stage of the litigation. The issues that the defendants raise on mandamus are better addressed through the ordinary course of litigation. We therefore decline to exercise our discretion to grant mandamus relief. *See San Jose Mercury News, Inc. v. U.S. Dist. Ct.*, 187 F.3d 1096, 1099 (9th Cir. 1999) ("Mandamus review is at bottom discretionary—even where [all] the *Bauman* factors are satisfied, the court may deny the petition.").

A

[4] The first *Bauman* factor is whether the petitioner will "ha[ve] no other means ... to obtain the desired relief." *Perry*, 591 F.3d at 1156. This factor ensures that a writ of mandamus will not "be used as a substitute for appeal even though hardship may result from delay and perhaps unnecessary trial." *Schlagenhauf v. Holder*, 379 U.S. 104, 110, 85 S.Ct. 234, 13 L.Ed.2d 152 (1964) (internal citation omitted). Here, the defendants argue that mandamus is their only means of obtaining relief from potentially burdensome discovery.

The defendants' argument fails because the district court has not issued a single discovery order, nor have the plaintiffs filed a single motion seeking to compel discovery. Rather, the parties have employed the usual meet-and-confer process of resolving discovery disputes. *See* Fed. R. Civ. P. 37(a)(1). Indeed, both sides have submitted declarations attesting that they have thus far resolved a number of discovery disputes without either side asking the district court for an order. Indeed, the plaintiffs have withdrawn a number of re-

quests for production. The defendants rely on informal communications as to the scope of discovery—in particular, the plaintiffs' litigation hold and demand letter—but the plaintiffs have clarified that these communications were not discovery requests.

If a specific discovery dispute arises, the defendants can challenge that specific discovery request on the basis of privilege or relevance. *See McDaniel v. U.S. Dist. Ct.*, 127 F.3d 886, 888–89 (9th Cir. 1997) (per curiam) (holding that mandamus "is not the State's only adequate means of relief" from burdensome discovery because, "as discovery proceeds, the State is not foreclosed from making routine challenges to specific discovery requests on the basis of privilege or relevance"). In addition, the defendants can seek protective orders, as appropriate, under Federal Rule of Civil Procedure 26(c).

[5] Mandamus relief is inappropriate where the party has never sought relief before the district court to resolve a discovery dispute. As we have noted, "courts of appeals cannot afford to become involved with the daily details of discovery." *In re Anonymous Online Speakers*, 661 F.3d 1168, 1173 (9th Cir. 2011) (quoting *Perry*, 591 F.3d at 1157). Rather, we have only granted mandamus relief to review discovery orders in exceptional circumstances. *Id.* And neither we nor the Supreme Court have ever done so before a party has filed a motion for a protective order in the district court or prior to the issuance of a discovery order by the district court. The defendants will have ample remedies if they believe a specific discovery request from the plaintiffs is too broad or burdensome. Absent any discovery order from the district court, or even any attempt to seek one, however, the defendants have not shown that they have no other means of obtaining relief from burdensome or otherwise improper discovery.

The defendants rely on two cases in which a writ of mandamus issued because of alleged discovery burdens: *Cheney*, and *Credit Suisse v. U.S. Dist. Ct.*, 130 F.3d 1342 (9th Cir. 1997). In both cases, the district courts had issued orders compelling document production. *Cheney*, 542 U.S. at 376, 379, 124 S.Ct. 2576 (defendant moved for a protective order, but district court issued order allowing discovery to proceed); *Credit Suisse*, 130 F.3d at 1346 (district court issued order compelling defendants to respond to discovery requests).[1]

Absent any district court order concerning discovery, mandamus relief is inappropriate. If the defendants become aggrieved by a future discovery order, they can seek mandamus relief as to that order. But their current request for mandamus relief is entirely premature. The defendants have not satisfied the first *Bauman* factor.

B

[6, 7] The second *Bauman* factor is whether the petitioner "will be damaged or prejudiced in any way not correctable on appeal." *Perry*, 591 F.3d at 1156. To satisfy this factor, the defendants "must demonstrate some burden . . . other than the mere cost and delay that are the regretta-

1. The defendants also raised, via a letter filed after argument, the Supreme Court's recent summary disposition in an appeal challenging a discovery order. *See In re United States*, —— U.S. ——, 138 S.Ct. 443, 199 L.Ed.2d 351 (2017). When the government filed a petition for mandamus in that case, the district court had compelled the government to complete the administrative record over the government's opposition that the administrative record was already complete and had deferred ruling on the defendants' earlier motion to dismiss. Neither circumstance exists here.

ble, yet normal, features of our imperfect legal system." *DeGeorge v. U.S. Dist. Ct.*, 219 F.3d 930, 935 (9th Cir. 2000) (alteration in original) (quoting *Calderon v. U.S. Dist. Ct.*, 163 F.3d 530, 535 (9th Cir. 1998) (en banc)). Prejudice serious enough to warrant mandamus relief "includes situations in which one's 'claim will obviously be moot by the time an appeal is possible,' or in which one 'will not have the ability to appeal.' " *Id.* (quoting *Calderon*, 163 F.3d at 535).

The defendants argue that holding a trial on the plaintiffs' claims and allowing the district court potentially to grant relief would threaten the separation of powers. We are not persuaded that simply allowing the usual legal processes to go forward will have that effect in a way not correctable on appellate review.

First, to the extent the defendants argue that the President himself has been named as a defendant unnecessarily and that defending this litigation would unreasonably burden him, this argument is premature because the defendants never moved in the district court to dismiss the President as a party. *See United States v. U.S. Dist. Ct.*, 384 F.3d 1202, 1205 (9th Cir. 2004) (explaining that there is no injustice from declining to consider a new issue on mandamus review because a petitioner may still be able to raise the issue below). Nor has any formal discovery been sought against the President.

To the extent that the defendants are arguing that executive branch officials and agencies in general should not be burdened by this lawsuit, Congress has not exempted the government from the normal rules of appellate procedure, which anticipate that sometimes defendants will incur burdens of litigating cases that lack merit but still must wait for the normal appeals process to contest rulings against them. The United States is a defendant in close to one-fifth of the civil cases filed in federal court.[2] The government cannot satisfy the burden requirement for mandamus simply because it, or its officials or agencies, is a defendant.

Distilled to its essence, the defendants' argument is that it is a burden to defend against the plaintiffs' claims, which they contend are too broad to be legally sustainable. That well may be. But, as noted, litigation burdens are part of our legal system, and the defendants still have the usual remedies before the district court for nonmeritorious litigation, for example, seeking summary judgment on the claims. And if relief is not forthcoming, any legal error can be remedied on appeal. "The first two criteria articulated in *Bauman* are designed to insure that mandamus, rather than some other form of relief, is the appropriate remedy." *In re Cement Antitrust Litig. (MDL No. 296)*, 688 F.2d 1297, 1301 (9th Cir. 1982), *aff'd sub nom. Arizona v. U.S. Dist. Ct.*, 459 U.S. 1191, 103 S.Ct. 1173, 75 L.Ed.2d 425 (1983) (mem.). Because the merits errors now asserted are correctable through the ordinary course of litigation, the defendants have not satisfied the second *Bauman* factor.

C

The third *Bauman* factor is whether the district court's order "is clearly erroneous as a matter of law." *Perry*, 591 F.3d at 1156. Our review of this factor "is significantly deferential and [this factor] is not

2. *See* U.S. Courts, *Federal Judicial Caseload Statistics 2017,* http://www.uscourts.gov/statistics-reports/federal-judicial-caseload-statistics-2017 (last visited Feb. 14, 2018) (The United States was a defendant in 56,987 of the 292,076 civil cases filed in federal court in the 12-month period ending March 31, 2017.).

met unless the reviewing court is left with a definite and firm conviction that a mistake has been committed." *In re Bundy*, 840 F.3d 1034, 1041 (9th Cir. 2016) (quoting *In re United States*, 791 F.3d 945, 955 (9th Cir. 2015)).

[8] "The absence of controlling precedent weighs strongly against a finding of clear error [for mandamus purposes]." *In re Van Dusen*, 654 F.3d 838, 845 (9th Cir. 2011). Here, the defendants concede that there is no controlling Ninth Circuit authority on any of the theories asserted by the plaintiffs. Indeed, the defendants strongly argue that the theories are unprecedented. Thus, the absence of controlling precedent in this case weighs strongly against a finding of clear error. *Id.*

We also underscore that this case is at a very early stage, and that the defendants have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders. Once the litigation proceeds, the defendants will have ample opportunity to raise and litigate any legal objections they have.

However, absent controlling precedent, we decline to exercise our discretion to intervene at this stage of the litigation to review preliminary legal decisions made by the district court or otherwise opine on the merits.

D

The fourth *Bauman* factor is whether the district court's order is "an oft repeated error or manifests a persistent disregard of the federal rules." *Perry*, 591 F.3d at 1156. Absent controlling authority, there is no "oft-repeated error" in this case, *In re Swift Transp. Co.*, 830 F.3d at 917, and the defendants do not contend that the district court violated any federal rule. The defendants do not satisfy the fourth factor.

E

The final factor is whether the district court's order "raises new and important problems or issues of first impression." *Perry*, 591 F.3d at 1156. In general, we have relied upon this factor when there is a "novel and important question" that "may repeatedly evade review." *Id.* at 1159; *see also In re Cement Antitrust Litig.*, 688 F.2d at 1304–05 ("[A]n important question of first impression will evade review unless it is considered under our supervisory mandamus authority. Moreover, that question may continue to evade review in other cases as well.").

There is little doubt that the legal theories asserted in this case raise issues of first impression. But the district court's order denying a motion to dismiss on the pleadings—which is all that has happened thus far—does not present the possibility that those issues will evade appellate review. The defendants have not satisfied the fifth *Bauman* factor.

IV

There is enduring value in the orderly administration of litigation by the trial courts, free of needless appellate interference. In turn, appellate review is aided by a developed record and full consideration of issues by the trial courts. If appellate review could be invoked whenever a district court denied a motion to dismiss, we would be quickly overwhelmed with such requests, and the resolution of cases would be unnecessarily delayed.

We are mindful that some of the plaintiffs' claims as currently pleaded are quite broad, and some of the remedies the plaintiffs seek may not be available as redress.

However, the district court needs to consider those issues further in the first instance. Claims and remedies often are vastly narrowed as litigation proceeds; we have no reason to assume this case will be any different. Nor would the defendants be precluded from reasserting a challenge to standing, particularly as to redressability, once the record is more fully developed, or from seeking mandamus in the future, if circumstances justify it. And the defendants retain the option of asking the district court to certify orders for interlocutory appeal of later rulings, pursuant to 28 U.S.C. § 1292(b).

Because petitioners have not satisfied the *Bauman* factors, we deny the petition without prejudice. Absent any discovery order, the mandamus petition is premature insofar as it is premised on a fear of burdensome discovery. The issues pertaining to the merits of this case can be resolved by the district court, in a future appeal, or, if extraordinary circumstances later present themselves, by mandamus relief. For these reasons, we decline to exercise our discretion to grant mandamus relief at this stage of the litigation.

PETITION DENIED WITHOUT PREJUDICE.

Lonnie Craig PATTERSON, Plaintiff–Appellant,

v.

CITY OF YUBA CITY, Defendant–Appellee.

No. 16-16001

United States Court of Appeals, Ninth Circuit.

Filed March 7, 2018

Background: Arrestee brought action against city asserting a § 1983 claim of unlawful seizure under the Fourth Amendment, as well as state law claims of negligent infliction of emotional distress and false arrest/false imprisonment. The United States District Court for the Eastern District of California, D.C. No. 2:12-cv-01350-MCE-CKD, Morrison C. England, Jr., J., 2016 WL 3126052, granted summary judgment to city, and arrestee appealed.

Holding: The Court of Appeals held that it was appropriate to certify question to California Supreme Court as to whether finding of probable cause to arrest at preliminary hearing precluded false arrest claim under California law.

Question certified.

1. False Imprisonment ⚿13

Under California law, probable cause to arrest is an affirmative defense to a claim of false arrest. U.S. Const. Amend. 4.

2. Federal Courts ⚿3107

It was appropriate for Court of Appeals to certify question to California Supreme Court as to whether a finding of probable cause to arrest at a preliminary hearing precluded a false arrest claim under California law; the answer of the question was dispositive of arrestee's appeal of district court's grant of summary judgment to city on arrestee's claim of false arrest and imprisonment, no controlling California precedent answered the question, California Courts of Appeal had split on the issue, and resolving the question would likely require diligent and thoughtful parsing of California's issue preclusion requirements, a magistrate judge's powers and obligations at a preliminary hearing, and a criminal defendant's ability to ade-

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

KELSEY CASCADE ROSE JULIANA; et al., 6:15-cv-1517-TC

Plaintiffs, ORDER

v.

The UNITED STATES OF AMERICA; et al.,

Defendants.

COFFIN, Magistrate Judge:

Before the court is defendants' motion for a protective order and for a stay of discovery. (#196). In essence, defendants' motion is based on the assertion that "Plaintiff's claim must proceed under the [Administrative Procedure Act] APA" and APA claims must be reviewed solely on the Administrative record. Thus "APA plaintiffs are ... not entitled to discovery ...." Defendants' Motion For A Protective Order And For A Stay Of Discovery (#196) at p. 10.

But the plaintiffs' complaint does not contain an APA claim. No such claim is pleaded, and the defendants have no ability to edit the complaint to cobble the claim into one of their choosing

to derail discovery. The plaintiffs' claims in this case, which have survived previous efforts by the defendants to dismiss, are claims based on alleged violations of their constitutional rights. As to these claims, the court has denied the defendants' earlier motion to dismiss, an order which defendants challenged through writ of mandamus to the Ninth Circuit, which was denied. The Ninth Circuit further noted the case should proceed through discovery and the normal process of trial and the development of a record before any appellate review would be appropriate.

The defendants' motion for a protective order and stay is simply a recasting of their position that the plaintiffs' claims should all be dismissed and the District Court should revisit its previous ruling to the contrary.

Beyond whatever procedural impediments exist to the government's efforts to reconstruct its motion to dismiss under a different theory, this court is not at all persuaded by their argument that the APA is the sole avenue of relief for the plaintiffs for the asserted violations of their constitutional rights.

Indeed, the District Court has already rejected this very argument in its Order denying defendants' motion to dismiss:

> Plaintiffs could have brought a lawsuit predicated on technical regulatory violations, but they chose a different path. As masters of their complaint, they have elected to assert constitutional rather than statutory claims. Every day, federal courts apply the legal standards governing due process claims to new sets of facts. The facts in this case, though novel, are amenable to those well-established standards.

Order dated November 10, 2017 (#83) at p. 13.

In sum, defendants' efforts to transform plaintiffs' constitutional claims into an APA case to bar discovery is unavailing.

Finally, the defendants argue that the separation of powers doctrine justifies an order barring

or staying all discovery in this case based on wholly hypothetical scenarios that may implicate matters of privilege during the discovery process. Under such rationale, the government could avoid all discovery in any litigation in which it is named as a defendant simply by asserting hypothetical discovery requests that a litigant might make during the litigation. Should a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request. None has arisen so far in this particular case that the parties have been unable to resolve in the meet and confer process that the court is aware of.

The motion for a protective order and stay of all discovery is hereby denied.

CONCLUSION

For the reasons stated above, defendants' motion for a protective order and stay (#196) is denied.

DATED this 25 day of May 2018.

THOMAS M. COFFIN
United States Magistrate Judge

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, et al.,

Plaintiffs,

v.

THE UNITED STATES OF AMERICA, et al.,

Defendants.

Civ. No. 6:15-cv-01517-AA

ORDER

AIKEN, District Judge.

On May 9, 2018, Defendants filed a Motion for Protective Order and Motion for Stay of All Discovery. ECF No. 196. On May 25, 2018, Magistrate Judge Coffin denied Defendants' motion.[1] ECF No. 212. Defendants have filed Objections to Judge Coffin's Order, ECF No. 215, Plaintiffs have filed their Response, ECF No. 242, and the matter is now before this Court.

In accordance with Rule 72(a), "[w]hen a pretrial matter not dispositive of a party's claim or defense is referred to a magistrate judge to hear and decide, the magistrate judge must promptly conduct the required proceedings and, when appropriate, issue a written order stating the decision." Fed. R. Civ. P. 72(a). The standard of review for an order with objections is "clearly erroneous" or "contrary to law." 28 U.S.C. § 636(b)(1)(A); Fed. R. Civ. P. 72(a).

[1] Defendants complain, *inter alia*, that Judge Coffin denied their motion without allowing them the opportunity to file a reply. The Local Rules of the District of Oregon do not permit replies in support of discovery motions. LR 26-3(c) ("Unless otherwise directed by the Court, a movant may not file a reply supporting a discovery motion."). The timing of Judge Coffin's ruling was therefore appropriate.

The Court has carefully reviewed Judge Coffin's order in light of Defendants' objections. The Court concludes that the order is not clearly erroneous or contrary to law. Accordingly, the Court AFFIRMS Magistrate Judge Coffin's Order, ECF No. 212, denying Defendants' Motion for Protective Order and Stay of All Discovery, ECF No.196. The Court declines to certify this decision for interlocutory appeal under 28 U.S.C. § 1292(b).

It is so ORDERED and DATED this 29th day of June, 2018.

ANN AIKEN
United States District Judge

FILED

JUL 16 2018

MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

In re: UNITED STATES OF AMERICA; et al., _____ UNITED STATES OF AMERICA; et al., Petitioners, v. UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON, EUGENE, Respondent, KELSEY CASCADIA ROSE JULIANA; et al., Real Parties in Interest.	No. 18-71928 D.C. No. 6:15-cv-01517-TC District of Oregon, Eugene ORDER

Before: THOMAS, Chief Judge, and BERZON and FRIEDLAND, Circuit Judges.

Petitioners' emergency motion for a stay of discovery and trial is DENIED.

The panel will rule on the petition for writ of mandamus on an expedited basis.

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar. No. 4103131)
MARISSA A. PIROPATO (MA Bar. No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
ERIKA NORMAN (CA Bar No. 268425)
Trial Attorneys
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*, Case No. 6:15-CV-01517-TC

Plaintiffs,

v.

Expedited Hearing Requested

UNITED STATES OF AMERICA, *et al.*,

Defendants.

DEFENDANTS' MOTION TO STAY DISCOVERY AND TRIAL PENDING SUPREME COURT REVIEW

Defendants hereby move this Court to stay any further discovery and the trial pending consideration of the government's forthcoming petition for a writ of mandamus, or in the

alternative for a writ of certiorari, to be filed in the United States Supreme Court.[1] As set forth fully in the accompanying memorandum of law, a stay is warranted because Defendants are likely to succeed on their petition to the Supreme Court, Defendants will be irreparably harmed absent a stay, Plaintiffs will not be harmed by a stay, and the public interest would be well-served by a stay. To ensure that the Ninth Circuit and Supreme Court have adequate time to consider, if necessary, the government's requests for relief before trial is set to begin on October 29, 2018, the United States seeks expedited consideration of this motion. Absent a stay from this Court, the government plans to seek a stay from the Ninth Circuit next week.

MEMORANDUM OF LAW IN SUPPORT OF MOTION TO STAY

Procedural History

This Court is familiar with the background and procedural history of this case. As relevant here, Plaintiffs brought this action in August 2015 against President Obama (for whom President Trump was later substituted), the Executive Office of the President, three sub-components within that office, and eight departments and federal agencies, for allegedly violating their rights under the Constitution and a purported federal public trust. Am. Compl., ECF No. 7. Plaintiffs ask this Court to, *inter alia*, order Defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." *Id.*, Prayer for Relief ¶ 7. Defendants moved to dismiss Plaintiffs' claims on several grounds, including lack of standing, failure to state a cognizable constitutional claim, and failure to state a claim on a public trust theory. ECF No. 27. In November 2016, this Court

[1] Pursuant to Local Rule 7-1(a), the parties conferred on this motion and the request for expedition. Plaintiffs oppose this motion and the request for expedited consideration.

denied that motion, and later declined to certify its order for interlocutory appeal. Nov. 10, 2016 Opinion and Order, ECF No. 83; June 8, 2017 Order, ECF No. 172.

Defendants petitioned the Ninth Circuit for a writ of mandamus. Petition for Writ of Mandamus, ECF No. 177. The court of appeals stayed the litigation for seven-and-a-half months, but ultimately denied the petition without prejudice. *United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d 830, 838 (9th Cir. 2018). Specifically, that court "decline[d] to exercise [its] discretion to grant mandamus relief at [that] stage of the litigation," in part because no discovery orders had yet been filed. *Id.* at 835. That court explained, however, that "[c]laims and remedies often are vastly narrowed as litigation proceeds," and that it had "no reason to assume this case will be any different." *Id.* at 838. The Ninth Circuit also reiterated that Defendants could continue to "raise and litigate any legal objections they have," including by "seek[ing] protective orders," moving to "dismiss the President as a party," and seeking "summary judgment on the claims." *Id.* at 835-38. That court added that Defendants remain free to "seek[] mandamus in the future." *Id.* at 838.

Following the Ninth Circuit's decision on the petition for a writ of mandamus, the United States filed a Motion for Judgment on the Pleadings with this Court, ECF No. 195, wherein it asserted that Plaintiffs' claims should be dismissed in their entirety, both for the reasons set forth in that motion and for the reasons previously set forth in the Motion to Dismiss. *Id.* at 1. The United States also filed a Motion for Summary Judgment, ECF No. 207, wherein it asserted that the Court should enter judgment in favor of the United States on all of Plaintiffs' claims. *Id.* at 30. The United States also moved for a protective order precluding all discovery. Defs.' Mot. for a Protective Order and for a Stay of All Discovery, ECF No. 196. In June 2018, the Court denied the United States' motion for a protective

order. June 29, 2018 Order, ECF No. 300.

In July 2018, following the denial of the motion for a protective order, and while the two dispositive motions were pending, the United States sought relief from both the court of appeals and the Supreme Court. Petition for a Writ of Mandamus and Emergency Mot. for a Stay, ECF No. 308-1; Application for a Stay Pending Disposition by the U.S. Ct. of Appeals for the Ninth Cir., ECF No. 321-1. Both courts denied the requested relief without prejudice. The Ninth Circuit determined that "[a]bsent a specific discovery order, mandamus relief remains premature." July 20, 2018 Op. at 9, ECF No. 326-1. The Supreme Court denied the United States' application "without prejudice" because it was "premature." July 30, 2018 Order in Pending Case, ECF 330-1. The Supreme Court also stated that "[t]he breadth of respondents' claims is striking, however, and the justiciability of those claims presents substantial grounds for difference of opinion." *Id.* It instructed this Court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." *Id.*

The Supreme Court clearly referenced the standard for certification in 28 U.S.C. § 1292(b), which provides: "When a district judge, in making in a civil action an order not otherwise appealable under this section, shall be of the opinion that such order involves a controlling question of law as to which there is *substantial ground for difference of opinion* and that an immediate appeal from the order may materially advance the ultimate termination of the litigation, he shall so state in writing in such order." (emphasis added).

It has been 79 days since the hearing on the government's dispositive motions and 67 days since the Supreme Court noted the need for a "prompt ruling" on those motions. *See* July 18, 2018 Min. of Proceedings, ECF No. 323; July 30, 2018 Order in Pending Case, ECF 330-1.

Trial is scheduled to begin on October 29, 2018, and given the number of witnesses and claims, is expected to last approximately 50 days. April 24, 2018 Minute Order, ECF No. 192; April 2, 2018 Hrg. Tr. 7:22-8:7, ECF No. 191. Nevertheless, the Court has not yet resolved the government's dispositive motions, and has suggested that it has no intention of delaying trial absent an order from a higher court. May 10, 2018 Hrg. Tr. 27:22-25, ECF No. 244 ("Here's – here's the big picture. October 29, 2018, trial starts unless some higher court says no. So from this perspective, October 29, 2018, the trial starts."). Absent reconsideration by this Court, the government cannot wait any longer to seek such relief.

Because the United States will ask the Supreme Court to issue a stay pending its resolution of the government's forthcoming petition, we are asking this Court for a stay as well. *See* Supreme Court Rule 23.3 ("Except in the most extraordinary circumstances, an application for a stay will not be entertained unless the relief requested was first sought in the appropriate court or courts below or from a judge or judges thereof.").

Argument

Whether to issue a stay turns on four factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Nken v. Holder*, 556 U.S. 418, 433-34 (2009). The first two factors are "the most critical." *Id.* at 434. The balance of equities and consideration of the public interest merge when the government is a party. *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014). Here, all factors counsel strongly in favor of a stay of further discovery and trial pending the Supreme Court's consideration of the government's forthcoming petition.

I. The United States is likely to succeed on its petition to the Supreme Court.

The Supreme Court is likely to direct this Court to dismiss this case. Plaintiffs' claims are fundamentally flawed for three independent reasons. First, this litigation is not remotely a "Case" or "Controversy" within the meaning of Article III because: (1) Plaintiffs do not have standing to assert generalized grievances against the diffuse effects of climate change not tied to any specific action by Defendants and not redressable by any authority of a federal court; and in any event, (2) Plaintiffs may not redirect federal environmental and energy policies through the courts rather than the political process by asserting a manifestly wrong fundamental substantive due process right to certain climate conditions.

Second, even if Plaintiffs could bring justiciable claims, they would be required to do so under the Administrative Procedure Act (APA), which requires that Plaintiffs identify and target specific actions or failures to act by the federal agency defendants. The APA authorizes a reviewing court to "hold unlawful and set aside agency action" that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance of law" or "contrary to constitutional right, power, privilege, or immunity," 5 U.S.C. § 706(2)(A)-(B), and to "compel agency action unlawfully withheld or unreasonably delayed." 5 U.S.C. § 706(1). The APA thus provides a "comprehensive remedial scheme" for a "person 'adversely affected . . . by agency action" or alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. *Western Radio Servs. Co. v. United States Forest Serv.*, 578 F.3d 1116, 1122-23 (9th Cir. 2009) (citation omitted), *cert. denied*, 559 U.S. 1106 (2010); *see Wilkie v. Robbins*, 551 U.S. 537, 552-554 (2007) (describing the APA as the remedial scheme for vindicating complaints against "unfavorable agency actions"); *Webster v. Doe*, 486 U.S. 592, 607 n* (1988) (Scalia, J., dissenting) (explaining that the APA "is an umbrella statute governing

judicial review of all federal agency action" and that "if review is not available under the APA it is not available at all"). As currently formulated, Plaintiffs' claims cannot proceed because the APA allows only for challenges to "circumscribed, discrete" final agency action, and not the sort of "broad programmatic attack" on agency policies that Plaintiffs assert here. *Norton v. S. Utah Wilderness Alliance*, 542 U.S. 55, 62, 64 (2004) ("*SUWA*"); *see Lujan v. Nat'l Wildlife Fed'n*, 497 U.S. 871, 891 (1990). And a suit challenging an agency action must seek review based on the administrative record of that particular agency action, not a record developed in the court and a trial *de novo* in court. *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 743-44 (1985).

Third, Plaintiffs' claims of a fundamental right to a particular climate system and a never-before-recognized public trust obligation on the federal government plainly fail. The Supreme Court has instructed courts considering novel due process claims to "exercise the utmost care whenever . . . asked to break new ground in this field lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences, and important issues placed "outside the arena of public debate and legislative action." *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997) (quotation marks and citation omitted).

Plaintiffs ask this Court to do precisely what the Supreme Court instructed courts not to do, *i.e.* to transfer a subject from the arena of public debate and legislative action into the arena of judicial policy preferences via the Due Process Clause. The Due Process Clause protects fundamental individual rights and liberties, which are "deeply rooted in this Nation's history and tradition." *Id.* at 720-21 (citation omitted). This Court's recognition of an "unenumerated fundamental right" to a "climate system capable of sustaining human life"—an asserted right not personal or distinct to the handful of plaintiffs in this case but seemingly running to every person in the United States—lacks any pedigree in the nation's history or tradition. *cf. Obergefell v.*

Hodges, 135 S. Ct. 2584, 2602 (2015) (recognizing a fundamental right to same-sex marriage as "fundamental as a matter of history and tradition").

Plaintiffs' public trust claim is similarly unfounded. The roots of a public trust concept "trace to Roman civil law" and "can be found in the English common law on public navigation and fishing rights over tidal lands and in the state laws. . ." *PPL Montana, LLC v. Montana*, 565 U.S. 576, 603 (2012). In has been relied upon under state law in holding that the sovereign "owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 718 (Cal.) *cert. denied*, 464 U.S. 977 (1983) (citation and internal quotation marks omitted). Because the proposition of a public trust is purely a matter of *state* law that pertains only to *state* functions, *PPL Montana*, 565 U.S. at 603, Plaintiffs' efforts to invoke such a common-law concept to support a cause of action against the federal government's regulation of the fossil fuel industry and its alleged effects on the atmosphere, where no other court has done so, clearly fails.

Permitting these fatally defective claims to proceed to a 50-day trial in a case brought by a handful of individuals would impermissibly intrude on the Executive branch's authority to consider and formulate federal policy through agency procedures such as notice and comment that allow all interested parties to participate. And such a trial would violate statutory limitations on judicial review of agency decisionmaking imposed by the APA. For all of these reasons, the Supreme Court is likely to direct this Court to dismiss the case.

II. The balance of equities counsels in favor of a stay.

The remaining stay factors also weigh strongly in favor of staying discovery and trial pending the government's forthcoming petition.

A. Without a stay, the United States will be irreparably harmed.

The United States' harm is ongoing. Absent a stay, the government will be forced to proceed with a 50-day trial that is fundamentally inconsistent with Article III and the separation of powers under the Constitution, as well as the procedures Congress has prescribed in agencies' organic statutes and the APA for agencies to consider factual and legal issues concerning major policies and for the courts to review their determinations. Trial would force the government to address climate policy not through APA procedures and other agency actions authorized by statutes such as the Clean Air Act, but instead through a judicially-supervised and as-yet unknown process imposed by this Court.

That is improper. Plaintiffs' efforts to require the defendant agencies to develop and implement a comprehensive, government-wide energy policy outside of the congressionally-prescribed statutory framework runs roughshod over fundamental separation of powers principles. It violates the vesting of "legislative Power" in the Congress, U.S. CONST. art. I, § 1, and to the extent it seeks to require the President and Executive agencies to develop and implement such policies, it violates the Constitution's vesting of "executive Power . . . in a President of the United States of America." *Id.*, art. II, § 1, cl. 1. The APA limits judicial review to the administrative record of action taken within the scope of an agency's authority. 5 U.S.C. § 706. And as the Supreme Court recognized, even before enactment of the APA, permitting an agency's "finding to be attacked or supported in court by new evidence" as Plaintiffs seek to do here, improperly "substitute[s] the court for an administrative tribunal." *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 444 (1930). That would allow this Court to "usurp[] the agency's function." *Unemployment Comp. Comm'n v. Aragon*, 329 U.S. 143, 155 (1946). Yet no part of Plaintiffs' claims purports to challenge governmental action under the APA.

Absent a stay, the United States will be forced to proceed with a 50-day trial concerning Plaintiffs' efforts to obtain a decree that a court has no authority to enter—all the while violating its obligations under the APA and transgressing the separation of powers under the Constitution.

B. Plaintiffs will not be harmed by a stay.

Plaintiffs can make no credible claim that a relatively brief stay to allow the Supreme Court to consider the United States' petition will cause them irreparable harm. Plaintiffs' alleged injuries stem from the cumulative effects of CO_2 emissions, hundreds of years in the making. *See* Expert Report of James E. Hansen at 8, ECF No. 274-1. As one of Plaintiffs' own experts recognizes, climate change "is not something that can be stopped in the near term." Decl. of Harold R. Wanless ¶ 18, ECF No. 275; *see also* Expert Report of Eric Rignot, ECF No. 262-1 at 2 ("It is not clear how much of this sea level rise can be avoided by slowing down climate warming or even cooling the planet again."). A brief stay to allow the Supreme Court to consider whether a lawsuit is the appropriate means to address climate change will not appreciably harm Plaintiffs.

Conclusion

For the foregoing reasons, this Court should stay proceedings pending the resolution of the United States' forthcoming petition for a writ of mandamus, or in the alternative for a writ of certiorari, to be filed in the United States Supreme Court.

Dated: October 5, 2018

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Sean C. Duffy
LISA LYNNE RUSSELL

GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
ERIKA NORMAN (CA Bar No. 268425)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

No. 18-_____

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

In re UNITED STATES OF AMERICA, et al.

UNITED STATES OF AMERICA, et al., Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON,
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, et al., Real Parties in Interest.

On Petition for a Writ of Mandamus to the United States District Court
for the District of Oregon (No. 6:15-cv-1517-TC)

PETITION FOR A WRIT OF MANDAMUS REQUESTING A STAY OF DISTRICT COURT PROCEEDINGS PENDING SUPREME COURT REVIEW

EMERGENCY MOTION UNDER CIRCUIT RULE 27-3

JEFFREY H. WOOD
Acting Assistant Attorney General
ERIC GRANT
Deputy Assistant Attorney General
ANDREW C. MERGEN
SOMMER H. ENGELS
ROBERT J. LUNDMAN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-0943
eric.grant@usdoj.gov

Counsel for Petitioners

CIRCUIT RULE 27-3 CERTIFICATE

Pursuant to Circuit Rule 27-3(a), I hereby certify that to avoid irreparable harm to Petitioners United States of America, et al. (the government), relief is needed in less than 21 days' time.

1. Regarding Circuit Rule 27-3(a)(1), the government notified both the Clerk and counsel for Real Parties in Interest (Plaintiffs) on Thursday, October 11, 2018 of its intention to file this mandamus petition and emergency motion. The just-finalized petition and motion are being served simultaneously with filing both via the district court's CM/ECF system and via e-mail to the below-stated addresses.

2. Regarding Circuit Rule 27-3(a)(3)(i), counsel are as follows:

Counsel for the Government:

Eric Grant
(202) 514-0943
eric.grant@usdoj.gov

Andrew C. Mergen
(202) 514-2813
andy.mergen@usdoj.gov

Sommer H. Engels
(202) 353-7712
sommer.engels@usdoj.gov

Robert J. Lundman
(202) 514-2946
robert.lundman@usdoj.gov
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044

Counsel for Plaintiffs:

Julia A. Olson
(415) 786-4825
JuliaAOlson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Philip L. Gregory
(650) 278-2957
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

Andrea K. Rodgers
(206) 696-2851
Andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

3. Regarding Circuit Rule 27-3(a)(3)(ii), the facts showing the existence and nature of the claimed emergency are set forth in detail below in the Statement of the Case (pp. 3-8) and in Part II of the Argument (pp. 21-23). In brief, the government respectfully requests emergency relief in this matter because it faces an impending trial that is scheduled to begin on October 29, 2018 and is estimated to last approximately 50 trial days.

4. Regarding Circuit Rule 27-3(a)(3)(iii), Plaintiffs' counsel were notified of this mandamus petition and emergency motion via an e-mail sent on Thursday, October 11. The government's stay motion in the district, filed in that court on

Friday, October 5th and simultaneously served on Plaintiffs by that court's CM/ECF system, also stated that the government "plans to seek a stay from the Ninth Circuit next week," i.e., this week. ECF No. 361 at 2. Plaintiffs' counsel are being served with the just-finalized petition and motion simultaneously with filing both via the district court's CM/ECF system and via e-mail to the above-stated addresses.

5. Regarding Circuit Rule 27-3(a)(3)(4), as noted above, the government sought relief from the district court in a stay motion filed on Friday, October 5.

s/ Eric Grant
Eric Grant

Counsel for Petitioners

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INTRODUCTION

This suit is an attempt to redirect federal environmental and energy policies through the courts rather than through the political process. Plaintiffs assert a new and unsupported fundamental due process right to certain climate conditions, and they seek relief far beyond the authority of the defendant agencies to implement or of Article III courts to award. The Supreme Court has stated that the "breadth of [Plaintiffs'] claims is striking," and that "the justiciability of those claims presents substantial grounds for difference of opinion." ECF No. 330-1. The Supreme Court directed the district court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." *Id.*

The Supreme Court's directive to issue a "prompt" ruling came more than 70 days ago. The hearing on the government's dispositive motions came more than 80 days ago. And the trial scheduled by the district court is now less than three weeks away. Yet the district court has not ruled on the government's dispositive motions, and the court has refused to postpone the trial date.

In light of the district court's failure to act despite the Supreme Court's admonition, and in light of the district court's failure to halt these proceedings despite the Supreme Court's identification of the serious justiciability concerns with the suit, the government will file a petition for writ of mandamus or, in the

alternative, certiorari in the Supreme Court. Because we will ask the Supreme Court to issue a stay pending its resolution of that forthcoming petition, we asked the district court for a stay one week ago (ECF No. 321) — a request now under advisement — and we now ask this Court for a stay as well. *See* Supreme Court Rule 23.2 ("Except in the most extraordinary circumstances, an application for a stay will not be entertained unless the relief requested was first sought in the appropriate court or courts below or from a judge or judges thereof.").

We seek a stay in this Court through a mandamus petition, because this Court has indicated that it lacks jurisdiction to consider a motion for a stay pending Supreme Court review after this Court has denied a mandamus petition — as the Court did earlier in this case. *See In re United States*, 875 F.3d 1177, 1178 (9th Cir. 2017).[1] To ensure that the Supreme Court has adequate time to consider the government's requests for relief before the scheduled trial begins on October 29, the government respectfully seeks expedited consideration of this petition. We also ask that the Court enter a temporary stay while considering this petition.

[1] The government does not believe that the Court's decision on this issue was correct. A court of appeals has authority to issue a stay pending Supreme Court review of a decision denying a mandamus petition. But the cited opinion is binding in present circumstances.

STATEMENT OF JURISDICTION

This Court has authority to issue the requested relief pursuant to the All Writs Act, 28 U.S.C. § 1651, and Rule 21 of the Federal Rules of Appellate Procedure.

STATEMENT OF THE ISSUE

Whether this Court should exercise its authority under the All Writs Act, 28 U.S.C. § 1651, to stay district court proceedings pending Supreme Court review.

STATEMENT OF THE CASE

Plaintiffs are a group of minor children and an organization representing them. They brought this action in August 2015 against President Obama (for whom President Trump was later substituted), the Executive Office of the President, three sub-components within that office, and eight departments and federal agencies for allegedly violating their rights under the Constitution and a purported federal public trust which, they asserted, conferred on them a substantive right to certain climate conditions. *See generally* ECF No. 7 (amended complaint). Among other relief, Plaintiffs ask the district court to order the President and other officials and agencies named as defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." *Id.* at 94.

The government moved to dismiss Plaintiffs' claims on several grounds, including lack of standing, failure to state a cognizable constitutional claim, and

failure to state a claim on a public trust theory. ECF No. 27. In November 2016, the district court denied that motion, and later declined to certify its order for interlocutory appeal. *Juliana v. United States*, 217 F. Supp. 3d 1224 (D. Or. 2016), *motion to certify appeal denied*, 2017 WL 2483705 (D. Or. June 8, 2017). The court ruled that Plaintiffs had established Article III standing by alleging that they had been harmed by the effects of climate change through increased droughts, wildfires, and flooding; and that the government's regulation of (and failure to further regulate) fossil fuels had caused Plaintiffs' injuries. The court determined that it could redress those injuries by "order[ing] [the government] to cease [its] permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." 217 F. Supp. 3d at 1247-48 (quoting complaint); *see also id.* at 1242-48.

On the merits, the district court concluded that Plaintiffs had stated a claim under the Fifth Amendment's Due Process Clause and a federal public trust doctrine. *Id*. at 1248-61. The court found in the Fifth Amendment's protection against the deprivation of "life, liberty, or property, without due process of law," U.S. Const. amend. V, a previously unrecognized fundamental right to a "climate system capable

of sustaining human life," and the court determined that Plaintiffs had adequately alleged infringement of that fundamental right. 217 F. Supp. 3d at 1250. The court further determined that Plaintiffs had adequately stated a claim under a federal public trust doctrine, which it held imposes a judicially enforceable prohibition on the federal government against "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." *Id*. at 1253 (quoting amicus brief in support of Plaintiffs). Plaintiffs' claims under this public trust rationale, the court concluded, are also "properly categorized as substantive due process claims." *Id*. at 1261.

The government petitioned this Court for a writ of mandamus to halt these deeply flawed proceedings. This Court stayed the litigation for seven-and-a-half months but ultimately denied the petition without prejudice. *In re United States*, 884 F.3d 830, 838 (9th Cir. 2018). Specifically, the Court "decline[d] to exercise [its] discretion to grant mandamus relief at [that] stage of the litigation," in part because no discovery orders had yet been filed. *Id.* at 835. The Court explained, however, that "[c]laims and remedies often are vastly narrowed as litigation proceeds," and that it had "no reason to assume this case will be any different." *Id*. at 838. The Court also reiterated that the government could continue to "raise and litigate any legal objections they have," including by "seek[ing] protective orders"; moving to "dismiss the President as a party"; and seeking "summary judgment on the claims."

Id. at 835-38. The Court added that the government remains free to "seek[] mandamus in the future." *Id*. at 838.

Consistent with this Court's opinion, the government moved for judgment on the pleadings, ECF No. 195, arguing that Plaintiffs' claims should be dismissed in their entirety, and for summary judgment, ECF No. 207, arguing that the district court should enter judgment in favor of the government on all of Plaintiffs' claims. The government also moved for a protective order precluding all discovery. ECF No. 196. On June 29, 2018, the district court denied the government's motion for a protective order. ECF No. 300. On July 18, 2018, the district court held argument on the dispositive motions and took them under advisement.

While the two dispositive motions were still pending and after the district court had denied the government's motion for a protective order barring discovery, the government sought relief from both this Court and the Supreme Court. ECF No. 308-1; ECF No. 321-1. Both courts denied the requested relief without prejudice. This Court determined that "[a]bsent a specific discovery order, mandamus relief remains premature." *In re United States*, 895 F.3d 1101, 1105 (9th Cir. 2018). The Supreme Court denied the government's application "without prejudice" because it was "premature." ECF 330-1. The Court also stated that the "breadth of [Plaintiffs'] claims is striking, however, and the justiciability of those claims presents substantial grounds for difference of opinion." *Id*. It instructed the

district court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." *Id*. The Supreme Court clearly referenced the standard for certification in 28 U.S.C. § 1292(b), which provides:

> When a district judge, in making in a civil action an order not otherwise appealable under this section, shall be of the opinion that such order involves a controlling question of law as to which there is *substantial ground for difference of opinion* and that an immediate appeal from the order may materially advance the ultimate termination of the litigation, he shall so state in writing in such order.

Id. (emphasis added).

It has been more than 80 days since the hearing on the government's dispositive motions and more than 70 days since the Supreme Court indicated the need for a "prompt ruling" on those motions. As noted above, trial is scheduled to begin on October 29th, in less than three weeks' time. Given the number of claims and witnesses, the trial is expected to last approximately 50 days. ECF No. 192; ECF No. 191 at 7:22-8:7 (transcript of Apr. 2, 2018 hearing); ECF No. 352 (setting first two weeks of trial for October 29-November 2 and November 5-9, 2018). Nevertheless, the district has not yet resolved the government's dispositive motions, and has suggested that it has no intention of delaying trial absent an order from a higher court. ECF No. 244 at 27:22-25 (transcript of May 10, 2018 hearing) ("Here's — here's the big picture. October 29, 2018, trial starts unless some higher court says no. So from this perspective, October 29, 2018, the trial starts.").

Given the impending trial date, the government cannot wait any longer to seek relief from a higher court. On October 5, 2018, the government asked the district court for a stay of any further discovery and of trial pending consideration of the government's forthcoming petition for a writ of mandamus, or in the alternative for a writ of certiorari, to be filed in the United States Supreme Court. ECF No. 361 at 1-2. The district court ordered Plaintiffs to respond by October 11, 2018. ECF No. 362. Plaintiffs have responded, ECF No. 364, and so the government's request is now "under advisement" by the district court, ECF No. 362.

ARGUMENT

While this Court's precedent requires the government to file a new mandamus petition rather than a motion for a stay pending the disposition of a certiorari petition seeking review of its July 20, 2018, decision denying mandamus, *see supra* p. 2 & n.1, the relief sought by the government is in the nature of a stay pending Supreme Court review. Whether to issue a stay turns on four factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Nken v. Holder*, 556 U.S. 418, 433-34 (2009). The first two factors are "the most critical." *Id.* at 434. The balance of equities and consideration of the public interest merge when the government is a party. *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014).

While this Court's mandamus standard differs from the stay standard articulated in *Nken*, *see, e.g.*, *Bauman v. U.S. District Court*, 557 F.2d 650 (9th Cir. 1977); *In re United States*, 895 F.3d at 1104, the government here is seeking a stay pending Supreme Court review, as required by Supreme Court Rule 23.2. The stay factors set forth in *Nken* should therefore govern. In any event, even if the mandamus standard applies, the government meets it here. As explained below, this entire suit is fundamentally inconsistent with Article III, a trial on Plaintiffs' claims would contravene the APA and separation of powers, the claims are manifestly without merit, and the relief sought is beyond the authority of the defendants to implement and of any court to order.

Now that trial is imminent and the district court has failed to rule on the government's dispositive motions, this Court should enter a stay pending the Supreme Court's review of the government's mandamus petition. At a minimum, the Court should enter a temporary stay pending consideration of this petition.

I. The government's petition is likely to succeed in the Supreme Court.

The Supreme Court is likely to direct the district court to dismiss this case — or at least to stay the impending trial and resolve the government's dispositive motions, with a renewed admonition to certify any denial of those motions for interlocutory appeal pursuant to 28 U.S.C. § 1292(b). The government's success is likely because Plaintiffs' case is deeply flawed for at least three independent reasons:

(1) Plaintiffs lack standing, and this is not a case or controversy under Article III; (2) Plaintiffs have not identified particular agency action or inaction as required by the APA; and (3) Plaintiffs' claims of a fundamental substantive due process right to a particular climate system and a never-before-recognized public trust obligation on the federal government are manifestly wrong.

A. Plaintiffs lack standing, and this is not a case or controversy within the meaning of Article III.

This litigation is not remotely a "Case" or "Controversy" within the meaning of Article III because (1) Plaintiffs lack standing to assert generalized grievances against the diffuse effects of climate change that could be asserted by any person in the United States, that are not tied to any particular action or inaction by the government, and that are not redressable by any order within the authority of a federal court; and (2) in any event, Plaintiffs' attempt to redirect federal environmental and energy policies by the Executive Branch and Congress through litigation such as this is not the sort of dispute that is within a federal court's constitutional and statutory authority to entertain.

As to standing, *see, e.g.*, *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992), Plaintiffs assert generalized grievances, not particularized harms. A "generalized grievance" is not a "concrete and particularized" injury sufficient to satisfy the first prong of the standing analysis. *See, e.g.*, *Lexmark International, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1387 n.3 (2014). The injuries

claimed by Plaintiffs are not particular to them or cognizable for purposes of Article III. Rather, they involve the diffuse effects of a generalized phenomenon on a global scale. To the extent that climate-related injuries affect Plaintiffs, the effects are the same as those felt by any other person in their communities, in the United States, or throughout the world at large.

Plaintiffs also cannot show that the government policies they challenge — expressed in broad and undifferentiated terms, rather than directed to discrete agency actions — caused their asserted injuries. *See Defenders of Wildlife*, 504 U.S. at 560. Plaintiffs principally complain of the government's regulation (or lack thereof) of private parties not before the district court. When a plaintiff's alleged harms may have been caused directly by the conduct of parties other than the defendants (and only indirectly by the defendants), however, it is "substantially more difficult to meet the minimum requirement of Art[icle] III: to establish that, in fact, the asserted injury was the consequence of the defendants' actions, or that prospective relief will remove the harm." *Warth v. Seldin*, 422 U.S. 490, 504-05 (1975).

Plaintiffs cannot make that heightened showing. Among their widely scattered objections, for example, Plaintiffs claim that the United States subsidizes the fossil fuel industry. ECF No. 7, ¶¶ 171-178. But Plaintiffs cannot establish a causal link between the amorphously described policy decisions and the specific harms that they allege, as opposed to the independent actions by private persons both

within and outside the United States (nor any proof that their harms would be redressed by an order against such subsidization). Rather, Plaintiffs offer only speculation that, in the absence of such subsidization, third parties in the fossil fuel industry would alter their behavior in a manner that would affect Plaintiffs in a particularized and concrete way. *See Washington Environmental Council v. Bellon*, 732 F.3d 1131, 1142-43 (9th Cir. 2013) ("[S]imply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries, relies on an attenuated chain of conjecture insufficient to support standing." (internal quotation marks omitted)).

Plaintiffs also cannot establish that it is likely that their asserted injuries could be redressed by an order from a federal court. To the extent that Plaintiffs seek to compel a defendant agency to exercise the authority and discretion it possesses under its organic statute, Plaintiffs have failed to identify any such specific actions or inaction, as required to challenge actions or inaction of the Executive Branch, and the district court in any event lacks authority to direct an agency to exercise that authority and discretion in any particular way. *See Norton v. Southern Utah Wilderness Alliance*, 542 U.S. 55, 63-64 (2004) (*SUWA*) (discussing historical limitations of mandamus remedy). That is all the more so where Plaintiffs seek relief without regard to the procedures in the agencies' organic statutes and the APA that afford procedural rights and an opportunity for public participation.

To the extent that Plaintiffs seek action beyond the defendant agencies' existing authority under their organic statutes, the district court lacks authority to require agencies to take such actions or to require Congress to enact new laws. *See Louisiana Public Service Commission v. FCC*, 476 U.S. 355, 374 (1986) ("[A]n agency literally has no power to act . . . unless and until Congress confers power upon it."). Plaintiffs have not even begun to articulate a remedy that could be awarded by a federal court consistent with these limitations on its authority and that could move the needle on the complex phenomenon of global climate change, much less likely redress their alleged injuries. *See Bellon*, 732 F.3d at 1147 (finding no redressability where plaintiffs failed to establish that the remedies within the district court's authority "would likely reduce the pollution causing Plaintiffs' injuries").

Even if Plaintiffs could somehow establish standing, this suit is not one that can be entertained by a federal court consistent with the Constitution. Article III vests federal courts created by Congress with the "judicial Power of the United States." The judicial power is "one to render dispositive judgments" in "Cases or Controversies" as defined by Article III. *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 218-19 (1995) (internal quotation marks omitted). It can "come into play only in matters that were the traditional concern of the courts at Westminster" and only when those matters arise "in ways that to the expert feel of lawyers constituted 'Cases' or 'Controversies.'" *Vermont Agency of Natural Resources v. United States*

ex rel. Stevens, 529 U.S. 765, 774 (2000) (internal quotation marks omitted). As such, the "necessary restrictions on [a court's] jurisdiction and authority contained in Article III of the Constitution limit the judiciary's institutional capacity to prescribe palliatives for societal ills." *Missouri v. Jenkins*, 515 U.S. 70, 112 (1995) (O'Connor, J., concurring).

Plaintiffs' suit is not remotely such a case or controversy cognizable under Article III. Plaintiffs ask the district court to review and assess the entirety of the Executive Branch's programs and policies relating to climate change — including actions that the Executive Branch has not taken, and even ones that are beyond the authority of Executive Branch agencies to take — and then to pass upon the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. *See, e.g.*, ECF No. 7, ¶¶ 277-310. And Plaintiffs ask the district court to do so under the Due Process Clause, a provision designed to protect discrete and personal individual rights, not to furnish a vehicle to require an affirmative judicial restructuring of the operations of the Executive Branch and the United States Government at large with respect to broad policies affecting all persons throughout the country. No federal court has ever purported to use the "judicial power" to perform such a review — and for good reason: the Constitution commits the power to oversee the Executive Branch, draw on its expertise, and formulate policy programs to the President, not to Article III courts. *See* U.S. Const. art. II, § 2, cl. 1;

id. art. II, § 3; *cf. Cheney v. U.S. District Court*, 542 U.S. 367, 385 (2004). And it commits to Congress the power to alter the authority conferred by the organic statutes under which Executive Branch agencies operate.

B. Plaintiffs must challenge specified agency actions or inaction under the APA based on the administrative record.

Even if this suit could proceed within the boundaries of Article III, it would have to be targeted at specifically identified agency actions or alleged failures to act, and review would have to be based on the administrative record for those actions. The APA provides that a "person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702. Review is presumptively limited to "final agency action," *id*. § 704, and the statute authorizes a reviewing court to "hold unlawful and set aside agency action" that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or "contrary to constitutional right, power, privilege, or immunity," *id*. § 706(2), and to "compel agency action unlawfully withheld or unreasonably delayed," *id*. § 706(1). In so authorizing, the APA provides a "comprehensive remedial scheme" for "persons adversely affected by agency action" or alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. *Western Radio Services Co. v. U.S. Forest Service*, 578 F.3d 1116, 1122-23 (9th Cir. 2009).

Plaintiffs allege that a large number of (mostly unspecified) "agency action[s]" and inaction are "contrary to constitutional right." 5 U.S.C. §§ 702, 706. They allege, in various forms, that the government has "knowingly endangered plaintiffs' health and welfare by approving and promoting fossil fuel development, including exploration, extraction, production, transportation, importation, exportation, and combustion, and by subsidizing and promoting this fossil fuel exploitation." ECF No. 7, ¶ 280. Plaintiffs allege that the government has done so through a series of broad and unspecified agency actions: the leasing of lands for mineral development; the permitting of oil and gas wells, coal mines, pipelines, and power plants; the development of management plans for federal lands; and the implementation of rulemakings that govern mineral development, to name a few. *See, e.g.*, *id*. ¶¶ 5, 7, 12, 163, 292, 298, 305. Each of the individual agency decisions encompassed by Plaintiffs' challenge — each lease, each permit, each rulemaking, each management plan — is a separate "agency action." 5 U.S.C. §§ 551(13), 701, 702, 704, 706. Plaintiffs' claims are therefore reviewable, if at all, only under the APA and on the basis of the administrative record for each of those specific actions. *See Florida Power & Light Co. v. Lorion*, 470 U.S. 729, 743-44 (1985) ("The task of the reviewing court is to apply the appropriate APA standard of review, 5 U.S.C. § 706, to the agency decision based on the record the agency presents to the reviewing court.").

Plaintiffs' claims cannot proceed under the APA, however, because the Act allows only for challenges to "circumscribed, discrete" final agency action, not the sort of "broad programmatic attack" on agency policies that Plaintiffs assert here. *SUWA*, 542 U.S. at 62, 64; *accord Lujan v. National Wildlife Federation*, 497 U.S. 871, 891 (1990). Plaintiffs expressly cast their claims as a challenge to "affirmative aggregate actions" by the numerous defendant agencies that "permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels." ECF No. 7, ¶¶ 1, 5. But the Supreme Court has explained that only "discrete agency action" may be challenged under the APA, *SUWA*, 542 U.S. at 64, and "aggregate actions" are the antithesis of "discrete" ones.

There is nothing talismanic about Plaintiffs' assertion of *constitutional* claims. Section 706 of the APA expressly states that judicial review extends to alleged constitutional violations: "The reviewing court shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . contrary to *constitutional* right, power, privilege, or immunity." 5 U.S.C. § 706(2)(B) (emphasis added); *see also Webster v. Doe*, 486 U.S. 592, 603-04 (1988) (holding that Due Process Clause and Equal Protection Clause claims may proceed under the APA's provisions for judicial review).

C. Plaintiffs' claims are manifestly without merit.

Finally, even if a court could reach the merits of Plaintiffs' constitutional theories, they plainly fail. In denying the government's motion to dismiss, the district court concluded that Plaintiffs stated two related claims based on substantive due process: (1) a previously unidentified judicially enforceable fundamental right to "a climate system capable of sustaining human life"; and (2) a federal public trust doctrine to the same effect. *See supra* pp. 4-5. Both of these claims are manifestly wrong.

The Supreme Court has instructed courts considering novel due process claims to "exercise the utmost care whenever we are asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences, and lest important issues be placed "outside the arena of public debate and legislative action." *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997). The Court has "regularly observed that the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, 'deeply rooted in this Nation's history and tradition.' " *Id*. at 720-21 (quoting *Moore v. City of East Cleveland*, 431 U.S. 494, 503 (1977) (plurality opinion)). The district court's recognition of "an unenumerated fundamental right" to "a climate system capable of sustaining human life," 217 F. Supp. 3d at 1249-50, bears no resemblance to the sort of distinctly personal rights and liberties protected by the Due Process

Clause, has no basis in this Nation's history or tradition, and threatens to wrest fundamental policy issues of energy development and environmental regulation from "the arena of public debate and legislative action," *Glucksberg*, 521 U.S. at 720 — and from the agency processes that Congress has prescribed for considering and implementing regulatory policies by the Executive — into the supervision of the federal courts — indeed, here, into a single district court, in a suit brought by a few individuals with one perspective.

In no other case has a court found a fundamental right remotely comparable to a right to a particular "climate system" or to other aspects of the physical environment. Although the district court relied on the recognition of a fundamental right to same-sex marriage in *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015), it is obvious that there is no relationship between a personal and circumscribed right to same-sex marriage and the alleged right to a climate system capable of sustaining human life that apparently would run to every individual in the United States.

Plaintiffs' state-created danger theory, ECF No. 7, ¶¶ 280-289, is equally flawed. As a general matter, the Due Process Clause "is phrased as a limitation on the State's power to act, not as a guarantee of certain minimal levels of safety and security." *DeShaney v. Winnebago County Department of Social Services*, 489 U.S. 189, 195 (1989). The Due Process Clause thus imposes no affirmative duty to protect a person who is not in state custody, and the limited exception recognized by

this Court (involving circumstances in which a governmental body has control over a particular individual's person and places him in imminent peril) has no application here. *See, e.g.*, *Penilla v. City of Huntington Park*, 115 F.3d 707, 710 (9th Cir. 1997); *Wood v. Ostrander*, 879 F.2d 583, 588 (9th Cir. 1989).

Plaintiffs' public trust claim fares no better. Plaintiffs attempt to invoke that rationale to impose judicially enforceable, extra-statutory obligations on the federal government's regulation of the fossil fuel industry and its alleged effects on the atmosphere. But Plaintiffs fail to identify a single decision applying a public trust doctrine in this novel manner. Even if such a non-constitutional doctrine could ever limit a sovereign's regulation of private parties, Plaintiffs' claim is unavailing because, as the Supreme Court and this Court have "repeatedly recognized," any such doctrine is purely a matter of state law and pertains only to a state's sovereign duties and power. *United States v. 32.42 Acres of Land*, 683 F.3d 1030, 1038 (9th Cir. 2012); *see also, e.g.*, *PPL Montana, LLC v. Montana*, 565 U.S. 576, 603 (2012) ("[T]he public trust doctrine remains a matter of state law."). Moreover, even if a common law public trust doctrine could ever constrain the federal government's protection of the atmosphere, it has been displaced by the Clean Air Act. That Act defines the scope of EPA's duties to regulate greenhouse gas emissions and the extent to which federal courts may enforce those duties. *See American Electric Power v. Connecticut*, 564 U.S. 410, 424 (2011). Indeed, the D.C. Circuit rejected

a nearly identical public trust claim as "insubstantial, implausible, [and] completely devoid of merit" in a recent suit brought by Plaintiffs' counsel. *Alec L. ex rel. Loorz v. McCarthy*, 561 Fed. Appx. 7 (D.C. Cir.), *cert. denied*, 135 S. Ct. 774 (2014).

The Supreme Court is likely to accept at least one of these arguments and ultimately grant the government relief that would obviate the impending trial. Therefore, the government is likely to succeed on its petition to the Supreme Court.

II. The balance of the equities counsels in favor of a stay.

The remaining stay factors also weigh strongly in favor of staying further discovery and trial pending the government's forthcoming petition to the Supreme Court.

A. Without a stay, the government will be irreparably harmed.

Absent a stay, the government will be forced to proceed with a 50-day trial that is fundamentally inconsistent with Article III and the separation of powers under the Constitution, as well as with procedures Congress has prescribed in agencies' organic statutes and the APA for agencies to consider factual and legal issues concerning major policy and for the courts to review their determinations. Trial would force the government to address climate-change policy not in APA rulemakings and other agency actions authorized by statutes such as the Clean Air Act, but in a single trial court in Oregon. These injuries would be caused by the trial itself, and so they could not be remedied on appeal. *See Ninilchik Traditional*

Council v. United States, 227 F.3d 1186, 1194 (9th Cir. 2000) (explaining that APA judicial review provisions "function[] as a default judicial review standard").

That is improper. Plaintiffs' efforts to require the defendant agencies to develop and implement a comprehensive, government-wide energy policy outside of the congressionally-prescribed statutory framework runs roughshod over fundamental separation of powers principles. It violates the vesting of "legislative Power" in the Congress, U.S. Const. art. I, § 1, and to the extent it seeks to require the President and executive agencies to develop and implement such policies, it violates the Constitution's vesting of "executive Power . . . in a President of the United States," *id.*, art. II, § 1, cl. 1.

The APA limits judicial review to the administrative record of action taken within the scope of an agency's authority. 5 U.S.C. § 706. As the Supreme Court recognized, even before enactment of the APA, permitting an agency's "finding to be attacked or supported in court by new evidence" as Plaintiffs seek to do here, improperly "substitute[s] the court for an administrative tribunal." *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 444 (1930). That would allow this Court to "usurp[] the agency's function." *Unemployment Compensation Commission v. Aragon*, 329 U.S. 143, 155 (1946). Yet no part of Plaintiffs' claims purports to challenge governmental action under the APA. Absent a stay, the government will be forced to prepare for and endure a 50-day trial concerning Plaintiffs' efforts to

obtain a decree by a federal court concerning various factual and predictive matters and conceivable regulatory measures in a suit against the President and numerous Executive officials and agencies without regard to the substantive and procedural measures that Congress has provided for agencies to participate in such matters. No court has authority to enter such a decree or to conduct proceedings directed to such a decree — all the while violating its obligations under the APA and transgressing the separation of powers under the Constitution.

B. Plaintiffs will not be harmed by a stay.

On the other side of the balance, Plaintiffs can make no credible claim that a relatively brief stay to decide the government's mandamus petition will cause them irreparable harm. Plaintiffs' alleged injuries stem from the cumulative effects of CO_2 emissions, hundreds of years in the making. *See* ECF No. 274-1 at 8 (expert report of James E. Hansen). As one of Plaintiffs' own experts recognizes, climate change "is not something that can be stopped in the near term." ECF No. 275, ¶ 18 (declaration of Harold R. Wanless); *see also* ECF No. 262-1 at 2 (expert report of Eric Rignot) ("It is not clear how much of this sea level rise can be avoided by slowing down climate warming or even cooling the planet again."). A brief stay to allow the Supreme Court to consider whether this suit is a permissible and appropriate means to address climate change will not appreciably harm Plaintiffs.

III. The Court should stay discovery and trial pending resolution of this petition.

At a minimum, given the impending trial date, the government asks this Court to stay all discovery and trial while it considers this mandamus petition. *See* 9th Cir. General Order 6.8a (providing that the motions panel "may also issue a stay or injunction pending further consideration of the application").[2] The government will file its petition for a writ of mandamus or, in the alternative for a writ of certiorari, in the Supreme Court by Wednesday, October 17. Such a filing is necessary to give the Supreme Court ample time to consider the petition before the October 29 trial date, and also to comply with the deadline to file a petition for a writ of certiorari seeking review of this Court's July 2018 decision denying the government's prior mandamus petition.

CONCLUSION

For the foregoing reasons, this Court should issue a writ of mandamus to stay district court proceedings, specifically including the trial scheduled for Monday, October 29, pending the resolution of the government's forthcoming petition in the Supreme Court.

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[2] Although Federal Rule of Appellate Procedure 8(a)(1) does not expressly refer to a stay pending review of a petition for a writ of mandamus under Rule 21, the government has nevertheless asked the district court for a stay pending resolution of this petition for mandamus. *See supra* p. 8.

Dated: October 12, 2018.

Respectfully submitted,

s/ Eric Grant

JEFFREY H. WOOD
Acting Assistant Attorney General
ERIC GRANT
Deputy Assistant Attorney General
ANDREW C. MERGEN
SOMMER H. ENGELS
ROBERT J. LUNDMAN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice

Counsel for Petitioners

STATEMENT OF RELATED CASES

There are two related cases within the meaning of Circuit Rule 28-2.6, namely, the government's prior petitions for a writ of mandamus: *In re United States*, 884 F.3d 830 (9th Cir. 2018) (No. 17-71692); and *In re United States*, 895 F.3d 1102, 1105 (9th Cir. 2018) (No. 18-71928).

CERTIFICATE OF COMPLIANCE

I certify that this petition complies with the length limits permitted by Circuit Rules 21-2(c) and 32-3(2), i.e., 8,400 words. The petition is 5,921 words, excluding the portions exempted by Federal Rule of Appellate Procedure 32(f). The petition's type size and type face comply with Federal Rule of Appellate Procedure 32(a)(5) and (6).

s/ Eric Grant
Eric Grant

Counsel for Petitioners

CERTIFICATE OF SERVICE

I hereby certify that on October 12, 2018, I electronically filed the foregoing petition with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system.

On this date, a notice of filing of this petition, including the petition itself, will be lodged in the district court in the underlying matter, and service in compliance with Federal Rule of Appellate Procedure 21(a)(1) will be accomplished through the district court's CM/ECF system. All counsel in this case are participants in the district court's CM/ECF system. In addition, a courtesy copy of the foregoing brief has been provided via e-mail to the following counsel:

Julia A. Olson
JuliaAOlson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Philip L. Gregory
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

Daniel M. Galpern
Dan.Galpern@gmail.com
Law Offices of Daniel M. Galpern
1641 Oak Street
Eugene, Oregon 97401

Andrea K. Rodgers
Andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

s/ Eric Grant
Eric Grant

Counsel for Petitioners

No.

In the Supreme Court of the United States

IN RE UNITED STATES OF AMERICA, ET AL., PETITIONERS

ON PETITION FOR A WRIT OF MANDAMUS TO THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON

PETITION FOR A WRIT OF MANDAMUS

NOEL J. FRANCISCO
Solicitor General
Counsel of Record
JEFFREY H. WOOD
Acting Assistant Attorney General
JEFFREY B. WALL
EDWIN S. KNEEDLER
Deputy Solicitors General
ERIC GRANT
Deputy Assistant Attorney General
JONATHAN Y. ELLIS
CHRISTOPHER G. MICHEL
Assistants to the Solicitor General
ANDREW C. MERGEN
SOMMER H. ENGELS
ROBERT J. LUNDMAN
Attorneys

Department of Justice
Washington, D.C. 20530-0001
SupremeCtBriefs@usdoj.gov
(202) 514-2217

QUESTIONS PRESENTED

In 2015, plaintiffs—21 minors, an environmental advocacy organization, and a guardian purporting to represent future generations—sued the United States, the President, eight Executive Branch agencies, and other federal defendants for depriving them of an asserted right to "a climate system capable of sustaining human life" under the Due Process Clause of the Fifth Amendment and related legal theories. As relief, plaintiffs ask the district court to order the federal defendants to "move to swiftly phase out CO_2 emissions, as well as take such other action as necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." After three years of litigation, trial is set to begin on October 29, 2018. The questions presented are as follows:

1. Whether this suit is justiciable under Article III.

2. Whether this suit should be dismissed for failure to comply with the requirements of the Administrative Procedure Act, 5 U.S.C. 551 *et seq.*

3. Whether this suit should be dismissed because there is no right to "a climate system capable of sustaining human life" under the Due Process Clause or a public-trust doctrine.

PARTIES TO THE PROCEEDING

Petitioners (defendants in the district court, and mandamus petitioners in the court of appeals) are the United States of America; Donald J. Trump, in his official capacity as the President of the United States*; Office of the President of the United States; the Director of Council on Environmental Quality; Mick Mulvaney, in his official capacity as the Director of the Office of Management and Budget; the Director of the Office of Science and Technology Policy; U.S. Department of Agriculture; Sonny Perdue, in his official capacity as the Secretary of Agriculture; U.S. Department of Commerce; Wilbur Ross, in his official capacity as the Secretary of Commerce; U.S. Department of Defense; James N. Mattis, in his official capacity as the Secretary of Defense; U.S. Department of Energy; Rick Perry, in his official capacity as the Secretary of Energy; U.S. Environmental Protection Agency (EPA); Andrew R. Wheeler, in his official capacity as the Acting Administrator of the EPA; U.S. Department of the Interior; Ryan Zinke, in his official capacity as the Secretary of the Interior; U.S. Department of State; Michael R. Pompeo, in his official capacity as the Secretary of State; U.S. Department of Transportation; and Elaine Chao, in her official capacity as the Secretary of Transportation.

Respondent in this Court is the United States District Court for the District of Oregon. Respondents also

* On October 15, 2018, the district court dismissed President Trump from the suit without prejudice. See App., *infra*, 77a. The government opposes that relief because the President should be dismissed with prejudice. The President accordingly joins in this petition for a writ of mandamus.

include Kelsey Cascadia Rose Juliana; Xiuhtezcatl Tonatiuh M., through his Guardian Tamara Roske-Martinez; Alexander Loznak; Jacob Lebel; Zealand B., through his Guardian Kimberly Pash-Bell; Avery M., through her Guardian Holly McRae; Sahara V., through her Guardian Toña Aguilar; Kiran Isaac Oommen; Tia Marie Hatton; Isaac V., through his Guardian Pamela Vergun; Miko V., through her Guardian Pamela Vergun; Hazel V., through her Guardian Margo Van Ummersen; Sophie K., through her Guardian Dr. James Hansen; Jaime B., through her Guardian Jamescita Peshlakai; Journey Z., through his Guardian Erika Schneider; Victoria B., through her Guardian Daisy Calderon; Nathaniel B., through his Guardian Sharon Baring; Aji P., through his Guardian Helaina Piper; Levi D., through his Guardian Leigh-Ann Draheim; Jayden F., through her Guardian Cherri Foytlin; Nicholas V., through his Guardian Marie Venner; Earth Guardians, a nonprofit organization; and future generations, through their Guardian Dr. James Hansen (collectively plaintiffs in the district court, and real parties in interest in the court of appeals).

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In the Supreme Court of the United States

No.

IN RE UNITED STATES OF AMERICA, ET AL., PETITIONERS

ON PETITION FOR A WRIT OF MANDAMUS TO THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON

PETITION FOR A WRIT OF MANDAMUS

The Solicitor General, on behalf of the United States and the other federal defendants, respectfully petitions for a writ of mandamus to the United States District Court for the District of Oregon. In the alternative, the Solicitor General respectfully requests that the Court treat this petition as a petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Ninth Circuit, or as a petition for a common-law writ of certiorari to review the district court's decisions on the government's dispositive motions.

OPINIONS BELOW

The opinion of the district court denying a motion for judgment on the pleadings and a motion for summary judgment (App., *infra*, 1a-77a) is not published in the Federal Supplement but is available at 2018 WL 4997032. The opinions of the court of appeals denying petitions for a writ of mandamus (App., *infra*, 78a-85a, 91a-103a) are reported at 895 F.3d 1101 and 884 F.3d 830. The opinion of the district court denying a motion to dismiss (App., *infra*, 104a-200a) is reported at 217 F. Supp. 3d 1224.

JURISDICTION

The jurisdiction of this Court is invoked under 28 U.S.C. 1651. In the alternative, the jurisdiction of this Court is invoked under 28 U.S.C. 1254(1). The judgment of the court of appeals was entered on July 20, 2018.

STATEMENT

1. This suit was filed in 2015 by 21 minor children, a "tribe of young activists, artists and musicians from across the globe" known as Earth Guardians, and "Future Generations" of humans "by and through their" self-appointed guardian, Dr. James Hansen. Am. Compl. ¶¶ 91-92; see *id.* ¶¶ 16-90. The plaintiffs (respondents here) sued President Obama, eight Cabinet-level departments and agencies, and various other federal agencies and officials. *Id.* ¶¶ 98-128. President Trump and officials in his administration were later substituted for President Obama and officials in his administration.

Respondents allege that petitioners—and their predecessors in government dating back more than 50 years to President Lyndon Johnson's administration—have "known of the unusually dangerous risks of harm to human life, liberty, and property that would be caused by continued fossil fuel burning," and have "willfully ignored this impending harm." Am. Compl. ¶ 5. Because the federal government has "permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels," respondents allege that petitioners have "deliberately allowed atmospheric CO_2 concentrations to escalate to levels unprecedented in human history, resulting in a dangerous destabilizing climate system." *Ibid.*

Respondents allege that petitioners' "aggregate actions and deliberate omissions" have violated their

"substantive Fifth Amendment rights" because petitioners "directly caused atmospheric CO_2 to rise to levels that dangerously interfere with a stable climate system." Am. Compl. ¶¶ 279, 281. Respondents further allege that petitioners have violated (1) their rights under the equal protection principles of the Due Process Clause by "causing irreversible climate change" and thereby failing to provide respondents "the same protection of fundamental rights afforded to prior and present generations," *id.* ¶ 292; (2) their "right to be sustained by our country's vital natural systems, including our climate system," which they contend is protected by the Ninth Amendment, *id.* ¶ 303; and (3) their rights under a supposed federal "public trust doctrine," *ibid.*

Respondents seek to prove these asserted constitutional violations through a bench trial. As relief, respondents ask the district court to order the federal government to "cease [its] permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions," and to "take such other action as necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." Am. Compl. ¶ 12 (emphasis omitted). To ensure "compliance with the national remedial plan," respondents ask the court to "[r]etain jurisdiction" indefinitely. *Id.* at 94.

2. In November 2015, the government moved to dismiss the complaint for lack of jurisdiction and failure to state a claim. D. Ct. Doc. 27 (Nov. 17, 2015). The district court denied that motion. App., *infra*, 104a-200a. While recognizing that "[t]his is no ordinary lawsuit,"

the court found that respondents had adequately alleged the elements of Article III standing and had stated a claim on the merits. *Id.* at 106a.

With respect to standing, the district court concluded that respondents had adequately alleged injuries in the form of increased droughts, wildfires, flooding, and other effects of climate change, and that those injuries were caused by the government's regulation of (and failure to further regulate) fossil fuels. App., *infra*, 125a-134a. The court further concluded that it could redress respondents' alleged injuries by granting the relief sought, including ordering the federal government "to cease [its] permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions" and to "take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." *Id.* at 137a (citation omitted); see *id.* at 134a-137a.

On the merits, the district court concluded that respondents had stated a claim under the Fifth Amendment's Due Process Clause. App., *infra*, 137a-147a. Relying primarily on this Court's decision in *Obergefell* v. *Hodges*, 135 S. Ct. 2584 (2015), as well as *Roe* v. *Wade*, 410 U.S. 113 (1973), and a 1993 decision from the Supreme Court of the Philippines, the district court found in the Fifth Amendment's protection against the deprivation of "life, liberty, or property, without due process of law," U.S. Const. Amend. V, a previously unrecognized "fundamental right * * * to a climate system capable of sustaining human life." App., *infra*, 142a; see *id.* at 140a-142a.

The district court further determined that respondents had adequately stated a claim under a federal public-trust theory. App., *infra*, 147a-167a. The court acknowledged this Court's statement that "the public trust doctrine remains a matter of state law," *PPL Montana, LLC* v. *Montana*, 565 U.S. 576, 603 (2012), as well as the D.C. Circuit's rejection of a federal public-trust doctrine, see *Alec L. ex rel. Loorz* v. *McCarthy*, 561 Fed. Appx. 7, 8 (per curiam), cert. denied, 135 S. Ct. 774 (2014). But the court nevertheless concluded that a public-trust doctrine imposes a judicially enforceable prohibition on the federal government against "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." App., *infra*, 148a (citation omitted).

The district court acknowledged the government's arguments that "recognizing [respondents'] standing to sue, deeming the controversy justiciable, and recognizing a federal public trust and a fundamental right to a climate system capable of sustaining human life would be unprecedented," but rejected the premise that the unprecedented nature of those decisions "alone requires * * * dismissal." App., *infra*, 167a. The court expressed its view that "[f]ederal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it." *Id.* at 167a-168a. The court invoked the "failure of the legal system to protect humanity from the collapse of finite natural resources by the uncontrolled pursuit of short-term profits," and stated that the "third branch can, and should, take another long and careful look at the barriers to litigation created by modern doctrines of subject-matter jurisdiction and deference to the legislative and administrative branches." *Id.* at 168a (citation omitted).

The district court subsequently declined the government's request to certify its decision denying the motion to dismiss for interlocutory appeal under 28 U.S.C. 1292(b). See *Juliana* v. *United States*, No. 15-cv-1517, 2017 WL 2483705, at *2 (June 8, 2017).

3. The government petitioned the Ninth Circuit for a writ of mandamus ordering dismissal of the suit. The government contended that allowing respondents' claims to proceed contravened fundamental limitations on judicial review imposed by Article III of the Constitution, and that the district court had clearly erred in recognizing a sweeping new fundamental right to certain climate conditions under the Due Process Clause and a federal public-trust theory. The government further requested a stay of the litigation pending the court of appeals' consideration of the mandamus petition.

On July 25, 2017, the court of appeals granted the government's request for a stay. See App., *infra*, 7a-8a, 94a. But after considering the petition for nearly eight more months, the court in March 2018 "decline[d] to exercise [its] discretion to grant mandamus relief at th[at] stage of the litigation." *Id.* at 103a; see *id.* at 91a-103a. The court recognized that "some of [respondents'] claims as currently pleaded are quite broad, and some of the remedies [respondents] seek may not be available as redress." *Id.* at 103a. The court reasoned, however, that "the district court need[ed] to consider those issues further in the first instance." *Ibid.* The court "underscore[d] that this case [wa]s at a very early stage, and that the [government] [would] have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders." *Id.* at 101a. The

court also observed that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that it had "no reason to assume this case will be any different." *Id.* at 103a. And the court stated that the governmental defendants could continue to "raise and litigate any legal objections they have," including by challenging future discovery orders; moving to "dismiss the President as a party"; "reasserting a challenge to standing, particularly as to redressability"; "seeking mandamus in the future"; or "asking the district court to certify orders for interlocutory appeal of later rulings." *Id.* at 99a, 101a-103a.

4. The government did not immediately seek this Court's review. Instead, in light of the court of appeals' identification of various means by which the government could contest the suit, the government filed a series of motions in the district court seeking to terminate the case or at least narrow respondents' claims.

First, the government filed a motion for judgment on the pleadings, reiterating its prior arguments for dismissal and setting forth three new grounds for dismissing some or all of respondents' claims: (1) the President must be dismissed because the court lacks jurisdiction to enjoin him in the performance of his official duties; (2) respondents' claims must be dismissed because the Administrative Procedure Act (APA), 5 U.S.C. 551 *et seq.*, provides the mechanism for challenging the federal administrative actions that underlie respondents' claims, but respondents fail to challenge discrete, identified agency actions or alleged failures to act, as the APA requires; and (3) in any event, respondents' claims and requested relief violate the constitutional separation of powers by effectively requiring the district court to usurp the roles of Congress and the President. D. Ct. Doc. 195, at 6-25 (May 9, 2018).

Second, the government filed a motion for a protective order barring all discovery. D. Ct. Doc. 196 (May 9, 2018). The government argued that, because this case may proceed only under the APA, judicial review must be based on the administrative record of specifically identified actions or decisions, not on discovery. *Id.* at 9-14. The government also contended that, even if review were not otherwise limited to the administrative record of specific agency actions, discovery in this case would be independently barred by the procedural requirements that the APA and the agencies' organic statutes impose on agency fact-finding and decision-making (including the requirements for public participation) and the separation of powers. *Id.* at 14-19.

Third, the government filed a motion for summary judgment, arguing that (1) respondents lack standing as a matter of law and as judged against the evidentiary record, and the suit is not a proper case or controversy within the meaning of Article III; (2) respondents have failed to identify a right of action for their claims apart from the APA and have not satisfied the APA's requirement to challenge discrete agency actions or inactions; and (3) respondents' claims fail on the merits. D. Ct. Doc. 207, at 5-19, 24-30 (May 22, 2018).

5. On May 25, 2018, the magistrate judge denied the government's motion for a protective order. App., *infra*, 88a-90a. He rejected the government's argument that any challenges to the agencies' actions or failures to act must proceed under the APA, concluding that respondents may proceed in a sweeping manner against all federal defendants collectively because their claims are "based on alleged violations of their constitutional rights." *Id.* at 89a. He also declined to grant a protec-

tive order based on the separation of powers, ruling instead that "[s]hould a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request." *Id.* at 90a.

The district court summarily affirmed the magistrate judge's order. App., *infra*, 86a-87a. The court stated that it had "carefully reviewed [the] order in light of [the government's] objections" and "conclude[d] that the order is not clearly erroneous or contrary to law." *Id.* at 87a. The court provided no further explanation for its decision and declined "to certify [its] decision for interlocutory appeal under 28 U.S.C. § 1292(b)." *Ibid.*

The district court set an opening trial date of October 29, 2018. See D. Ct. Doc. 189 (Mar. 26, 2018); D. Ct. Doc. 192 (Apr. 12, 2018). The court indicated its expectation that the trial will last approximately 50 trial days. See, *e.g.*, 4/12/18 Tr. 8 (Coffin, J.) (estimating "five weeks per side in essence"). And the court has repeatedly made clear that it has no intention of delaying trial. See, *e.g.*, 10/4/18 Tr. 19 (Coffin, J.) ("Th[e] trial date of October 29th is a firm trial date and will not be changed unless changed by order of an appellate court or the Supreme Court."); 5/23/18 Tr. 17 (Aiken, J.) ("[W]e have got a trial date and we are moving forward."); 5/10/18 Tr. 27 (Coffin, J.) ("October 29, 2018, trial starts unless some higher court says no.").

6. On July 5, 2018, the government again petitioned the Ninth Circuit for a writ of mandamus. The government explained that, in an effort to terminate or narrow this case, it had taken every step that the Ninth Circuit had contemplated in its prior decision. And yet the district court was moving forward with discovery and an

impending trial without narrowing the claims in any respect. The government accordingly asked the Ninth Circuit to order dismissal of this case, or, at a minimum, to direct the district court to stay all discovery and trial pending the resolution of the government's dispositive motions, and to consider certifying for interlocutory appeal any rulings on those motions.

On July 20, 2018, the court of appeals denied the government's mandamus petition without prejudice. App., *infra*, 78a-85a. The court noted that "the government has not challenged a single specific discovery request," and the "government retains the ability to challenge any specific discovery order that it believes would be unduly burdensome or would threaten the separation of powers." *Id.* at 81a-82a. The court further rejected the government's separation-of-powers argument, stating that "allowing the usual legal processes to go forward will not threaten the separation of powers in any way not correctable on appeal." *Id.* at 84a. The court denied the "mandamus petition without prejudice," adding that the "merits of the case can be resolved by the district court or in a future appeal." *Id.* at 85a.

7. While its second mandamus petition was pending before the court of appeals, the government filed a stay application in this Court. The government asked this Court to stay discovery and trial pending the Ninth Circuit's consideration of the mandamus petition. As an alternative, the government noted that the Court could direct dismissal of the case itself by construing the stay application as a petition for a writ of mandamus or a petition for a writ of certiorari.

On July 30, 2018, this Court denied the stay application "without prejudice." *United States* v. *U.S. Dist. Court*, No. 18A65, 2018 WL 3615551, at *1 (*Juliana*).

While stating that the government's application was "premature," the Court observed that the "breadth of respondents' claims is striking" and that "the justiciability of those claims presents substantial grounds for difference of opinion." *Ibid.* The Court directed the district court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." *Ibid.*

8. Despite this Court's expectation of "a prompt ruling on the Government's pending dispositive motions," *Juliana*, 2018 WL 3615551, at *1, the district court issued no ruling on those motions for more than two months after this Court's order, which itself came more than two months after the motions were filed. With the trial date of October 29 just weeks away, the government on October 5 filed another stay request with the district court. The government informed the court that it planned to file a petition for a writ of mandamus (or, in the alternative, a petition for a writ of certiorari) with this Court, and asked the district court to stay discovery and trial pending this Court's resolution of that petition. See D. Ct. Doc. 361 (Oct. 5, 2018). The court called for a response and took the stay motion under advisement. See D. Ct. Doc. 362 (Oct. 9, 2018). The court ultimately denied the request. See D. Ct. Doc. 374 (Oct. 15, 2018).

One week after asking the district court for a stay, the government asked the court of appeals to stay discovery and trial pending this Court's review of the government's petition. At the time this petition was printed, the court of appeals had not yet acted on that request.[1]

[1] Under Ninth Circuit precedent, the court of appeals lacks jurisdiction to consider a motion for a stay pending Supreme Court review after the court of appeals has denied a mandamus petition. See

9. On October 15, 2018—roughly five months after the government's dispositive motions were filed and only two weeks before the start of the scheduled trial—the district court issued an opinion largely denying the motions and declining to certify its ruling for interlocutory appeal. App., *infra*, 1a-77a.

The district court granted two narrow aspects of the government's motions. First, the court dismissed the President from the suit, but only "without prejudice." App., *infra*, 23a, 77a. The court explained that "on the current record, it appears that this is a case in which effective relief is available through a lawsuit addressed only to lower federal officials," but added that it "is not possible to know how developments to the record in the course of the litigation may change the analysis" and that the court could "not conclude with certainty that President Trump will never become essential to affording complete relief." *Id.* at 23a. Second, the court granted summary judgment to the government on respondents' "freestanding claim under the Ninth Amendment," which the court found "not viable as a matter of law." *Id.* at 69a.

The district court otherwise denied the government's motions. The court rejected the government's argument that respondents were required to assert their challenges under the APA, concluding that the "APA does not govern" claims seeking equitable relief for alleged constitutional violations based on "*aggregate action* by *multiple agencies*." App., *infra*, 31a. The court also rejected the government's argument that respondents had failed to establish standing under the summary-

In re United States, 875 F.3d 1177, 1178 (2017). The government disagrees with that precedent but accepted it for purposes of this case and accordingly submitted its stay request to the Ninth Circuit in the form of an additional petition for a writ of mandamus.

judgment standard, largely by reiterating its analysis from the motion-to-dismiss stage. *Id.* at 36a-55a. The court likewise reiterated its earlier holdings on the government's other central arguments. See *id.* at 31a-34a, 56a-59a, 68a-69a. And the court addressed respondents' equal protection claim for the first time, allowing the claim to proceed because it "would be aided by further development of the factual record." *Id.* at 73a.

The district court again declined to certify its order for interlocutory appeal under 28 U.S.C. 1292(b), which authorizes certification where, *inter alia*, an "order involves a controlling question of law as to which there is substantial ground for difference of opinion." See App., *infra*, 73a-77a. The court did not address this Court's express statement that "the justiciability of [respondents'] claims presents substantial grounds for difference of opinion." *Juliana*, 2018 WL 3615551, at *1.

REASONS FOR GRANTING THE PETITION

A writ of mandamus is warranted when a party establishes that (1) the "right to issuance of the writ is 'clear and indisputable,'" (2) the party has "no other adequate means to attain the relief" sought, and (3) "the writ is appropriate under the circumstances." *Cheney* v. *United States Dist. Court*, 542 U.S. 367, 380-381 (2004) (citation omitted). Mandamus is reserved for "exceptional circumstances amounting to a judicial 'usurpation of power.'" *Id.* at 380 (citation omitted). Those are the circumstances of this case. Respondents' position amounts to the astounding assertion that permitting or encouraging the combustion of fossil fuels violates the Due Process Clause of the Constitution and a single district court in a suit brought by a handful of plaintiffs may decree the end of the carbon-based features of the United States' energy system, without regard to the

statutory and regulatory framework Congress enacted to address such issues with broad public input. Months ago, this Court flagged the "striking" breadth of those claims and the "substantial" doubts about their justiciability, reciting the standard for interlocutory certification and thereby indicating that appellate review is warranted before trial. *United States* v. *U.S. Dist. Court*, No. 18A65, 2018 WL 3615551, at *1 (July 30, 2018). But the district court nevertheless refused to meaningfully narrow respondents' claims, to certify its orders for interlocutory appeal, or to halt the trial now set to begin in less than two weeks. The government therefore has no choice but to ask this Court once again to intervene—and to end this profoundly misguided suit.

The factors for mandamus are readily satisfied. Given the manifest absence of Article III jurisdiction and the egregious defects in respondents' claims, the government has established a "clear and indisputable" right to relief. *Cheney*, 542 U.S. at 381 (citation omitted). The government has "no other adequate means" to "attain the relief" it seeks before an unjustified trial that would "threaten the separation of powers." *Id.* at 380-381 (citation omitted). And issuance of "the writ is appropriate under the circumstances"; indeed, the "traditional use of the writ * * * has been to confine" a court "to a lawful exercise of its prescribed jurisdiction." *Id.* at 380 (citation omitted). Mandamus is especially appropriate here, because it is the only way "to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." *Id.* at 382.

In the alternative, the Court could grant further review of this case in either of two other ways. First, the Court could construe this petition as a petition for a writ

of certiorari under 28 U.S.C. 1254(1) seeking review of the Ninth Circuit's July 20, 2018, denial of the government's mandamus petition. App., *infra*, 78a-85a. The Court could then grant certiorari on any or all of the questions presented and review the court of appeals' decision not to issue a writ of mandamus directing dismissal of the suit. Cf. *Cheney*, 542 U.S. at 391 (granting petition for writ of certiorari and reversing court of appeals' decision not to grant mandamus).[2] Second, the Court could construe this petition as a petition for a common-law writ of certiorari under 28 U.S.C. 1651 seeking review of the district court decisions denying the government's dispositive motions. App., *infra*, 1a-77a, 104a-200a; see, *e.g.*, *De Beers Consol. Mines* v. *United States*, 325 U.S. 212, 217 (1945) (explaining the "propriety of review" under a common-law writ of certiorari where "there is a substantial question whether the District Court has jurisdiction of a suit which it has retained for trial on the merits"); *United States Alkali Exp. Ass'n* v. *United States*, 325 U.S. 196, 201-204 (1945) (similar). The Court could then grant certiorari on any or all of the questions presented and review the district court's decisions directly.

Whatever path the Court chooses, this case should not be permitted to proceed to trial on respondents' "striking[ly]" broad claims without the further appellate review contemplated by this Court's July order. *Juliana*, 2018 WL 3615551, at *1.

[2] In *Cheney*, this Court declined to issue a writ of mandamus directly to the district court because the "Court wa[s] not presented with an original writ of mandamus." 542 U.S. at 391. Here, by contrast, the government has sought a writ of mandamus from this Court.

A. The Government Has A Clear And Indisputable Right To Relief From The District Court's Refusal To Dismiss This Fundamentally Misguided Suit

The government's right to the dismissal of this case is "clear and indisputable." *Cheney*, 542 U.S. at 381 (citation omitted). Respondents' implausible and far-reaching claims are procedurally and substantially defective in at least three independent ways.

1. The district court clearly and indisputably erred by exercising jurisdiction over the suit

Most fundamentally, the district court lacks jurisdiction over respondents' claims. "[N]o principle is more fundamental to the judiciary's proper role in our system of government than the constitutional limitation of federal-court jurisdiction to actual cases or controversies." *DaimlerChrysler Corp.* v. *Cuno*, 547 U.S. 332, 341 (2006) (citation omitted; brackets in original). Accordingly, the "[t]raditional use of the writ" of mandamus "has been to confine" a court "to a lawful exercise of its prescribed jurisdiction." *Cheney*, 542 U.S. at 380 (citation omitted). Respondents' suit fails to qualify as a case or controversy within the meaning of Article III for at least two reasons.

a. Respondents lack Article III standing. To demonstrate standing, respondents must prove that (1) they "have suffered an injury in fact," *i.e.*, "an invasion of a legally protected interest which is (a) concrete and particularized," and "(b) actual or imminent, not conjectural or hypothetical"; (2) the injury is "fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court"; and (3) it is "likely, as opposed to merely speculative, that the injury

will be redressed by a favorable decision." *Lujan* v. *Defenders of Wildlife*, 504 U.S. 555, 560-561 (1992) (citations and internal quotation marks omitted; brackets in original). The purpose of these standing requirements is "to prevent the judicial process from being used to usurp the powers of the political branches." *Clapper* v. *Amnesty Int'l USA*, 568 U.S. 398, 408 (2013). "In keeping with that purpose," a court's inquiry must be "'especially rigorous when reaching the merits of the dispute would force [it] to decide whether an action taken by one of the other two branches of the Federal Government was unconstitutional.'" *Ibid.* (citation omitted). All three standing requirements must be satisfied to invoke a court's jurisdiction. See *Defenders of Wildlife*, 504 U.S. at 560. Respondents here cannot show *any* of the three standing requirements.

i. As to injury, respondents fail to satisfy the standing requirement because they assert "generalized grievance[s]," not the invasion of a "legally protected" interest that is "concrete and particularized." *Defenders of Wildlife*, 504 U.S. at 560, 575 (citation omitted); see, *e.g.*, *Lexmark Int'l, Inc.* v. *Static Control Components, Inc.*, 572 U.S. 118, 125, 127 n.3 (2014). This Court has made clear that "standing to sue may not be predicated upon an interest * * * which is held in common by all members of the public, because of the necessarily abstract nature of the injury all citizens share." *Schlesinger* v. *Reservists Comm. to Stop the War*, 418 U.S. 208, 220 (1974).

Respondents' asserted injuries are quintessential generalized grievances, rather than challenges to the invasion of a distinct, legally protected interest. The asserted injuries arise from a diffuse, global phenomenon that affects every other person in their communities, in the United States, and throughout the world. Indeed,

the "very concept of global warming seems inconsistent with" the "particularization requirement," because "[g]lobal warming is a phenomenon 'harmful to humanity at large.'" *Massachusetts* v. *EPA*, 549 U.S. 497, 541 (2007) (Roberts, C.J., dissenting) (citation omitted).

ii. Even if respondents adequately alleged judicially cognizable injuries, they cannot establish that those injuries were *caused* by the broad, undifferentiated aggregation of the largely unspecified government actions they challenge, much less particular actions that must be the focus of judicial review. See *Defenders of Wildlife*, 504 U.S. at 560. Respondents principally complain of the government's regulation (or lack thereof) of private parties not before the district court. Among their widely scattered objections, for example, respondents claim that the United States subsidizes the fossil-fuel industry. Am. Compl. ¶¶ 171-178. But when a plaintiff's alleged harms may have been caused directly by the conduct of parties other than the defendants (and only indirectly by the defendants), it is "substantially more difficult to meet the minimum requirement" of Article III: "to establish that, in fact, the asserted injury was the consequence of the defendants' actions, or that prospective relief will remove the harm." *Warth* v. *Seldin*, 422 U.S. 490, 504-505 (1975); accord *Defenders of Wildlife*, 504 U.S. at 562.

Showing causation is especially difficult given the complex interaction of greenhouse gases in the global atmosphere. As this Court has explained, "emissions in New Jersey may contribute no more to flooding in New York than emissions in China." *American Elec. Power Co.* v. *Connecticut*, 564 U.S. 410, 422 (2011). But even respondents' extremely broad challenge does not suggest that petitioners can control "emissions in China."

Ibid. And the types of regulatory decisions that respondents and the district court do reference, such as permits for livestock grazing and setting "energy and efficiency standards," are remarkably attenuated from the specific injuries alleged, such as "the magnitude of rainfall and the extent of flooding" near one respondent's home or "the pattern of drought that led" another respondent to relocate. App., *infra*, 48a, 50a. In short, there is no "causal nexus" between the amorphously described decisions respondents challenge and the specific harms they allege. *Washington Envtl. Council* v. *Bellon*, 732 F.3d 1131, 1143 (9th Cir. 2013) (finding no causation in similar case). To the contrary, there is "a natural disjunction between [respondents'] localized injuries and the greenhouse effect." *Ibid.*

iii. Finally, even if respondents could somehow establish injury-in-fact and causation, they could not establish that their asserted injuries likely could be *redressed* by an order of a federal court. See *Defenders of Wildlife*, 504 U.S. at 560. Respondents have not even begun to articulate a remedy within a federal court's authority to award that could move the needle on the complex phenomenon of global climate change, much less likely redress their alleged injuries. See, *e.g.*, *Simon* v. *Eastern Ky. Welfare Rights Org.*, 426 U.S. 26, 40-46 (1976) (holding that plaintiffs challenging tax subsidies for hospitals serving indigent patients lacked standing where they could only speculate whether a change in policy would "result in [the plaintiffs] receiving the hospital services they desire").

The district court assumed that it had the authority to order petitioners "to prepare and implement an enforceable national remedial plan to phase out fossil fuel emission[s] and draw down excess atmospheric CO_2."

App., *infra*, 172a (quoting Am. Compl. 94); see *id.* at 184a. In its most recent order, the court contemplates some of the "actions" that petitioners could take to redress respondents' asserted injuries, including drastic measures like phasing out all greenhouse gas emissions "within several decades" or converting the Nation's entire electricity generation infrastructure to "100 percent clean, renewable wind, water, and sunlight" sources. *Id.* at 54a (brackets and citation omitted). But neither respondents nor the court has cited any legal authority that would permit such an unprecedented usurpation of legislative and executive authority by an Article III court, essentially placing a single district court in Oregon—acting at the behest of a few plaintiffs having one particular perspective on the complex issues involved—in charge of directing American energy and environmental policy. Nor have respondents or the district court grappled with the fact that the carbon emissions arguably within the control of petitioners "may become an increasingly marginal portion of global emissions" as developing countries increase their own emissions, thereby making it all the more speculative and uncertain that even respondents' unprecedented remedy would actually redress their asserted injuries. *Massachusetts*, 549 U.S. at 545 (Roberts, C.J., dissenting).

b. Quite aside from these fatal flaws with respect to standing, this suit simply is not one that a federal court may entertain consistent with the Constitution. The "judicial Power of the United States," U.S. Const. Art. III, § 1, is "'one to render dispositive judgments'" in "cases and controversies" as defined by Article III. *Plaut* v. *Spendthrift Farm, Inc.*, 514 U.S. 211, 218-219 (1995) (citation omitted). It can "come into play only in matters that were the traditional concern of the courts

at Westminster" and only when those matters arise "in ways that to the expert feel of lawyers constituted 'Cases' or 'Controversies.'" *Vermont Agency of Natural Res.* v. *United States ex rel. Stevens*, 529 U.S. 765, 774 (2000) (citation omitted). "If a dispute is not a proper case or controversy, the courts have no business deciding it." *Cuno*, 547 U.S. at 341.

Respondents' suit is not a case or controversy cognizable under Article III. Respondents ask the district court to review and assess the entirety of Congress's and the Executive Branch's programs and regulatory decisions relating to climate change and then to undertake to pass upon the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. See, *e.g.*, Am. Compl. ¶¶ 277-310. No federal court, nor the courts at Westminster, has ever purported to use the "judicial Power" to perform such a sweeping policy review—and for good reason: the Constitution commits to Congress the power to enact comprehensive government-wide measures of the sort respondents seek. And it commits to the President the power to oversee the Executive Branch in its administration of existing law and to draw on its expertise and formulate policy proposals for changing existing law. Such functions are not the province of Article III courts. The district court's contrary assertion constitutes a "judicial 'usurpation of power.'" *Cheney*, 542 U.S. at 380 (citation omitted).

Respondents appeal to the district court's equitable powers as justifying the review they seek in this case. But a federal court's equitable powers are "subject to restrictions: the suit must be within the traditional scope of equity as historically evolved in the English Court of Chancery." *Guaranty Trust Co.* v. *York*, 326 U.S. 99,

105 (1945). The relief requested by respondents is plainly not of the sort "traditionally accorded by courts of equity." *Grupo Mexicano de Desarrollo, S.A.* v. *Alliance Bond Fund, Inc.*, 527 U.S. 308, 319 (1999). "There simply are certain things that courts, in order to remain courts, cannot and should not do." *Missouri* v. *Jenkins*, 515 U.S. 70, 132 (1995) (Thomas, J., concurring). One of those things is "running Executive Branch agencies." *Id.* at 133. The same is surely true of running *all* of them. At bottom, this dispute over American energy and environmental policy "is not a proper case or controversy" or a proper suit in equity, so "the courts have no business deciding it." *Cuno*, 547 U.S. at 341.

2. The district court clearly and indisputably erred by allowing the claims to proceed outside the binding framework of the APA

Respondents' suit is misconceived for another reason. Under the APA, a suit challenging an agency's regulatory measures must be targeted at specifically identified agency actions or alleged failures to act, and review must be based on the administrative record for those actions and in accordance with special statutory provisions for judicial review.[3] The APA provides that a "person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. 702. The APA authorizes a reviewing court to "hold unlawful and set aside agency action" that is "arbitrary, capricious, an

[3] Respondents ignore, for example, that challenges to many regulatory measures, such as those adopted under the Clean Air Act, must be brought in a court of appeals, not in a district court. See 42 U.S.C. 7607(b)(1).

abuse of discretion, or otherwise not in accordance with law" or "contrary to constitutional right, power, privilege, or immunity," 5 U.S.C. 706(2)(A)-(B), and to "compel agency action unlawfully withheld or unreasonably delayed," 5 U.S.C. 706(1).

The APA thus provides a "comprehensive remedial scheme" for a "person 'adversely affected * * * ' by agency action" or alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. *Western Radio Servs. Co.* v. *United States Forest Serv.*, 578 F.3d 1116, 1122-1123 (9th Cir. 2009) (citation omitted), cert. denied, 559 U.S. 1106 (2010); see *Wilkie* v. *Robbins*, 551 U.S. 537, 551-554 (2007) (describing the APA as the remedial scheme for vindicating complaints against "unfavorable agency actions"); *Webster* v. *Doe*, 486 U.S. 592, 607 n.* (1988) (Scalia, J., dissenting) (explaining that the APA "is an umbrella statute governing judicial review of all federal agency action" and that "if review is not available under the APA it is not available at all").

Respondents allege that a vast number of (mostly unspecified) "agency action[s]" and inactions spanning the last several decades are, in the words of the APA, "contrary to constitutional right." 5 U.S.C. 702, 706(2)(B). As currently formulated, however, respondents' claims cannot proceed under the APA, because the APA only allows challenges to "circumscribed, discrete" final agency action, not the "broad programmatic attack" on agency policies that respondents assert here. *Norton* v. *Southern Utah Wilderness Alliance*, 542 U.S. 55, 62, 64 (2004) (*SUWA*); see *Lujan* v. *National Wildlife Fed'n*, 497 U.S. 871, 891 (1990). Respondents expressly cast their claims as a challenge to the "affirmative aggregate actions" of the defendant agencies, Am. Compl. ¶ 5—the

antithesis of a challenge to specifically identified and "*discrete* agency action" as permitted by Congress under the APA, *SUWA*, 542 U.S. at 64.

Respondents do not argue that their claims are proper under the APA. Rather, they argue that their claims need not comply with the APA because the Constitution itself provides a right of action. Am. Compl. ¶ 13. But this Court has never suggested that the Constitution itself provides an across-the-board right of action for all constitutional claims. To the contrary, the Court recently concluded that the Supremacy Clause does *not* "confer a right of action," a decision that conflicts with the inherent cause of action for constitutional claims envisioned by respondents. *Armstrong* v. *Exceptional Child Ctr., Inc.*, 135 S. Ct. 1378, 1384 (2015).

The district court likewise failed to grapple with *Armstrong*. See App., *infra*, 23a-31a. *Armstrong* recognized that federal courts have equitable authority in some circumstances "to enjoin unlawful executive action." 135 S. Ct. at 1385. But *Armstrong* emphasized that equitable power is "subject to express and implied statutory limitations." *Ibid.* Thus, "[w]here Congress has created a remedial scheme for the enforcement of a particular federal right," courts "have, in suits against federal officers, refused to supplement that scheme with one created by the judiciary." *Seminole Tribe of Fla.* v. *Florida*, 517 U.S. 44, 74 (1996). Here, even if the equitable authority of an Article III court could otherwise ever extend to a suit remotely resembling the one respondents seek to bring here, the APA provides "express * * * statutory limitations" that "'foreclose,'" *Armstrong*, 135 S. Ct. at 1385 (citation omitted), respondents' asserted constitutional claims against the broad

and largely unspecified "aggregate actions" of the federal government as a whole, Am. Compl. ¶ 129.

3. The district court clearly and indisputably erred by allowing the claims to proceed on the merits

Finally, even if the district court could reach the merits of respondents' constitutional theories, it should not have allowed their claims to move forward, let alone to a ten-week trial. In declining to dismiss the case, the court concluded that respondents had stated two constitutional claims based on substantive due process: (1) a judicially enforceable fundamental right to "a climate system capable of sustaining human life," and (2) a federal public-trust doctrine to the same effect. App., *infra*, 59a; see *id.* at 69a. Both claims are baseless.

a. As this Court has recognized, respondents' substantive due process claims are "striking" in breadth. *Juliana*, 2018 WL 3615551, at *1. And this Court has repeatedly instructed courts considering novel due process claims to "'exercise the utmost care whenever * * * asked to break new ground in this field,' lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences. *Washington* v. *Glucksberg*, 521 U.S. 702, 720 (1997) (citation omitted). More specifically, the Court has "regularly observed that the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, 'deeply rooted in this Nation's history and tradition.'" *Id.* at 720-721 (citation omitted). The district court's recognition here of an "unenumerated fundamental right" to "a climate system capable of sustaining human life," App., *infra*, 140a-141a, squarely contradicts that directive, because such a right is entirely without basis in this Nation's history or tradition.

The district court's recognition of a constitutional right to particular climate conditions, moreover, would wrest fundamental policy issues of energy development and environmental regulation affecting everyone in the country from "the arena of public debate and legislative action," and thrust them into the supervision of the federal courts. *Glucksberg*, 521 U.S. at 720. Indeed, the district court's decision here would vest a single district court—acting at the behest of 21 minors, a person purporting to act on behalf of future generations, and a single environmental organization advocating one particular perspective—with authority to oversee some of the most complex and high-stakes policy problems in government. To understate considerably, Congress or an "expert agency is surely better equipped to do the job than individual district judges." *American Elec. Power*, 564 U.S. at 428.

Remarkably, the district court rooted its recognition of a fundamental due process right to "a climate system capable of sustaining human life," App., *infra*, 141a, in this Court's recognition of a fundamental right to same-sex marriage in *Obergefell* v. *Hodges*, 135 S. Ct. 2584 (2015). There is no relationship, however, between a distinctly personal and circumscribed right to same-sex marriage and the alleged right to a climate system capable of sustaining human life that apparently would run indiscriminately to every individual in the United States. The right recognized by the district court has no relationship to any right as "fundamental as a matter of history and tradition" as the right to marry recognized in *Obergefell*. *Id.* at 2602. Nor was *Obergefell*'s recognition of that narrow right an invitation to abandon the cautious approach to recognizing new funda-

mental rights that is demanded by the Court's prior decisions. The district court's reliance on *Roe* v. *Wade*, 410 U.S. 113 (1973), and a decision from the Supreme Court of the Philippines provides no further support. See App., *infra*, 141a. To the contrary, the court's invocation of such far-afield precedents underscores that the right it purported to recognize has no legal basis.

b. Respondents' novel public-trust claim fares no better. The roots of a public-trust doctrine "trace to Roman civil law and its principles can be found in the English common law on public navigation and fishing rights over tidal lands and in the state laws of this country." *PPL Montana, LLC* v. *Montana*, 565 U.S. 576, 603 (2012). Where it applies, such a doctrine generally holds that the sovereign "owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." *National Audubon Soc'y* v. *Superior Court*, 658 P.2d 709, 718 (Cal.) (citation and internal quotation marks omitted), cert. denied, 464 U.S. 977 (1983).

Respondents attempt to invoke a federal public-trust doctrine to impose judicially enforceable, extra-statutory obligations on the government's regulation of the fossil-fuel industry and the alleged effects on the atmosphere. They fail, however, to identify a single decision applying public-trust notions in this sweeping and novel manner. And even if such a doctrine could ever dictate a sovereign's regulation of private parties, respondents' claim would be unavailing because a public-trust doctrine is purely a matter of *state* law and pertains only to a *State's* functions. See *PPL Montana*, 565 U.S. at 603 ("[T]he public trust doctrine remains a matter of state law."). Indeed, the D.C. Circuit concluded that a similar

public-trust claim against federal officials could not provide a basis for federal jurisdiction. See *Alec L. ex rel. Loorz* v. *McCarthy*, 561 Fed. Appx. 7, 8 (per curiam), cert. denied, 135 S. Ct. 774 (2014). As the D.C. Circuit explained, this Court has "categorically rejected any federal constitutional foundation for th[e public trust] doctrine, without qualification or reservation." *Ibid.*

B. The Government Has No Other Adequate Means To Attain Relief From A Fundamentally Misguided And Improper Trial

Mandamus is warranted to correct the district court's egregious errors because the government has "no other adequate means" to obtain relief from the district court's refusal to dismiss this litigation or to prevent the impending trial. *Cheney*, 542 U.S. at 380 (citation omitted). The denial of a motion to dismiss is not among the "final decisions of the district courts" reviewable by a court of appeals under 28 U.S.C. 1291. And the district court has repeatedly rejected the government's requests to certify its decisions for interlocutory appeal. See App., *infra*, 73a-77a. Indeed, the court refused to certify its decision for interlocutory appeal even after this Court expressly recognized the "substantial grounds for difference of opinion" about the justiciability of the claims, *Juliana*, 2018 WL 3615551, at *1—a statement that directly tracks the text of the statute authorizing certification for interlocutory appeal, 28 U.S.C. 1292(b), but that the district court did not even mention in its order denying the government's dispositive motions.

To be sure, the government may be able to raise some of the arguments asserted here after a 50-day liability-phase trial, a finding that the federal government is lia-

ble for the harms of climate change, and further proceedings to impose an unprecedented invasive remedy. But an appellate reversal at that point would hardly provide an "*adequate* means" of obtaining relief from the usurpation of power by the district court and from the resulting proceedings that themselves violate the separation of powers. *Cheney*, 542 U.S. at 380 (emphasis added; citation omitted); see, *e.g.*, *In re Kellogg Brown & Root, Inc.*, 756 F.3d 754, 761 (D.C. Cir. 2014) (Kavanaugh, J.) (granting mandamus where appeal after final judgment would not provide an "adequate" means of obtaining relief), cert. denied, 135 S. Ct. 1163 (2015); *In re Justices of Supreme Court of Puerto Rico*, 695 F.2d 17, 20-25 (1st Cir. 1982) (Breyer, J.) (same); 16 Charles Alan Wright et al., *Federal Practice and Procedure* § 3932 (3d ed. 2005 & Supp. 2018) (citing similar cases).

Petitioners, moreover, are not private litigants seeking to evade the normal process of appellate review. The Executive Branch agencies and officials sued by respondents will "suffer a special institutional harm by being forced to remain" in this suit through a trial, finding of liability, and entry of a remedy. *In re Justices*, 695 F.2d at 20. As this Court explained in *Cheney*, "mandamus standards are broad enough to allow a court of appeals to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." 542 U.S. at 382; see *ibid.* (recognizing the "paramount necessity of protecting the Executive Branch from vexatious litigation that might distract it from the energetic performance of its constitutional duties"). Here, requiring petitioners to participate in the fundamentally misguided trial envisioned

by the district court would constitute a "judicial 'usurpation of power'" warranting mandamus for at least two additional reasons. *Id.* at 380 (citation omitted).

First, subjecting petitioners to trial on respondents' claims would violate the APA's carefully reticulated scheme for agencies to make factual assessments and policy determinations through rulemaking with broad public participation and through agency adjudication, not civil litigation in Article III courts. The APA sets forth a "comprehensive regulation of procedures" for agency decisionmaking. *Wong Yang Sung* v. *McGrath*, 339 U.S. 33, 36 (1950). "Time and again," this Court has explained that the APA establishes the exclusive procedural requirements for agency decisionmaking, and courts are not free to alter those requirements. *Perez* v. *Mortgage Bankers Ass'n*, 135 S. Ct. 1199, 1207 (2015). To require agencies to take official positions on factual assessments and questions of policy concerning the climate through the civil litigation process—and then, if liability is found, to participate in further judicial proceedings to impose on them an "enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," Am. Compl. 94—would impermissibly conflict with the procedures prescribed by the APA and deprive other interested parties and the public of the opportunity mandated by Congress or agency procedures to provide input.

Second, subjecting petitioners to trial on respondents' claims would violate the Constitution's separation of powers. Even before the enactment of the APA, this Court recognized that permitting an agency's "findings to be attacked or supported in court by new evidence would substitute the court for the administrative tribunal," *Tagg Bros. & Moorhead* v. *United States*, 280 U.S.

420, 444 (1930), a step that would improperly allow the court to "usurp[] the agency's function," *Unemployment Comp. Comm'n* v. *Aragon*, 329 U.S. 143, 155 (1946). Moreover, "in cases where Congress has simply provided for review, without setting forth the standards to be used or the procedures to be followed," the Court "has held that consideration is to be confined to the administrative record and that no *de novo* proceeding may be held." *United States* v. *Carlo Bianchi & Co.*, 373 U.S. 709, 715 (1963).

Limiting judicial review of actions taken within the scope of the agency's authority as conferred by Congress in its organic statute in this manner reflects fundamental separation-of-powers principles. By seeking to leverage the civil litigation process to direct petitioners' decisions outside the congressionally prescribed statutory framework, respondents would run roughshod over those principles. Respondents' proposed approach violates the vesting of the "legislative Power[]" in Congress to the extent it would require agencies to transgress the substantive and procedural constraints imposed on them by statute. U.S. Const. Art. I, § 1. And to the extent respondents seek a judicial decree directly requiring petitioners to develop and implement broad policies across the Executive Branch, they seek to violate the Constitution's vesting of "executive Power * * * in a President of the United States." *Id.* Art. II, § 1, Cl. 1. Granting mandamus relief is the only "adequate means" of preventing such intrusions. *Cheney*, 542 U.S. at 380 (citation omitted).

C. Mandamus Relief Is Appropriate Under The Circumstances

Finally, and for the reasons discussed above, mandamus relief is "appropriate under the circumstances."

Cheney, 542 U.S. at 381. As noted, mandamus was traditionally used "to confine [an inferior court] to a lawful exercise of its prescribed jurisdiction," and granting mandamus to dismiss this case based on the manifest absence of Article III jurisdiction and of any cognizable constitutional rights on the merits would be consistent with that use. *Id.* at 380 (citation omitted); see, *e.g.*, *In re Roman Catholic Diocese of Albany, New York, Inc.*, 745 F.3d 30, 35-36 (2d Cir. 2014) (per curiam) (issuing writ of mandamus based on district court's failure to grant motion to dismiss for lack of jurisdiction); *Abelesz* v. *OTP Bank*, 692 F.3d 638, 651-652 (7th Cir. 2012) (same); *In re Justices*, 695 F.2d at 25 (same); Wright § 3933.1 (discussing other examples).

Mandamus is particularly appropriate here because dismissing the case is the only way "to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." *Cheney*, 542 U.S. at 382. As noted, this Court has indicated that appellate review before trial is appropriate by reciting language from the statute authorizing certification for interlocutory appeal. See *Juliana*, 2018 WL 3615551, at *1. But the district court declined to follow this Court's lead, leaving an extraordinary writ as the only means for appellate review before much of the Executive Branch is subjected to a trial on baseless claims that the district court has no authority to remedy. The "novelty of the District Court's" ruling, "combined with its potentially broad and destabilizing effects," underscores that granting such a writ is "'appropriate under the circumstances.'" *In re Kellogg Brown & Root*, 756 F.3d at 763 (quoting *Cheney*, 542 U.S. at 381).

CONCLUSION

For the foregoing reasons, the Court should issue a writ of mandamus directing the district court to dismiss this suit. Alternatively, the Court should construe this petition as either (1) a petition for a writ of certiorari seeking review of the court of appeals' July 20, 2018, decision (App., *infra*, 78a-85a) or (2) a petition for a common-law writ of certiorari seeking review of the district court decisions denying the government's dispositive motions (*id.* at 1a-77a, 104a-200a), and grant certiorari on the questions presented.

Respectfully submitted.

NOEL J. FRANCISCO
Solicitor General
JEFFREY H. WOOD
Acting Assistant Attorney General
JEFFREY B. WALL
EDWIN S. KNEEDLER
Deputy Solicitors General
ERIC GRANT
Deputy Assistant Attorney General
JONATHAN Y. ELLIS
CHRISTOPHER G. MICHEL
Assistants to the Solicitor General
ANDREW C. MERGEN
SOMMER H. ENGELS
ROBERT J. LUNDMAN
Attorneys

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APPENDIX A

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
EUGENE DIVISION

Case No. 6:15-cv-01517-AA

KELSEY CASCADIA ROSE JULIANA, ET AL., PLAINTIFFS

v.

UNITED STATES OF AMERICA, ET AL., DEFENDANTS

Filed: Oct. 15, 2018

OPINION AND ORDER

AIKEN, Judge:[1]

In this civil rights action, plaintiffs—a group of young people who were between the ages of eight and nineteen when this lawsuit was filed; Earth Guardians, a nonprofit association of young environmental activists; and Dr. James Hansen, acting as guardian for

[1] As with the Court's previous Order and Opinion on the federal defendants' motions to dismiss, student externs worked on each stage of the preparation of this opinion. The Court would be remiss if it did not acknowledge the invaluable contributions of JoAnna Atkinson (George Washington University Law School), Trevor Byrd (Willamette University Law School), Doyle Canning (University of Oregon School of Law), Omeed Ghafarri (University of Washington School of Law), Tyler Hardman (University of Oregon School of Law), Maggie Massey (University of Oregon School of Law), and Patrick Rosand (Boston University School of Law), Elise Williard (University of Oregon School of Law).

plaintiff "future generations"—allege that the federal government is violating their rights under the Fifth Amendment to the United States Constitution.

Before the Court are two dispositive motions: federal defendants' Motion for Judgment on the Pleadings (doc. 195) and federal defendants' Motion for Summary Judgment (doc. 207). For the reasons set forth below, the Motion for Judgment on the Pleadings is granted in part and denied in part, and the Motion for Summary Judgment is granted in part and denied in part.

BACKGROUND

Plaintiffs filed this action in August 2015, naming the United States, President Barack Obama, and the heads of numerous executive agencies (collectively, "federal defendants") as defendants.[2] Plaintiffs allege that federal defendants have known for more than fifty years that carbon dioxide ("CO_2") produced by the industrial scale burning of fossil fuels was "causing global warming and dangerous climate change, and that continuing to burn fossil fuels would destabilize the climate system on which present and future generations of our nation depend for their wellbeing and survival." First Am. Compl. ¶ 1. Plaintiffs further allege that federal defendants have long "known of the unusually dangerous risks of harm to human life, lib-

[2] The First Amended Complaint names as defendants the United States, the President, and the heads of the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation, the Department of Agriculture, the Department of Commerce, the Department of Defense, the Department of State, and the Environmental Protection Agency.

erty, and property that would be caused by continued fossil fuel burning." *Id.* ¶ 5. Plaintiffs assert that, rather than responding to this knowledge by "implement[ing] a rational course of effective action to phase out carbon pollution," federal defendants "have continued to permit, authorize, and subsidize fossil fuel extraction, development, consumption and exportation[,]" thereby "deliberately allow[ing] atmospheric CO_2 concentrations to escalate to levels unprecedented in human history[.]" *Id.* ¶¶ 5, 7.

Plaintiffs contend that federal defendants' policy on fossil fuels deprives plaintiffs of life, liberty, and property without due process of law; impermissibly discriminates against "young citizens, who will disproportionately experience the destabilized climate system in our country[;]" and fails to live up to federal defendants' obligations to hold certain essential natural resources in trust for the benefit of all citizens. *Id.* ¶ 8. Plaintiffs seek injunctive and declaratory relief, asserting that there is "an extremely limited amount of time to preserve a habitable climate system for our country" before "the warming of our nation will become locked in or rendered increasingly severe." *Id.* ¶ 10.

In November 2015, federal defendants moved to dismiss for failure to state a claim under Federal Rules of Civil Procedure 12(b)(l) and 12(b)(6). (doc. 27) Federal defendants argued that plaintiffs lacked standing to sue; that plaintiffs' public trust claims failed as a matter of law because the public trust doctrine does not apply to the federal government; that plaintiffs' equal protection claims could not proceed because plaintiffs are not members of a protected class and the government's energy and climate policies have a rational basis;

and that plaintiffs' due process claims were deficient because they had not alleged violation of a fundamental right.

Also in November 2015, three national trade organizations—the National Association of Manufacturers, American Petroleum Institute, and American Fuel & Petrochemical Manufacturers (collectively, "intervenor-defendants")—moved to intervene under Federal Rule of Civil Procedure 24(a) and dismiss the complaint. (doc. 14 & 19) Like federal defendants, intervenor-defendants argued that plaintiffs lacked standing to sue. Intervenor defendants also argued that plaintiffs had failed to identify a cognizable cause of action and that dismissal was required because the case presented non-justiciable political questions.

In January 2016, Magistrate Judge Coffin granted intervenor-defendants' motion to intervene. *Juliana v. United States*, 2016 WL 138903, at *5 (D. Or. Jan. 14, 2016). In April 2016, following oral argument, Judge Coffin issued his Findings and Recommendation ("F&R"), recommending that the Court deny both motions to dismiss. (doc. 68) Federal defendants and intervenor-defendants filed objections to the F&R and the Court held oral argument in September 2016. (doc. 73, 74 & 81) Following that argument, in November 2016, the Court issued an opinion and order adopting Judge Coffin's F&R and denying the motions to dismiss. *Juliana v. United States*, 217 F. Supp. 3d 1224, 1276 (D. Or. 2016).

In January 2017, federal defendants filed their Answer. (doc. 98) They agreed with many of the scientific and factual allegations in the First Amended Complaint, including that:

- "for over fifty years some officials and persons employed by the federal government have been aware of a growing scientific body of research concerning the effects of fossil fuel emissions on atmospheric concentrations of CO_2—including that increased concentrations of atmospheric CO_2 could cause measureable long-lasting changes to the global climate, resulting in an array of severe and deleterious effects to human beings, which will worsen over time;"
- "global atmospheric concentrations of CO_2, methane, and nitrous oxide are at unprecedentedly high levels compared to the past 800,000 years of historical data and pose risks to human health and welfare;"
- "Federal Defendants . . . permit, authorize, and subsidize fossil fuel extraction, development, consumption, and exportation;"
- "fossil fuel extraction, development, and consumption produce CO_2 emissions and . . . past emissions of CO_2 from such activities have increased the atmospheric concentration of CO_2;"
- "EPA has concluded . . . that, combined, emissions of six well-mixed [greenhouse gases] are the primary and best understood drivers of current and projected climate change;"
- "the consequences of climate change are already occurring and, in general, those consequences will become more severe with more fossil fuel emissions;"

- "climate change is damaging human and natural systems, increasing the risk of loss of life, and requiring adaptation on larger and faster scales than current species have successfully achieved in the past, potentially increasing the risk of extinction or severe disruption for many species;" and
- "human activity is likely to have been the dominant cause of observed warming since the mid-1900s."

Fed. Defs.' Answer to First Am. Compl. ¶¶ 1; 5; 7; 10; 213; 217. Those admissions and federal defendants' other filings make clear that plaintiffs and federal defendants agree on the following contentions: climate change is happening, is caused in significant part by humans, specifically human induced fossil fuel combustion, and poses a "monumental" danger to Americans' health and welfare. *See Juliana*, 217 F. Supp. 3d at 1234 n.3 (quoting federal defendants' objections to Judge Coffin's F&R recommending denial of the motions to dismiss). The pleadings also make clear that plaintiffs and federal defendants agree that federal defendants' policies regarding fossil fuels and greenhouse gas emissions play a role in global climate change, though federal defendants dispute that their actions can fairly be deemed to have caused plaintiffs' alleged injuries.[3]

[3] Intervenor-defendants' Answer, by contrast, contained no admissions with respect to plaintiffs' factual and scientific assertions about climate change. (doc. 93) Intervenor-defendants asserted that they lacked sufficient information to admit or deny those allegations. At a series of status conferences in 2017, Judge Coffin

In January 2017, Barack Obama left office and Donald J. Trump assumed the presidency. In March 2017, both federal defendants and intervenor-defendants moved to certify the opinion and order denying their motion to dismiss for interlocutory appeal, pursuant to 28 U.S.C. § 1292(b). (doc. 120 & 122) That same day, federal defendants sought a stay of proceedings pending this Court's resolution of the motion to certify for interlocutory appeal and the Ninth Circuit's resolution of that proposed appeal. (doc. 121) In April 2017, Judge Coffin denied the request for a stay. (doc. 137) In May 2017, Judge Coffin issued his F&R recommending that the Court deny the motions to certify. (doc. 146) Federal defendants and intervenor-defendants filed objections, and in June 2017, the Court adopted Judge Coffin's F&R and declined to certify the opinion and order for interlocutory appeal. *Juliana v. United States,* 2017 WL 2483705, at *2 (D. Or. June 8, 2017).

In May and June 2017, intervenor-defendants moved to withdraw from this lawsuit. (docs. 163, 166 & 167) Judge Coffin granted that motion. (doc. 182)

In June 2017, federal defendants filed a petition for writ of mandamus in the Ninth Circuit, seeking an order directing this Court to dismiss the case. (doc. 177) Federal defendants asked the Ninth Circuit to stay all proceedings in this Court pending resolution of that petition. *Id.* In July 2017, the Ninth Circuit granted

pressed intervenor-defendants to clarify their position regarding whether the issues to be litigated at trial would include whether climate change is happening or whether humans play a role in causing climate change. Intervenor-defendants withdrew from the lawsuit before taking a position on those questions.

the request for a stay and ordered plaintiffs to file a response to the petition for writ of mandamus. Ninth Circuit Case No. 17-71692.

On March 7, 2018, the Ninth Circuit denied the petition for writ of mandamus. *In re United States*, 884 F.3d 830, 833 (9th Cir. 2018). The denial rested on the court's determination that federal defendants had not satisfied any of the factors justifying the extraordinary remedy of mandamus. *Id.* at 834-38.

On May 7, 2018, federal defendants filed a motion for judgment on the pleadings. (doc. 195) In that motion, they seek to dismiss President Trump as a party and to obtain dismissal of the entire lawsuit on the grounds that plaintiffs failed to state a claim under the Administrative Procedure Act ("APA"). Additionally, federal defendants argue that plaintiffs' requested relief is barred by the separation of powers. Federal defendants also moved for a protective order, seeking a stay of all discovery on the theory that discovery in this case is barred by the APA. (doc. 196) Specifically, federal defendants sought a stay of discovery pending the resolution of the motion for a protective order, the motion for judgment on the pleadings, and a not-yet-filed motion for summary judgment. On May 22, 2018, federal defendants filed a motion for summary judgment. (doc. 207) In that motion, they seek a judgment as a matter of law in their favor, arguing that (1) there are no genuine issues of material fact; (2) plaintiffs lack Article III standing to sue; (3) plaintiffs have failed to assert a valid cause of action under the APA; (4) plaintiffs' claims violate separation of powers principles; (5) plaintiffs have no due process right to a climate system capable of sustaining human

life; and (6) the federal government has no obligations under the public trust doctrine.

Meanwhile, the Solicitor General was considering seeking Supreme Court review of the Ninth Circuit's opinion denying mandamus relief. The presumptive deadline to file a petition for writ of certiorari to review that opinion was June 5, 2018. On May 24, 2018, the Solicitor General sought to extend the time for filing a petition for writ of certiorari to July 5, 2018. That request was docketed in *United States v. U.S. District Court for the District of Oregon*, Supreme Court No. 17A1304. Justice Kennedy granted the extension.

On May 25, 2018, Judge Coffin denied federal defendants' motion for a protective order and a stay. (doc. 212) On June 1, 2018, federal defendants filed objections to Judge Coffin's denial of the protective order and requested a stay of discovery pending resolution of those objections. (doc. 215 & 216) On June 14, 2018, the Court denied that request for a stay by minute order. (doc. 238)

On June 25, 2018, federal defendants sought a second extension of the deadline for filing a petition for writ of certiorari. Justice Kennedy granted that request and extended the deadline to August 4, 2018.

On June 29, 2018, the Court affirmed Judge Coffin's denial of federal defendants' request to stay all discovery. (doc. 300) On July 5, 2018, federal defendants sought review of that decision through a second petition for writ of mandamus in the Ninth Circuit. In separate filings, federal defendants asked this Court and the Ninth Circuit to stay all discovery and trial pending the Ninth Circuit's resolution of that petition.

On July 16, 2018, the Ninth Circuit denied the request for a stay. On July 17, 2018, the Court denied the request for a stay. (doc. 324) That same day, the Solicitor General petitioned Justice Kennedy for a stay of proceedings pending the Ninth Circuit's resolution of the mandamus petition. That request was docketed at *United States v. U.S. District Court for the District of Oregon*, Supreme Court No. 18A65. In his application for a stay, the Solicitor General suggested to Justice Kennedy that he could construe the stay application as a petition for writ of mandamus directing this Court to dismiss the lawsuit or as a petition for a writ of certiorari to review the Ninth Circuit's first mandamus decision.

On July 18, 2018, the parties appeared for oral argument before this Court on the Motion for Judgment on the Pleadings and Motion for Summary Judgment.

On July 20, 2018, the Ninth Circuit denied federal defendants' second mandamus petition, holding that federal defendants had not met the standard to qualify for mandamus relief. *In re United States*, ___ F.3d ___, 2018 WL 3484444, at *1 (9th Cir. July 20, 2018). The court concluded that because "no new circumstances justify this second petition," it "remains the case that the issues the government raises in its petition are better addressed through the ordinary course of litigation." *Id.*

That same day, the Solicitor General wrote to Justice Kennedy to reiterate his request that he construe the application for a stay in Supreme Court Case No. 18A65 as a petition for a writ of certiorari to review the Ninth Circuit's first mandamus decision. Alternatively, he suggested that Justice Kennedy could construe the application as a petition for a writ of certiorari to re-

view the Ninth Circuit's second mandamus decision. On July 30, 2018, Justice Kennedy referred the application for a stay to the entire Supreme Court. In a summary order, the Supreme Court denied as the Solicitor General's application as premature.

This leaves two substantive motions before the Court, which the Court now addresses in Sections I and II below: federal defendants' motion for judgment on the pleadings, and federal defendants' motion for summary judgment. Defendants have also requested that the Court certify any portion of this opinion and order denying their substantive motions for interlocutory appeal, this is addressed in Section III. Plaintiffs' Motion *in Limine,* (doc. 254) seeking judicial notice of certain documents, is addressed in Section IV.

STANDARDS

A party may move for judgment on the pleadings after the pleadings are closed but early enough not to delay trial. Fed. R. Civ. P. 12(c). "Analysis under Rule 12(c) is substantially identical to analysis under Rule 12(b)(6) because, under both rules, a court must determine whether the facts alleged in the complaint, taken as true, entitle the plaintiff to a legal remedy." *Pit River Tribe v. Bureau of Land Mgmt.,* 793 F.3d 1147, 1155 (9th Cir. 2015) (citation and quotation marks omitted). Accordingly, "[a] judgment on the pleadings is properly granted when, taking all allegations in the pleadings as true, the moving party is entitled to judgment as a matter of law." *Owens v. Kaiser Found. Health Plan, Inc.,* 244 F.3d 708, 713 (9th Cir. 2001) (quotation marks omitted). To survive a motion for judgment on the pleadings, "the non-conclusory 'factual content' [of the complaint]," and reasonable inferences

from that content, "must be plausibly suggestive of a claim entitling the plaintiff to relief." *Moss v. U.S. Secret Serv.,* 572 F.3d 962, 969 (9th Cir. 2009) (quoting *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2007)). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Iqbal*, 556 U.S. at 678. "[O]nce a claim has been stated adequately, it may be supported by showing any set of facts consistent with the allegations in the complaint." *Bell Atl. Corp. v. Twombly,* 550 U.S. 544, 563 (2007).

Summary judgment is appropriate if "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). The moving party has the burden of establishing the absence of a genuine issue of material fact. *Id.; Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). If the moving party shows the absence of a genuine issue of material fact, the nonmoving party must go beyond the pleadings and identify facts which show a genuine issue for trial. *Id.* at 324. Summary judgment is inappropriate if a rational trier of fact, drawing all inferences in favor of the nonmoving party, could return a verdict in the nonmoving party's favor. *Diaz v. Eagle Produce Ltd. P'ship,* 521 F.3d 1201, 1207 (9th Cir. 2008). Any doubt as to the existence of a genuine issue for trial should be resolved against the moving party. *Celotex,* 477 U.S. at 339. Finally, even if the standards of Rule 56 are met, a court has discretion to deny a motion for summary judgment if it believes that "the better course would be to proceed to a full trial." *Anderson v. Liberty Lobby, Inc.,* 477 U.S. 242, 255 (1986).

DISCUSSION

There are two motions before the Court in this now three year old case: federal defendants' Motion for Judgment on the Pleadings (doc. 195) and Motion for Summary Judgment (doc. 207). Many of the issues raised in these motions are interrelated. Given the nature of the arguments presented, it is more efficient and likely to avoid confusion to deal with all of the pending issues in a single opinion and order. Thus, the Court addresses each motion in turn.

I. *Motion for Judgment on the Pleadings*[4]

Federal defendants' motion for judgment on the pleadings rests on four grounds, two of which they raise for the first time in their 12(c) motion and two of which the Court has already considered and ruled

[4] Even though federal defendants could have raised each argument in its 12(c) motion in its initial motion to dismiss, that failure is not a bar to asserting the arguments now. *See* Fed. R. Civ. P. 12(g) (prohibiting subsequent Rule 12 motions "based on [a] defense or objection . . . omitted" in a prior Rule 12 motion "except . . . as provided in subdivision (h)(2)"); Fed. R. Civ. P. 12(h)(2) ("A defense of failure to state a claim upon which relief can be granted . . . may be made in any pleading permitted or ordered under Rule 7 (a), or by motion for judgment on the pleadings, or at the trial on the merits."). There are reasons to question the wisdom of permitting failure-to-state-a-claim defenses to be raised on different legal theories in back-to-back 12(b)(6) and 12(c) motions. *See Sprint Telephony PCS, L.P. v. Cty. of San Diego,* 311 F. Supp. 2d 898, 905 (S.D. Cal. 2004) ("It is a waste of judicial resources to consider motion after motion in which defendants raise the same defense over and over, each time testing a new argument. Allowing such a tactic means that defendants potentially could stall litigation indefinitely as long as they can conjure up a new argument on which to base a failure to state a claim defense."). But as presently written, the rules plainly permit such successive motions.

upon. First, federal defendants move to dismiss President Trump as a defendant, arguing that he is not essential to effective relief and his presence in the lawsuit violates the separation of powers. Second, federal defendants seek dismissal of the lawsuit in its entirety, on the theory that the APA governs all challenges to federal agency action and plaintiffs have failed to state a claim under the APA. Third, federal defendants invite the Court to reconsider all aspects of its opinion and order denying their November 2016 motion to dismiss and urge dismissal of the lawsuit on the grounds raised in that motion. Finally, echoing arguments raised two years ago by intervenor-defendants, federal defendants contend that dismissal of this action is required because the Court cannot redress plaintiffs' injuries without violating the separation of powers.

A. *Motion to Dismiss President Trump as a Defendant*

Federal defendants first move to dismiss President Trump as a defendant. The Ninth Circuit declined to address federal defendants' argument on that point in its denial of the 2017 mandamus petition because defendants had not first raised the issue in this Court. *See In re United States,* 884 F.3d at 836 ("First, to the extent the defendants argue that the President himself has been named as a party unnecessarily and that defending this litigation would unreasonably burden him, this argument is premature because the defendants never moved in the district court to dismiss the President as a party.").

At oral argument, the parties reported that plaintiffs were willing to stipulate to the dismissal of the President without prejudice. Federal defendants rejected

that offer and request dismissal with prejudice. In the absence of a stipulation, the Court must address both whether dismissal is warranted and, if it is, whether that dismissal should be with or without prejudice.

Federal defendants assert that it would violate separation of powers principles for this Court to issue an injunction or declaration against President Trump in connection with his official duties. The extent to which a federal court may issue equitable relief against a sitting President is unsettled and hotly contested. As Justice O'Connor, writing for a plurality of the Court, explained twenty-five years ago:

> While injunctive relief against executive officials like the Secretary of Commerce is within the courts' power, *see Youngstown Sheet & Tube Co. v. Sawyer,* [343 U.S. 579 (1952),] the District Court's grant of injunctive relief against the President himself is extraordinary, and should have raised judicial eyebrows. We have left open the question whether the President might be subject to a judicial injunction requiring the performance of a purely "ministerial" duty, *Mississippi v. Johnson,* 4 Wall. 475, 498-499 (1867), and we have held that the President may be subject to a subpoena to provide information relevant to an ongoing criminal prosecution, *United States v. Nixon,* 418 U.S. 683 (1974), but in general "this court has no jurisdiction of a bill to enjoin the President in the performance of his official duties." *Mississippi v. Johnson,* [4 Wall. at 501]. At the threshold, the District Court should have evaluated whether injunctive relief against the President was available, and, if not, whether appellees' injuries were nonetheless redressable.

Franklin v. Massachusetts, 505 U.S. 788, 802-03 (1992) (plurality op.) (parallel citations omitted). Justice O'Connor ultimately concluded that it was unnecessary to "decide whether injunctive relief against the President was appropriate" because "the injury alleged [wa]s likely to be redressed by declaratory relief against the Secretary [of Commerce] alone." *Id.* at 803.

Since *Franklin*, subsequent cases have made clear that there is no absolute bar on issuance of declaratory and injunctive relief against a sitting president, even with regard to the exercise of his official duties. For example, in *Clinton v. City of New York*, 524 U.S. 417, 449 (1998), the Supreme Court affirmed a declaratory judgment holding that certain actions taken by President Clinton under the Line Item Veto Act violated the Constitution's allocation of lawmaking authority between Congress and the President.

In its recent decision on President Trump's second "travel ban" executive order, the Ninth Circuit cited *Franklin* for the proposition that when adequate equitable relief is likely available from some inferior governmental official (or group of officials) the President ought to be dismissed out of respect for separation of powers:

> Finally, the Government argues that the district court erred by issuing an injunction that runs against the President himself. This position of the Government is well taken. Generally, we lack "jurisdiction of a bill to enjoin the President in the performance of his official duties." *Franklin v. Massachusetts*, 505 U.S. 788, 802-03 (1992) (quoting *Mississippi v. Johnson*, 71 U.S. (4 Wall.) 475, 501 (1866)); *see id.* at 802 ("[I]njunctive relief against

> the President himself is extraordinary, and should . . . raise [] judicial eyebrows."). Injunctive relief, however, may run against executive officials, including the Secretary of Homeland Security and the Secretary of State. *See, e.g., Youngstown Sheet & Tube Co.,* 343 U.S. at 588-89 (holding that President Truman did not act within his constitutional power in seizing steel mills and affirming the district court's decision enjoining the Secretary of Commerce from carrying out the order); *Franklin,* 505 U.S. at 802-03.
>
> We conclude that Plaintiffs' injuries can be redressed fully by injunctive relief against the remaining Defendants, and that the extraordinary remedy of enjoining the President is not appropriate here. *See Franklin,* 505 U.S. at 803. We therefore vacate the district court's injunction to the extent the order runs against the President, but affirm to the extent that it runs against the remaining "Defendants and all their respective officers, agents, servants, employees, and attorneys, and persons in active concert or participation with them."

Hawaii v. Trump, 859 F.3d 741, 788 (9th Cir. 2017), *vacated and remanded on mootness grounds,* 138 S. Ct. 377 (2017). *Hawaii* makes *Franklin*'s plurality opinion on this point binding Ninth Circuit precedent. The inquiry is not into the President's action or inaction in relationship to the injuries complained of, but rather into the relief requested, and whether or not equitable remedies involving the President himself are essential to that relief. As adopted in *Hawaii, Franklin*'s rule on when the President is an appropriate defendant is best understood as a strain of the canon of constitu-

tional avoidance: because granting equitable relief against the President of the United States raises serious constitutional questions, dismissal of the President as a defendant is appropriate whenever it appears likely that the plaintiffs' injuries can be redressed through relief against another defendant.

Plaintiffs' opposition to dismissing President Trump boils down to a general assertion that complete relief may be unavailable without the President as a defendant. They argue that further development of the factual record is necessary to determine whether injunctive or declaratory relief is available against President Trump and whether plaintiffs' injuries are redressable in the absence of such relief. The Court is not persuaded. This lawsuit is, at its heart, a challenge to the environmental and energy policies of the federal government as expressed through the action (or inaction) of federal agencies. Because the Supreme Court and Ninth Circuit have spoken so clearly about the separation of powers concerns inherent in awarding equitable relief against a sitting president, the burden is on plaintiffs to explain with specificity why relief against President Trump is essential to redressing their injuries. They have failed to carry that burden.

In an attempt to demonstrate why President Trump is necessary to effective equitable relief, plaintiffs cite a number of specific presidential actions in their Amended Complaint and briefs. For example, plaintiffs cite:

- An Executive Order in which President Trump directed a rollback of the Clean Power Plan by rescinding the moratorium on coal mining on federal lands and six other Obama-era executive

orders aimed at curbing climate change and regulating emissions;

- An Executive Order in which President Trump ordered the expedition of environmental reviews and approvals for infrastructure projects;
- An Executive Order in which President Trump ordered a review of the "Waters of the United States" Rule; and
- Presidential memoranda encouraging approval of the Dakota Access Pipeline and the Keystone XL Pipeline.

The problem with those examples is that it is not enough, under *Hawaii,* to show that the President was involved in the challenged action; plaintiffs must show that effective relief is *unavailable* unless it is awarded against the President. Like the "travel ban" challenged in *Hawaii,* each of the foregoing orders and memoranda included express directives to be carried out by other governmental officials. *See, e.g.* Exec. Order No. 13783, 82 Fed. Reg. 16093 (Mar. 28, 2017) (issuing orders to "[t]he heads of agencies" including to the "Administrator of the Environmental Protection Agency" and the "Secretary of the Interior"); Exec. Order No. 13766, 82 Fed. Reg. 8657 (directing the Chairman of the White House Council on Environmental Quality the Director of the Office of Management and Budget to take certain actions); Exec. Order No. 13778, 82 Fed. Reg. 12497 (Feb. 28, 2017) (addressing "the Administrator, the Assistant Secretary, and the heads of all executive departments and agencies" including the Administrator of the Environmental Protection Agency); President Trump Takes Action to

Expedite Priority Energy and Infrastructure Projects (Jan. 24, 2017), https://www.whitehouse.gov/briefings-statements/president-trump-takes-action-expedite-priority-energy-infrastructure-projects/ (summarizing memoranda addressed to "relevant Federal agencies"). Thus, with respect to the propriety of the President as a defendant, this case is indistinguishable from *Hawaii* and *Franklin*: because lower governmental officials are charged with executing the challenged presidential policies, equitable relief against President Trump is not essential to redressability.

Plaintiffs note that *Hawaii* concerned injunctive relief only, and certainly injunctive relief implicates more serious separation of powers concerns than declaratory relief. But as articulated in *Franklin, any* equitable relief awarded against a sitting president with respect to his official duties raises constitutional concerns. Accordingly, when effective relief is available against lower administration officials, the Court concludes that dismissal of the President is the correct decision for either type of equitable relief. *See Franklin,* 505 U.S. at 827-828 (Stevens, J., concurring) (arguing that declaratory relief against the president, like injunctive relief, "would produce needless head-on confrontations between district judges and the Chief Executive"). On the current record, the Court concludes that President Trump is not essential to effective relief because "[p]laintiffs' injuries can be redressed fully by injunctive [or declaratory] relief against the remaining [d]efendants." *Hawaii,* 859 F.3d at 788. Due respect for separation of powers therefore requires dismissal of President Trump as a defendant.

The next question is whether dismissal should be with or without prejudice. Across a host of contexts, the default rule is dismissal without prejudice. *See, e.g., Lopez v. Smith,* 203 F.3d 1122, 1127 (9th Cir. 2000) (stating that dismissal under Federal Rule of Civil Procedure 12(b)(6) should be with prejudice only if the court determines that the pleading "could not possibly be cured by the allegation of other facts"); *Hamilton Copper & Steel Corp. v. Primary Steel, Inc.,* 898 F.2d 1428, 1429 (9th Cir. 1990) (explaining that, even when a party's misconduct justifies the sanction of dismissal, dismissal with prejudice is "extreme" and rarely deployed); Fed. R. Civ. P. 41(a)(2) (providing that dismissal at the plaintiffs request shall be without prejudice unless the dismissal order states otherwise); *In re Fresenius Granuflo/Naturalyte Dialysate Prods. Liability Litig.,* 111 F. Supp. 3d 103, 106 (D. Mass. 2015) (explaining that dismissal with prejudice under Rule 41(a)(2) generally is justified only in situations where it is clear that there is "no way for any plaintiff to bring the same claim" in the future, for example when the applicable statute of limitations has "conclusively run"); *Lepesh v. Barr,* 2001 WL 34041885, *3 (D. Or. 2001) (citing Ninth Circuit precedent governing when amendment of a pleading would be futile for the proposition that dismissal should be with prejudice only if it "appear[s] to a certainty that Plaintiff would not be entitled to relief under any set of facts that could be proven").

Federal defendants argue that President Trump should be dismissed with prejudice because Supreme Court and Ninth Circuit precedent is clear that federal courts lack jurisdiction to issue equitable relief in connection with a sitting president's performance of his

official duties. As explained above, however, neither the Supreme Court nor the Ninth Circuit has gone so far. Indeed, it is clear that under some limited circumstances and when required by the constitution, such equitable relief is available. *Clinton,* for example, involved a challenge to President Clinton's use of the line-item veto. *Clinton,* 524 U.S. at 449. The veto power is, of course, exercised directly by the President and not by subordinate agencies, so no other federal official would have been an appropriate defendant in that case. More recently, in a case involving alleged violations of the Foreign and Domestic Emoluments Clauses of the Constitution, the U.S. District Court for the District of Maryland addressed the availability of equitable relief against President Trump:

> The Court also disagrees that the President's status as the sole defendant changes this analysis, given that no official other than he could be sued to enforce the purported violations at issue. "[I]t would be exalting form over substance if the President's acts were held to be beyond the reach of judicial scrutiny when he himself is the defendant, but held within judicial control when he and/or the Congress has delegated the performance of duties to federal officials subordinate to the President and one or more of them can be named as a defendant." *Nat'l Treasury Emps. Union v. Nixon,* 492 F.2d 587, 613 (D.C. Cir. 1974).

District of Columbia v. Trump, 291 F. Supp. 3d 725, 751-52 (D. Md. 2018). The Emoluments Clauses, like the veto power, are specific to the President. A lawsuit asserting violation of those clauses therefore could

not be directed to federal agency heads or other federal officials.

As explained above, on the current record, it appears that this is a case in which effective relief is available through a lawsuit addressed only to lower federal officials. It is not possible to know how developments to the record in the course of the litigation may change the analysis. The Court cannot conclude with certainty that President Trump will never become essential to affording complete relief. For that reason, the Court concludes that dismissal without prejudice is the appropriate course. Any harm the President will suffer from the continuing *hypothetical possibility* that he might be joined as a defendant in the future is minimal. Moreover, that minimal harm is further mitigated by the fact that federal defendants would be free to oppose any future motion for leave to amend the complaint and add the President as a defendant on the grounds that permitting such amendment would cause "undue prejudice to the opposing party." *Foman v. Davis,* 371 U.S. 178, 182 (1962).

Federal defendants' motion to dismiss President Trump from this lawsuit is granted. The dismissal is without prejudice.

B. *Motion to Dismiss for Failure to State a Claim under the APA*

Federal defendants next argue that this entire case must be dismissed because plaintiffs are challenging the actions (and inactions) of federal agencies, and thus

must bring their suit, if at all, under the APA.[5] The APA provides a right of judicial review to "[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action." 5 U.S.C. § 702. "Agency action made reviewable by statute and final agency action for which there is no

[5] As a threshold matter, plaintiffs contend that this Court already has rejected federal defendants' APA argument, and that the Ninth Circuit affirmed that rejection under the "no clear error' standard. Neither contention is correct. First, this Court has not addressed federal defendants' APA argument. Federal defendants argued in their motion to dismiss that plaintiffs had failed to identify a viable cause of action, but they did not argue that the APA was the exclusive vehicle for claims that a federal agency has violated a plaintiff's constitutional rights. Second, the Ninth Circuit did not "affirm" any of this Court's determinations under the "clear error" standard. It is true that in both mandamus opinions, the Ninth Circuit held that the government had not shown that this Court's order was "clearly erroneous as a matter of law," as required to satisfy the third factor of the five-factor test for mandamus relief. *In re United States,* 884 F.3d at 837-38; *see also In re United States,* 2018 WL 3484444, at *2 ("As detailed in our opinion denying the first mandamus petition, the government does not satisfy the third, fourth, or fifth *Bauman* factors."). But in finding that the third factor had not been satisfied, the Ninth Circuit declined to take a position on whether this Court's rulings were clearly erroneous. *See In re United States,* 884 F.3d at 837 ("[W]e decline to exercise our discretion to intervene at this stage of the litigation to review preliminary legal decisions made by the district court or otherwise opine on the merits."). Because this is the first time either this Court or the Ninth Circuit has addressed federal defendants' APA argument, the Court will address the argument on its merits. *See Sprint Telephony,* 311 F. Supp. 2d at 905 (holding that application of the law of the case doctrine was inappropriate because, "although the court previously considered defendants' failure to state a claim *defense* in its earlier order, the court has not considered the *issues* defendants now raise in their motion presently before the court").

other adequate remedy in court are subject to judicial review." *Id.* § 704. A reviewing court has authority both to "compel agency action unlawfully withheld or unreasonably delayed" and to "set aside agency action" on several grounds, including that the action is "arbitrary, capricious, [or] an abuse of discretion;" is "contrary to constitutional right, power, privilege, or immunity"; or exceeds the agency's statutory authority. *Id.* § 706(1) & (2)(A)-(C). The APA's judicial review provisions apply only in limited circumstances such as when agency action is final or "otherwise reviewable by statute." *Navajo Nation v. Dep't of the Interior*, 876 F.3d 1144, 1171 (9th Cir. 2017).

When a plaintiff asserts an APA claim, the court must determine whether the plaintiff has identified a final agency action subject to judicial review. *Lujan v. Nat'l Wildlife Fed.*, 497 U.S. 871, 882 (1990). But here, plaintiffs have not asserted APA claims; their claims are brought directly under the United States Constitution, which has no "final agency action" requirement. As a general rule, plaintiffs are "master[s] of [their] complaint" and may choose which claims to assert and which legal theories to press. *Caterpillar, Inc. v. Williams*, 482 U.S. 386, 398-99 (1987). Federal defendants' APA argument succeeds only if they can demonstrate that the APA is the only available avenue to judicial review of the government's conduct that plaintiffs challenge in this lawsuit.

Federal defendants' argument that the APA is the exclusive means to challenge *any* agency action rests on the proposition that "[w]here Congress has created a remedial scheme for the enforcement of a particular federal right," courts "have, in suits against federal of-

ficers, refused to supplement that scheme with one created by the judiciary." *Seminole Tribe of Fla. v. Florida*, 517 U.S. 44, 74 (1996). Federal defendants indiscriminately cite cases involving both claims for damages and claims for equitable relief in arguing that the APA is a comprehensive statutory scheme demonstrating Congressional intent to cut off common law claims. But in order to properly analyze federal defendants' argument, it is critical to avoid conflating the Supreme Court's treatment of claims for damages with its treatment of claims for equitable relief.

In *Bivens v. Six Unknown Named Agents of Federal Bureau of Narcotics*, 403 U.S. 388, 396 (1971), the Supreme Court broke new ground by permitting a suit for damages against federal officials for violations of the Fourth Amendment, even though no federal statute created such a cause of action. The Court subsequently extended *Bivens* to two other contexts. In *Davis v. Passman*, 442 U.S. 228, 247 (1979), the Court recognized an implied right of action to sue for damages based on an allegation that a U.S. Congressman had discriminated against an employee on the basis of sex, in violation of the Due Process Clause of the Fifth Amendment. And in *Carlson v. Green*, 446 U.S. 14, 20 (1980), the Court recognized a *Bivens* cause of action for a federal prisoner alleging violations of his rights under the Eighth Amendment.

"Since *Carlson*, however, the Supreme Court has consistently refused to extend *Bivens* liability to any new context or new category of defendants." *Western Radio Servs. Co. v. U.S. Forest Serv.*, 578 F.3d 1116, 1119 (9th Cir. 2009); *see also, Armstrong v. Exceptional Child Ctr., Inc.*, ___ *U.S.* ___, 135 S. Ct. 1378, 1384

(2015) (rejecting the argument that the Supremacy Clause creates an implied cause of action for every violation of federal law). As the Ninth Circuit has explained, whether to recognize a *Bivens* cause of action in a new context involves a two-step inquiry:

> First, the Court determines whether there is any alternative, existing process for protecting the plaintiffs interests. Such an alternative remedy would raise the inference that Congress expected the Judiciary to stay its *Bivens* hand and refrain from providing a new and freestanding remedy in damages. The Court has explained that, when the design of a Government program suggests that Congress has provided what it considers adequate remedial mechanisms for constitutional violations that may occur in the course of its administration, we have not created additional *Bivens* remedies. . . .
>
> . . . .
>
> Second, if the Court cannot infer that Congress intended a statutory remedial scheme to take the place of a judge-made remedy, the Court next asks whether there nevertheless are factors counseling hesitation before devising such an implied right of action. Even where Congress has given plaintiffs no damages remedy for a constitutional violation, the Court has declined to create a right of action under *Bivens* when doing so would be plainly inconsistent with Congress' authority in this field.

Id. at 1120-21 (citations and internal quotation marks omitted).

Applying that two-step inquiry in *Western Radio,* the Ninth Circuit determined that the APA is the sort

of "comprehensive remedial scheme" that indicates "Congress's intent that courts should not devise additional, judicially crafted default remedies." *Id.* at 1123. Based on that determination, the court held "that the APA leaves no room for *Bivens* claims based on agency action or inaction." *Id.* Federal defendants cite *Western Radio* for its broad language on the comprehensiveness of the APA. However, Ninth Circuit and Supreme Court precedent make clear that the analysis for *Bivens* claims is specific to the availability of remedies for *damages.*

The process for determining whether Congress intended to cut off common law claims *for equitable relief*—such as those contained in plaintiffs' petition—is substantially different. With respect to equitable relief, the Supreme Court has expressly required a "heightened" showing of clear legislative intent to displace constitutional claims in part to avoid the "serious constitutional question" that would arise "if a federal statute were construed to deny any judicial forum for a colorable constitutional claim." *Webster v. Doe,* 486 U.S. 592, 603 (1988). In *Webster,* the Supreme Court expressly rejected the argument that the APA provided the only available route to judicial review of agency action and inaction. *Id.* That rejection is brought into sharp relief by Justice Scalia's assertion, in dissent, that "at least with respect to all entities that come within the [APA]'s definition of 'agency,' if review is not available under the APA it is not available at all." *Id.* at 607 n.* (Scalia, J., dissenting).

The APA contains no express language suggesting that Congress intended it to displace constitutional claims for equitable relief. Indeed, the Ninth Circuit

has held that § 702 of the APA "is an unqualified waiver of sovereign immunity in actions seeking nonmonetary relief against legal wrongs for which governmental agencies are accountable"—whether such actions are asserted under the APA or under the general federal question jurisdiction statute. *The Presbyterian Church (U.S.A.) v. United States,* 870 F.2d 518, 525 & n.9 (9th Cir. 1989). Recognition of causes of action against federal agencies that fall outside the APA is implicit in *Presbyterian Church;* it makes little sense to hold that the APA waives sovereign immunity for both APA and non-APA claims against federal agencies if the only viable claims are subject to the APA's judicial review provisions.

In a recent case involving a challenge to "the confinement conditions imposed on illegal aliens pursuant to a high-level executive policy," the Supreme Court underscored the difference between claims for damages and claims for equitable relief:

> It is of central importance, too, that this is not a case like *Bivens* or *Davis* in which it is damages or nothing. Unlike the plaintiffs in those cases, respondents do not challenge individual instances of discrimination or law enforcement overreach, which due to their very nature are difficult to address except by way of damages actions after the fact. Respondents instead challenge large-scale policy decisions concerning the conditions of confinement imposed on hundreds of prisoners. *To address those kinds of decisions, detainees may seek injunctive relief.*

Ziglar v. Abbasi, ___ *U.S.* ___ 137 S. Ct. 1843, 1862 (2017) (citations and internal quotation marks omitted) (emphasis added). The Court expressly noted that separation-of-powers concerns "are . . . more pronounced when the

judicial inquiry comes in the context of a claim seeking money damages rather than a claim seeking injunctive or other equitable belief" because "the risk of personal damages liability is more likely to cause an official to second-guess difficult but necessary decisions[.]" *Id.* at 1861.

Supreme Court, Ninth Circuit, and other cases plainly show that challenge to federal agency action may, depending on the circumstances, be stated as an APA claim or a constitutional claim. *See, e.g., Franklin,* 505 U.S. at 801 ("Although the apportionment challenge is not subject to review under the standards of the APA, that does not dispose of appellees' constitutional claims."); *Webster,* 486 U.S. at 603 (holding that § 102(c) of the National Security Act rendered the CIA director's personnel decisions unreviewable under the APA, but rejecting that argument that the same statute precluded a claim that those decisions violated the Constitution); *Navajo Nation,* 876 F.3d at 1170 ("Claims not grounded in the APA, like . . . constitutional claims . . . , do not depend on the cause of action found in the first sentence of § 702 [of the APA] and thus § 704's limitation does not apply to them.") (internal quotation marks omitted and alterations normalized); *Stone v. Trump,* 280 F. Supp. 3d 747, 772 (D. Md. 2017) (dismissing the plaintiffs' APA claim but permitting equal protection and due process claims to proceed in a case challenging the ban on transgender individuals serving in the military); *L. v. U.S. Immigration & Customs Enforcement,* 302 F. Supp. 3d 1149, 1168 (S.D. Cal. 2018) (dismissing the plaintiffs' APA claim but permitting their due process claim to proceed in a case challenging the federal practice of separating migrant children from their parents at the border).

Plaintiffs' claims simply do not fall within the scope of the APA. As federal defendants correctly point out, the Supreme Court has made clear that review under the APA requires a "case-by-case approach" to determine whether "a specific final agency action has an actual or immediately threatened effect." *Lujan*, 497 U.S. at 892. By its terms, the APA contains no provisions by which plaintiffs may "seek *wholesale* improvement of [an agency] program by court decree[.]" *Id.* at 891 (emphasis in original). But that case law does not support the conclusion that plaintiffs' claims must be dismissed; it simply underscores that plaintiffs' claims are not APA claims. Plaintiffs do not contend that any single agency action is causing their asserted injuries—nor could they, given the complex chain of causation involved in climate change. They seek review of *aggregate action* by *multiple agencies*, something the APA's judicial review provisions do not address. The APA does not govern plaintiffs' claims. As a result, plaintiffs' failure to state a claim under the APA is not a ground for dismissal of this action.

C. *Motion to Dismiss on Separation of Powers Grounds & Request to Reconsider the November 2016 Denial of the Government's 12(b)(6) Motion*

Finally, federal defendants raise a set of arguments on which this Court already has ruled. First, federal defendants open their Rule 12(c) motion by asserting "that [they are] entitled to judgment as a matter of law for the reasons set forth in [their] November 2015 motion to dismiss." Defs.' Mot. for J. on the Pleadings 6. Federal defendants ask the Court to "revisit its order denying the motion to dismiss and grant judgment to Defendants on some or all of Plaintiffs' claims." *Id.* at 7. Second and more specifically, federal defendants argue

that any claim brought outside the APA's framework is foreclosed by the separation of powers.

As an initial matter, the Court acknowledges now, as it did in 2016, that the allocation of power among the branches of government is a critical consideration in this case and reiterate that, "[s]hould plaintiffs prevail on the merits, this Court would no doubt be compelled to exercise great care to avoid separation-of-powers problems in crafting a remedy." *Juliana*, 217 F. Supp. 3d at 1241. The Court recognizes that there are limits to the power of the judicial branch, as demonstrated by the Court's determination that President Trump is not a proper defendant in this case.

This is the first time that federal defendants have highlighted separation of powers concerns; they did not raise that argument, except in passing, in their 12(b)(6) motion. But former defendant-intervenors raised and fully briefed separation-of-powers arguments in the section of their motion to dismiss addressing the political question doctrine. Although this is the first time federal defendants are raising a political question challenge, their brief on the subject largely reiterates arguments considered and rejected in the opinion and order on the motion to dismiss. And obviously, the invitation to reconsider the November 2016 order and opinion necessarily implicates issues on which this Court has already ruled.

In order to determine how to address federal defendants' attempt to re-raise these issues, the Court begins by considering the application of the law of the case doctrine. Under that doctrine, "a court is ordinarily precluded from reexamining an issue previously decided by the same court." *Old Person v. Brown*,

312 F.3d 1036, 1039 (9th Cir. 2002). The doctrine is "founded upon the sound public policy that litigation must come to end." *Jeffries v. Wood*, 114 F.3d 1484, 1489 (9th Cir. 1997) (en banc). It also "serves to maintain consistency." *Id.* The doctrine has three exceptions: reconsideration is permitted when "(1) the decision is clearly erroneous and its enforcement would work a manifest injustice, (2) intervening controlling authority makes reconsideration appropriate, or (3) substantially different evidence was adduced at a subsequent trial." *Old Person*, 114 F.3d at 1039. Although the federal rules permit back-to-back motions to dismiss for failure to state a claim, *see* Section I n.3, *supra,* courts are under no obligation to give full consideration to a rehash of arguments already presented in a 12(b)(6) motion. *See Alexander v. City of Greensboro,* 801 F. Supp. 2d 429, 434 (M.D.N.C. 2011) (declining to "reconsider issues that it addressed fully at the Rule 12(b)(6) stage" in adjudicating a Rule 12(c) motion).

To the extent that federal defendants seek reconsideration on questions unrelated to the Court's subject matter jurisdiction, the Court declines to revisit its earlier rulings. The Court gave full and fair consideration to the arguments federal defendants now raise in their November 2016 opinion. Nothing has changed to warrant expending judicial resources in retreading that ground at this juncture. The same legal standard applies to motions under Rules 12(b)(6) and 12(c) and federal defendants have cited no intervening changes in the law.

To the extent that federal defendants' arguments challenge subject matter jurisdiction, the law of the case doctrine does not apply. *United States v. Houser*, 804 F.2d 565, 569 (9th Cir. 1986). But federal defend-

ants have pointed to no relevant change in circumstances or the governing law between November 2016 and today. Accordingly, the Court has little to add to the prior opinion, which addressed the separation of powers issue at length. *See Juliana,* 217 F. Supp. 3d at 1235-42, 1270-71. The separation of powers did not require dismissal of this lawsuit in November 2016, and it does not require dismissal of this lawsuit now.

Due respect for the separation of powers has informed, and will continue to inform, the Court's approach to this case at every step of the litigation. The Court remains mindful, however, that it is "emphatically the province and duty of the judicial department to say what the law is." *Marbury v. Madison,* 5 U.S. 137, 177 (1803). Courts have an obligation not to overstep the bounds of their jurisdiction, but they have an equally important duty to fulfill their role as a check on any unconstitutional actions of the other branches of government.

II. *Motion for Summary Judgment*[6]

Federal defendants raise several arguments in their motion for summary judgment, many of which were previously considered in the November 2016 Order. Namely, federal defendants reiterate their contention that plaintiffs lack Article III standing because their

[6] Subsequent to Oral Argument in July 2018, plaintiffs filed what they style as a Notice of Supplemental Disputed Facts Raised by federal defendants' Expert Reports in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment. (doc. 338) Essentially, plaintiffs submit excerpts from defendant's expert reports and argue that these submissions show that genuine issues of material fact remain for trial. However, the Court declines to consider the notice as it is untimely and prohibited under the District's Local Rules. L.R. 7-1(f).

injuries are not concrete and particularized; the harms alleged by plaintiffs are not fairly traceably to federal defendants; and plaintiffs' claims are not redressable by this Court. Federal defendants also argue that plaintiffs have failed to adequately state a claim under the APA and that plaintiffs' claims would violate separation of powers principles. Federal defendants further argue, as they did in their previous motion to dismiss, that there is no fundamental right to a climate system capable of sustaining human life; that plaintiffs cannot establish a state-created danger claim; and that the public trust doctrine does not apply to the federal government.

In response, plaintiffs proffer the declarations of the named plaintiffs as well as declarations from eighteen expert witnesses.[7] They argue that genuine issues of material fact exist as to standing, separation of powers, and their due process and public trust claims.

[7] Many of documents referenced by plaintiffs' in their response to the motion for summary judgment, and supporting declarations, are subject to their motion *in limine* (doc. 254) seeking judicial notice of certain documents. The Court has examined which of those documents are judicially noticeable in a contemporaneous opinion. Further, at oral argument plaintiffs requested that the Court take judicial notice of the announcement of the Department of Interior's plan to offer 78 million acres offshore of the Gulf Coast for oil and gas exploration and development. The Court has located the announcement of the plan available on the Department's public website. https://www.doi.gov/pressreleases/interior-announces-region-wide-oil-and-gas-lease-sale-gulf-mexico. Consistent with the Court's analysis the contemporaneous opinion regarding plaintiffs' first motion *in limine,* the Court takes judicial notice of the announcement.

Many of these arguments raised in the present motion are substantially similar to those raised in federal defendants' and the former defendant-intervenors' motions to dismiss. However, federal defendants correctly note that the standard for this Court in reviewing a motion for summary judgment is different than the standard which was applied in the previous order. Thus the Court must review the briefing and record to determine whether there is any genuine dispute as to any material fact and the government is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a).

A. *Standing*

Federal defendants argue, as they did at the pleadings stage, that plaintiffs lack Article III standing to bring their claims. While many of the arguments offered in the present summary judgment motion are substantially similar to those offered in the federal defendants' previous motion to dismiss, a different standard applies at this stage of the proceedings.

To avoid summary judgment, plaintiffs need not establish that they in fact have standing but only that there is a genuine question of material fact as to the standing elements. *Cent. Delta Water Agency v. United States,* 306 F.3d 938, 947 (9th Cir. 2002). To demonstrate standing, a plaintiff must show that (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. *Lujan v. Defenders of Wildlife,* 504 U.S. 555, 560 (1992). A plaintiff must support each element of the standing test "with the manner and degree of evidence required at the successive stages of

the litigation." *Id.* at 561. General factual allegations of injury resulting from the defendant's conduct will suffice in responding to a motion to dismiss. *Id.* In responding to a motion for summary judgment, however, a plaintiff can no longer rest on "'mere allegations,' but must 'set forth' by affidavit or other evidence 'specific facts,' Fed. Rule Civ. Proc. 56(e), which for purposes of the summary judgment motion will be taken to be true." *Id.* And at the final stage of standing evaluation, those facts (if controverted) must be supported adequately by the evidence adduced at trial. *Id.*

i. *Injury in Fact*

In an environmental case, a plaintiff cannot demonstrate injury in fact merely by alleging injury to the environment; there must be an allegation that the challenged conduct is harming (or imminently will harm) the plaintiff. *Friends of the Earth, Inc. v. Laidlaw Envt'l Servs. (I'OC), Inc.*, 528 U.S. 167, 181 (2000). For example, a plaintiff may meet the injury in fact requirement by alleging that the challenged activity "impairs his or her economic interests or aesthetic and environmental well-being." *Wash. Envt'l Council v. Bellon*, 732 F.3d 1131, 1140 (9th Cir. 2013) (quotation marks omitted and alterations normalized).

Plaintiffs have filed sworn declarations attesting to a broad range of personal injuries caused by human induced climate change. For example, plaintiff Jayden F. attests to being injured by extreme weather events in 2016 and 2017 which led to the flooding in both 2016 and 2017 of her home in Rayne, Louisiana. Jayden Decl. ¶ 2-16; ¶ 26; ¶ 28-32. This has caused emotional trauma, lost recreational opportunities, as

well as lost personal and economic security. *Id.* at ¶ 36; 39-42. Other plaintiffs also attest to injuries caused by flooding caused by sea level rise and extreme weather events. *See* Journey Decl. ¶¶ 21-27; Levi Decl. ¶¶ 3; 12-16; Tia Decl. ¶ 9; Victoria Decl. ¶¶ 8-9. Similarly, plaintiff Journey attests that harm to his health, personal safety, cultural practices, economic stability, food security and recreation interests have occurred due to climate destabilization and ocean acidification. Journey Decl. ¶¶ 1; 11-20;; *See also* Journey Decl. 21-27; Levi Decl. ¶¶ 3; 12-16; Tia Decl. ¶ 9; Victoria Decl. ¶¶ 8-9; Jacob Decl. ¶ 20; Wanless Decl. Ex. 1 at 30.

Plaintiff Kelsey Juliana attests that climate change has harmed her recreational interests in Oregon's freshwater lakes, rivers, forests, and mountains and has degraded the quality of local food sources and drinking water. Kelsey Decl. ¶¶ 10-12. She, like other plaintiffs, also alleges adverse health and recreation impacts caused by the increased occurrence and intensity of seasonal wildfires. *Id.* ¶ 15; Aji Decl. ¶¶ 2-3; Alexander Decl. ¶¶ 33-41; Jaime Decl. ¶ 17; Kirin Decl. ¶¶ 6-8; Xiuhtezcatl Decl. ¶ 15; Zealand Decl. ¶ 6. Some plaintiffs attest that they are suffering psychological trauma as result of fossil-fuel induced climate change caused by federal defendants. *See* Levi Decl. ¶ 5; Victoria Decl. ¶¶ 8-10, 16-18; Jayden Decl. ¶ 42; Nicholas Decl. ¶¶ 4, 7, 17. Other plaintiffs attest to injuries to their indigenous and cultural practices and values. Miko Decl. ¶¶, 6-7, Jamie Decl. ¶¶ 12-14; Xiuhtezcatl Decl. ¶¶ 6-8. These are merely a selection of the many injuries alleged.

Plaintiffs further offer expert testimony tying injuries alleged by plaintiffs to fossil fuel induced global

warming. *See* Trenberth Decl. 23 ("[I]t is my expert opinion that Plaintiffs including Jayden, Levi, Xiuhtezcatl, Victoria, Jaime, Journey, Zealand, and Nathan are already experiencing extreme weather events that have been exacerbated due to anthropogenic climate change."); Frumpkin Decl. Ex. 1, 2 & 11; Running Decl. 13 ("This will impact the many Plaintiffs in the West who suffer increased risk and severity of impacts from wildfires near their homes, in places that they visit for recreation, and in the air they breathe during the extended fire season, including Xiuhtezcatl, Jaime Lynn, Jacob, Sahara, Kelsey, Alex, Zealand, Nick, Aji, Nathan, Hazel and Avery."); Van Sustern Decl. Ex. 1, 17 ("The Plaintiffs I interviewed are suffering a range of emotional injuries from acute and chronic exposure to climate change—from being personally harmed by climate change impacts like drought and extreme weather events, to empathic identification with others who are harmed by climate change, to profound fears about future harm—consistent with those injuries described in the literature."); Stiglitz Decl. Ex. 1 ¶ 29 ("Youth Plaintiffs themselves will suffer the disproportionate, increased financial burdens of climate change as the impacts of climate change propagate throughout the economy.").

Federal defendants argue that these declarations fail to show that plaintiffs' injuries are concrete and particularized to them; rather federal defendants' contend that the injuries alleged are generalized widespread environmental phenomena which affect all other humans on the planet, making them nonjusticiable. *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, ___ U.S. ___ 134 S. Ct. 1377, 1387 n.3 (2014) (ex-

plaining that generalized grievances do not meet Article III's case or controversy requirement).

However, as the Court noted in its November 2016 order:

> The government misunderstands the generalized grievance rule. As the Ninth Circuit recently explained, federal courts lack jurisdiction to hear a case when the harm at issue is "not only widely shared, but is also of an abstract and indefinite nature—for example, harm to the common concern for obedience to the law." *Novak v. United States,* 795 F.3d 1012, 1018 (9th Cir. 2015) (quoting *Fed Elec. Comm'n v. Akins,* 524 U.S. 11, 23 (1998)). Standing alone, "the fact that a harm is widely shared does not necessarily render it a generalized grievance." *Jewel,* 673 F.3d at 909; *see also Massachusetts v. EPA,* 549 U.S. 497, 517 (2007) ("[I]t does not matter how many persons have been injured by the challenged action" so long as "the party bringing suit shows that the action injures him in a concrete and personal way." (quotation marks omitted and alterations normalized)); *Akins,* 524 U.S. at 24 ("[A]n injury . . . . widely shared . . . does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where sufficiently concrete, may count as an 'injury in fact."); *Covington v. Jefferson Cnty.,* 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring) ("[T]he most recent Supreme Court precedent appears to have rejected the notion that injury to all is injury to none for standing purposes."); *Pye v. United States,* 269 F.3d 459, 469 (4th Cir. 2001) ("So long as the plaintiff . . . has a concrete and particularized injury, it

> does not matter that legions of other persons have the same injury."). Indeed, even if the experience at the root of [the] complaint was shared by virtually every American," the inquiry remains whether that shared experience caused an injury that is concrete and particular to the plaintiff. *Jewel,* 673 F.3d at 910.

Juliana, 217 F. Supp. 3d at 1243-44.

Further, denying "standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody." *United States v. Students Challenging Regulatory Agency Procedures,* 412 U.S. 669, 687 (1973). Federal defendants have presented no new controlling authority or other evidence which changes the Court's previous analysis.

As to imminence, plaintiffs must demonstrate standing for each claim they seek to press and for each form of relief sought. *DaimlerChrysler Corp. v. Cuna,* 547 U.S. 332, 352 (2006). Because plaintiffs seek injunctive relief, they must show that their injuries are "ongoing or likely to recur." *Consumer Fin. Prot. Bureau v. Gordon,* 819 F.3d 1179, 1197 (9th Cir. 2016) (quoting *FTC v. Evans Prods. Co.,* 775 F.2d 1084, 1087 (9th Cir. 1985)). Plaintiffs have met this requirement under the summary judgment standard.

Plaintiffs submit evidence that fossil fuel emissions are responsible for most of the increase in atmospheric CO_2, and that increasing CO_2, in turn, is the main cause of global warming, and that atmospheric concentrations of greenhouse gasses, due to fossil fuel combustion, are increasing quickly such that planetary warm-

ing is accelerating at rates never before seen in human history. Hansen Decl. Ex. A, at 38. Further, not only are concentrations of atmospheric CO_2 continuing to increase, but the rate of increase has also nearly doubled since measurements began being recorded pushing humanity closer to the "point of no return." *Id.* at 29, 38. Estimates show that extreme weather events are likely to continue to increase as the global surface temperature continues to rise. *Id.* at 35; Trenberth Decl. Ex. 1, at 1, 8, 13. Indeed, the five hottest years in the 123 years of record-keeping in the United States have all occurred in the past decade. Trenberth Decl. Ex. 1, at 3. Plaintiffs present evidence that 2017 saw record setting events such as extreme wildfires in the western United States[8] and abnormally strong hurricanes in the southeastern United States and Gulf of Mexico (Hurricanes Harvey, Irma, and Maria), all of which were exacerbated by climate change. *Id.* at 7-11.

Further, plaintiffs offer that global sea level rise will continue unabated under current conditions. Plaintiffs' expert Dr. James Hansen has submitted video animations showing how the future impacts of seal level rise will flood or impact the livability of the homes of plaintiffs in Louisiana, Oregon, Washington, Florida,

[8] "By 2006, scientists documented that the wildfire season in the western United States was 87 days longer than it was in the 1980s (Westerling et al. 2006). The number of large fires, >1000 acres, had grown four times, and the number of acres burned per year had increased six times. Recent studies have found the global wildfire season increased 19 [percent] globally from 1979-2013, and the global area vulnerable to wildfire increased 108 [percent] (Jolly et al. 2015)." Running Decl. Ex. 1, 13. Future wildfire activity may be 200-600 [percent] higher than today in the Pacific Northwest alone. *Id.* at 28.

New York, and Hawaii based on current assumptions about carbon emission. Hansen Decl. Ex. E-R. The most recent projections from the National Oceanic and Atmospheric Administration ("NOAA") provide that global mean sea level will rise between 1.5-2.5 m (5-8.2 ft.) by 2100 and that it is expected to continue to rise and even accelerate more after 2100. Wanless Decl. Ex. 1 at 12.

In sum, the Court is left with plaintiffs' sworn affidavits attesting to their specific injuries, as well as a swath of extensive expert declarations showing those injuries are linked to fossil fuel-induced climate change and if current conditions remain unchanged, these injuries are likely to continue or worsen. Federal defendants offer nothing to contradict these submissions, and merely recycle arguments from their previous motion. Thus, for the purposes of this case, the declarations submitted by plaintiffs and their experts have provided "specific facts," of immediate and concrete injuries. *Lujan,* 504 U.S. at 561; *See Bellon,* 732 F.3d at 1141.

ii. *Causation*

A plaintiff must show the injury alleged is "fairly traceable" to the challenged action of the defendant and not the result of the independent action of some third party not before the court." *Lujan,* 504 U.S. at 560 (citation and quotation marks omitted). Although a defendant's action need not be the sole source of injury to support standing, *Barnum Timber Co. v. EPA,* 633 F.3d 894, 901 (9th Cir. 2011), "[t]he line of causation between the defendant's action and the plaintiffs harm must be more than attenuated," *Native Vill. of Kivalina v. ExxonMobil Corp.,* 696 F.3d 849,

867 (9th Cir. 2012) (citations and quotation marks omitted). However, a "causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible." *Id.* (citations, quotation marks, and alterations omitted). At the summary judgment stage, the "causal connection put forward for standing purposes cannot be too speculative, or rely on conjecture about the behavior of other parties, but need not be so airtight at this stage of the litigation as to demonstrate that the plaintiffs would succeed on the merits." *Ecological Rights Found. v. Pac. Lumber Co.,* 230 F.3d 1141, 1152 (9th Cir. 2000)

Here, federal defendants argue again that the association between the conduct of which plaintiffs complain, namely the government's subsidizing the fossil fuel industry; allowing the transportation, exportation, and importation of fossil fuels; setting of energy and efficiency standards for vehicles, appliances, and buildings; reducing carbon sequestration capacity and expanding areas for fossil fuel extraction and production through federal land leasing policies is tenuous and filled with many intervening actions by third parties. Thus, they argue that plaintiffs have failed to tether their injuries, both direct and indirect, to specific actions of the United States.

Federal defendants again rely on the Ninth Circuit's holding in *Bellon* to support their argument that "the causal chain is too weak to support standing" for plaintiffs' injuries. *Bellon,* 732 F.3d at 1142. The Court discussed *Bellon* in detail in its November 2016 Order on the motions to dismiss. *See Juliana,* 217 F. Supp. 3d at 1244-1246. Briefly, the court in *Bellon* found

that the five oil refineries at issue in that case were responsible for just under six percent of total greenhouse gas emissions produced in the State of Washington. The court quoted the state's expert's declaration that the effect of those emissions on global climate change was "scientifically indiscernible, given the emission levels, the dispersal of greenhouse gases worldwide, and the absence of any meaningful nexus between Washington refinery emissions and global greenhouse gases concentrations now or as projected in the future." *Bellon,* 732 F.3d at 1144 (quotation marks omitted).

Previously, the Court distinguished *Bellon* on the procedural basis that it was considering motions to dismiss, while the court in *Bellon* reviewed an order on a motion for summary judgment. Now on summary judgment in this case, the Court still finds that *Bellon* does not foreclose standing for plaintiffs. The court in *Bellon* relied on the scientific evidence, presented in an *"unchallenged declaration"* from the defendants' expert that showed that the causal connection between the regulatory actions of the defendants, the greenhouse gas emissions in question, and the injuries complained of by the plaintiffs were too tenuous to support standing. *Id.* at 1143-44 (emphasis added). The Ninth Circuit later clarified, "causation was lacking [in *Bellon*] because the defendant oil refineries were such minor contributors to greenhouse gas emissions, and the independent third-party causes of climate change were so numerous, that the contribution of the defendant oil refineries was 'scientifically indiscernible.'" *WildEarth Guardians v. U.S. Dep't of Agric.,* 795 F.3d 1148, 1158 (9th Cir. 2015) (quoting *Bellon,* 732 F.3d at 1144).

Unlike in *Bellon,* plaintiffs' claims do not challenge the global impact of such specific emissions. Rather, plaintiffs have proffered uncontradicted evidence showing that the government has historically known about the dangers of greenhouse gases but has continued to take steps promoting a fossil fuel based energy system, thus increasing greenhouse gas emissions. As the Court noted in the November 2016 Order, climate science and our ability to understand the effects of climate change are constantly evolving. *Juliana,* 217 F. Supp 3d at 1245 (quoting Kirsten Engel & Jonathan Overpeck, *Adaptation and the Courtroom: Judging Climate Science,* 3 Mich. J. Envt'l & Admin. L. 1, 25 (2013) (although "climate impacts at the regional and local levels are subject, among other things, to the uncertainties of downscaling techniques [,] . . . our knowledge of the climate is developing at a breakneck pace.")). *Bellon* does not foreclose standing in any suit simply because it is based on actions causing dangerous levels atmospheric carbon emissions.

In further contrast to *Bellon,* the pattern of federally authorized emissions challenged by plaintiffs in this case do make up a significant portion of global emissions. Federal defendants have admitted that "from 1850 to 2012, CO_2 emissions from sources within the United States including from land use "comprised more than 25 [percent] of cumulative global CO_2 emissions." Answer at ¶ 151. At oral argument, federal defendants noted that plaintiffs' evidence only shows "United States' current global contribution to current emissions is around 14 to 15 percent." July 18, 2018 Hearing Trans. 29. In a different context the Supreme Court held that United States motor-vehicle emissions which were responsible for six percent of worldwide CO_2 "make

a meaningful contribution to greenhouse gas concentrations" when "judged by any standard."[9] *Mass. v. EPA,* 549 U.S. at 524-25. The emissions implicated by federal defendants' conduct in the case outstrip either of those considered in either *Bellon* or *Massachusetts.*

Still, federal defendants contend that plaintiffs do not adequately show a causal connection between a specific action taken by federal defendants and their climate change related injuries. They argue that plaintiffs' causal connection is based on the actions of third-party emitters. However, plaintiffs challenge not only the direct emissions of federal defendants through their use of fossil fuels to power its buildings and vehicles[10], but also the emissions that are caused and supported by their policies. Plaintiffs have alleged that federal defendants' systematic conduct, which includes "government policies practices, and actions, showing how each Defendant permits, licenses, leases, authorizes, and/or incentivizes the extraction, development, processing, combustion, and transportation of fossil fuel" caused plaintiffs' injuries. Plaintiffs' Resp. to Mot. for Summ

[9] The court in *Bellon* declined to extend the rationale of *Massachusetts* in part because while the 6 percent of Washington state emissions at issue in that case might be significant in that state, the plaintiffs did not "provide any evidence that places this statistic in national or global perspective to assess whether the refineries' emissions are a meaningful contribution to global greenhouse gas levels." 732 F.3d 1131, 1146 (9th Cir. 2013) (internal citation omitted).

[10] These emissions are not insignificant. In 2016, the federal government had 1,340,000 cars and 1,810,000 trucks in its fleet. Olson Decl. Ex. 136. In 2015, the federal fleet consumed 310,416 gallons of gasoline and 66,736 gallons of diesel. *Id.* The Department of Defense uses enough electricity to power 2.6 million average American homes. *Id.* at Ex. 217

J. 11. And plaintiffs provide evidence that federal defendants' actions (or inaction), such as coal leasing, oil development, fossil fuel industry subsidies, and the setting of fuel efficiency standards for vehicles, led to plaintiffs' injuries.

For example, regarding federal leasing policy, more than five million acres of National Forest lands are currently leased for oil, natural gas, coal, and phosphate development. Olsen Decl. Ex. 73. In 2016, the Department of Interior administered some 5000 active oil and gas leases on nearly 27 million acres in the Outer Continental Shelf. *Id.* Ex. 215. In 2015, 782 million barrels of crude oil, five trillion cubic feet of natural gas, and 421 million tons of coal were produced on federal lands managed by the Department of Interior. *See Id.* Ex. 74. Between 1905 and 2016, the United States Department of Agriculture authorized the harvest of 525,484,148 billion board feet of timber from federal land, thus reducing the country's carbon sequestration capacity. *Id.* Ex. 45. Federal defendants permit livestock grazing on over 95 million acres of National Forest lands in 26 states, further reducing carbon sequestration capacity and increasing methane emissions. *Id.* 42, 46, 52, 50-55, 70. It is uncontested that federal defendants control leasing and permitting on federal land. Third parties could not extract fossil fuels or make other use of the land without Federal Defendants' permission.

Federal defendants also set energy and efficiency standards that do impact the rate at which individual and businesses emit greenhouse gases. The Department of Energy sets energy conservation standards for more than 60 categories of appliances and equipment,

which covers roughly 90 percent of home energy use. *Id.* Ex. 92. Likewise, passenger cars and light trucks cannot be sold in the United States unless they comply with the Fuel Economy Standards set by the Department of Transportation, which historically have been lower in the United States than other developed nations. *Id.* Ex. 151.

Federal defendants' actions impact the import, export, and transport of fossil fuels. For example, in 2015, Congress lifted a ban on crude oil exports and exports rose rapidly thereafter. *Id.* Ex. 96. No offshore liquefied natural gas or oil import and export facility can legally operate without a license from the Department of Transportation. *Id.* at 120 189. The Federal Energy Regulatory Commission must approve interstate transport of fossil fuel, and Department of Transportation permitting is required for transportation of hazardous material including fossil fuels. *Id.* at 384, 385. These examples are merely illustrative of the evidence proffered by plaintiffs.

Plaintiffs' expert declarations also provide evidence that federal defendants' actions have led to led to plaintiffs' complained of injuries. Plaintiffs' expert Dr. James Hansen asserts that "[t]he United States is, by far, the nation most responsible for the associated increase in global temperatures. The [United States] alone is responsible for a 0.15°C increase in global temperature." Hansen Decl. 28. Plaintiffs' expert Dr. Joseph Stiglitz offers that "the current national energy system, in which approximately 80 percent of energy comes from fossil fuels, is a direct result of decisions and actions taken by Defendants." Stiglitz Decl. Ex. 1 ¶ 27. That is echoed by plaintiffs' expert Dr.

Mark Jacobson who notes that "fossil fuels supply more than 80 [percent] of our all-purpose energy in the United States, not out of necessity, but because of political preference and historic government support that led to the development and maintenance of a widespread fossil-fuel infrastructure." Jacobson Decl. Ex. 1, 5. Plaintiffs' expert Peter Erickson submitted that by subsidizing the low cost of oil the United States government has historically and is currently substantially expanding the country's future oil production relative to the production that would occur if these subsidies were not in place. Erickson Decl. Ex. 1, 15.

Plaintiffs' experts tether plaintiffs' specific injuries to climate change and climate change related weather events. *See generally* Section 2.A.ii. Plaintiffs' expert Dr. Harold Wanless opines that sea level rise solely caused by fossil fuel-induced climate change poses clear and irreversible harm to plaintiffs like Levi whose community will likely be uninhabitable in future. Wanless Decl. Ex. 1 at 1-2. Likewise, plaintiffs' expert Dr. Kevin Trenberth offers, as an example of climate change related weather events harming plaintiffs, localized extreme weather events like the flooding affecting plaintiff Jayden and her home were heightened by climate change. Trenberth Decl. Ex. 1 at 20-22. The magnitude of rainfall and the extent of flooding near Jayden's home would not have occurred without fossil fuel-induced climate change. *Id.* Dr. Steven Running notes that the pattern of drought that led plaintiff Jaime to move from her home on the Navajo Reservation in New Mexico is directly linked to climate change. Running Decl. 6.

At this stage of the proceedings, the Court finds that plaintiffs have provided sufficient evidence show-

ing that causation for their claims is more than attenuated. Plaintiffs' "need not connect each molecule" of domestically emitted carbon to their specific injuries to meet the causation standard. *Bellon*, 732 F.3d 1142-43. The ultimate issue of causation will require perhaps the most extensive evidence to determine at trial, but at this stage of the proceedings, plaintiffs have proffered sufficient evidence to show that genuine issues of material fact remain on this issue. A final ruling on this issue will benefit from a fully developed factual record where the Court can consider and weigh evidence from both parties.

iii. *Redressability*

The final prong of the standing inquiry is redressability. The causation and redressability prongs of the standing inquiry "overlap and are two facets of a single causation requirement." *Bellon*, 732 F.3d at 1146 (citation and quotation marks omitted). They are distinct in that causation "examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief." *Id.* A plaintiff need not show that a favorable decision is certain to redress her injury, but must show a substantial likelihood that it will do so. *Id.* For the redressability inquiry, it is sufficient to show that the requested remedy would "slow or reduce" the harm.[11] *Mass. v. EPA*, 549 U.S. at 525 (citing *Larson v. Valente*, 456 U.S. 228, 243 n.15 (1982)).

[11] "[A] plaintiff satisfies the redressability requirement when he shows that a favorable decision will relieve a discrete injury to himself. He need not show that a favorable decision will relieve his *every* injury." *Mass. v. EPA*, 549 U.S. at 525

Federal defendants contend that there is no possible redress in this case because the remedies sought by plaintiffs are beyond the Court's authority to provide.[12] Further, they argue that even if this Court did find in favor of plaintiffs, any remedy it fashioned would not redress the harms alleged by plaintiffs, because fossil fuel emissions from other entities would still contribute to continuing global warming. Thus, they argue that there is no evidence that any immediate reduction in emissions caused by the United States would manifest in a reduction of climate change induced weather phenomena. As the Court has stated before, whether the Court could guarantee a reduction in greenhouse gas emission is the wrong inquiry because redressability does not require certainty. Rather, at this stage, it only requires a substantial likelihood that the Court could provide meaningful relief. Moreover, the possibility that some other individual or entity might later cause the same injury does not defeat standing; the question remains whether the injury caused by the defendants in this suit can be redressed. *Juliana*, 217 F. Supp. 3d at 1247; *See also WildEarth Guardians v. US. Dep't of Agric.*, 795 F.3d 1148, 1157 (9th Cir. 2015) ("[T]he mere existence of multiple causes of an injury does not defeat redressability, particularly for a procedural injury. So long as a defendant is at least partially causing the alleged injury, a plaintiff may sue

[12] Federal defendants rely on *Norton v. Southern Utah Wilderness Alliance* for the proposition that the Court may only compel ministerial action. 542 U.S. 55, 57-58 (2004). However, that case involved a claim brought under the APA. The Court has already held that these claims are not governed by the APA. *See* Sections 1.B. and 2.C.

that defendant, even if the defendant is just one of multiple causes of the plaintiffs injury.").

Here, plaintiffs request declaratory and injunctive relief as well as any other relief as the Court deems just and proper. They ask the Court, *inter alia,* to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emission and draw down excess atmospheric CO_2." First Am. Compl. ¶ 94. Plaintiffs dispute federal defendants' contention, however, that they are asking this Court to create a highly specific plan that federal defendants must use remedy any constitutional violations. Instead, plaintiffs urge that their request for relief, at its core, is one for a declaration that their constitutional rights have been violated and an order for federal defendants to develop their own plan, using existing resources, capacities, and legal authority, to bring their conduct into constitutional compliance. Plaintiffs point to various statutory authorities by which they claim federal defendants could affect the relief they request. Plaintiffs' Resp. to Mot. for Summ. J. 24-25. *See inter alia* 30 U.S.C §§ 351-359; 33 U.S.C. § 1344; 42 U.S.C. §§ 7112; 6291-6296; 7401-7431;[13] 49 U.S.C. § 32902; 33 U.S.C. § 1344.

[13] Judge Coffin cited to § 7409 (providing the Environmental Protection Agency with the authority to regulate national ambient air quality standards for the attainment and maintenance of the public welfare) in his F&R as supporting a "strong link between all the supposedly independent and numerous third party decisions given the government's regulation of CO_2 emissions." (doc. 68 at *10); *See also Mass. v. EPA,* 549 U.S. 497, 524 (2007). (A "reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.")

Plaintiffs also offer evidence that the injuries they allege can be redressed through actions by federal defendants. *See* Hansen Decl. Ex. 1, 4 (staving off the effects of catastrophic climate change "remains possible if [the United States] phases out [greenhouse gas emissions] within several decades and actively draw[s] down excess atmospheric CO_2[,]" which can be largely achieved "via reforestation of marginal lands with improved forestry and agricultural practices."); Robertson Decl. Ex 1 at 6 ("All told, technology is available today to store carbon or avoid future greenhouse gas emissions from agriculture in the U.S. equivalent to more than 30 [gigatonnes of carbon] by 2100); Jacobson Decl. Ex. 1 at 7 ("[I]t is technologically and economically possible to electrify fully the energy infrastructures of all 50 United States and provide that electricity with 100 [percent] clean, renewable wind, water, and sunlight (WWS) at low cost by 2030 or 2050."); Williams Decl. Ex. 1 at 3 & 64 ("[I]t is technically feasible to develop and implement a plan to achieve an 80 [percent] greenhouse gas reduction below 1990 levels by 2050 in the United States . . . with overall net [greenhouse gas] emissions of no more than 1,080 [million tons of carbon], and fossil fuel combustion emissions of no more than 750 [million tons of carbon]."); Stiglitz Decl. Ex. 1, ¶¶ 44-49 (explaining that transitioning the United States economy away from fossil fuels is feasible and beneficial).

It is clearly within a district court's authority to declare a violation of plaintiffs' constitutional rights. *See,* e.g., *Obergefell v. Hodges,* ___ *U.S.* ___ 135 S. Ct. 2584 (2015); *Brown v. Bd of Educ.,* 347 U.S. 483 (1954); *Lawrence v. Texas,* 539 U.S. 558 (2003). "Once a right and a violation have been shown, the scope of a district

court's equitable powers to remedy past wrongs is broad, for breadth and flexibility are inherent in equitable remedies." *Swann v. Charlotte-Mecklenburg Bd. of Educ.,* 402 U.S. 1, 15. (1970). As mentioned elsewhere in this opinion, should the Court find a constitution violation, it would need to exercise great care in fashioning any form relief, even if it were primarily declaratory in nature.[14] The Court has considered the summary judgment record regarding traceability and plaintiffs' experts' opinions that reducing domestic emissions, which plaintiffs contend are controlled by federal defendants' actions, could slow or reduce the harm plaintiffs are suffering. The Court concludes, for the purposes of this motion, that plaintiffs have shown an issue of material fact that must be considered at trial on full factual record.

Regarding standing, federal defendants have offered similar legal arguments to those in their motion to dismiss. Plaintiffs, in contrast, have gone beyond the pleadings to submit sufficient evidence to show genuine issues of material facts on whether they satisfy the standing elements. The Court has considered all of the arguments and voluminous summary judgment record, and the Court finds that plaintiffs show that genuine issues of material fact exist as to each element. As the Court notes elsewhere in this opinion, the Court will revisit all of the elements of standing after the factual record has been fully developed at trial. For now, the Court simply holds that plaintiffs have met their burden to avoid summary judgment at this time.

[14] Indeed, the "remedial powers of an equity court . . . are not unlimited." *Whitcomb v. Chavis,* 403 U.S. 124, 161 (1971).

B. *Failure to State a Claim under the APA*

Federal defendants next argue that even if the Court finds that plaintiffs have established standing, plaintiffs still have not identified a valid right of action. Essentially, federal defendants argue once again that this case must be dismissed because the APA provides the "sole mechanism" by which plaintiffs must bring their claims. Defs.' Mot. for Summ. J. 18. This issue is substantively explored in Section I.B, *infra*, and applies with equal force to this motion for summary judgment. Plaintiffs' claims are not governed by the APA. Thus, federal defendants are not entitled to summary judgment on this issue.

C. *Separation of Powers*

Federal defendants contend, once again that plaintiffs' claims and the relief sought are broader than what can be entertained as a case or controversy under Article III of the United States Constitution. The Court has already discussed similar arguments in the November 2016 Order and in Section I.C of this Opinion.

Federal defendants offer no new evidence or controlling authority on this issue that warrant reconsideration of the Court's previous analysis.[15] Nor do they

[15] Federal defendants point to a recent public nuisance case from the Northern District of California to support their position that this case violates separation of powers principles. *See City of Oakland v. BP P.L.C., et al.*, 2018 WL 3109726 (N.D. Cal. 2018). There, a district court dismissed claims brought by certain cities in California against several large oil and natural gas producers. The plaintiffs alleged that the worldwide production and sale of fossil fuels by the defendants were causing climate change, the effects of which caused damage to the cities. *City of Oakland* is readily distinguishable. Here, plaintiffs allege constitutional violations against

offer a rationale as to why the outcome should be different under the summary judgment standard. Indeed, they contend that the issue here is "purely legal" in nature and that "factual development" is not relevant to whether plaintiffs' requested remedy violates separation of powers issues. Defs.' Reply to Mot. for Summ. J. 26.

As the Court noted above, the allocation of powers between the branches of government is a critical consideration in this case, but it is the clear province of the judiciary to say what the law is. *Marbury,* 5 U.S. at 177. After a fuller development of the record and weighing of evidence presented at trial, should the Court find a constitutional violation, then it would exercise great care in fashioning a remedy determined by the nature and scope of that violation. Additionally, many potential outcomes and remedies remain at issue in this case. The Court could find that there is no violation of plaintiffs' rights; that plaintiffs fail to meet one or more of the requirements of standing; or, after

the federal government based on federal defendants' domestic carbon emissions as well as a promulgation of a domestic energy market based on fossil fuels in spite of their awareness of the dangers of such emissions. The court in *City of Oakland* focused on nuisance claims, brought for money damages, and the resulting balancing test, as well as extraterritoriality concerns stemming from the plaintiffs' attempt to impose liability on the defendants for the production and sale of fossil fuels worldwide. *Id* at *7. ("Because this relief would effectively allow plaintiffs to govern conduct and control energy policy on foreign soil, we must exercise great caution.") Here, plaintiffs' claims are limited to the territorial boundaries of the United States. The Court is not persuaded that *City of Oakland* offers relevant guidance for the Court's consideration of this motion given the vastly different nature of the claims, requested remedies, and parties.

the full development of the factual record, that the requested remedies would indeed violate the separation of powers doctrine. As has been noted before, even should plaintiffs prevail at trial, the Court, in fashioning an appropriate remedy, need not micromanage federal agencies or make policy judgments that the Constitution leaves to other branches. The record before the Court at this stage of the proceedings, however, does not warrant summary dismissal. To grant summary judgment on these grounds at this stage—when plaintiffs have supplied ample evidence to show genuine issues of material fact—would be premature.[16]

Federal defendants also contend that merely participating in ongoing discovery and a court trial violates separation of powers principles. Federal defendants previously made this argument in their Motion for Protective Order and Stay of All Discovery. (doc. 196) This rationale was rejected by Judge Coffin in his Order denying the motion (doc. 212), which the Court later affirmed over Federal Defendant's objections. (doc. 300) Moreover, the Ninth Circuit considered this argument in federal defendant's latest petition for mandamus. The panel noted in its opinion that the government made the same argument in their first

[16] Respect for separation of powers might, for example, permit the Court to grant declaratory relief, directing federal defendants to ameliorate plaintiffs' injuries without limiting its ability to specify precisely how to do so. That said, federal courts retain broad authority "to fashion practical remedies when confronted with complex and intractable constitutional violations." *Brown v. Plata*, 563 U.S. 493, 526 (2011). Here the Court has not yet determined the scope, if any, of federal defendants' constitutional violations or plaintiffs' injuries.

mandamus petition, and the panel "rejected" it for the purposes of the mandamus. *In re United States*, ___ F.3d ___, 2018 WL 3484444 at *9 (citing *In re United States*, 884 F.3d at 836). Once again, the Court does not find federal defendants' argument persuasive and concludes that generally participating in discovery and trial here does not in and of itself violate separation of powers concerns. Federal defendants have been free to raise objections to specific discovery requests and orders which they believe implicate separation of powers concerns.

D. *Due Process Claims*

Federal defendants argue that plaintiffs' individual due process claims fail as a matter of law. The Court addresses each in tum.

i. *Fundamental Right to an Environment Capable of Sustaining Human Life*

Federal defendants argue, as they did in their previous motion to dismiss that there is no right to a climate system capable of sustaining human life. They note that this issue is "a purely legal question" and that factual development at trial is not necessary to resolve it. Defs.' Reply to Mot. for Summ. J. 29. Federal defendants offer substantially similar arguments to those from their motion dismiss here.[17] The Court ad-

[17] Federal defendants do cite a recent case from D.C. Circuit Court of Appeals arguing that it rejected the notion of a federal due process right to a stable environment. *Delaware Riverkeeper Network v. Fed. Energy Regulatory Comm'n*, 895 F.3d 102, (D.C. Cir. 2018). However, the analysis in that case involved the Environmental Rights Amendment to the Pennsylvania State Constitution, and the court ultimately held that the rights created by the

dressed these arguments in the previous order, and nothing in the current briefing persuades the Court to change its previous rationale. As stated in the November 2016 order, this Court has simply held that:

> where a complaint alleges knowing governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem, it states a claim for a due process violation. To hold otherwise would be to say that the Constitution affords no protection against a government's knowing decision to poison the air its citizens breathe or the water its citizens drink.

Juliana, 217 F. Supp. 3d at 1250.

Reviewing the summary judgment record, plaintiffs have offered expert testimony on the catastrophic harms of climate change. *See* Section 2.A. They also submitted evidence, in the form of expert declarations and government documents, supporting their argument that the federal defendants' actions have led to these changes and are linked to the harms alleged by plaintiffs. At this stage, federal defendants have offered

amendment in question bound only "only state and local governments." *Id.* at 110. The court noted that the plaintiffs grounded their claims on the right outlined in the Pennsylvania Constitution as creating "a protected liberty or property interest as a matter of federal due process." *Id.* at 108. The court found that "the Amendment is too vague and indeterminate to create a federally cognizable property interest." *Id.* at 109. Because the court's analysis centered on the specific Pennsylvania Environmental Rights Amendment, it is not controlling here.

no legal or factual rationale significantly different from those offered in their previous motion to dismiss. As such, the Court finds no reason to re-examine the previous ruling on the existence of this due process right. Moreover, further factual development of the record will help this Court and other reviewing courts better reach a final conclusion as to plaintiffs' claims under this theory.

ii. *State-Created Danger Theory*

Federal defendants urge that plaintiffs' claims based on the state created danger doctrine must fail. First, they argue that plaintiffs do not show a special relationship between themselves and the government. More importantly, federal defendants argue that plaintiffs cannot show that government conduct proximately caused a dangerous situation in deliberate indifference to plaintiffs' safety or that harm or loss of life has resulted from such conduct. Plaintiffs contend that they have proffered ample evidence to show genuine issues of material fact as to whether federal defendants have liability for the conduct alleged in their complaint.

With limited exceptions, the Due Process Clause does not impose an affirmative obligation on the government to act, even when "such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual." *DeShaney v. Winnebago Cnty. Dep't of Soc. Servs.*, 489 U.S. 189, 196 (1989). This rule is subject to two exceptions: "(1) the 'special relationship' exception; and (2) the 'danger creation' exception." *L. W v. Grubbs,* 974 F.2d 119, 121 (9th Cir. 1992). The "special relationship" exception provides that when the government takes an individual into custody against his or her will, it as-

sumes some responsibility to ensure that individual's safety. *Id.* The "danger creation" exception permits a substantive due process claim when government conduct "places a person in peril in deliberate indifference to their safety[.]" *Penilla v. City of Huntington Park*, 115 F.3d 707, 709 (9th Cir. 1997).

A plaintiff challenging government inaction on a danger creation theory must first show the "state actor create[d] or expose[d] an individual to a danger which he or she would not have otherwise faced." *Kennedy v. City of Ridgefield*, 439 F.3d 1055, 1061 (9th Cir. 2006). The state action must place the plaintiff "in a worse position than that in which he would have been had the state not acted at all." *Pauluk v. Savage*, 836 F.3d 1117, 1125 (9th Cir. 2016) (quotation marks omitted and alterations normalized). Second, the plaintiff must show the "state actor . . . recognize[d]" the unreasonable risks to the plaintiff and "actually intend[ed] to expose the plaintiff to such risks without regard to the consequences to the plaintiff." *Campbell v. Wash. Dep't of Soc. & Health Servs.*, 671 F.3d 837, 846 (9th Cir. 2011) (brackets and quotation marks omitted). The defendant must have acted with "[d]eliberate indifference," which "requires a culpable mental state more than gross negligence." *Pauluk*, 836 F.3d at 1125 (quotation marks omitted).

Federal defendants' main argument is that plaintiffs' allegations regarding the government's knowledge of the dangers posed to plaintiffs by climate change do not rise to the required level of "deliberate indifference." *Patel v. Kent Sch. Dist.*, 648 F.3d 965, 974 (9th Cir. 2011) ("Deliberate indifference is a stringent standard of fault, requiring proof that a municipal

actor disregarded a known or obvious consequence of his action." (internal citation and quotations omitted.)). Plaintiffs' point to their expert declarations to demonstrate that federal defendants have known of, and disregarded, the consequences of continued fossil fuel use on the United States and its citizens. Federal defendants do not meaningfully refute the factual allegations, but instead deny their bearing on the issue. Therefore, there is a genuine issue of disputed facts surrounding the government's knowledge of climate change's dangers and summary judgment before trial, is inappropriate.

Plaintiffs specifically refer to the declaration from their expert Gus Speth, former chairman of the Council on Environmental Quality under President Jimmy Carter. Mr. Speth's declaration examines a historical record spanning ten presidential administrations and references a number of documents, statements of government officials, and federal policy actions that go directly to the government's knowledge of the links between fossil fuels and increasing global mean temperature and the dangers associated therein, such as sea level rise to Americans at the time and in future.

For example, in 1969 Daniel Moynihan, then counselor to the President Richard Nixon, wrote to John Ehrlichman, President Nixon's Assistant for Domestic Affairs, summarizing the climate problem:

> The process is a simple one. Carbon dioxide in the atmosphere has the effect of a pane of glass in a greenhouse. The CO_2 content is normally in a stable cycle, but recently man has begun to introduce instability through the burning of fossil fuels. At the tum of the century several persons raised the

> question whether this would change the temperature of the atmosphere. Over the years the hypothesis has been refined, and more evidence has come along to support it. It is now pretty clearly agreed that the CO_2 content will rise 25 [percent] by 2000. This could increase the average temperature near the earth's surface by 7 degrees Fahrenheit. *This in turn could raise the level of the sea by 10 feet. Goodbye New York. Goodbye Washington, for that matter.*

Speth Decl. ¶ 18. (citing Olsen Dec. Ex. 2) (emphasis added)

In 1977, President Jimmy Carter's science advisor Frank Press wrote to the President explaining:

> Fossil fuel combustion has increased at an exponential rate over the last 100 years. As a result, the atmospheric concentration of CO_2 is now 12 percent above the pre-industrial revolution level and may grow 1.5 to 2.0 times that level within 60 years. Because of the greenhouse effect of atmospheric CO_2, the increased concentration will induce a global climatic warming of anywhere from 0.5° to 5° C. . . . The urgency of the problem derives from our inability to shift rapidly to non-fossil fuel sources once the climatic effects become evident not long after the year 2000; the situation could grow out of control before alternate energy sources and other remedial actions become effective.

Id. ¶ 21 (citing Olsen Decl. Ex. 4.)

Another example of the alleged knowledge and deliberate indifference of the federal defendants cited by plaintiffs is the United Nations Framework Convention

on Climate Change, which was signed by the President George H.W. Bush and ratified by the U.S. Senate in 1992. Speth Decl. ¶ 44. The preamble to the Convention provided that:

> [H]uman activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind

Olson Decl. Ex. 23

Plaintiffs further contend that the dangers of global warming were well known during the administration of Presidents William Clinton and George W. Bush. In 1996, the Council on Environmental Quality reported to Congress: "[t]he average global temperature is projected to rise 2 to 6 degrees over the next century . . . the longer we wait to reduce our emissions, the more difficult the job, and the greater the risks." Olson Decl., Ex. 25, at xi. Further, a 2007 report from the House of Representatives Committee on Oversight and Government Reform alleged that the Bush Administration misled the public regarding the effects of climate change, concluding:

> The Committee's 16-month investigation reveals a systematic White House effort to censor climate scientists by controlling their access to the press and editing testimony to Congress. The White House was particularly active in stifling discussions of the link between increased hurricane intensity and global warming. The White House also sought to mini-

> mize the significance and certainty of climate change by extensively editing government climate change reports. Other actions taken by the White House involved editing EPA legal opinions and op-eds on climate change.

Olson Decl., Ex. 34, at ii.

In June 2009, the U.S. Global Change Research Program ("USGCRP"), government advisory council, released its Second National Climate Assessment which noted that "[c]limate change is likely to exacerbate these challenges as changes in temperature, precipitation, sea levels, and extreme weather events increasingly affect homes, communities, water supplies, land resources, transportation, urban infrastructure, and regional characteristics that people have come to value and depend on." Olson Decl. Ex. 35 at 100. Recently, in August 2017, the USGCRP Fifth National Climate Assessment found "that reversing course on climate, as expected with the passage of time, is more urgent than ever." Speth Decl. ¶ 76.

At this stage of the proceedings, plaintiffs have introduced sufficient evidence and experts' opinions to demonstrate a question of material fact as to federal defendants' knowledge, actions, and alleged deliberate indifference. Once this claim is reviewed with a full factual record, plaintiffs must still clear a very high bar to ultimately succeed.

Additionally, based on the proffered evidence and the complex issues involved in this claim, the Court exercises its discretion to "deny summary judgment in a case where there is reason to believe that the better

course would be to proceed to a full trial." *Anderson,* 477 U.S. at 256.

The Ninth Circuit has reserved summary judgment in the past to obtain a more robust record. *See Anderson v. Hodel,* 899 F.2d 766, 770 (9th Cir 1990) ("[A]ppellate courts, including the Supreme Court, have reversed summary judgments where the lower court records have not been sufficiently developed to allow the courts to make fully informed decisions on particularly difficult and far reaching issues." (internal quotation marks omitted) (alterations omitted)); *see also Eby v. Reb Realty, Inc.,* 495 F.2d 646, 649 (9th Cir. 1974) ("In certain cases summary judgment may be inapposite because the legal issue is so complex, difficult, or insufficiently highlighted that further factual elucidation is essential for its prudently considered resolution."). The Ninth Circuit has further explained that

> [C]ourts must not rush to dispose summarily of cases—especially novel, complex, or otherwise difficult cases of public importance—unless it is clear that more complete factual development could not possibly alter the outcome and that the credibility of the witnesses' statements or testimony is not at issue. Even when the expense of further proceedings is great and the moving party's case seems to the court quite likely to succeed, speculation about the facts must not take the place of investigation, proof, and direct observation.

TransWorld Airlines, Inc. v. American Coupon Exchange, Inc., 913 F.2d 676, 684 (9th Cir. 1990)

Undoubtedly, this claim involves complicated and novel questions about standing, historical context, and

constitutional rights. To allow a summary judgment decision without cultivating the most exhaustive record possible during a trial would be a disservice to the case, which is certainly a complex case of "public importance."[18] *Id.*

E. *Public Trust Doctrine*

Federal defendants again ask this Court to reconsider the previous ruling on the applicability of the public trust doctrine to the federal government. They allege no new circumstances or any substantially new arguments for the Court to consider on summary judgment. Indeed, federal defendants repeatedly stresses that "[n]o discovery or expert opinion is necessary" for this Court to decide "the purely legal question of whether the public trust doctrine provides a cause of action against the federal government." Defs.' Reply to Mot. for Summ. J. 38.

Similar to the issues discussed in Sections I.C, II.C, and II.D, the November 2016 Order extensively covered this legal argument, and the Court finds no need to revisit its analysis based on the nearly identical arguments in this motion. *See Juliana*, 217 F. Supp. 3d at 1252-1261. The Court does not find that its previous order, holding that the public trust doctrine is deeply rooted in our nation's history and that plaintiffs' claims are viable was clearly erroneous. *Id.* at 1259, 1261. There have been no changes in the factual record or legal authority that would justify a different outcome given the current record and the fact that the arguments presented by federal defendants in this mo-

[18] This analysis applies with equal force to all of the issues raised in federal defendants' motion for summary judgment.

tion are substantively the same, the Court declines to revisit its previous ruling. Genuine issues of material fact remain as to the specific allegations made by plaintiffs. The application of the public trust doctrine to these claims would be better served with a full factual record to help guide this Court and any reviewing courts.

F. *Plaintiffs' Remaining Claims*

In their motion for summary judgment, federal defendants state that "[t]his Court's order [denying the motions to dismiss] did not address [federal d]efendants' arguments concerning [p]laintiffs' Equal Protection claim under the Fifth Amendment or Plaintiffs' Ninth Amendment Claim." Defs.' Mem. of Law in Supp. of Mot. for Summ. J. 4. They assert that "the Equal Protection and Ninth Amendment claims are no longer at issue." *Id.* 24 n.8. Although federal defendants overstate their position with respect to the equal protection and Ninth Amendment claims, they are correct that the prior opinion and order was somewhat unclear with respect to those claims and some clarification is warranted.

The Court begins with plaintiffs' third claim for relief, which is pleaded as a freestanding claim under the Ninth Amendment. This claim is not viable as a matter of law. The Ninth Amendment "has never been recognized as independently securing any constitutional right, for purposes of pursuing a civil rights claim." *Strandberg v. City of Helena*, 791 F.2d 744, 748 (9th Cir. 1986). Federal defendants are therefore entitled to summary judgment on plaintiffs' third claim for relief.

Plaintiffs' equal protection claim requires a more substantive discussion, as it is linked to the allegation of fundamental rights violations.

When a federal court is presented with an equal protection claim, the first step is to "ascertain the appropriate level of scrutiny to employ[.]" *Aleman v. Glickman,* 217 F.3d 1191, 1197 (9th Cir. 2000). The default level of scrutiny is rational basis review, which affords governmental classifications "a strong presumption of validity." *Id.* at 1200 (quoting *Heller v. Doe,* 509 U.S. 312, 319 (1993)). The applicable analysis changes, however, when the plaintiff alleges either discrimination against a "suspect or semi-suspect class" or infringement of a fundamental right. *Wright v. Incline Vill. Gen. Improvement Dist.,* 665 F.3d 1128, 1141 (9th Cir. 2011). A classification withstands rational basis review so long as "there is any reasonably conceivable state of facts that could provide a rational basis for the classification." *Id.* at 1201 (quoting *FCC v. Beach Commc'ns,* 508 U.S. 307, 313 (1993)).

Plaintiffs contend that "posterity"—which they defined to include both unborn members of plaintiff "future generations" and minor children who cannot vote—is a suspect classification. They contend that, for decades, federal defendants have prioritized present-day political and economic advantage over prevention of future environmental damage. Plaintiffs assert that young people and future generations will be disproportionately harmed by climate change because climate change and its effects are worsening over time. They assert that federal defendants' climate and energy policy treats "posterity" differently than other, sim-

ilarly situated individuals, in violation of the Equal Protection Clause.

Judge Coffin recommended against recognizing "a new separate suspect class based on posterity." *Juliana*, 217 F. Supp. 3d at 1271 n.8. Although the Court stated in the introduction to the opinion and order that the Court was adopting Judge Coffin's findings and recommendation "as elaborated in this opinion," the Court expressly declined to decide whether youth or future generations were suspect classes. *Id.* at 1233 & 1249 n.7.

Both the Supreme Court and the Ninth Circuit have held that age is not a suspect class. *City of Dallas v. Stanglin*, 490 U.S. 19, 25 (1989); *United States v. Flores-Villar*, 536 F.3d 990, 998 (9th Cir. 2008). Plaintiffs argue that the Supreme Court has rejected only *old* age as a suspect classification, but that is not the case. *Stanglin* upheld "modest impairment of the liberty of teenagers"—specifically, 14- to 18-year-olds—in the form of an age-based restriction on entry to a dance hall. 490 U.S. at 28 (Stevens, J., concurring). *Flores-Villar* addressed the constitutionality of an immigration policy that treated United States citizen fathers differently depending on whether they lived in the United States for at least five years after the age of fourteen.[19] 536 F.3d at 993. *Stanglin* and *Flores-Villar* both applied rational basis review to governmental action that discriminated against teenagers of a

[19] *Flores-Villar* also upheld the immigration policy in question against the argument that it impermissibly treated mothers and fathers differently. *Sessions v. Morales-Santana*, 137 S. Ct. 1698 (2017), abrogated *Flores-Villar*'s gender-discrimination holding but left untouched its age-discrimination holding.

similar age to plaintiffs in this case. In both cases, that discrimination was found to be permissible if it had a rational basis.

Even if plaintiffs' suspect-class argument were not foreclosed by precedent, the Court would not be persuaded to break new ground in this area. *See Cunningham v. Beavers,* 858 F.2d 269, 273 (5th Cir. 1988) ("No cases have ever held, and we decline to hold, that children are a suspect class."). Suspect classification triggers strict scrutiny, a famously difficult test to survive. *See Parents Involved in Cmty. Schs. v. Seattle Sch. Dist. No. 1,* 551 U.S. 701, 832 (2007) (discussing strict scrutiny's somewhat-exaggerated reputation as "strict in theory, but fatal in fact"). Balancing competing interests is at the heart of executive and especially legislative decision-making, and it is the rare governmental decision that does not have *some* effect on children or posterity. Holding that "posterity" or even just minor children are a suspect class would hamstring governmental decision-making, potentially foreclosing even run-of-the-mill decisions such as prioritizing construction of a new senior center over construction of a new playground or allocating state money to veterans' healthcare rather than to the public schools. Applying strict scrutiny to every governmental decision that treats young people differently than others is unworkable and unsupported by precedent.

However, the rejection of plaintiffs' proposed suspect class does not fully resolve their equal protection claim. As explained above, strict scrutiny is also triggered by alleged infringement of a fundamental right. *Wright,* 665 F.3d at 1141. Plaintiffs' equal protection

claim rests on alleged interference with their right to a climate system capable of sustaining human life—a right the Court has already held to be fundamental. *Juliana,* 217 F. Supp. 3d at 1249-50; *see also id.* at 1271 n.8 ("Nonetheless, the complaint does allege discrimination against a class of younger individuals with respect to a fundamental right protected by substantive due process."); *Stop H-3 Ass'n v. Dole,* 870 F.2d 1419, 1430 (9th Cir. 1989) (stopping short of identifying a fundamental right but stating that "[h]uman life, itself a fundamental right, will vanish if we continue our heedless exploitation of this planet's natural resources"). Plaintiffs' equal protection and due process claims both involve violation of a fundamental right and, as such, must be evaluated through the lens of strict scrutiny, which would be aided by further development of the factual record.

III. *Request to Certify for Interlocutory Appeal*

Federal defendants seek certification for interlocutory appeal any portion of this opinion and order denying their motions for judgment on the pleadings or summary judgment.

The final judgment rule gives the federal courts of appeal jurisdiction over "appeals from all final decisions of the district courts of the United States." 28 U.S.C. § 1291. Congress created a narrow exception to this rule: a district judge may certify for appeal an order that "involves a controlling question of law as to which there is substantial ground for difference of opinion" if "an immediate appeal from the order may materially advance the ultimate termination of the litigation[.]" *Id.* § 1292(b). The requirements of § 1292(b) are jurisdictional, so a district court may not certify an order

for interlocutory appeal if they are not met. *Couch v. Telescope, Inc.*, 611 F.3d 629, 633 (9th Cir. 2010). Congress did not intend district courts to certify interlocutory appeals "merely to provide review of difficult rulings in hard cases." *U.S. Rubber Co. v. Wright*, 359 F.2d 784, 785 (9th Cir. 1966). Rather, certification pursuant to § 1292(b) is reserved for "the most extraordinary situations." *Penk v. Or. State Bd. of Higher Educ.*, 99 F.R.D. 508, 509 (D. Or. 1982). Even when all three of § 1292(b)'s criteria are met, the district court retains unfettered discretion to deny a motion to certify for interlocutory review. *Mowat Constr. Co. v. Dorena Hydro, LLC*, 2015 WL 5665302, at *5 (D. Or. Sept. 23, 2015).

As a preliminary matter, the Court notes that to the extent federal defendants seek to certify for interlocutory appeal the legal rulings contained in the November 2016 Opinion and Order denying the motion to dismiss, the Court already declined to certify those questions for interlocutory appeal. *Juliana*, 2017 WL 2483705, at *2. That denial is now the law of the case. The Court therefore denies federal defendants' request to certify the rulings on standing, the political question doctrine, the viability of public trust claims against the federal government, and the existence of a fundamental right to a climate system capable of sustaining human life.

As to the argument that plaintiffs' claims must proceed (if at all) under the APA, the "substantial ground for difference of opinion" standard is not met.

> To determine if a 'substantial ground for difference of opinion' exists under § 1292(b), courts must examine to what extent the controlling law is unclear. Courts traditionally will find that a substantial

> ground for difference of opinion exists where "the circuits are in dispute on the question and the court of appeals of the circuit has not spoken on the point, if complicated questions arise under foreign law, or if novel and difficult questions of first impression are presented."

Couch, 611 F.3d at 631 (quoting 3 Federal Procedure, Lawyers Edition § 3:212 (2010)). As explained in Section I.B, *supra,* Supreme Court and Ninth Circuit precedent make it abundantly clear that plaintiffs may (and frequently do) challenge agency action outside the framework of the APA. Moreover, even if the "substantial ground for difference of opinion" standard were met, certification of the APA issue in isolation would not materially advance the litigation. Instead, it would protract the litigation by requiring the parties to proceed on dual tracks.

The request for interlocutory appeal as to the issues raised in the summary judgment motion must also fail. As to standing, the issues presented are not purely legal questions, but rather implicate mixed questions of law and fact regarding all three prongs of the standing inquiry. As genuine issues of material fact remain, this case would benefit from the further development of the factual record both for this Court and any reviewing court on final appeal. This is also true for plaintiffs' state created danger theory, which directly implicates disputed factual questions.

The Court has already explained why it would be inappropriate to certify an appeal on the issue of the applicability of the APA. As to the legal questions involving in federal defendants' arguments regarding separation of powers, the viability of public trust claims

against the federal government, and the existence of a due process right to a climate system capable of supporting human life, the Court has already denied certification on these issues.[20] Moreover, certifying a narrow piecemeal appeal on some of these legal issues would not materially advance this litigation, rather it would merely reshuffle the procedural deck and force the parties to proceed on separate tracks for separate claims, which is precisely what the final judgment rule seeks to prevent.[21] Accordingly, the requests to certify for interlocutory appeal made both in the motion

[20] Federal defendants argue in their motion that this Court's previous holding is at odds with certain out of circuit cases. The Court has addressed these concerns in this order and see no need to revisit the Court's analysis of those cases. Federal defendants also argue in a Notice to this the Court (doc. 330) that the Supreme Court's recent ruling denying their application implies that this Court should certify an interlocutory appeal. The Court has considered the concerns raised in the one paragraph order, both in this order and previous orders. The Court does not find that Order removes the Court's discretion to deny the request for interlocutory appeal.

[21] The Supreme Court has cautioned that:

> [i]t would seem to us to be a disservice to the Court, to litigants in general and to the idea of speedy justice if we were to succumb to enticing suggestions to abandon the deeply-held distaste for piecemeal litigation in every instance of temptation. Moreover, to find appealability in those close cases where the merits of the dispute may attract the deep interest of the court would lead, eventually, to a lack of principled adjudication or perhaps the ultimate devitalization of the finality rule as enacted by Congress.

Richardson-Merrell, Inc. v. Koller, 472 U.S. 424, 440 (1985) (internal quotations omitted)

for judgment on the pleadings and motion for summary judgment are denied.

CONCLUSION

Federal defendants' Motion for Judgment on the Pleadings (doc. 195) is GRANTED IN PART and DENIED IN PART as follows: the motion to dismiss President Trump as a defendant is granted, without prejudice, and is otherwise denied. Federal defendants' Motion for Summary Judgment (doc. 207) is GRANTED in part and DENIED in part as explained in this opinion. Federal defendants' requests to certify this opinion and order for interlocutory appeal are DENIED.

IT IS SO ORDERED.

Dated this 15th day of Oct. 2018.

/s/ ANN AIKEN
ANN AIKEN
United States District Judge

APPENDIX B

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

No. 18-71928

IN RE: UNITED STATES OF AMERICA; CHRISTY GOLDFUSS; MICK MULVANEY; JOHN HOLDREN; RICK PERRY; U.S. DEPARTMENT OF THE INTERIOR; RYAN ZINKE; U.S. DEPARTMENT OF TRANSPORTATION; ELAINE L. CHAO; U.S. DEPARTMENT OF AGRICULTURE; SONNY PERDUE; UNITED STATES DEPARTMENT OF COMMERCE; WILBUR ROSS; U.S. DEPARTMENT OF DEFENSE; JAMES N. MATTIS; U.S. DEPARTMENT OF STATE; OFFICE OF THE PRESIDENT OF THE UNITED STATES; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. DEPARTMENT OF ENERGY; DONALD J. TRUMP; MICHAEL R. POMPEO; ANDREW WHEELER,

UNITED STATES OF AMERICA; CHRISTY GOLDFUSS, IN HER OFFICIAL CAPACITY AS DIRECTOR OF COUNCIL ON ENVIRONMENTAL QUALITY; MICK MULVANEY, IN HIS OFFICIAL CAPACITY AS DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET; JOHN HOLDREN, DR., IN HIS OFFICIAL CAPACITY AS DIRECTOR OF THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY; RICK PERRY, IN HIS OFFICIAL CAPACITY AS SECRETARY OF ENERGY; UNITED STATES DEPARTMENT OF INTERIOR; RYAN ZINKE, IN HIS OFFICIAL CAPACITY AS SECRETARY OF INTERIOR; UNITED STATES DEPARTMENT OF TRANSPORTATION; ELAINE L. CHAO, IN HER OFFICIAL CAPACITY AS SECRETARY OF TRANSPORTATION; UNITED STATES DEPARTMENT OF AGRICULTURE; SONNY PERDUE, IN HIS OFFICIAL CAPACITY AS SECRETARY OF AGRICULTURE; UNITED STATES DEPARTMENT OF COMMERCE; WILBUR ROSS, IN HIS OFFICIAL CAPACITY AS SECRETARY OF COMMERCE; UNITED STATES DEPARTMENT OF DEFENSE; JAMES N. MATTIS, IN HIS OFFICIAL CAPACITY AS SECRETARY OF DEFENSE; UNITED STATES DEPARTMENT OF STATE;

ANDREW WHEELER, IN HIS OFFICIAL CAPACITY AS ACTING ADMINISTRATOR OF THE EPA; MICHAEL R. POMPEO, IN HIS OFFICIAL CAPACITY AS SECRETARY OF STATE; OFFICE OF THE PRESIDENT OF THE UNITED STATES; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. DEPARTMENT OF ENERGY; DONALD J. TRUMP, IN HIS OFFICIAL CAPACITY AS PRESIDENT OF THE UNITED STATES, PETITIONERS

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON, EUGENE, RESPONDENT

KELSEY CASCADIA ROSE JULIANA; XIUHTEZCATL TONATIUH M., THROUGH HIS GUARDIAN TAMARA ROSKE-MARTINEZ; ALEXANDER LOZNAK; JACOB LEBEL; ZEALAND B., THROUGH HIS GUARDIAN KIMBERLY PASH-BELL; AVERY M., THROUGH HER GUARDIAN HOLLY MCRAE; SAHARA V., THROUGH HER GUARDIAN TOA AGUILAR; KIRAN ISAAC OOMMEN; TIA MARIE HATTON; ISAAC V., THROUGH HIS GUARDIAN PAMELA VERGUN; MIKO V., THROUGH HER GUARDIAN PAMELA VERGUN; HAZEL V., THROUGH HER GUARDIAN MARGO VAN UMMERSEN; SOPHIE K., THROUGH HER GUARDIAN DR. JAMES HANSEN; JAIME B., THROUGH HER GUARDIAN JAMESCITA PESHLAKAI; JOURNEY Z., THROUGH HIS GUARDIAN ERIKA SCHNEIDER; VICTORIA B., THROUGH HER GUARDIAN DAISY CALDERON; NATHANIEL B., THROUGH HIS GUARDIAN SHARON BARING; AJI P., THROUGH HIS GUARDIAN HELAINA PIPER; LEVI D., THROUGH HIS GUARDIAN LEIGH-ANN DRAHEIM; JAYDEN F., THROUGH HER GUARDIAN CHERRI FOYTLIN; NICHOLAS V., THROUGH HIS GUARDIAN MARIE VENNER; EARTH GUARDIANS, A NONPROFIT ORGANIZATION; FUTURE GENERATIONS, THROUGH THEIR GUARDIAN DR. JAMES HANSEN, REAL PARTIES IN INTEREST

Filed: July 20, 2018

OPINION

Before: THOMAS, Chief Judge, and BERZON and FRIEDLAND, Circuit Judges.

PER CURIAM.

In this petition for a writ of mandamus, the government asks us for the second time to direct the district court to dismiss a case seeking various environmental remedies, or, in the alternative, to stay all discovery and trial. We denied the government's first mandamus petition, concluding that it had not met the high bar for relief at that stage of the litigation. *In re United States*, 884 F.3d 830, 833 (9th Cir. 2018). No new circumstances justify this second petition, and we again decline to grant mandamus relief. The factual and procedural history of this case was detailed in our prior opinion, and we need not recount it here. *In re United States*, 884 F.3d at 833-34.

I

We have jurisdiction over this mandamus petition pursuant to the All Writs Act, 28 U.S.C. § 1651. In considering whether to grant a writ of mandamus, we are guided by the five factors identified in *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650 (9th Cir. 1977):

(1) whether the petitioner has no other means, such as a direct appeal, to obtain the desired relief;

(2) whether the petitioner will be damaged or prejudiced in any way not correctable on appeal;

(3) whether the district court's order is clearly erroneous as a matter of law;

(4) whether the district court's order is an oft repeated error or manifests a persistent disregard of the federal rules; and

(5) whether the district court's order raises new and important problems or issues of first impression.

Perry v. Schwarzenegger, 591 F.3d 1147, 1156 (9th Cir. 2010) (citing *Bauman*, 557 F.2d at 654-55).

"Mandamus review is at bottom discretionary—even where the *Bauman* factors are satisfied, the court may deny the petition." *San Jose Mercury News, Inc. v. U.S. Dist. Ct.*, 187 F.3d 1096, 1099 (9th Cir. 1999).

II

The government does not satisfy the *Bauman* factors at this stage of the litigation. It remains the case that the issues that the government raises in its petition are better addressed through the ordinary course of litigation. We thus decline to exercise our discretion to grant mandamus relief.

A

The government does not satisfy the first *Bauman* factor. The government argues that mandamus is its only means of obtaining relief from potentially burdensome or improper discovery. However, the government retains the ability to challenge any specific dis-

covery order that it believes would be unduly burdensome or would threaten the separation of powers.

In our opinion denying the first mandamus petition, we stated:

> The defendants will have ample remedies if they believe *a specific discovery request* from the plaintiffs is too broad or burdensome. Absent any discovery order from the district court, or even any attempt to seek one, however, the defendants have not shown that they have no other means of obtaining relief from burdensome or otherwise improper discovery.

In re United States, 884 F.3d at 835 (emphasis added).

Since that opinion, the government has not challenged a single specific discovery request, and the district court has not issued a single order compelling discovery. Instead, the government sought a protective order barring all discovery, which the district court denied. The government can still challenge any specific discovery request on the basis of privilege or relevance, or by seeking a tailored protective order under Federal Rule of Civil Procedure 26(c). If the government challenges a discovery request and the district court issues an order compelling discovery, then the government can seek mandamus relief as to that order. Preemptively seeking a broad protective order barring *all* discovery does not exhaust the government's avenues of relief. Absent a specific discovery order, mandamus relief remains premature.

This fact distinguishes this case from *In re United States*, ––– U.S. –––, 138 S. Ct. 443, 199 L. Ed. 2d 351 (2017) (per curiam), in which the Supreme Court granted mandamus relief based on a challenge to an

order compelling discovery. In that case, the district court had issued an order compelling the government to complete the administrative record over the government's objection that it had filed a complete record properly limited to unprivileged documents. *See id.* at 444. The district court had also declined the government's request to stay its order until after the court resolved the government's motion to dismiss. *Id.* at 444-45. In this case, the government does not challenge any such specific discovery order from the district court, and the district court has already denied the government's motion to dismiss. The government continues to have available means to obtain relief from improper discovery requests. It does not satisfy the first *Bauman* factor.

B

Nor does the government satisfy the second *Bauman* factor. The government makes two arguments for why it will be prejudiced in a way not correctable on appeal. Neither is persuasive.

The government argues, for the first time, that merely eliciting answers from agency officials to questions on the topic of climate change could constitute "agency decisionmaking," which the government contends could not occur without following the elaborate procedural requirements of the Administrative Procedure Act ("APA"). But the government cites no authority for the proposition that agency officials' routine responses to discovery requests in civil litigation can constitute agency decisionmaking that would be subject to the APA.

The government has made no showing that it would be meaningfully prejudiced by engaging in discovery or trial. This distinguishes this case from others in which we have granted mandamus relief. *See Credit Suisse v. U.S. Dist. Ct.*, 130 F.3d 1342, 1346 (9th Cir. 1997) (granting mandamus relief when a discovery order would force defendants "to choose between being in contempt of court for failing to comply with the district court's order, or violating Swiss banking secrecy and penal laws by complying with the order").

The government also argues that proceeding with discovery and trial will violate the separation of powers. The government made this argument in its first mandamus petition, and we rejected it. *In re United States*, 884 F.3d at 836. As we stated in our prior opinion, allowing the usual legal processes to go forward will not threaten the separation of powers in any way not correctable on appeal. *Id.* No new circumstances disturb that conclusion.[22] *See United States v. Alexander*, 106 F.3d 874, 876 (9th Cir. 1997).

C

As detailed in our opinion denying the first mandamus petition, the government does not satisfy the third, fourth, or fifth *Bauman* factors. *In re United States*, 884 F.3d at 836-37. No new circumstances give us cause to reevaluate these conclusions.

[22] Following our previous opinion, the government moved for the first time in the district court for judgment on the pleadings with respect to the inclusion of the President as a named party, and a decision is pending on that motion.

III

Because petitioners have not satisfied the *Bauman* factors, we deny the mandamus petition without prejudice. The government's fear of burdensome or improper discovery does not warrant mandamus relief in the absence of a single specific discovery order. The government's arguments as to the violation of the APA and the separation of powers fail to establish that they will suffer prejudice not correctable in a future appeal. The merits of the case can be resolved by the district court or in a future appeal. At this stage of the litigation, we decline to exercise our jurisdiction to grant mandamus relief.

APPENDIX C

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
EUGENE DIVISION

Civ. No. 6:15-cv-01517-AA

KELSEY CASCADIA ROSE JULIANA, ET AL., PLAINTIFFS

v.

THE UNITED STATES OF AMERICA, ET AL., DEFENDANTS

Filed: June 29, 2018

ORDER

AIKEN, District Judge.

On May 9, 2018, Defendants filed a Motion for Protective Order and Motion for Stay of All Discovery. ECF No. 196. On May 25, 2018, Magistrate Judge Coffin denied Defendants' motion.[1] ECF No. 212. Defendants have filed Objections to Judge Coffin's Order, ECF No. 215, Plaintiffs have filed their Response, ECF No. 242, and the matter is now before this Court.

[1] Defendants complain, *inter alia,* that Judge Coffin denied their motion without allowing them the opportunity to file a reply. The Local Rules of the District of Oregon do not permit replies in support of discovery motions. LR 26-3(c) ("Unless otherwise directed by the Court, a movant may not file a reply supporting a discovery motion."). The timing of Judge Coffin's ruling was therefore appropriate.

In accordance with Rule 72(a), "[w]hen a pretrial matter not dispositive of a party's claim or defense is referred to a magistrate judge to hear and decide, the magistrate judge must promptly conduct the required proceedings and, when appropriate, issue a written order stating the decision." Fed. R. Civ. P. 72(a). The standard of review for an order with objections is "clearly erroneous" or "contrary to law." 28 U.S.C. § 636(b)(1)(A); Fed. R. Civ. P. 72(a).

The Court has carefully reviewed Judge Coffin's order in light of Defendants' objections. The Court concludes that the order is not clearly erroneous or contrary to law. Accordingly, the Court AFFIRMS Magistrate Judge Coffin's Order, ECF No. 212, denying Defendants' Motion for Protective Order and Stay of All Discovery, ECF No. 196. The Court declines to certify this decision for interlocutory appeal under 28 U.S.C. § 1292(b).

It is so ORDERED and DATED this [29th] day of June, 2018.

/s/ ANN AIKEN
ANN AIKEN
United States District Judge

APPENDIX D

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

No. 6;15-cv-1517-TC

KELSEY CASCADE ROSE JULIANA; ET AL.

v.

THE UNITED STATES OF AMERICA; ET AL., DEFENDANTS

Filed: May 25, 2018

ORDER

COFFIN, Magistrate Judge:

Before the court is defendants' motion for a protective order and for a stay of discovery. (# 196). In essence, defendants' motion is based on the assertion that "Plaintiffs claim must proceed under the [Administrative Procedure Act] APA" and APA claims must be reviewed solely on the Administrative record. Thus "APA plaintiffs are . . . not entitled to discovery. . . . " Defendants' Motion For A Protective Order And For A Stay Of Discovery (#196) at p. 10.

But the plaintiffs' complaint does not contain an APA claim. No such claim is pleaded, and the defendants have no ability to edit the complaint to cobble the claim into one of their choosing to derail discovery. The plaintiffs' claims in this case, which have survived previous efforts by the defendants to dismiss, are

claims based on alleged violations of their constitutional rights. As to these claims, the court has denied the defendants' earlier motion to dismiss, an order which defendants challenged through writ of mandamus to the Ninth Circuit, which was denied. The Ninth Circuit further noted the case should proceed through discovery and the normal process of trial and the development of a record before any appellate review would be appropriate.

The defendants' motion for a protective order and stay is simply a recasting of their position that the plaintiffs' claims should all be dismissed and the District Court should revisit its previous ruling to the contrary.

Beyond whatever procedural impediments exist to the government's efforts to reconstruct its motion to dismiss under a different theory, this court is not at all persuaded by their argument that the APA is the sole avenue of relief for the plaintiffs for the asserted violations of their constitutional rights.

Indeed, the District Court has already rejected this very argument in its Order denying defendants' motion to dismiss:

> Plaintiffs could have brought a lawsuit predicated on technical regulatory violations, but they chose a different path. As masters of their complaint, they have elected to assert constitutional rather than statutory claims. Every day, federal courts apply the legal standards governing due process claims to new sets of facts. The facts in this case, though novel, are amenable to those well-established standards.

Order dated November 10, 2017 (#83) at p. 13.

In sum, defendants' efforts to transform plaintiffs' constitutional claims into an APA case to bar discovery is unavailing.

Finally, the defendants argue that the separation of powers doctrine justifies an order barring or staying all discovery in this case based on wholly hypothetical scenarios that may implicate matters of privilege during the discovery process. Under such rationale, the government could avoid all discovery in any litigation in which it is named as a defendant simply by asserting hypothetical discovery requests that a litigant might make during the litigation. Should a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request. None has arisen so far in this particular case that the parties have been unable to resolve in the meet and confer process that the court is aware of.

The motion for a protective order and stay of all discovery is hereby denied.

CONCLUSION

For the reasons stated above, defendants' motion for a protective order and stay (#196) is denied.

DATED this [25] day of May 2018.

/s/ THOMAS M. COFFIN
Thomas M. Coffin
United States Magistrate Judge

APPENDIX E

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

No. 17-71692

IN RE UNITED STATES OF AMERICA, UNITED STATES OF AMERICA; CHRISTY GOLDFUSS, IN HER OFFICIAL CAPACITY AS DIRECTOR OF THE COUNCIL ON ENVIRONMENTAL QUALITY; MICK MULVANEY, IN HIS OFFICIAL CAPACITY AS DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET; JOHN HOLDREN, DR., IN HIS OFFICIAL CAPACITY AS DIRECTOR OF THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY; RICK PERRY, IN HIS OFFICIAL CAPACITY AS SECRETARY OF ENERGY; U.S. DEPARTMENT OF THE INTERIOR; RYAN ZINKE, IN HIS OFFICIAL CAPACITY AS SECRETARY OF INTERIOR; U.S. DEPARTMENT OF TRANSPORTATION; ELAINE CHAO, IN HER OFFICIAL CAPACITY AS SECRETARY OF TRANSPORTATION; U.S. DEPARTMENT OF AGRICULTURE; SONNY PERDUE, IN HIS OFFICIAL CAPACITY AS SECRETARY OF AGRICULTURE; U.S. DEPARTMENT OF COMMERCE; WILBUR ROSS, IN HIS OFFICIAL CAPACITY AS SECRETARY OF COMMERCE; U.S. DEPARTMENT OF DEFENSE; JIM MATTIS, IN HIS OFFICIAL CAPACITY AS SECRETARY OF DEFENSE; U.S. DEPARTMENT OF STATE; OFFICE OF THE PRESIDENT OF THE UNITED STATES; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. DEPARTMENT OF ENERGY; DONALD J. TRUMP, IN HIS OFFICIAL CAPACITY AS PRESIDENT OF THE UNITED STATES; THE NATIONAL ASSOCIATION OF MANUFACTURERS; AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS; AMERICAN PETROLEUM INSTITUTE, PETITIONERS

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON, EUGENE, RESPONDENT

KELSEY CASCADIA ROSE JULIANA; XIUHTEZCATL TONATIUH M., THROUGH HIS GUARDIAN TAMARA ROSKE-MARTINEZ; ALEXANDER LOZNAK; JACOB LEBEL; ZEALAND B., THROUGH HIS GUARDIAN KIMBERLY PASH-BELL; AVERY M., THROUGH HER GUARDIAN HOLLY MCRAE; SAHARA V., THROUGH HER GUARDIAN TOA AGUILAR; KIRAN ISAAC OOMMEN; TIA MARIE HATTON; ISAAC V., THROUGH HIS GUARDIAN PAMELA VERGUN; MIKO V., THROUGH HER GUARDIAN PAMELA VERGUN; HAZEL V., THROUGH HER GUARDIAN MARGO VAN UMMERSEN; SOPHIE K., THROUGH HER GUARDIAN DR. JAMES HANSEN; JAIME B., THROUGH HER GUARDIAN JAMESCITA PESHLAKAI; JOURNEY Z., THROUGH HIS GUARDIAN ERIKA SCHNEIDER; VICTORIA B., THROUGH HER GUARDIAN DAISY CALDERON; NATHANIEL B., THROUGH HIS GUARDIAN SHARON BARING; AJI P., THROUGH HIS GUARDIAN HELAINA PIPER; LEVI D., THROUGH HIS GUARDIAN LEIGH-ANN DRAHEIM; JAYDEN F., THROUGH HER GUARDIAN CHERRI FOYTLIN; NICHOLAS V., THROUGH HIS GUARDIAN MARIE VENNER; EARTH GUARDIANS, A NONPROFIT ORGANIZATION; FUTURE GENERATIONS, THROUGH THEIR GUARDIAN DR. JAMES HANSEN, REAL PARTIES IN INTEREST

Filed: Mar. 7, 2018

OPINION

Before: SIDNEY R. THOMAS, Chief Judge, and MARSHA S. BERZON and MICHELLE T. FRIEDLAND, Circuit Judges.[*]

[*] Following the retirement of Judge Kozinski, Judge Friedland was randomly drawn to replace him on the panel. She has read the briefs, reviewed the record, and watched a video recording of the oral argument held on December 11, 2017.

THOMAS, Chief Judge:

In this petition for a writ of mandamus, the defendants ask us to direct the district court to dismiss a case seeking various environmental remedies. The defendants argue that allowing the case to proceed will result in burdensome discovery obligations on the federal government that will threaten the separation of powers. We have jurisdiction over this petition pursuant to the All Writs Act, 28 U.S.C. § 1651. Because the defendants have not met the high bar for mandamus relief, we deny the petition.

I

Twenty-one young plaintiffs brought suit against the United States, the President, and various Executive Branch officials and agencies, alleging that the defendants have contributed to climate change in violation of the plaintiffs' constitutional rights. They allege that the defendants have known for decades that carbon dioxide emissions from the burning of fossil fuels destabilize the climate. The plaintiffs aver that the defendants have nevertheless enabled and continue to enable, through various government policies, the burning of fossil fuels, allowing atmospheric carbon dioxide concentrations to reach historically unprecedented levels. They allege that climate change is injuring them and will continue to injure them. The plaintiffs claim that, in light of these facts, the defendants have violated their constitutional rights.

The defendants moved to dismiss the suit for lack of jurisdiction and for failure to state a claim. The district court denied the motion. The court held that the plaintiffs plausibly alleged that they have Article III

standing, did not raise non-justiciable political questions, and asserted plausible claims under the Due Process Clause of the Fifth Amendment.

The defendants moved the district court to stay the litigation and to certify its order for interlocutory appeal pursuant to 28 U.S.C. § 1292(b). The district court denied the motions. Anticipating burdensome discovery, the defendants petitioned this Court for a writ of mandamus and requested a stay of the litigation. In their petition, the defendants ask that we direct the district court to dismiss the case. We granted the request for a stay and now consider the petition.

II

"The writ of mandamus is a drastic and extraordinary remedy reserved for really extraordinary causes." *In re Van Dusen*, 654 F.3d 838, 840 (9th Cir. 2011) (quoting *Ex parte Fahey*, 332 U.S. 258, 259-60, 67 S. Ct. 1558, 91 L. Ed. 2041 (1947)) (internal quotation marks omitted). "[O]nly exceptional circumstances amounting to a judicial usurpation of power or a clear abuse of discretion will justify the invocation of this extraordinary remedy." *Cheney v. U.S. Dist. Ct.*, 542 U.S. 367, 380, 124 S. Ct. 2576, 159 L. Ed. 2d 459 (2004) (internal quotation marks and citations omitted). In considering whether to grant a writ of mandamus, we are guided by the five factors identified in *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650 (9th Cir. 1977):

(1) whether the petitioner has no other means, such as a direct appeal, to obtain the desired relief;

(2) whether the petitioner will be damaged or prejudiced in any way not correctable on appeal;

(3) whether the district court's order is clearly erroneous as a matter of law;

(4) whether the district court's order is an oft repeated error or manifests a persistent disregard of the federal rules; and

(5) whether the district court's order raises new and important problems or issues of first impression.

Perry v. Schwarzenegger, 591 F.3d 1147, 1156 (9th Cir. 2010) (citing *Bauman*, 557 F.2d at 654-55). "All factors are not relevant in every case and the factors may point in different directions in any one case." *Christensen v. U.S. Dist. Ct.*, 844 F.2d 694, 697 (9th Cir. 1988).

III

The defendants do not satisfy the *Bauman* factors at this stage of the litigation. The issues that the defendants raise on mandamus are better addressed through the ordinary course of litigation. We therefore decline to exercise our discretion to grant mandamus relief. *See San Jose Mercury News, Inc. v. U.S. Dist. Ct.*, 187 F.3d 1096, 1099 (9th Cir. 1999) ("Mandamus review is at bottom discretionary—even where [all] the *Bauman* factors are satisfied, the court may deny the petition.").

A

The first *Bauman* factor is whether the petitioner will "ha[ve] no other means . . . to obtain the desired relief." *Perry*, 591 F.3d at 1156. This factor

ensures that a writ of mandamus will not "be used as a substitute for appeal even though hardship may result from delay and perhaps unnecessary trial." *Schlagenhauf v. Holder*, 379 U.S. 104, 110, 85 S. Ct. 234, 13 L. Ed. 2d 152 (1964) (internal citation omitted). Here, the defendants argue that mandamus is their only means of obtaining relief from potentially burdensome discovery.

The defendants' argument fails because the district court has not issued a single discovery order, nor have the plaintiffs filed a single motion seeking to compel discovery. Rather, the parties have employed the usual meet-and-confer process of resolving discovery disputes. *See* Fed. R. Civ. P. 37(a)(1). Indeed, both sides have submitted declarations attesting that they have thus far resolved a number of discovery disputes without either side asking the district court for an order. Indeed, the plaintiffs have withdrawn a number of requests for production. The defendants rely on informal communications as to the scope of discovery —in particular, the plaintiffs' litigation hold and demand letter—but the plaintiffs have clarified that these communications were not discovery requests.

If a specific discovery dispute arises, the defendants can challenge that specific discovery request on the basis of privilege or relevance. *See McDaniel v. U.S. Dist. Ct.*, 127 F.3d 886, 888-89 (9th Cir. 1997) (per curiam) (holding that mandamus "is not the State's only adequate means of relief" from burdensome discovery because, "as discovery proceeds, the State is not foreclosed from making routine challenges to specific discovery requests on the basis of privilege or relevance"). In addition, the defendants can seek protective orders,

as appropriate, under Federal Rule of Civil Procedure 26(c).

Mandamus relief is inappropriate where the party has never sought relief before the district court to resolve a discovery dispute. As we have noted, "courts of appeals cannot afford to become involved with the daily details of discovery." *In re Anonymous Online Speakers*, 661 F.3d 1168, 1173 (9th Cir. 2011) (quoting *Perry*, 591 F.3d at 1157). Rather, we have only granted mandamus relief to review discovery orders in exceptional circumstances. *Id.* And neither we nor the Supreme Court have ever done so before a party has filed a motion for a protective order in the district court or prior to the issuance of a discovery order by the district court. The defendants will have ample remedies if they believe a specific discovery request from the plaintiffs is too broad or burdensome. Absent any discovery order from the district court, or even any attempt to seek one, however, the defendants have not shown that they have no other means of obtaining relief from burdensome or otherwise improper discovery.

The defendants rely on two cases in which a writ of mandamus issued because of alleged discovery burdens: *Cheney*, and *Credit Suisse v. U.S. Dist. Ct.*, 130 F.3d 1342 (9th Cir. 1997). In both cases, the district courts had issued orders compelling document production. *Cheney*, 542 U.S. at 376, 379, 124 S. Ct. 2576 (defendant moved for a protective order, but district court issued order allowing discovery to proceed); *Credit Suisse*, 130 F.3d at 1346 (district court issued order

compelling defendants to respond to discovery requests).[1]

Absent any district court order concerning discovery, mandamus relief is inappropriate. If the defendants become aggrieved by a future discovery order, they can seek mandamus relief as to that order. But their current request for mandamus relief is entirely premature. The defendants have not satisfied the first *Bauman* factor.

B

The second *Bauman* factor is whether the petitioner "will be damaged or prejudiced in any way not correctable on appeal." *Perry*, 591 F.3d at 1156. To satisfy this factor, the defendants "must demonstrate some burden . . . other than the mere cost and delay that are the regrettable, yet normal, features of our imperfect legal system." *DeGeorge v. U.S. Dist. Ct.*, 219 F.3d 930, 935 (9th Cir. 2000) (alteration in original) (quoting *Calderon v. U.S. Dist. Ct.*, 163 F.3d 530, 535 (9th Cir. 1998) (en banc)). Prejudice serious enough to warrant mandamus relief "includes situations in which one's 'claim will obviously be moot by the time an appeal is possible,' or in which one 'will not have the

[1] The defendants also raised, via a letter filed after argument, the Supreme Court's recent summary disposition in an appeal challenging a discovery order. *See In re United States*, —— U.S. ——, 138 S. Ct. 443, 199 L. Ed. 2d 351 (2017). When the government filed a petition for mandamus in that case, the district court had compelled the government to complete the administrative record over the government's opposition that the administrative record was already complete and had deferred ruling on the defendants' earlier motion to dismiss. Neither circumstance exists here.

ability to appeal.'" *Id.* (quoting *Calderon*, 163 F.3d at 535).

The defendants argue that holding a trial on the plaintiffs' claims and allowing the district court potentially to grant relief would threaten the separation of powers. We are not persuaded that simply allowing the usual legal processes to go forward will have that effect in a way not correctable on appellate review.

First, to the extent the defendants argue that the President himself has been named as a defendant unnecessarily and that defending this litigation would unreasonably burden him, this argument is premature because the defendants never moved in the district court to dismiss the President as a party. *See United States v. U.S. Dist. Ct.*, 384 F.3d 1202, 1205 (9th Cir. 2004) (explaining that there is no injustice from declining to consider a new issue on mandamus review because a petitioner may still be able to raise the issue below). Nor has any formal discovery been sought against the President.

To the extent that the defendants are arguing that executive branch officials and agencies in general should not be burdened by this lawsuit, Congress has not exempted the government from the normal rules of appellate procedure, which anticipate that sometimes defendants will incur burdens of litigating cases that lack merit but still must wait for the normal appeals process to contest rulings against them. The United States is a defendant in close to one-fifth of the civil cases filed in federal court.[2] The government cannot

[2] See U.S. Courts, Federal Judicial Caseload Statistics 2017, http://www.uscourts.gov/statistics-reports/federal-judicial-caseload

satisfy the burden requirement for mandamus simply because it, or its officials or agencies, is a defendant.

Distilled to its essence, the defendants' argument is that it is a burden to defend against the plaintiffs' claims, which they contend are too broad to be legally sustainable. That well may be. But, as noted, litigation burdens are part of our legal system, and the defendants still have the usual remedies before the district court for nonmeritorious litigation, for example, seeking summary judgment on the claims. And if relief is not forthcoming, any legal error can be remedied on appeal. "The first two criteria articulated in *Bauman* are designed to insure that mandamus, rather than some other form of relief, is the appropriate remedy." *In re Cement Antitrust Litig. (MDL No. 296)*, 688 F.2d 1297, 1301 (9th Cir. 1982), *aff'd sub nom. Arizona v. U.S. Dist. Ct.*, 459 U.S. 1191, 103 S. Ct. 1173, 75 L. Ed. 2d 425 (1983) (mem.). Because the merits errors now asserted are correctable through the ordinary course of litigation, the defendants have not satisfied the second *Bauman* factor.

C

The third *Bauman* factor is whether the district court's order "is clearly erroneous as a matter of law." *Perry*, 591 F.3d at 1156. Our review of this factor "is significantly deferential and [this factor] is not met unless the reviewing court is left with a definite and firm conviction that a mistake has been committed." *In re Bundy*, 840 F.3d 1034, 1041 (9th Cir. 2016) (quot-

statistics-2017 (last visited Feb. 14, 2018) (The United States was a defendant in 56,987 of the 292,076 civil cases filed in federal court in the 12-month period ending March 31, 2017.).

ing *In re United States*, 791 F.3d 945, 955 (9th Cir. 2015)).

"The absence of controlling precedent weighs strongly against a finding of clear error [for mandamus purposes]." *In re Van Dusen*, 654 F.3d 838, 845 (9th Cir. 2011). Here, the defendants concede that there is no controlling Ninth Circuit authority on any of the theories asserted by the plaintiffs. Indeed, the defendants strongly argue that the theories are unprecedented. Thus, the absence of controlling precedent in this case weighs strongly against a finding of clear error. *Id.*

We also underscore that this case is at a very early stage, and that the defendants have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific governmental decisions and orders. Once the litigation proceeds, the defendants will have ample opportunity to raise and litigate any legal objections they have.

However, absent controlling precedent, we decline to exercise our discretion to intervene at this stage of the litigation to review preliminary legal decisions made by the district court or otherwise opine on the merits.

D

The fourth *Bauman* factor is whether the district court's order is "an oft repeated error or manifests a persistent disregard of the federal rules." *Perry*, 591 F.3d at 1156. Absent controlling authority, there is no "oft-repeated error" in this case, *In re Swift Transp.*

Co., 830 F.3d at 917, and the defendants do not contend that the district court violated any federal rule. The defendants do not satisfy the fourth factor.

E

The final factor is whether the district court's order "raises new and important problems or issues of first impression." *Perry*, 591 F.3d at 1156. In general, we have relied upon this factor when there is a "novel and important question" that "may repeatedly evade review." *Id.* at 1159; *see also In re Cement Antitrust Litig.*, 688 F.2d at 1304-05 ("[A]n important question of first impression will evade review unless it is considered under our supervisory mandamus authority. Moreover, that question may continue to evade review in other cases as well.").

There is little doubt that the legal theories asserted in this case raise issues of first impression. But the district court's order denying a motion to dismiss on the pleadings—which is all that has happened thus far—does not present the possibility that those issues will evade appellate review. The defendants have not satisfied the fifth *Bauman* factor.

IV

There is enduring value in the orderly administration of litigation by the trial courts, free of needless appellate interference. In turn, appellate review is aided by a developed record and full consideration of issues by the trial courts. If appellate review could be invoked whenever a district court denied a motion to dismiss, we would be quickly overwhelmed with such requests, and the resolution of cases would be unnecessarily delayed.

We are mindful that some of the plaintiffs' claims as currently pleaded are quite broad, and some of the remedies the plaintiffs seek may not be available as redress. However, the district court needs to consider those issues further in the first instance. Claims and remedies often are vastly narrowed as litigation proceeds; we have no reason to assume this case will be any different. Nor would the defendants be precluded from reasserting a challenge to standing, particularly as to redressability, once the record is more fully developed, or from seeking mandamus in the future, if circumstances justify it. And the defendants retain the option of asking the district court to certify orders for interlocutory appeal of later rulings, pursuant to 28 U.S.C. § 1292(b).

Because petitioners have not satisfied the *Bauman* factors, we deny the petition without prejudice. Absent any discovery order, the mandamus petition is premature insofar as it is premised on a fear of burdensome discovery. The issues pertaining to the merits of this case can be resolved by the district court, in a future appeal, or, if extraordinary circumstances later present themselves, by mandamus relief. For these reasons, we decline to exercise our discretion to grant mandamus relief at this stage of the litigation.

PETITION DENIED WITHOUT PREJUDICE.

APPENDIX F

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
EUGENE DIVISION

No. 6:15-cv-01517-TC

KELSEY CASCADIA ROSE JULIANA, ET AL., PLAINTIFFS

v.

UNITED STATES OF AMERICA, ET AL, DEFENDANTS

OPINION AND ORDER

Filed: Nov. 10, 2016

AIKEN, Judge:[1]

Plaintiffs in this civil rights action are a group of young people between the ages of eight and nineteen ("youth plaintiffs"); Earth Guardians, an association of young environmental activists; and Dr. James Hansen,

[1] Student externs worked on each stage of the preparation of this opinion, from initial background research to final copyedits. I would be remiss if I did not acknowledge the invaluable contributions of Daniel Bodden (University of Kentucky), Elizabeth Jacklin (University of Oregon School of Law), Ann Richan Metier (Willamette University College of Law), James Mullins (University of Washington School of Law), Jessy R. Nations (University of Washington School of Law), Lydeah Negro (Lewis & Clark Law School), and Eleanor J. Vincent (University of Oregon School of Law.)

acting as guardian for future generations.[2] Plaintiffs filed this action against defendants the United States, President Barack Obama, and numerous executive agencies. Plaintiffs allege defendants have known for more than fifty years that the carbon dioxide ("CO_2") produced by burning fossil fuels was destabilizing the climate system in a way that would "significantly endanger plaintiffs, with the damage persisting for millenia." First. Am. Compl. ¶ 1. Despite that knowledge, plaintiffs assert defendants, "[b]y their exercise of sovereign authority over our country's atmosphere and fossil fuel resources, . . . permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels, . . . deliberately allow[ing] atmospheric CO_2 concentrations to escalate to levels unprecedented in human history[.]" *Id.* ¶ 5. Although many different entities contribute to greenhouse gas emissions, plaintiffs aver defendants bear "a higher degree of responsibility than any other individual, entity, or country" for exposing plaintiffs to the dangers of climate change. *Id.* ¶ 7. Plaintiffs argue defendants' actions violate their substantive due process rights to life, liberty, and property, and that defendants have violated their obligation to hold certain natural resources in trust for the people and for future generations.

[2] Although plaintiffs in this lawsuit hale from a number of different states, venue is proper in the District of Oregon. The majority of youth plaintiffs, including lead plaintiff Kelsey Juliana, reside in the District of Oregon. First Am. Compl. ¶¶ 16, 23, 31, 35, 44, 47, 50, 53, 57, 60. In addition, plaintiff Earth Guardians has a chapter in Eugene, Oregon.

Plaintiffs assert there is a very short window in which defendants could act to phase out fossil fuel exploitation and avert environmental catastrophe. They seek (1) a declaration their constitutional and public trust rights have been violated and (2) an order enjoining defendants from violating those rights and directing defendants to develop a plan to reduce CO_2 emissions. Defendants moved to dismiss this action for lack of subject matter jurisdiction and failure to state a claim. Doc. 27. Intervenors the National Association of Manufacturers, the American Fuel & Petrochemical Manufacturers, and the American Petroleum Institute moved to dismiss on the same grounds. Doc. 19. After oral argument, Magistrate Judge Coffin issued his Findings and Recommendation ("F & R") and recommended denying the motions to dismiss. Doc. 68. Judge Coffin then referred the matter to me for review pursuant to 28 U.S.C. § 636 and Federal Rule of Civil Procedure 72. Doc. 69. Defendants and intervenors filed objections (docs. 73 & 74), and on September 13, 2016, this Court heard oral argument.

For the reasons set forth below, I adopt Judge Coffin's F & R as elaborated in this opinion and deny the motions to dismiss.

BACKGROUND

This is no ordinary lawsuit. Plaintiffs challenge the policies, acts, and omissions of the President of the United States, the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation ("DOT"), the Department of Agriculture, the Department of Commerce, the De-

partment of Defense, the Department of State, and the Environmental Protection Agency ("EPA"). This lawsuit challenges decisions defendants have made across a vast set of topics—decisions like whether and to what extent to regulate CO_2 emissions from power plants and vehicles, whether to permit fossil fuel extraction and development to take place on federal lands, how much to charge for use of those lands, whether to give tax breaks to the fossil fuel industry, whether to subsidize or directly fund that industry, whether to fund the construction of fossil fuel infrastructure such as natural gas pipelines at home and abroad, whether to permit the export and import of fossil fuels from and to the United States, and whether to authorize new marine coal terminal projects. Plaintiffs assert defendants' decisions on these topics have substantially caused the planet to warm and the oceans to rise. They draw a direct causal line between defendants' policy choices and floods, food shortages, destruction of property, species extinction, and a host of other harms.

This lawsuit is not about proving that climate change is happening or that human activity is driving it. For the purposes of this motion, those facts are undisputed.[3] The questions before the Court are whether

[3] For the purposes of this motion, I proceed on the understanding that climate change exists, is caused by humans, and poses a serious threat to our planet. Defendants open their Objections to Judge Coffin's F & R by stating that "[c]limate change poses a monumental threat to Americans' health and welfare by driving long-lasting changes in our climate, leading to an array of severe negative effects, which will worsen over time," Fed. Defs.' Obj. to F & R 1 (doc. 78). In the 2015 State of the Union address, defendant President Barack Obama declared "[n]o challenge . . . poses a greater threat to future generations than climate change," Presi-

defendants are responsible for some of the harm caused by climate change, whether plaintiffs may challenge defendants' climate change policy in court, and whether this Court can direct defendants to change their policy without running afoul of the separation of powers doctrine.

STANDARDS

The Magistrates Act authorizes a district court to "accept, reject or modify, in whole or in part, the findings or recommendations made by the magistrate judge." 28 U.S.C. § 636(b)(1). When a party objects to any portion of the magistrate's findings and recommendation, the district court must review *de novo* that portion of the magistrate judge's report. Fed. R. Civ. P. 72(b)(3); *see also McDonnell Douglas Corp. v. Commodore Bus. Machs., Inc.*, 656 F.2d 1309, 1313 (9th Cir. 1981) (for dispositive motions, "the statute grants the broadest possible discretion to the reviewing district court").

Under Federal Rule of Civil Procedure 12(b)(1), a district court must dismiss an action if subject matter jurisdiction is lacking. A motion to dismiss under Rule 12(b)(1) may attack either the allegations of the complaint or the "existence of subject matter in fact." *Thornhill Publ'g Co., Inc. v. Gen. Tel. & Elec. Corp.*,

dent Barack Obama, Remarks in State of the Union Address (Jan. 20, 2015), *available at* www.whitehouse.gov/the-press-office/2015/01/20/remarks-president-state-union-address-january-20-2015 (last visited Nov. 7, 2016). When asked at oral argument if they agreed that human-caused climate change poses a serious threat, intervenors declined to take a clear position. All parties agree, however, that a dispute over the existence of climate change is not at the heart of this case.

594 F.2d 730, 733 (9th Cir. 1979). The party seeking to invoke the district court's jurisdiction bears the burden of establishing subject matter jurisdiction. *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377, 114 S. Ct. 1673, 128 L. Ed. 2d 391 (1994).

Under Federal Rule of Civil Procedure 12(b)(6), a complaint is construed in favor of the plaintiff, and its factual allegations are taken as true. *Daniels-Hall v. Nat'I Educ. Ass'n*, 629 F.3d 992, 998 (9th Cir. 2010), However, the court need not accept as true "conclusory" allegations or unreasonable inferences. *Id.* Thus, "for a complaint to survive a motion to dismiss, the non-conclusory factual content, and reasonable inferences from that content, must be plausibly suggestive of a claim entitling the plaintiff to relief." *Moss v. U.S. Secret Serv.*, 572 F.3d 962, 969 (9th Cir. 2009) (quotation marks omitted). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S. Ct. 1937, 173 L. Ed. 2d 868 (2009). "[O]nce a claim has been stated adequately, it may be supported by showing any set of facts consistent with the allegations in the complaint." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 563, 127 S. Ct. 1955, 167 L. Ed. 2d 929 (2007).

DISCUSSION

Judge Coffin recommended denying defendants' and intervenors' motions to dismiss and holding that plaintiffs' public trust and due process claims may proceed. Defendants and intervenors object to those recommendations on a number of grounds. They contend plaintiffs' claims must be dismissed for lack of jurisdiction

because the case presents non-justiciable political questions, plaintiffs lack standing to sue, and federal public trust claims cannot be asserted against the federal government. They further argue plaintiffs have failed to state a claim on which relief can be granted. I first address the threshold challenges to jurisdiction, and then proceed to address the viability of plaintiffs' due process and public trust claims.

I. *Political Question*

If a case presents a political question, federal courts lack subject matter jurisdiction to decide that question. *Corrie v. Caterpillar, Inc.*, 503 F.3d 974, 982 (9th Cir. 2007). The political question doctrine is "primarily a function of the separation of powers." *Baker v. Carr*, 369 U.S. 186, 210, 82 S. Ct. 691, 7 L. Ed. 2d 663 (1962). This limitation on the federal courts was recognized in *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 170, 2 L. Ed. 60 (1803), in which Chief Justice Marshall wrote, "[q]uestions, in their nature political, or which are, by the constitution and laws, submitted to the executive, can never be made in this court." However, the scope of the political question doctrine should not be overstated. As Alexis de Tocqueviile observed, "[t]here is hardly any political question in the United States that sooner or later does not turn into a judicial question." 1 Alexis de Tocqueviile, Democracy in America 440 (Liberty Fund 2012).

In *Baker*, the Supreme Court identified six criteria, each of which could individually signal the presence of a political question:

> [(1)A] textually demonstrable constitutional commitment of the issue to a coordinate political de-

> partment; [(2)] a lack of judicially discoverable and manageable standards for resolving it; [(3)] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; [(4)] the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; [(5)] an unusual need for unquestioning adherence to a political decision already made; or [(6)] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker, 369 U.S. at 217, 82 S. Ct. 691. The *Baker* tests "are probably listed in descending order of both importance and certainty." *Vieth v. Jubelirer*, 541 U.S. 267, 278, 124 S. Ct. 1769, 158 L. Ed. 2d 546 (2004) (plurality op.). The factors overlap, with the analyses "often collapsing into one another." *Alperin v. Vatican Bank*, 410 F.3d 532, 544 (9th Cir. 2005). The "common underlying inquiry" is whether "the question is one that can properly be decided by the judiciary." *Id.*

Determining whether the political question doctrine requires abstention calls on a court to balance profoundly important interests. On the one hand, the separation of powers is fundamental to our system of government, known "[e]ven before the birth of this country" to be "a defense against tyranny." *Loving v. United States*, 517 U.S. 748, 756, 116 S. Ct. 1737, 135 L. Ed. 2d 36 (1996). It is a "basic principle of our constitutional scheme that one branch of the Government may not intrude upon the central prerogatives of another." *Id.* at 757, 116 S. Ct. 1737. On the other

hand, "[t]he decision to deny access to judicial relief" should never be made "lightly," because federal courts "have the power, and ordinarily the obligation, to decide cases and controversies properly presented to them." *Alperin*, 410 F.3d at 539 (quoting *Liu v. Rep. of China*, 892 F.2d 1419, 1433 (9th Cir. 1989) and *W.S. Kirkpatrick & Co. v. Envt'l Tectonics Corp., Int'l*, 493 U.S. 400, 409, 110 S. Ct. 701, 107 L. Ed. 2d 816 (1990)). Accordingly, a court cannot simply err on the side of declining to exercise jurisdiction when it fears a political question may exist; it must instead diligently map the precise limits of jurisdiction.

Climate change, energy policy, and environmental regulation are certainly "political" in the sense that they have "motivated partisan and sectional debate during important portions of our history." *U.S. Dep't of Commerce v. Montana*, 503 U.S. 442, 458, 112 S. Ct. 1415, 118 L. Ed. 2d 87 (1992). But a case does not present a political question merely because it "raises an issue of great importance to the political branches." *Id.* Instead, dismissal on political question grounds is appropriate only if one of the *Baker* considerations is "inextricable" from the case. *Baker*, 369 U.S. at 217, 82 S. Ct. 691. As a result, federal courts regularly adjudicate claims that arise in connection with politically charged issues. *See, e.g., Jewel v. Nat'l Sec. Agency*, 673 F.3d 902, 912 (9th Cir. 2011) (electronic surveillance); *Chiles v. Thornburgh*, 865 F.2d 1197, 1216 (11th Cir. 1989) (detention of undocumented immigrants); *Planned Parenthood Fed'n of Am, Inc. v. Agency for Int'l Dev.*, 838 F.2d 649, 656 (2d Cir. 1988) (international funding for birth control and abortion). In each of the above cases, the court engaged in "discriminating inquiry into the precise facts" before concluding the

controversy was justiciable. *Baker*, 369 U.S. at 217, 82 S. Ct. 691. A similar rigorous analysis is necessary here.

A. *First* Baker *Factor*

The first *Baker* factor requires abstention "[w]hen a case would require a court to decide an issue whose resolution is textually committed to a coordinate political department" because "the court lacks authority to resolve that issue." *Zivotofsky ex rel Zivotofsky v. Clinton*, 566 U.S. 189, 132 S. Ct. 1421, 1431, 182 L. Ed. 2d 423 (2012) (Sotomayor, J., concurring). Since *Baker*, the Supreme Court has found such "textual commitment" in very few cases. In *Nixon v. United States*, 506 U.S. 224, 113 S. Ct. 732, 122 L. Ed. 2d 1 (1993), a former federal judge sought to challenge the Senate's processes for taking evidence during impeachment trials. *Id.* at 226, 113 S. Ct. 732. The Court found his claim nonjusticiable due to the Constitution's clear statement granting the Senate "the sole Power to try ail Impeachments." *Id.* at 229, 113 S. Ct. 732 (quoting U.S. Const, art. I, § 3, cl. 6). The Court found the provision's use of the word "sole" to be "of considerable significance." *Id.* at 231, 113 S. Ct. 732. The Court also discussed the history of the clause at issue, noting that the "Framers labored over the question of where the impeachment power should lie" and "at least two considered"—and rejected—placing that power within the federal judiciary. *Id.* at 233, 113 S. Ct. 732.

In *Davis v. Passman*, 442 U.S. 228, 235 n.11, 99 S. Ct. 2264, 60 L. Ed. 2d 846 (1979), the Court characterized the Speech or Debate Clause as the "paradigm example" of a "textually demonstrable constitutional commitment." That clause provides that Senators and

Representatives, "for any Speech or Debate in either House, . . . shall not be questioned in any other place." U.S. Const. Art. I, § 6, cl. 1. The Court explained that the clause plainly shields statements of federal legislators made during speech or debate in committees or on the House or Senate floor from *any* sort of judicial review, and thus speaks "directly to . . . separation-of-powers concerns." *Davis*, 442 U.S. at 235 n.11, 99 S. Ct. 2264.

Most recently, in *Zivotofsky ex rel. Zivotofsky v. Kerry*, the Court held that the Constitution gives the president the exclusive authority to recognize foreign nations and governments. ––– U.S. –––, 135 S. Ct. at 2086, 192 L. Ed. 2d 83. The Court acknowledged that the Constitution does not use the term "recognition." *Id.* at 2084. Nonetheless, the Court determined that the Constitution granted the recognition power to the Executive Branch "[a]s a matter of constitutional structure." *Id.* at 2085. The Court concluded that the clauses giving the president exclusive authority to receive ambassadors and to negotiate treaties implicitly granted the recognition power. *Id.* at 2086. That determination rested in part on the Court's conclusion that recognition was uniquely "a topic on which the Nation much speak with one voice." *Id.* at 2086 (quotation marks and ellipsis omitted). If Congress had the power to decline to recognize a foreign state the Executive had decided to recognize, the president would be unable to assure that foreign state that its ambassadors would be received, its officials would be immune from suit in federal court, and it would be permitted to initiate lawsuits in the United States to vindicate its rights. *Id.* In issuing its decision, the Court expressly declined to hold that the Constitution

gives the president the "unbounded power" to "conduct diplomatic relations" and exercise "the bulk of foreign-affairs powers." *Id.* at 2089.

Unlike in the constitutional provisions at issue *Nixon* and *Passman*, the constitutional provisions cited here contain nothing approaching a clear reference to the subject matter of this case. The Constitution does not mention environmental policy, atmospheric emissions, or global warming. And unlike in *Zivotofksy*, climate change policy is not a fundamental power on which any other power allocated exclusively to other branches of government rests. Intervenors correctly point out that the Constitution gives the political branches authority over commerce, foreign relations, national defense, and federal lands—all areas affected by climate change policy. *See* U.S. Const, art. I, § 8 cl. 3 (Congress has authority to "regulate commerce with foreign nations, and among the several states"); *Zivotofsky*, 135 S. Ct. at 2084-86 (discussing various constitutional provisions granting the Executive Branch foreign relations authority); U.S. Const. art. I, § 8 cl. 11-16 (detailing Congress's powers relating to war and the military); U.S. Const, art. II, § 2, cl. 1 (President is commander in chief of armed forces); U.S. Const. art. IV, § 3, cl. 2 (Congress has power to "dispose of and make all needful rules and regulations" regarding federal land). But holding the first *Baker* factor applies in any case relating to these topic areas would permit the exception to swallow the rule. The question is not whether a case *implicates* issues that appear in the portions of the Constitution allocating power to the Legislative and Executive Branches—such a test would, by definition, shield nearly all legislative and executive action from legal challenge, Rather, the ques-

tion is whether adjudicating a claim would require the Judicial Branch to second-guess decisions committed exclusively to another branch of government.

In the lower courts, the first *Baker* factor has found its broadest application in foreign policy cases. *See, e.g., Corrie*, 503 F.3d at 983 ("Whether to grant military or other aid to a foreign nation is a political decision inherently entangled with the conduct of foreign relations."); *Gonzalez-Vera v. Kissinger*, 449 F.3d 1260, 1263 (D.C. Cir. 2006) (decision to take "drastic measures" to keep Chilean dictator Augusto Pinochet in power was a foreign policy decision textually committed to the Executive Branch); *Sadowski v. Bush*, 293 F. Supp. 2d 15, 21 (D.C. Cir. 2003) (decision to go to war in Afghanistan was not justiciable, "primarily because war powers have been explicitly committed to the political branches"), As a result, I give special consideration to the argument that granting plaintiffs' requested relief would usurp the Executive Branch's foreign relations authority. Climate change policy has global implications and so is sometimes the subject of international agreements. But unlike the decisions to go to war, take action to keep a particular foreign leader in power, or give aid to another country, climate change policy is not *inherently*, or even primarily, a foreign policy decision. Moreover, in the foreign policy context, *Baker* expressly warned against framing the "textually committed" inquiry too broadly. *See Baker*, 369 U.S. at 211, 82 S. Ct. 691 ("[I]t is error to suppose that every case or controversy which touches foreign relations lies beyond judicial cognizance.") The first *Baker* factor does not apply.

B. *Second and Third* Baker *Factors*

"The second and third *Baker* factors reflect circumstances in which a dispute calls for decisionmaking beyond courts' competence." *Zivotofsky*, 132 S. Ct. at 1432 (Sotomayor, J., concurring). "When a court is given no standard by which to adjudicate a dispute, or cannot resolve a dispute in the absence of a yet-unmade policy determination charged to a political branch, resolution of the suit is beyond the judicial role envisioned by Article III." *Id.*

Defendants' and intervenors' arguments on the second and third *Baker* factors can be divided into two main points. First, intervenors contend the Court cannot set a permissible emissions level without making *ad hoc* policy determinations about how to weigh competing economic and environmental concerns. But plaintiffs do not ask this Court to pinpoint the "best" emissions level; they ask this Court to determine what emissions level would be sufficient to redress their injuries. That question can be answered without any consideration of competing interests. *Cf. Coleman v. Schwarzenegger*, 2010 WL 99000, *1 (E.D. Cal. & N.D. Cal. Jan. 12, 2010) (requiring state to reduce the population of adult prisons to 137.5% of their total design capacity, a target which "extend[ed] no further than necessary to correct the violation of California inmates' federal constitutional rights"). The science may well be complex, but logistical difficulties are immaterial to the political question analysis. *See Alperin*, 410 F.3d at 552, 555 ("[T]he crux of th[e political question] inquiry is . . . not whether the case is unmanageable in the sense of being large, complicated, or otherwise difficult to tackle from a logistical standpoint," but ra-

ther whether "a legal framework exists by which courts can evaluate . . . claims in a reasoned manner.").

Second, intervenors aver the Court would have to choose which agencies and sectors should reduce emissions, and by how much. At oral argument, intervenors contended this would require review of every environmental rule and regulation in the last one hundred years. These arguments mischaracterize the relief plaintiffs seek. Plaintiffs do not seek to have this Court direct any individual agency to issue or enforce any particular regulation. Rather, they ask the Court to declare the United States' current environmental policy infringes their fundamental rights, direct the agencies to conduct a consumption-based inventory of United States CO_2 emissions, and use that inventory to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 so as to stabilize the climate system and protect the vital resources on which Plaintiffs now and in the future will depend." First Am. Compl. at 94. This Court could issue the requested declaration without directing any individual agency to take any particular action.

Finally, defendants and intervenors contend that plaintiffs' failure to identify violations of precise statutory or regulatory provisions leaves this court without any legal standard by which to judge plaintiffs' claims, Plaintiffs could have brought a lawsuit predicated on technical regulatory violations, but they chose a different path. As masters of their complaint, they have elected to assert constitutional rather than statutory claims. Every day, federal courts apply the legal standards governing due process claims to new sets of

facts. The facts in this case, though novel, are amenable to those well-established standards. Neither the second nor the third *Baker* factor divests this Court of jurisdiction.

In the political question section of their objections to Judge Coffin's F & R, defendants assert the allegations in the complaint are not specific enough to put them on notice of plaintiffs' claims. This argument relates to the second and third *Baker* factors and the competence of this Court to adjudicate those claims, considerations which are addressed above. The argument also touches on concerns about causation and redressability, which are discussed in Section II of this opinion. However, the argument is also phrased in terms common to cases governing general pleading standards. *See Twombly*, 550 U.S. at 555, 127 S. Ct. 1955 (complaint in federal court must contain enough information to "give the defendant fair notice" of both the claim and the "grounds upon which it rests" (quoting *Conley v. Gibson*, 355 U.S. 41, 47, 78 S. Ct. 99, 2 L. Ed. 2d 80 (1957)). To the extent defendants challenge the First Amended Complaint as inadequately pleaded, that challenge fails. This is not a typical environmental case, Plaintiffs are not arguing defendants issued any particular permit in violation of a statutory provision in the Clean Air Act or the Clean Water Act. They are not arguing any specific tax break, royalty rate, or contract runs afoul of an agency's governing regulations. Rather, the theory of plaintiffs' case is much broader: it is that defendants' *aggregate actions* violate their substantive due process rights and the government's public trust obligations. That theory, which requires no citation to particular statutory or regulatory provi-

sions, is clear from the face of the First Amended Complaint.

C. *Fourth through Sixth* Baker *Factors*

The fourth through sixth *Baker* factors "address circumstances in which prudence may counsel against a court's resolution of an issue presented." *Zivotofsky*, 132 S. Ct. at 1432 (Sotomayor, J., concurring). Only in "rare" cases will *Baker*'s "final factors alone render a case nonjusticiable." *Id.* at 1434.

Intervenors contend the fourth *Baker* factor, which concerns a court expressing lack of respect to another branch of government, applies in this case. They argue that because the Executive and Legislative branches have taken numerous steps to address climate change, a ruling in plaintiffs' favor would be disrespectful to those efforts. Intervenors would have this Court hold the political question doctrine prevents a court from determining whether the federal government has violated a plaintiff's constitutional rights so long as the government has taken some steps to mitigate the damage. However, intervenors cite no cases—and this Court is aware of none—to support such a broad application of the fourth *Baker* factor. Rather, courts have found the fourth factor applies in cases asking a court to "question the good faith with which another branch attests to the authenticity of its internal acts." *Id.* at 1433. The fourth factor has also been held relevant when "judicial resolution of a question would contradict prior decisions taken by a political branch in those limited contexts where such contradiction would seriously interfere with important governmental interests." *Kadic v. Karadzic*, 70 F.3d 232, 249 (2d Cir. 1995).

Consistent with those formulations, federal appellate courts have found the fourth *Baker* factor present when judicial adjudication of a claim would be wholly incompatible with foreign-relations decisions made by one of the political branches. *See, e.g., Whiteman v. Dorotheum GmbH & Co. KG*, 431 F.3d 57, 59 (2d Cir. 2005) (political question doctrine prevented court from adjudicating claims against Austrian government for seizure of property from Jewish families during World War II because two presidential administrations had "committed the United States to a policy of resolving Holocaust-era restitution claims through international agreements rather than litigation."); *Schneider v. Kissinger*, 412 F.3d 190, 198 (D.C. Cir. 2005) (political question doctrine barred review of Executive Branch decision to participate in covert operations in Chile, a decision that had already been the subject of congressional inquiry).

Although the United States has made international commitments regarding climate change, granting the relief requested here would be fully consistent with those commitments. There is no contradiction between promising other nations the United States will reduce CO_2 emissions and a judicial order directing the United States to go beyond its international commitments to *more aggressively* reduce CO_2 emissions. Because this Court could grant plaintiffs' requested relief without expressing disrespect for the Executive Branch's international climate change agreements, the fourth *Baker* factor does not apply.

Neither intervenors nor defendants suggest the fifth or sixth *Baker* factors apply here. Nonetheless, I address those factors because federal courts have an

"independent obligation to assure [them]selves of" the existence of subject matter jurisdiction. *Rosson v. Fitzgerald (In re Rosson)*, 545 F.3d 764, 769 n.5 (9th Cir. 2008). On the face of the complaint, I see no evidence of an "unusual need for unquestioning adherence to a political decision already made" or any "potentiality of embarrassment from multifarious pronouncements by various departments on one question." *Baker*, 369 U.S. at 217, 82 S. Ct. 691. I conclude neither of the two final *Baker* factors deprives this Court of subject matter jurisdiction.

D. *Summary: This Case Does Not Raise a Non-justiciable Political Question*

There is no need to step outside the core role of the judiciary to decide this case. At its heart, this lawsuit asks this Court to determine whether defendants have violated plaintiffs' constitutional rights. That question is squarely within the purview of the judiciary. *See INS v. Chadha*, 462 U.S. 919, 941, 103 S. Ct. 2764, 77 L. Ed. 2d 317 (1983) (judiciary is bound to determine whether the political branches have "chosen a constitutionally permissible means of implementing [their] power"); *Jewel*, 673 F.3d at 912 (although lawsuit challenging federal agencies' surveillance practices "strikes at the heart of a major public policy controversy," claims were justiciable because they were "straightforward claims of statutory and constitutional rights, not political questions").

This case shares some key features with *Baker* itself, In *Baker*, a group of voters challenged a statute governing the apportionment of state legislative districts. 369 U.S. at 188-95, 82 S. Ct. 691. Sixty years of population growth without legislative reapportion-

ment had led to some votes carrying much more weight than others. *Id.* at 192-93, 82 S. Ct. 691. Here, the majority of youth plaintiffs are minors who cannot vote and must depend on others to protect their political interests. Thus, as amicus the League of Women Voters persuasively argues, the youth plaintiffs' claims are similar to the *Baker* claims because they are "rooted in a 'debasement of their votes' and an accompanying diminishment of their voice in representational government." Br. for the League of Women Voters in the United States et al. as Amici Curiae at 19-20 (doc. 79-1). [4] In *Baker*, the Court acknowledged that the plaintiffs' claims had political dimensions and ramifications—but nonetheless concluded none of the *Baker* factors was inextricable from the case. 369 U.S. at 209, 82 S. Ct. 691. Similarly, as discussed in detail above, this case raises political issues yet is not barred by the political question doctrine.

Should plaintiffs prevail on the merits, this Court would no doubt be compelled to exercise great care to avoid separation-of-powers problems in crafting a remedy. The separation of powers might, for example, permit the Court to direct defendants to ameliorate plaintiffs' injuries but limit its ability to specify precisely how to do so. *Cf. S. Burlington Cnty. N.A.A.C.P. v. Mt. Laurel Twp.*, 67 N.J. 151, 336 A.2d 713, 734 (1975) (leaving to municipality "in the first instance at least" the determination of how to remedy the constitutional problems with a local zoning ordinance). That said, federal courts retain broad authority "to

[4] The motion of the League of Women Voters of the United States and the League of Women Voters of Oregon to appear as amici curiae (doc. 79) is granted.

fashion practical remedies when confronted with complex and intractable constitutional violations." *Brown v. Plata*, 563 U.S. 493, 526, 131 S. Ct. 1910, 179 L. Ed. 2d 969 (2011). In any event, speculation about the difficulty of crafting a remedy could not support dismissal at this early stage. *See Baker*, 369 U.S. at 198, 82 S. Ct. 691 ("Beyond noting that we have no cause at this stage to doubt the District Court will be able to fashion relief if violations of constitutional rights are found, it is improper now to consider what remedy would be most appropriate if appellants prevail at trial.") Because no *Baker* factor is inextricable from the merits of this case, the political question doctrine is not a barrier to plaintiffs' claims.

II. *Standing to Sue*

"A threshold question in every federal case is . . . whether at least one plaintiff has standing." *Thomas v. Mundell*, 572 F.3d 756, 760 (9th Cir. 2009) (citation and quotation marks omitted). Standing requires a plaintiff to allege "such a personal stake in the outcome of the controversy as to warrant [the] invocation of federal-court jurisdiction and to justify exercise of the court's remedial powers[.]" *Warth v. Seldin*, 422 U.S. 490, 498, 95 S. Ct. 2197, 45 L. Ed. 2d 343 (1975). To demonstrate standing, a plaintiff must show (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision, *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560, 112 S. Ct. 2130, 119 L. Ed. 2d 351 (1992). A plaintiff must support each element of the standing test "with the manner and degree of evidence required at

the successive stages of the litigation." *Id.* at 561, 112 S. Ct. 2130. Accordingly, at the motion to dismiss stage "general allegations" suffice to establish standing because those allegations are presumed to "embrace those specific facts that are necessary to support the claim." *Id.* (citation and quotation marks omitted).

A. *Injury in Fact*

In an environmental case, a plaintiff cannot demonstrate injury in fact merely by alleging injury to the environment; there must be an allegation that the challenged conduct is harming (or imminently will harm) the plaintiff. *Friends of the Earth, Inc. v. Laidlaw Envt'l Servs. (TOC), Inc.*, 528 U.S. 167, 181, 120 S. Ct. 693, 145 L. Ed. 2d 610 (2000). For example, a plaintiff may meet the injury in fact requirement by alleging the challenged activity "impairs his or her economic interests or aesthetic and environmental wellbeing." *Wash. Envt'l Council v. Bellon*, 732 F.3d 1131, 1140 (9th Cir. 2013) (quotation marks omitted and alterations normalized).

Plaintiffs adequately allege injury in fact. Lead plaintiff Kelsey Juliana alleges algae blooms harm the water she drinks, and low water levels caused by drought kill the wild salmon she eats. First Am. Compl. ¶¶ 17-18. Plaintiff Xiuhtezcatl Roske-Martinez alleges increased wildfires and extreme flooding jeopardize his personal safety. *Id.* ¶ 21. Plaintiff Alexander Loznak alleges record-setting temperatures harm the health of the hazelnut orchard on his family farm, an important source of both revenue and food for him and his family. *Id.* ¶ 26. Plaintiff Jacob Lebel alleges drought conditions required his family to install an irrigation system at their farm. *Id.* ¶ 32. Plaintiff Zea-

land B. alleges he has been unable to ski during the winter as a result of decreased snowpack. *Id.* ¶ 38. Plaintiff Sahara V. alleges hot, dry conditions caused by forest fires aggravate her asthma. *Id.* ¶ 46.

The most recent allegations of injury appear in the supplemental declaration of plaintiff Jayden F., a thirteen-year-old resident of Rayne, Louisiana. Jayden alleges that at five o'clock the morning of August 13, 2016, her siblings woke her up. Decl. Jayden F. ¶ 5 Sept. 7, 2016 (doc. 78). She stepped out of bed into ankle-deep water. By the end of the day,

> Flood waters were pouring into our home through every possible opening. We tried to stop it with towels, blankets, and boards. The water was flowing down the hallway, into my Mom's room and my sisters' room. The water drenched my living room and began to cover our kitchen floor. Our toilets, sinks, and bathtubs began to overflow with awful smelling sewage because our town's sewer system also flooded. Soon the sewage was everywhere. We had a stream of sewage and water running through our house.

Id. ¶ 8. With no shelters available and nowhere else to go, the family remained in the flooded house for weeks. *Id.* ¶ 10. The floodwaters eventually receded, but the damage remains: the carpets are soaked with sewage water. *Id.* ¶ 12. The waterlogged walls must be torn down to prevent the growth of black mold. *Id.* The entire family sleeps together in the living room because the bedrooms are uninhabitable. *Id.* ¶ 15. Jayden alleges the storm that destroyed her home "ordinarily would happen once every 1,000 years, but is happening now as a result of climate change." *Id.* ¶ 2.

The government contends these injuries are not particular to plaintiffs because they are caused by climate change, which broadly affects the entire planet (and all people on it) in some way. According to the government, this renders plaintiffs' injuries nonjusticiable generalized grievances. *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, ––– U.S. –––, 134 S. Ct. 1377, 1387 n.3, 188 L. Ed. 2d 392 (2014) (explaining that generalized grievances do not meet Article III's case or controversy requirement).

The government misunderstands the generalized grievance rule. As the Ninth Circuit recently explained, federal courts lack jurisdiction to hear a case when the harm at issue is "not only widely shared, but is also of an abstract and indefinite nature—for example, harm to the common concern for obedience to the law." *Novak v. United States*, 795 F.3d 1012, 1018 (9th Cir. 2015) (quoting *Fed. Elec. Comm'n v. Akins*, 524 U.S. 11, 23, 118 S. Ct. 1777, 141 L. Ed. 2d 10 (1998)). Standing alone, "the fact that a harm is widely shared does not necessarily render it a generalized grievance." *Jewel*, 673 F.3d at 909; *see also Massachusetts v. EPA*, 549 U.S. 497, 517, 127 S. Ct. 1438, 167 L. Ed. 2d 248 (2007) ("[I]t does not matter how many persons have been injured by the challenged action" so long as "the party bringing suit shows that the action injures him in a concrete and personal way." (quotation marks omitted and alterations normalized)); *Akins*, 524 U.S. at 24, 118 S. Ct. 1777 ("[A]n injury . . . . widely shared . . . does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where sufficiently concrete, may count as an 'injury in fact.'"); *Covington v. Jefferson Cnty.*, 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring)

("[T]he most recent Supreme Court precedent appears to have rejected the notion that injury to all is injury to none for standing purposes."); *Pye v. United States*, 269 F.3d 459, 469 (4th Cir. 2001) ("So long as the plaintiff . . . has a concrete and particularized injury, it does not matter that legions of other persons have the same injury."). Indeed, even if "the experience at the root of [the] complaint was shared by virtually every American," the inquiry remains whether that shared experience caused an injury that is concrete and particular *to the plaintiff*. *Jewel*, 673 F.3d at 910. Applying the correct formulation of the generalized grievance rule, plaintiffs' alleged injuries—harm to their personal, economic and aesthetic interests—are concrete and particularized, not abstract or indefinite.

That leaves imminence. Plaintiffs must demonstrate standing for each claim they seek to press and for each form of relief sought. *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 352, 126 S. Ct. 1854, 164 L. Ed. 2d 589 (2006). Because plaintiffs seek injunctive relief, they must show their injuries are "ongoing or likely to recur." *Consumer Fin. Prot. Bureau v. Gordon*, 819 F.3d 1179, 1197 (9th Cir. 2016) (quoting *FTC v. Evans Prods. Co.*, 775 F.2d 1084, 1087 (9th Cir. 1985)). They have met this requirement. The complaint alleges that "[t]he present level of CO_2 and its warming, both realized and latent, are already in the zone of danger." First Am, Compl, ¶ 8. It also alleges that "our country is now in a period of carbon overshoot, with early consequences that are already threatening and that will, in the short term, rise to unbearable unless Defendants take immediate action[.]" *Id.* ¶ 10 (quotation marks omitted). Youth plaintiffs each allege harm that is ongoing and likely to continue in the future.

See, e.g., id. ¶ 17 (alleging current harm and harm "[i]n the coming decades" from ocean acidification and rising sea levels); *id.* ¶ 45 (alleging damage to freshwater resources now and in the future "if immediate action is not taken" to reduce CO_2 emissions). This is sufficient to satisfy the imminence requirement.

By alleging injuries that are concrete, particularized, and actual or imminent, plaintiffs have satisfied the first prong of the standing test.

B. *Causation*

The second requirement of standing is causation. A plaintiff must show the injury alleged is "fairly traceable" to the challenged action of the defendant and not the result of "the independent action of some third party not before the court." *Lujan*, 504 U.S. at 560, 112 S. Ct. 2130 (citation and quotation marks omitted). Although a defendant's action need not be the sole source of injury to support standing, *Barnum Timber Co. v. EPA*, 633 F.3d 894, 901 (9th Cir. 2011), "[t]he line of causation between the defendant's action and the plaintiff's harm must be more than attenuated," *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 867 (9th Cir. 2012) (citations and quotation marks omitted). However, a "causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible." *Id.* (citations, quotation marks, and bracket omitted).

The government contends plaintiffs have not adequately alleged causation, relying on the Ninth Circuit's decision in *Bellon.* In that case, environmental advocacy groups sought to compel the Washington

State Department of Ecology and other regional agencies "to regulate greenhouse gas emissions" ("GHGs") from five oil refineries. *Bellon*, 732 F.3d at 1135. The court held plaintiffs lacked standing to sue because the causal link between the agencies' regulatory decisions and the plaintiffs' injuries was "too attenuated." *Id.* at 1141. The court explained the special challenge of showing causation with respect to the production of greenhouse gases:

> Greenhouse gases, once emitted from a specific source, quickly mix and disperse in the global atmosphere and have a long atmospheric lifetime. Current research on how greenhouse gases influence global climate change has focused on the cumulative environmental effects from aggregate regional or global sources. But there is limited scientific capability in assessing, detecting, or measuring the relationship between a certain GHG emission source and localized climate impacts in a given region.

Id. at 1143. The court noted that the five oil refineries at issue were responsible for just under six percent of total greenhouse gas emissions produced in the state of Washington, and quoted the state's expert's declaration that the effect of those emissions on global climate change was "scientifically indiscernible, given the emission levels, the dispersal of GHGs worldwide, and the absence of any meaningful nexus between Washington refinery emissions and global GHG concentrations now or as projected in the future." *Id.* at 1144 (quotation marks omitted). The court concluded the "causal chain [wa]s too tenuous to support standing." *Id.*

This case is distinguishable from *Bellon* in two important respects. First, the procedural posture is different. In *Bellon*, the appeal was taken from a grant of summary judgment. *Id.* at 1138. That procedural posture is underscored by the court's reliance on expert declarations in rendering its decision. Plaintiffs have alleged a causal relationship between their injuries and defendants' conduct. At this stage, I am bound to accept those allegations as true. This rule appropriately acknowledges the limits of the judiciary's expertise: at the motion to dismiss stage, a federal court is in no position to say it is impossible to introduce evidence to support a well-pleaded causal connection. *See Connecticut v. Am. Elec. Power Co., Inc.*, 582 F.3d 309, 347 (2d Cir. 2009) (holding that causation in climate change cases is "best left to the rigors of evidentiary proof at a future stage of the proceedings, rather than dispensed with as a threshold question of constitutional standing"), *rev'd on other grounds, Am. Elec. Power Co., Inc. v. Connecticut*, 564 U.S. 410, 429, 131 S. Ct. 2527, 180 L. Ed. 2d 435 (2011). 1 note, too, that climate science is constantly evolving. *See* Kirsten Engel & Jonathan Overpeck, *Adaptation and the Courtroom: Judging Climate Science*, 3 Mich. J. Envt'l & Admin. L. 1, 25 (2013) (although "climate impacts at the regional and local levels are subject, among other things, to the uncertainties of downscaling techniques[,] . . . our knowledge of the climate is developing at a breakneck pace.") As a result, 1 cannot interpret *Bellon*—which relied on a summary judgment record developed more than five years ago—to forever close the courthouse doors to climate change claims.

Second, the emissions at issue in this case, unlike the emissions at issue in *Bellon*, make up a significant share of global emissions, In *Bellon*, as noted, the five oil refineries were responsible for just under six percent of the greenhouse gas emissions generated in the state of Washington. The Ninth Circuit recently explained that in *Bellon*, "causation was lacking because the defendant oil refineries were such minor contributors to greenhouse gas emissions, and the independent third-party causes of climate change were so numerous, that the contribution of the defendant oil refineries was 'scientifically undiscernable.'" *WildEarth Guardians v. U.S. Dep't of Agric.*, 795 F.3d 1148, 1158 (9th Cir. 2015) (quoting *Bellon*, 732 F.3d at 1144). Here, by contrast, plaintiffs' chain of causation rests on the core allegation that defendants are responsible for a substantial share of worldwide greenhouse gas emissions. Plaintiffs allege that over the 263 years between 1751 and 2014, the United States produced more than twenty-five percent of global CO_2 emissions. First Am. Compl. ¶ 151. Greenhouse gas emissions produced in the United States continue to increase. *Id.* ¶ 152. In 2012, the United States was the second largest producer and consumer of energy in the world. *Id.* ¶ 160. *Bellon*'s reasoning, which rested on a determination the oil refineries were "minor contributors" to climate change, does not apply. *WildEarth Guardians*, 795 F.3d at 1158.

The government broadly asserts that *Bellon* rejected "the argument that allegations that a source 'contributed' to climate change are sufficient to satisfy Article III's causation requirement[.]" Fed. Defs.' Mem. of Points & Auth. in Supp. of Mot. Dismiss at 12 (doc. 27-1). Not so. *Bellon* rejected—*at the summary*

judgment stage—"vague, conclusory" statements purporting to establish a causal relationship between the emissions of five refineries and the plaintiffs' injuries. 732 F.3d at 1142. Although the Constitution did not require the *Bellon* plaintiffs to "connect each molecule to their injuries," it demanded more than "simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries[.]" *Id.* at 1142-43.

The causal chain alleged by plaintiffs here is conclusory, but that is because they have not yet had the opportunity to present evidence. And unlike in *Bellon*, plaintiffs' causation allegations are not vague. At oral argument, plaintiffs explained that their theory of causation has two components. The first relates to defendants' affirmative acts. Specifically, plaintiffs allege that fossil fuel combustion accounts for approximately ninety-four percent of United States CO_2 emissions. First Am. Compl. ¶ 158. Defendants lease public lands for oil, gas, and coal production; undercharge royalties in connection with those leases; provide tax breaks to companies to encourage fossil fuel development; permit the import and export of fossil fuels; and incentivize the purchase of sport utility vehicles. *Id.* ¶¶ 164, 166, 171, 173, 181, 190. Here, the chain of causation is: fossil fuel combustion accounts for the lion's share of greenhouse gas emissions produced in the United States; defendants have the power to increase or decrease those emissions; and defendants use that power to engage in a variety of activities that actively cause and promote higher levels of fossil fuel combustion.

The second component of plaintiffs' causation theory involves defendants' failure to act in areas where they have authority to do so. Plaintiffs allege that together, power plants and transportation produce nearly two-thirds of CO_2 emissions in the United States. *Id.* ¶ 115 (transportation produces approximately twenty-seven percent of annual emissions); *id.* ¶ 125 (power plants produce roughly thirty-seven percent of annual emissions). Plaintiffs also allege DOT and EPA have broad power to set emissions standards in these sectors. So the chain of causation is: DOT and EPA have jurisdiction over sectors producing sixty-four percent of United States emissions, which in turn constitute roughly fourteen percent of emissions worldwide; they allow high emissions levels by failing to set demanding standards; high emissions levels cause climate change; and climate change causes plaintiffs' injuries.

Each link in these causal chains may be difficult to prove, but the "spectre of difficulty down the road does not inform [the] justiciability determination at this early stage of the proceedings." *Alperin*, 410 F.3d at 539. At the pleading stage, plaintiffs have adequately alleged a causal link between defendants' conduct and the asserted injuries.

C. *Redressability*

The final prong of the standing inquiry is redressability. The causation and redressability prongs of the standing inquiry "overlAPAnd are two facets of a single causation requirement." *Bellon*, 732 F.3d at 1146 (citation and quotation marks omitted). They are distinct in that causation "examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the al-

leged injury and requested judicial relief." *Id.* A plaintiff need not show a favorable decision is certain to redress his injury, but must show a substantial likelihood it will do so. *Id.* It is sufficient for the redressability inquiry to show that the requested remedy would "slow or reduce" the harm, *Massachusetts*, 549 U.S. at 525, 127 S. Ct. 1438 (citing *Larson v. Valente*, 456 U.S. 228, 243 n.15, 102 S. Ct. 1673, 72 L. Ed. 2d 33 (1982)).

The declaratory and injunctive relief plaintiffs request meets this standard. Most notably, plaintiffs ask this Court to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2[.]" First Am. Compl. ¶ 94. If plaintiffs can show, as they have alleged, that defendants have control over a quarter of the planet's greenhouse gas emissions, and that a reduction in those emissions would reduce atmospheric CO_2 and slow climate change, then plaintiffs' requested relief would redress their injuries.

Bellon is not to the contrary. In *Bellon*, the court concluded the plaintiff's injuries would continue unabated even if the five oil refineries shut down, repeating its conclusion that the effect of the emissions produced by those refineries on global emissions levels was "scientifically indiscernable." 732 F.3d at 1147 (quotation marks omitted), Thus, *Bellon*'s redressability holding, like its causation holding, rested on a factor not present here: that the defendants were minor contributors to global climate change. Accordingly, *Bellon*'s reasoning does not apply.

Defendants and intervenors essentially argue that because many entities contribute to global warming, an injunction operating on one entity—even a major player—would offer no guarantee of an overall reduction in greenhouse gas emissions. But whether the Court could guarantee an overall reduction in greenhouse gas emissions is the wrong inquiry for at least two reasons. First, redressability does not require certainty, it requires only a substantial likelihood that the Court could provide meaningful relief. Second, the possibility that some other individual or entity might later cause the same injury does not defeat standing—the question is whether the injury *caused by the defendant* can be redressed.

Redressability in this case is scientifically complex, particularly in light of the specter of "irreversible climate change," wherein greenhouse gas emissions above a certain level push the planet past "points of no return, beyond which irreversible consequences become inevitable, out of humanity's control." Hansen Decl. ¶ 13 & Ex. 2 at 13 Sept. 10, 2015 (docs. 7-1 & 7-3) (quotation marks omitted). This raises a host of questions, among them: What part of plaintiffs' injuries are attributable to causes beyond this Court's control? Even if emissions increase elsewhere, will the magnitude of plaintiffs' injuries be less if they obtain the relief they seek in this lawsuit? When would we reach this point of no return, and do defendants have it within their power to avert reaching it even without cooperation from third parties? All of these questions are inextricably bound up in the causation inquiry, and none of them can be answered at the motion to dismiss stage.

Plaintiffs ask this Court to "order Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." First Am. Compl. ¶ 12 (emphasis omitted). Construing the complaint in plaintiffs' favor, they allege that this relief would at least partially redress their asserted injuries. Youth plaintiffs have adequately alleged they have standing to sue.[5]

III. *Due Process Claims*[6]

The Due Process Clause of the Fifth Amendment to the United States Constitution bars the federal government from depriving a person of "life, liberty, or property" without "due process of law." U.S. Const. amend. V. Plaintiffs allege defendants have violated their due process rights by "directly caus[ing] atmospheric CO_2 to rise to levels that dangerously interfere with a stable climate system required alike by our

[5] Defendants and intervenors also challenge the standing of future generations plaintiffs on a number of grounds. It is not necessary to address these arguments because once a federal court concludes one plaintiff has standing, it need not determine whether the remaining plaintiffs have standing, *Nat'l Ass'n of Optometrists & Opticians LensCrafters, Inc. v. Brown*, 567 F.3d 521, 523 (9th Cir. 2009).

[6] Plaintiffs' due process claims encompass asserted equal protection violations and violations of unenumerated rights secured by the Ninth Amendment. For simplicity's sake, this opinion refers to these claims collectively as "due process claims."

nation and Plaintiffs[,]" First Am. Compl. ¶ 279; "knowingly endanger[ing] Plaintiffs' health and welfare by approving and promoting fossil fuel development, including exploration, extraction, production, transportation, importation, exportation, and combustion," *id.* ¶ 280; and, "[a]fter knowingly creating this dangerous situation for Plaintiffs, . . . continu[ing] to knowingly enhance that danger by allowing fossil fuel production, consumption, and combustion at dangerous levels," *id.* ¶ 284.

Defendants and intervenors challenge plaintiffs' due process claims on two grounds. First, they assert any challenge to defendants' affirmative actions (*i.e.* leasing land, issuing permits) cannot proceed because plaintiffs have failed to identify infringement of a fundamental right or discrimination against a suspect class of persons. Second, they argue plaintiffs cannot challenge defendants' inaction (*i.e.*, failure to prevent third parties from emitting CO_2 at dangerous levels) because defendants have no affirmative duty to protect plaintiffs from climate change.

A. *Infringement of a Fundamental Right*

When a plaintiff challenges affirmative government action under the due process clause, the threshold inquiry is the applicable level of judicial scrutiny. *Witt v. Dep't of the Air Force*, 527 F.3d 806, 813 (9th Cir. 2008). The default level of scrutiny is rational basis, which requires a reviewing court to uphold the challenged governmental action so long as it "implements a rational means of achieving a legitimate governmental end[.]" *Kim v. United States*, 121 F.3d 1269, 1273 (9th Cir. 1997) (quotation marks omitted). When the government infringes a "fundamental right,"

however, a reviewing court applies strict scrutiny. *Witt*, 527 F.3d at 817. Substantive due process "forbids the government to infringe certain 'fundamental' liberty interests *at all*, no matter what process is provided, unless the infringement is narrowly tailored to serve a compelling state interest." *Reno v. Flores*, 507 U.S. 292, 302, 113 S. Ct. 1439, 123 L. Ed. 2d 1 (1993) (emphasis in original). It appears undisputed by plaintiffs, and in any event is clear to this Court, that defendants' affirmative actions would survive rational basis review. Resolution of this part of the motions to dismiss therefore hinges on whether plaintiffs have alleged infringement of a fundamental right.[7]

Fundamental liberty rights include both rights enumerated elsewhere in the Constitution and rights and liberties which are either (1) "deeply rooted in this Nation's history and tradition" or (2) "fundamental to our scheme of ordered liberty[.]" *McDonald v. City of Chicago, Ill.*, 561 U.S. 742, 767, 130 S. Ct. 3020, 177 L. Ed. 2d 894 (2010) (internal citations, quotations, and emphasis omitted). The Supreme Court has cautioned that federal courts must "exercise the utmost care whenever we are asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed into" judicial policy preferences. *Washington v. Glucksberg*, 521 U.S. 702,

[7] Strict scrutiny also is triggered by an allegation that the government discriminated on the basis of a suspect classification, regardless of whether the government action infringed a fundamental right. *Green v. City of Tucson*, 340 F.3d 891, 896 (9th Cir. 2003). Because I conclude that plaintiffs have alleged a violation of their fundamental rights, I need not address whether youth or future generations are suspect classifications for equal protection purposes.

720, 117 S. Ct. 2258, 138 L. Ed. 2d 772 (1997) (citation and quotation marks omitted).

This does not mean that "new" fundamental rights are out of bounds, though. When the Supreme Court broke new legal ground by recognizing a constitutional right to same-sex marriage, Justice Kennedy wrote that

> The nature of injustice is that we may not always see it in our own times. The generations that wrote and ratified the Bill of Rights . . . did not presume to know the extent of freedom in all its dimensions, and so they entrusted to future generations a charter protecting the right of all persons to enjoy liberty as we learn its meaning. When new insight reveals discord between the Constitution's central protections and a received legal stricture, a claim to liberty must be addressed.

Obergefell v. Hodges, ––– U.S. –––, 135 S. Ct. 2584, 2598, 192 L. Ed. 2d 609 (2015). Thus, "[t]he identification and protection of fundamental rights is an enduring part of the judicial duty to interpret the Constitution . . . [that] has not been reduced to any formula." *Id.* (citation and quotation marks omitted). In determining whether a right is fundamental, courts must exercise "reasoned judgment," keeping in mind that "[h]istory and tradition guide and discipline this inquiry but do not set its outer boundaries." *Id.* The genius of the Constitution is that its text allows "future generations [to] protect . . . the right of all persons to enjoy liberty as we learn its meaning," *Id.*

Often, an unenumerated fundamental right draws on more than one Constitutional source, The idea is

that certain rights may be necessary to enable the exercise of other rights, whether enumerated or unenumerated. In *Roe v. Wade*, 410 U.S. 113, 152-53, 93 S. Ct. 705, 35 L. Ed. 2d 147 (1973), the Court exhaustively chronicled the jurisprudential history of the fundamental right to privacy—another right not mentioned in the text of the Constitution. *Roe*'s central holding rests on the Due Process Clause of the Fourteenth Amendment. *Id.* at 153, 93 S. Ct. 705. But the Court also found "roots" of the right to privacy in the First Amendment, the Fourth Amendment, the Fifth Amendment, the penumbras of the Bill of Rights, and the Ninth Amendment. *Id.* at 152, 93 S. Ct. 705. Similarly, in *Obergefell*, the Court's recognition of a fundamental right to many was grounded in an understanding of marriage as a right underlying and supporting other vital liberties. *See* 135 S. Ct. at 2599 ("[I]t would be contradictory to recognize a right to privacy with respect to other matters of family life and not with respect to the decision to enter the relationship that is at the foundation of the family in our society." (citation and quotation marks omitted)); *id.* at 2601 ("[M]arriage is a keystone of our social order.").

Exercising my "reasoned judgment," *id.* at 2598, I have no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society. Just as marriage is the "foundation of the family," a stable climate system is quite literally the foundation "of society, without which there would be neither civilization nor progress." *Id.* (quoting *Maynard v. Hill*, 125 U.S. 190, 211, 8 S. Ct. 723, 31 L. Ed. 654 (1888)); *cf. Minors Oposa v. Sec'y of the Dep't of Envt'l & Natural Res.*, G.R. No. 101083, 33 I.L.M. 173, 187-88 (S.C., Jul. 30, 1993) (Phil.) (without

"a balanced and healthful ecology," future generations "stand to inherit nothing but parched earth incapable of sustaining life.").

Defendants and intervenors contend plaintiffs are asserting a right to be free from pollution or climate change, and that courts have consistently rejected attempts to define such rights as fundamental, Defendants and intervenors mischaracterize the right plaintiffs assert. Plaintiffs do not object to the government's role in producing *any* pollution or in causing *any* climate change; rather, they assert the government has caused pollution and climate change on a catastrophic level, and that if the government's actions continue unchecked, they will permanently and irreversibly damage plaintiffs' property, their economic livelihood, their recreational opportunities, their health, and ultimately their (and their children's) ability to live long, healthy lives. Echoing *Obergefell*'s reasoning, plaintiffs allege a stable climate system is a necessary condition to exercising other rights to life, liberty, and property.

In framing the fundamental right at issue as the right to a climate system capable of sustaining human life, I intend to strike a balance and to provide some protection against the constitutionalization of all environmental claims. On the one hand, the phrase "capable of sustaining human life" should not be read to require a plaintiff to allege that governmental action will result in the extinction of humans as a species. On the other hand, acknowledgment of this fundamental right does not transform any minor or even moderate act that contributes to the warming of the planet into a constitutional violation. In this opinion, this

Court simply holds that where a complaint alleges governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem, it states a claim for a due process violation, To hold otherwise would be to say that the Constitution affords no protection against a government's knowing decision to poison the air its citizens breathe or the water its citizens drink. Plaintiffs have adequately alleged infringement of a fundamental right.

B. *"Danger Creation" Challenge to Inaction*

With limited exceptions, the Due Process Clause does not impose on the government an affirmative obligation to act, even when "such aid may be necessary to secure life, liberty, or property interests of which the government itself may not deprive the individual." *DeShaney v. Winnebago Cnty. Dep't of Soc. Servs.*, 489 U.S. 189, 196, 109 S. Ct. 998, 103 L. Ed. 2d 249 (1989). This rule is subject to two exceptions: "(1) the 'special relationship' exception; and (2) the 'danger creation' exception," *L.W. v. Grubbs*, 974 F.2d 119, 121 (9th Cir. 1992). The "special relationship" exception provides that when the government takes an individual into custody against his or her will, it assumes some responsibility to ensure that individual's safety. *Id.* The "danger creation" exception permits a substantive due process claim when government conduct "places a person in peril in deliberate indifference to their safety[.]" *Penilla v. City of Huntington Park*, 115 F.3d 707, 709 (9th Cir. 1997). Plaintiffs purport to challenge the government's failure to limit third-party CO_2

emissions pursuant to the danger creation *DeShaney* exception.

In the Ninth Circuit, a plaintiff challenging government inaction on a danger creation theory must first show the "state actor create[d] or expose[d] an individual to a danger which he or she would not have otherwise faced." *Kennedy v. City of Ridgefield*, 439 F.3d 1055, 1061 (9th Cir. 2006), The state action must place the plaintiff "in a worse position than that in which he would have been had the state not acted at all." *Pauluk v. Savage*, 836 F.3d 1117, 1125 (9th Cir. 2016) (quotation marks omitted and alterations normalized). Second, the plaintiff must show the "state actor . . . recognize[d]" the unreasonable risks to the plaintiff and "actually intend[ed] to expose the plaintiff to such risks without regard to the consequences to the plaintiff." *Campbell v. Wash. Dep't of Soc. & Health Servs.*, 671 F.3d 837, 846 (9th Cir. 2011) (brackets and quotation marks omitted). The defendant must have acted with "[d]eliberate indifference," which "requires a culpable mental state more than gross negligence." *Pauluk*, 836 F.3d at 1125 (quotation marks omitted).

Plaintiffs allege that "[a]cting with full appreciation of the consequences of their acts, Defendants knowingly caused, and continue to cause, dangerous interference with our atmosphere and climate system." First Am. Compl. ¶ 85. They allege this danger stems, "in substantial part, [from] Defendants' historic and continuing permitting, authorizing, and subsidizing of fossil fuel extraction, production, transportation, and utilization." *Id.* ¶ 279. Plaintiffs allege defendants acted "with full appreciation" of the consequences of

their acts, *id.* ¶¶ 278-79, specifically "[harm to] Plaintiffs' dignity, including their capacity to provide for their basic human needs, safely raise families, practice their religious and spiritual beliefs, maintain their bodily integrity, and lead lives with access to clean air, water, shelter, and food." *Id.* ¶ 283. In the face of these risks, plaintiffs allege defendants "have had longstanding, actual knowledge of the serious risks of harm and have failed to take necessary steps to address and ameliorate the known, serious risk to which they have exposed Plaintiffs." *Id.* ¶ 285. In sum: plaintiffs allege defendants played a unique and central role in the creation of our current climate crisis; that they contributed to the crisis with full knowledge of the significant and unreasonable risks posed by climate change;[8] and that the Due Process Clause therefore imposes a special duty on defendants to use their statutory and regulatory authority to reduce greenhouse gas emissions. Accepting the allegations of the complaint as

[8] At oral argument, plaintiffs supplied the Court with a timeline documenting purported evidence of defendants' knowledge of climate change. The timeline, which dates back to 1955, includes the 1988 testimony of Dr. James Hansen before the Senate Committee on Energy and Natural Resources. Dr. Hansen, who appears in this lawsuit as a guardian for his granddaughter and for future generations, testified about rising global temperatures and their relationship to human activity. First Session on the Greenhouse Effect and Global Climate Change Before the Comm. on Energy & Natural Res., 100th Cong. 39 (1988). He urged legislators to take action to limit greenhouse gas emissions. *Id.* at 158. Dr. Hansen's testimony was preceded by a statement from Senator Dale Bumpers of Arkansas, who bemoaned, "We're not going to have a lot of political support for this. Nobody wants to take on the automobile industry. Nobody wants to take on any of the industries that produce the things we throw up into the atmosphere." *Id.* at 38.

true, plaintiffs have adequately alleged a danger creation claim.

Defendants argue the *DeShaney* exceptions are inapplicable when the actor is the federal government rather than a state government. It is true that *DeShaney* was a section 1983 case and that the Ninth Circuit cases interpreting the *DeShaney* exceptions are also section 1983 cases. But in *DeShaney*, the Supreme Court was mapping the contours of the Due Process Clause, not section 1983. Defendants have cited no case or legal principle to justify limiting *DeShaney* to the section 1983 context.

Next, defendants contend application of the *DeShaney* danger creation exception in this context would permit plaintiffs to "raise a substantive due process claim to challenge virtually any government program"—for example, to challenge foreign policy decisions that heighten or exacerbate international tensions, or to health and safety regulations the plaintiff deems insufficiently stringent. Fed. Defs.' Obj. 18. Defendants fail to recognize that *DeShaney* imposes rigorous proof requirements. A plaintiff asserting a danger-creation due process claim must show (1) the government's acts created the danger to the plaintiff; (2) the government *knew* its acts caused that danger; and (3) the government with *deliberate indifference* failed to act to prevent the alleged harm. These stringent standards are sufficient safeguards against the flood of litigation concerns raised by defendants—indeed, they pose a significant challenge for plaintiffs in this very lawsuit.[9]

[9] There are other barriers to asserting defendants' hypothetical danger-creation claims. For example, as discussed in Part I of this

Questions about difficulty of proof, however, must be left for another day. At the motion to dismiss stage, I am bound to accept the factual allegations in the complaint as true. Plaintiffs have alleged that defendants played a significant role in creating the current climate crisis, that defendants acted with full knowledge of the consequences of their actions, and that defendants have failed to correct or mitigate the harms they helped create in deliberate indifference to the injuries caused by climate change. They may therefore proceed with their substantive due process challenge to defendants' failure to adequately regulate CO_2 emissions.

IV. *Public Trust Claims*

In its broadest sense, the term "public trust" refers to the fundamental understanding that no government can legitimately abdicate its core sovereign powers. *See Stone v. Mississippi*, 101 U.S. 814, 820, 25 L. Ed. 1079 (1879) ("[T]he power of governing is a trust committed by the people to the government, no part of which can be granted away.") The public trust doctrine rests on the fundamental principle that "[e]very succeeding legislature possesses the same jurisdiction and power with respect to [the public interest] as its predecessors." *Newton v. Mahoning Cnty. Comm'rs*, 100 U.S. 548, 559, 25 L. Ed. 710 (1879). The doctrine conceives of certain powers and obligations—for example, the police power—as inherent aspects of sovereignty. *Id.* at 554. Permitting the government to permanently give one of these powers to another entity

opinion, the political question doctrine sharply limits judicial review of decisions inherently entangled with the conduct of foreign relations.

runs afoul of the public trust doctrine because it diminishes the power of future legislatures to promote the general welfare.

Plaintiffs' public trust claims arise from the particular application of the public trust doctrine to essential natural resources. With respect to these core resources, the sovereign's public trust obligations prevent it from "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." Br. of Amici Curiae Global Catholic Climate Movement and Leadership Council of Women Religious at 3 (footnote omitted) (doc. 51-1). Application of the public trust doctrine to natural resources predates the United States of America. Its roots are in the Institutes of Justinian, part of the Corpus Juris Civilis, the body of Roman law that is the "foundation for modern civil law systems." Timothy G. Kearley, *Justice Fred Blume and the Translation of Justinian's Code*, 99 Law Libr. J. 525, ¶ 1 (2007). The Institutes of Justinian declared "the following things are by natural law common to all—the air, running water, the sea, and consequently the seashore." J. Inst. 2.1.1 (J.B. Moyle trans.). The doctrine made its way to the United States through the English common law. *See Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 284, 117 S. Ct. 2028, 138 L. Ed. 2d 438 (1997) ("American law adopted as its own much of the English law respecting navigable waters, including the principle that submerged lands are held for a public purpose."); *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 473, 108 S. Ct. 791, 98 L. Ed. 2d 877 (1988) ("At common law, the title and dominion in lands flowed by the tide water were in the King for the benefit of the nation . . . Upon the American Rev-

olution, these rights, charged with a like trust, were vested in the original States within their respective borders[.]" (quoting *Shively v. Bowlby*, 152 U.S. 1, 57, 14 S. Ct. 548, 38 L. Ed. 331 (1894)); Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 475-76 (1970) (discussing the history of the public trust doctrine in the United States).

The first court in this country to address the applicability of the public trust doctrine to natural resources was the New Jersey Supreme Court, in 1821. The court explained that public trust assets were part of a taxonomy of property:

> Every thing susceptible of property is considered as belonging to the nation that possesses the country, as forming the entire mass of its wealth. But the nation does not possess all those things in the same manner. By very far the greater part of them are divided among the individuals of the nation, and become *private property.* Those things not divided among the individuals still belong to the nation, and are called *public property.* Of these, again, some are reserved for the necessities of the state, and are used for the public benefit, and those are called "*the domain of the crown or of the republic*," others remain common to all the citizens, who take of them and use them, each according to his necessities, and according to the laws which regulate their use, and are called *common property.* Of this latter kind, according to the writers upon the law of nature and of nations, and upon the civil law, are the air, the running water, the sea, the fish, and the wild beasts.

Arnold v. Mundy, 6 N.J.L. 1, 71 (N.J. 1821) (emphasis in original).

The seminal United States Supreme Court case on the public trust is *Illinois Central Railroad Company v. Illinois*, 146 U.S. 387, 13 S. Ct. 110, 36 L. Ed. 1018 (1892). The Illinois legislature had conveyed to the Illinois Central Railroad Company title to part of the submerged lands beneath the harbor of Chicago, with the intent to give the company control over the waters above the submerged lands "against any future exercise of power over them by the state." *Id.* at 452, 13 S. Ct. 110, The Supreme Court held the legislature's attempt to give up its title to lands submerged beneath navigable waters was either void on its face or always subject to revocation. *Id.* at 453, 13 S. Ct. 110. "The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them . . . than it can abdicate its police powers in the administration of government and the preservation of the peace." *Id.* In light of the "immense value" the harbor of Chicago carried for the people of Illinois, the "idea that its legislature can deprive the state of control over its bed and waters, and place the same in the hands of a private corporation" could not "be defended." *Id.* at 454, 13 S. Ct. 110.

The natural resources trust operates according to basic trust principles, which impose upon the trustee a fiduciary duty to "protect the trust property against damage or destruction." George G. Bogert et al., Bogert's Trusts and Trustees, § 582 (2016). The trustee owes this duty equally to both current and future beneficiaries of the trust. Restatement (Second) of Trusts

§ 183 (1959). In natural resources cases, the trust property consists of a set of resources important enough to the people to warrant public trust protection. *See* Mary C. Wood, A Nature's Trust; Environmental Law for a New Ecological Age 167-75 (2014). The government, as trustee, has a fiduciary duty to protect the trust assets from damage so that current and future trust beneficiaries will be able to enjoy the benefits of the trust. *Id.* The public trust doctrine is generally thought to impose three types of restrictions on governmental authority:

> [F]irst, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.

Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 477 (1970).

This lawsuit is part of a wave of recent environmental cases asserting state and national governments have abdicated their responsibilities under the public trust doctrine. *See, e.g., Alec L. v. Jackson*, 863 F. Supp. 2d 11 (D.D.C. 2012); *Sanders-Reed ex rel. Sanders-Reed v. Martinez*, 350 P.3d 1221 (N.M. Ct. App. 2015); *Kanuk ex rel. Kanuk v. State, Dep't of Natural Res.*, 335 P.3d 1088 (Alaska 2014); *Chernaik v. Kitzhaber*, 263 Or. App. 463, 328 P.3d 799 (2014). These lawsuits depart from the "traditional" public trust litigation model, which generally centers on the second restriction, the prohibition against alienation of a public trust asset. Instead, plaintiffs assert defen-

dants have violated their duties as trustees by nominally retaining control over trust assets while actually allowing their depletion and destruction, effectively violating the first and third restrictions by excluding the public from use and enjoyment of public resources.

Defendants and intervenors argue the public trust doctrine has no application in this case. They advance four arguments: (1) the atmosphere, the central natural resource at issue in this lawsuit, is not a public trust asset; (2) the federal government, unlike the states, has no public trust obligations; (3) any common-law public trust claims have been displaced by federal statutes; and (4) even if there is a federal public trust, plaintiffs lack a right of action to enforce it. I address each contention in turn.

A. *Scope of Public Trust Assets*

The complaint alleges defendants violated their duties as trustees by failing to protect the atmosphere, water, seas, seashores, and wildlife. First Am. Compl. ¶ 309. Defendants and intervenors argue plaintiffs' public trust claims fail because the complaint focuses on harm to the atmosphere, which is not a public trust asset. I conclude that it is not necessary at this stage to determine whether the atmosphere is a public trust asset because plaintiffs have alleged violations of the public trust doctrine in connection with the territorial sea.[10]

[10] To be clear, today's opinion should not be taken to suggest that the atmosphere is not a public trust asset. The Institutes of Justinian included the air in the list of assets "by natural law common to all." J. Inst. 2.1.1 (J.B. Moyle trans.). The New Jersey Supreme Court in *Arnold* similarly included air in its list of "common

property." 6 N.J.L. at 71. Even Supreme Court case law suggests the atmosphere may properly be deemed part of the public trust *res*. *See United States v. Causby*, 328 U.S. 256, 261, 66 S. Ct. 1062, 90 L. Ed. 1206 (1946) (holding that private rights to airspace have "no place in the modern world" because recognition of such claims would "transfer into private ownership that to which only the public has a just claim.") The dearth of litigation focusing on atmosphere may reflect the limited state of scientific knowledge rather than signal a determination that the air is outside the scope of the public trust. *See* Mary C. Wood, *Atmospheric Trust Litigation Across the World*, *in* Fiduciary Duty and the Atmospheric Trust 113 (Ken Coghill et al. Eds. 2012) (hypothesizing that the atmosphere does not appear in early public trust case law because air was long thought to be indestructible and incapable of privatization).

Even if the atmosphere was not always considered a public trust asset, some courts have concluded the doctrine should "be molded and extended to meet changing conditions and needs of the public it was created to benefit." *Matthews v. Bay Head Improvement Ass'n*, 95 N.J. 306, 471 A.2d 355, 365 (1984) (citation and quotation marks omitted). Just last year, Judge Hollis Hill reasoned that it "misses the point" to mechanically rely on what has been identified as a public trust asset in the past because "[t]he navigable waters and the atmosphere are intertwined and to argue a separation of the two, or to argue that [greenhouse gas] emissions do not affect navigable waters is nonsensical." *Foster v. Wash. Dep't of Ecology*, No. 14-2-25295-1, slip op. at 8, 2015 WL 7721362 (Wash. King Cnty. Super. Ct. Nov. 19, 2015). At least one state court has held in recent years that "the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property." *Robinson Twp., Wash. Cnty., Pa. v. Pennsylvania*, 623 Pa. 564, 83 A.3d 901, 955 (Pa. Sup. Ct. 2013).

The Supreme Court arguably endorsed this pragmatic approach to the identification of trust assets in *Illinois Central*, where it held, contrary to English common law, that lakes and rivers unaf-

The federal government holds title to the submerged lands between three and twelve miles from the coastlines of the United States. *See* Restatement (Third) of The Foreign Relations Law of the United States § 511(a) (1987) (international law permits a nation to claim as its territorial sea an area up to twelve miles from its coast); Presidential Proclamation of Dec. 27, 1988, No. 5928, 3 C.F.R. § 547 (1989) (President Reagan expanding United States' claim from three-mile territorial sea to twelve-mile territorial sea); 43 U.S.C. § 1312 (seaward boundary of a coastal state is "a line three geographical miles distant from its coast line"). Time and again, the Supreme Court has held that the public trust doctrine applies to "lands beneath tidal waters." *See Phillips Petroleum Co.*, 484 U.S. at 474, 108 S. Ct. 791 (discussing *Shively*, 152 U.S. at 57, 14 S. Ct. 548 and *Knight v. U.S. Land Ass'n*, 142 U.S. 161, 183, 12 S. Ct. 258, 35 L. Ed. 974 (1891)); *Alabama v. Texas*, 347 U.S. 272, 278, 74 S. Ct. 481, 98 L. Ed. 689 (1954) (Black, J., dissenting) ("In ocean waters bordering our country, if nowhere else, day-to-day national power—complete, undivided, flexible, and immediately available—is an essential attribute of federal sovereignty."); *id.* at 282, 74 S. Ct. 481 (Douglas, J., dissenting) ("Thus we are dealing here with incidents of national sovereignty . . . . The authority over [the sea] can no more be abdicated than any of the other great powers of the Federal Government. It is to be exer-

fected by the ebb and flow of the tide could be navigable waters within the meaning of the public trust doctrine. 146 U.S. at 436, 13 S. Ct. 110 (English rule for determining navigability would not work in the United States, which contains "rivers [that] are navigable for great distances above the flow of the tide—indeed, for hundreds of miles").

cised for the benefit of the whole."); *see also* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law; Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 556 (1970) (public trust law covers "that aspect of the public domain below the low-water mark on the margin of the sea and the great lakes, the waters over those lands, and the waters within rivers and streams of any consequence"). Because a number of plaintiffs' injuries relate to the effects of ocean acidification and rising ocean temperatures,[11] they have adequately alleged harm to public trust assets.

B. *Applicability of Public Trust to the Federal Government*

Defendants and intervenors contend that in the United States, the public trust doctrine applies only to the states and not to the federal government. This argument rests primarily on a passing statement in *PPL Montana, LLC v. Montana*, 565 U.S. 576, 132 S. Ct. 1215, 182 L. Ed. 2d 77 (2012). A close examination of that case reveals that it cannot fairly be read to fore-

[11] *See, e.g.*, First Am. Compl. ¶ 16 ("An important part of Kelsey's diet includes food that comes from the marine waters and freshwater rivers, including salmon, cod, tuna, clams, mussels, and crab."); *id.* ¶ 27 ("Other food sources for Alex, including crab and seafood, are negatively impacted by ocean acidification, warming, and sea level rise caused by Defendants."); *id.* ¶ 33 ("Ocean acidification caused by Defendants has already begun to adversely impact shellfish along the coast, and is predicted to take its toll on crab, mussels, and all shelled seafood."); *id.* ¶ 45 ("On the Oregon coast, Sahara enjoys climbing rocks and sand dunes, swimming, and tidepooling to see marine life. Sahara's enjoyment of these activities is being increasingly harmed in the future by sea level rise, greater erosion, enhanced ocean acidification, and increased water temperatures.").

close application of the public trust doctrine to assets owned by the federal government.

PPL Montana was not a public trust case. Its central concern was the equal footing doctrine. PPL Montana, LLC used three rivers flowing through the state of Montana for hydroelectric projects. *Id.* at 580, 132 S. Ct. 1215. Montana sought rent for the use of the riverbeds, arguing it had gained title to the rivers pursuant to the equal footing doctrine when it became a state in 1889. *Id.* The Montana Supreme Court granted summary judgment on title to Montana, On writ of certiorari to the United States Supreme Court, review hinged on whether the rivers in question were "navigable" in 1889, because the "title consequences of the equal-footing doctrine" are that "[u]pon statehood, the State gains title within its borders to the beds of waters then navigable (or tidally influenced . . .)[.]" *Id.* at 589-90, 132 S. Ct. 1215. The Court reversed and remanded, holding that the Montana courts had applied the wrong methodology for determining navigability.

In addition to its main argument that the rivers were navigable, Montana argued that denying it title to the riverbeds in dispute would "undermine the public trust doctrine." *Id.* at 601, 132 S. Ct. 1215. The Supreme Court rejected this argument in short order:

> Unlike the equal-footing doctrine, . . . which is the constitutional foundation for the navigability rule of riverbed title, the public trust doctrine remains a matter of state law, subject as well to the federal power to regulate vessels and navigation under the Commerce Clause and admiralty power. While equal-footing cases have noted that the State

> takes title to the navigable waters and their beds in trust for the public, the contours of that public trust do not depend upon the Constitution. Under accepted principles of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine.

Id. at 603, 132 S. Ct. 1215 (citations omitted).

Defendants and intervenors take the phrase "the public trust doctrine remains a matter of state law," and interpret it in isolation to foreclose all federal public trust claims. That is not a plausible interpretation of *PPL Montana*. The Court was simply stating that federal law, not state law, determined whether Montana has title to the riverbeds, and that if Montana had title, state law would define the scope of Montana's public trust obligations. *PPL Montana* said nothing at all about the viability of federal public trust claims with respect to federally-owned trust assets.

In a string citation, *PPL Montana* cited *Coeur d'Alene*, 521 U.S. at 285, 117 S. Ct. 2028, and *Appleby v. City of New York*, 271 U.S. 364, 395, 46 S. Ct. 569, 70 L. Ed. 992 (1926), for the proposition that *Illinois Central* "was necessarily a statement of Illinois law." 132 S. Ct. at 1235. That statement is not surprising given the nature of the public trust doctrine. Public trust obligations are inherent aspects of sovereignty; it follows that any case applying the public trust doctrine to a particular state is necessarily a statement of that state's law rather than a statement of the law of another sovereign. In *Coeur d'Alene*, the Supreme Court explained that even though *Illinois Central* interpreted

Illinois law, its central tenets could be applied broadly (for example, to Idaho) because it "invoked the principle in American law recognizing the weighty public interests in submerged lands." 521 U.S. at 285, 117 S. Ct. 2028. The Court then detailed how the American public trust doctrine, which has diverged from the English public trust doctrine in important ways, has developed as "a natural outgrowth of the perceived public character of submerged lands, a perception which underlies and informs the principle that these lands are tied in a unique way to sovereignty." *Id.* at 286, 117 S. Ct. 2028. There is no reason why the central tenets of *Illinois Central* should apply to another state, but not to the federal government.

Defendants and intervenors also contend recognizing a federal public trust claim is contrary to *United States v. 32.42 Acres of Land, More or Less, Located in San Diego County, California*, 683 F.3d 1030, 1038 (9th Cir. 2012), which repeated *PPL Montana*'s statement that "the public trust doctrine remains a matter of state law" in concluding that the federal government's eminent domain powers trumped any state-law public trust concerns. That case did not foreclose a federal public trust claim, however, because the Ninth Circuit *expressly* declined to address the viability of the federal public trust the district court imposed on the federal government after it ruled the land could be taken pursuant to eminent domain. *Id.* at 1033 & 1039 n.2.

In 2012, the federal district court for the District of Columbia held the public trust doctrine does not apply to the federal government. *Alec L.* was substantially similar to the instant action: five youth plaintiffs and two environmental advocacy organizations sued a vari-

ety of heads of federal agencies, alleging the defendants had "wasted and failed to preserve and protect the atmosphere Public Trust asset." 863 F. Supp. 2d at 12. The court dismissed the suit with prejudice, holding the plaintiffs' federal public trust claims were foreclosed by *PPL Montana*'s statement that "the public trust doctrine remains a matter of state law." *Id.* at 15 (quoting *PPL Montana*, 565 U.S. at 603, 132 S. Ct. 1215). The court also relied on the D.C. Circuit's observation that "'[i]n this country the public trust doctrine has developed almost exclusively as a matter of state law.'" *Id.* (quoting *District of Columbia v. Air Florida, Inc.*, 750 F.2d 1077, 1082 (D.C. Cir. 1984)). In an unpublished memorandum decision, the D.C. Circuit affirmed, holding that "[t]he Supreme Court in *PPL Montana* . . . directly and categorically rejected any federal constitutional foundation for that doctrine, without qualification or reservation." *Alec L. ex rel. Loorz v. McCarthy*, 561 Fed. Appx. 7, 8 (D.C. Cir. 2014).

I am not persuaded by the reasoning of the *Alec L.* courts. As explained above, a close reading of *PPL Montana* reveals that it says nothing about the viability of federal public trust claims. And in *Air Florida*, the D.C. Circuit emphasized that "we imply no opinion regarding either the applicability of the public trust doctrine to the federal government or the appropriateness of using the doctrine to afford trustees a means for recovering from tortfeasors the cost of restoring public waters to their pre-injury condition." 750 F.2d at 1084.

Two federal courts—the district courts for the Northern District of California and the District of

Massachusetts—have concluded the public trust doctrine applies to the federal government. The decisions, from the 1980s, concerned the federal government's acquisition of various state-owned public trust assets—for example, submerged land beneath navigable rivers or tidelands—through the power of eminent domain. The courts held that the federal government has no public trust obligations under *state* law, but does take the land subject to a *federal* public trust. As one court explained, "[t]he trust is of such a nature that it can be held only by the sovereign, and can only be destroyed by the destruction of the sovereign." *United States v. 1.58 Acres of Land Situated in the City of Boston, Suffolk Cnty., Mass.*, 523 F. Supp. 120, 124 (D. Mass. 1981). Through eminent domain, the federal government "may take property . . . in 'full fee simple' insofar as no other principal may hold a greater right to such land, It must be recognized, however, that the federal government is as restricted as the Commonwealth in its ability to abdicate to private individuals" its title to the land. *Id.* at 124-25. In other words, "[b]y condemnation, the United States simply acquires the land subject to the public trust as though no party had held an interest in the land before." *City of Alameda v. Todd Shipyards Corp.*, 635 F. Supp. 1447, 1450 (N.D. Cal. 1986). *32.42 Acres of Land* is wholly consistent with these opinions; in that case, the Ninth Circuit held that when the federal government condemns state land, it takes title free and clear of any *state* public trust obligations—and that to hold otherwise would violate the Supremacy Clause by subjugating the federal eminent domain power to state public trust law, 683 F.3d at 1038. As noted, however, the court said nothing about the lower court's deter-

mination that the condemned tidelands had been taken subject to a federal public trust. *32.42 Acres of Land*, 683 F.3d at 1033 & 1039 n.2.

I am persuaded that the *City of Alameda* and *1.58 Acres of Land* courts were correct. Their decisions rested on the history of the public trust doctrine and the public trust's unique relationship to sovereignty. I can think of no reason why the public trust doctrine, which came to this country through the Roman and English roots of our civil law system, would apply to the states but not to the federal government.

Defendants' final argument is that recognition of a federal public trust doctrine cannot be reconciled With *Kleppe v. New Mexico*, 426 U.S. 529, 539, 96 S. Ct. 2285, 49 L. Ed. 2d 34 (1976), in which the Supreme Court stated that "[t]he power over public land" entrusted to Congress by the Property Clause of the United States Constitution is "without limitations." Again, defendants take the Supreme Court's statement out of context. In *Kleppe*, New Mexico challenged the federal government's authority to regulate and protect wild horses and burros, arguing that the Constitution granted Congress only the power to "dispose of and make incidental rules regarding the use of federal property" and "the power to protect" the federal property itself, *i.e.*, the land but not animals living on it. 426 U.S. at 536, 96 S. Ct. 2285. The Supreme Court rejected New Mexico's attempt to limit Congress's power to regulate wildlife living on federal lands. It is in that context that the Court stated the "power over public land" was "without limitations." *Id.* at 539, 96 S. Ct. 2285. Indeed, in the *very same sentence* the Supreme Court acknowledged that "the furthest reaches of the

power granted by the Property Clause have not yet been definitively resolved[.]" *Id.* The Supreme Court in *Kleppe* simply did not have before it the question whether the Constitution grants the federal government unlimited authority to do whatever it wants with any parcel of federal land, regardless of whether its actions violate individual constitutional rights or run afoul of public trust obligations.

The federal government, like the states, holds public assets—at a minimum, the territorial seas—in trust for the people. Plaintiffs' federal public trust claims are cognizable in federal court.

C. *Displacement of Public Trust Claims*

Defendants and intervenors next argue that any common-law public trust claims have been displaced by a variety of acts of Congress, including the Clean Air Act and the Clean Water Act. For this proposition, they rely on *American Electric Power Company, Inc. v. Connecticut*, 564 U.S. 410, 131 S. Ct. 2527, 180 L. Ed. 2d 435 (2011) ("*AEP*"). In *AEP*, the plaintiffs sued five power companies, alleging the companies' CO_2 emissions were a public nuisance under federal common law. *Id.* at 415, 131 S. Ct. 2527. The Supreme Court held the nuisance claim could not proceed because "the Clean Air Act and the EPA actions it authorizes displace any federal common law right to seek abatement of carbondioxide emissions from fossil-fuel fired power plants." *Id.* at 424, 131 S. Ct. 2527.

Defendants and intervenors contend that *AEP* controls the displacement analysis. The district court in

Alec L. agreed with them.[12] The court relied heavily on *AEP*'s statement that the Clean Air Act displaces "'any federal common law right'" to challenge CO_2 emissions, and also discussed at length the *AEP* court's concerns that authorizing a judicial order setting CO_2 emissions limits would require federal judges to make decisions involving competing policy interests—decisions an "expert agency 'is surely better equipped to [make] than individual district judges issuing ad hoc, case-by-case injunctions.'" *Alec L.*, 863 F. Supp. 2d at 16 (quoting *AEP*, 564 U.S. at 424, 428, 131 S. Ct. 2527).

I am not persuaded by the *Alec L.* court's reasoning regarding displacement. In *AEP*, the Court did not have public trust claims before it and so it had no cause to consider the differences between public trust claims and other types of claims. Public trust claims are unique because they concern inherent attributes of sovereignty. The public trust imposes on the government an obligation to protect the *res* of the trust. A defining feature of that obligation is that it cannot be legislated away, Because of the nature of public trust claims, a displacement analysis simply does not apply.

The interplay between Congress's decision to grant regulatory authority to various federal agencies and the authority of the courts to adjudicate public trust claims raises weightier concerns. Those concerns go to whether this case presents a nonjusticiable political question, and have been addressed in Section I of this opinion.

[12] The D.C. Circuit did not address the displacement question on appeal.

D. *Enforceability of Public Trust Obligations in Federal Court*

As a final challenge to plaintiffs' public trust claims, defendants contend that even if the public trust doctrine applies to the federal government, plaintiffs lack a cause of action to enforce the public trust obligations. Relatedly, defendants argue that creation of a right of action to permit plaintiffs to assert their claims in federal court would be an exercise in federal common law-making subject to the same statutory displacement arguments outlined above.

In order to evaluate the merits of these arguments, I must first locate the source of plaintiffs' public trust claims. I conclude plaintiffs' public trust rights both predated the Constitution and are secured by it. *See* Gerald Tones & Nathan Bellinger, *The Public Trust: The Law's DNA*, 4 Wake Forest J. L. & Pol'y 281, 288-94 (2014).

The public trust doctrine defines inherent aspects of sovereignty. The Social Contract theory, which heavily influenced Thomas Jefferson and other Founding Fathers, provides that people possess certain inalienable lights and that governments were established by consent of the governed for the purpose of securing those rights.[13] Accordingly, the Declaration of Inde-

[13] The Founding Fathers were also influenced by intergenerational considerations. They believed the inalienable rights to life, liberty, and property were rooted in a philosophy of intergenerational equity. Thomas Jefferson, for example, thought that each generation had the obligation to pass the natural estate undiminished to future generations. *See* Br. of Amicus Curiae John Davidson at 21-25 (doc. 60). In a 1789 letter to James Madison, Jefferson wrote that "no man can, by natural right, oblige lands he

pendence and the Constitution did not *create* the rights to life, liberty, or the pursuit of happiness—the documents are, instead, vehicles for protecting and promoting those already-existing rights. *Cf. Robinson Twp.*, 83 A.3d at 948 (plurality opinion) (rights expressed in the public trust provision of Pennsylvania Constitution are "preserved rather than created" by that document); *Minors Oposa*, 33 I.L.M. at 187 (the right of future generations to a "balanced and healthful ecology" is so basic that it "need not even be written in the Constitution for [it is] assumed to exist from the inception of humankind"). Governments, in turn, possess certain powers that permit them to safeguard the rights of the people; these powers are inherent in the authority to govern and cannot be sold or bargained away. One example is the police power. *Stone*, 101 U.S. at 817. Another is the status as trustee pursuant to the public trust doctrine. *Illinois Central*, 146 U.S. at 459-60, 13 S. Ct. 110.

occupied . . . to the payments of debts contracted by him. For if he could, he might, during his own life, eat up the usufruct of the lands for several generations to come, and then the lands would belong to the dead, and not to than the living, which would be the reverse of our principle. What is true of every member of the society individually is true of them all collectively, since the rights of the whole can be no more than the sum of the rights of the individuals." Letter from Thomas Jefferson to James Madison, Sept. 6, 1789, *in* The Founders' Constitution (Philip B. Kurland & Ralph Lerner, eds.) (1986), *available at* press-pubs.uchicago.edu/founders/documents/vlch2s23.html (last visited Nov. 7, 2016). Although I find it unnecessary today to address the standing of future generations or the merits of plaintiffs' argument that youth and posterity are suspect classifications, I am mindful of the intergenerational dimensions of the public trust doctrine in issuing this opinion.

Although the public trust predates the Constitution, plaintiffs' right of action to enforce the government's obligations as trustee arises from the Constitution. I agree with Judge Coffin that plaintiffs' public trust claims are properly categorized as substantive due process claims. As explained, the Due Process Clause's substantive component safeguards fundamental rights that are "implicit in the concept of ordered liberty" or "deeply rooted in this Nation's history and tradition," *McDonald*, 561 U.S. at 761, 767, 130 S. Ct. 3020 (internal citations, quotations, and emphasis omitted). Plaintiffs' public trust rights, related as they are to inherent aspects of sovereignty and the consent of the governed from which the United States' authority derives, satisfy both tests. Because the public trust is not enumerated in the Constitution, substantive due process protection also derives from the Ninth Amendment. *See* U.S. Const. amend. IX ("The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people."); *Raich v. Gonzales*, 500 F.3d 850, 861-66 (9th Cir. 2007) (considering whether the right to use medical marijuana was a fundamental right safeguarded by the Ninth Amendment and the Fifth Amendment's substantive due process clause). But it is the Fifth Amendment that provides the right of action.

Plaintiffs' claims rest "directly on the Due Process Clause of the Fifth Amendment." *Davis*, 442 U.S. at 243, 99 S. Ct. 2264 (1979); *see also Carlson v. Green*, 446 U.S. 14, 18, 100 S. Ct. 1468, 64 L. Ed. 2d 15 (1980) ("[T]he victims of a constitutional violation by a federal agent have a right to recover damages against the official in federal court despite the absence of any stat-

ute conferring such a right.") They may, therefore, be asserted in federal court.

CONCLUSION

Throughout their objections, defendants and intervenors attempt to subject a lawsuit alleging constitutional injuries to case law governing statutory and common-law environmental claims. They are correct that plaintiffs likely could not obtain the relief they seek through citizen suits brought under the Clean Air Act, the Clean Water Act, or other environmental laws. But that argument misses the point. This action is of a different order than the typical environmental case. It alleges that defendants' actions and inactions—whether or not they violate any specific statutory duty—have so profoundly damaged our home planet that they threaten plaintiffs' fundamental constitutional rights to life and liberty.

A deep resistance to change runs through defendants' and intervenors' arguments for dismissal: they contend a decision recognizing plaintiffs' standing to sue, deeming the controversy justiciable, and recognizing a federal public trust and a fundamental right to climate system capable of sustaining human life would be unprecedented, as though that alone requires its dismissal. This lawsuit may be groundbreaking, but that fact does not alter the legal standards governing the motions to dismiss. Indeed, the seriousness of plaintiffs' allegations underscores how vitally important it is for this Court to apply those standards carefully and correctly.

Federal courts too often have been cautious and overly deferential in the arena of environmental law,

and the world has suffered for it. As Judge Goodwin recently wrote,

> The current state of affairs . . . reveals a wholesale failure of the legal system to protect humanity from the collapse of finite natural resources by the uncontrolled pursuit of short-term profits . . . . [T]he modern judiciary has enfeebled itself to the point that law enforcement can rarely be accomplished by taking environmental predators to court . . . .
>
> The third branch can, and should, take another long and careful look at the barriers to litigation created by modern doctrines of subject-matter jurisdiction and deference to the legislative and administrative branches of government.

Alfred T. Goodwin, *A Wake-Up Call for Judges*, 2015 Wis. L. Rev. 785, 785-86, 788 (2015).

Judge Goodwin is no stranger to highly politicized legal disputes. Nearly fifty years ago, he authored the landmark opinion that secured Oregon's ocean beaches for public use. Private landowners wanted to construct fences and otherwise keep private the beaches in front of their properties; they brought suit to challenge an Oregon state law requiring public access to all dry sand beaches. *State ex rel. Thornton v. Hay*, 254 Or. 584, 462 P.2d 671, 672-73 (1969). Writing for five of the six members of the Oregon Supreme Court, then-Justice Goodwin rooted his determination the beaches were public property in a concept from English common law:

> Because so much of our law is the product of legislation, we sometimes lose sight of the importance

> of custom as a source of law in our society. It seems particularly appropriate in the case at bar to look to an ancient and accepted custom in this state as the source of a rule of law. The rule in this case, based upon custom, is salutary in confirming a public right, and at the same time it takes from no man anything which he has a legitimate reason to regard as exclusively his.[14]

Id. at 678.

In an argument with strong echoes in defendants' and intervenors' objections here, the plaintiff private property owner contended it was "constitutionally impermissible . . . to dredge up an inapplicable, ancient English doctrine that has been universally rejected in modern America." Kathryn A. Straten, *Oregon's Beaches: A Birthright Preserved* 65 (Or. State Parks & Recreation 1977). The Oregon Supreme Court was not persuaded by this call to judicial conservatism. Because of the application of an ancient doctrine, Oregon's beaches remain open to the public now and forever.

"A strong and independent judiciary is the cornerstone of our liberties." These words, spoken by Oregon Senator Mark O. Hatfield, are etched into the walls of the Portland United States courthouse for the District of Oregon. The words appear on the first floor, a

[14] The sixth justice concurred in the judgment. He found the English rule of custom useful by analogy, but would have held the beaches were public property pursuant to the public trust doctrine. *Hay*, 462 P.2d at 679 (Denecke, J., concurring) ("These rights of the public in tidelands and in the beds of navigable streams have been called 'jus publicum' and we have consistently and recently reaffirmed their existence.").

daily reminder that it is "emphatically the province and duty of the judicial department to say what the law is." *Marbury*, 5 U.S. at 177. Even when a case implicates hotly contested political issues, the judiciary must not shrink from its role as a coequal branch of government.

I ADOPT Judge Coffin's Findings & Recommendation (doc. 68), as elaborated in this opinion, Defendants' Motion to Dismiss (doc. 27) and Intervenors' Motion to Dismiss (doc. 19) are DENIED.

IT IS SO ORDERED.

ORDER and FINDINGS & RECOMMENDATION

Coffin, Magistrate Judge:

The motions before the court are directed against a relatively unprecedented lawsuit that, in essence, seeks relief from government action and inaction that allegedly results in carbon pollution of the atmosphere, climate destabilization, and ocean acidification. The government action and inaction allegedly threatens catastrophic consequences which have already began and will progressively worsen in the near future.

Plaintiffs include a group of younger individuals (aged 8-19) who assert concrete harm from excessive carbon emissions. Also among the plaintiffs are associations of activists who assert they are beneficiaries of a federal public trust which is being harmed by allegedly substantial impairment and alienation of public trust resources through ongoing actions to allow fossil fuel exploitation. Finally, plaintiff Dr. James Hansen participates as a guardian for plaintiff "future generations."

Plaintiffs are suing the United States and various government officials and agencies because, they assert, the government has known for decades that carbon dioxide (CO_2) pollution has been causing catastrophic climate change and has failed to take necessary action to curtail fossil fuel emissions. Moreover, plaintiffs allege that the government and its agencies have taken action or failed to take action that has resulted in increased carbon pollution through fossil fuel extraction, production, consumption, transportation, and exportation. Plaintiffs assert that a reduction of global CO_2 concentrations to less than 350 parts per million is possible, but action must be taken immediately to prevent further ocean acidification and ocean warming. Plaintiffs allege the current actions and omissions of defendants make it extremely difficult for plaintiffs to protect their vital natural systems and a livable world. Consequently, plaintiffs seek immediate action to restore energy balance and implementation of a plan to put the nation on a trajectory (that if adhered to by other major emitters) will reduce atmospheric CO_2 concentrations to no more than 350 parts per million by 2100.

Plaintiffs assert the actions and omissions of defendants that increased CO_2 emissions "shock the conscience," and are infringing the plaintiffs' right to life and liberty in violation of their substantive due process rights. Plaintiffs also allege defendants have violated plaintiffs' equal protection rights embedded in the Fifth Amendment by denying them protections afforded to previous generations and by favoring short term economic interests of certain citizens. Plaintiffs further allege defendants' acts and omissions violate the implicit right, via the Ninth Amendment, to a stable

climate and an ocean and atmosphere free from dangerous levels of CO_2. Finally, plaintiffs allege defendants have violated a public trust doctrine, secured by the Ninth Amendment, by denying future generations essential natural resources.

Through this action, plaintiffs ask the court to:

1. Declare that Defendants have violated and are violating Plaintiffs' fundamental constitutional rights to life, liberty, and property by substantially causing or contributing to a dangerous concentration of CO_2 in the atmosphere, and that, in so doing, Defendants dangerously interfere with a stable climate system required by our nation and Plaintiffs alike;

2. Enjoin Defendants from further violations of the Constitution underlying each claim for relief;

3. Declare the Energy Policy Act, Section 201, to be unconstitutional on its face;

4. Declare DOE/FE Order No. 3041, granting long-term multi-contract authorization to Jordan Cove Energy for LNG exports from its Coos Bay terminal, to be unconstitutional as applied and set it aside;

5. Declare Defendants' public trust violations and enjoin Defendants from violating the public trust doctrine underlying each claim for relief;

6. Order Defendants to prepare a consumption-based inventory of U.S. CO_2 emissions;

7. Order Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 so as to stabilize the climate system and protect

> the vital resources on which Plaintiffs now and in the future will depend . . .

First Amended Complaint (# 7) at 94. Plaintiffs also seek to have this court retain jurisdiction over this action to monitor and enforce defendants' compliance with a national remedial plan and associated orders requiring the above.

In essence, plaintiffs assert a novel theory somewhere between a civil rights action and NEPA/Clean Air Act/Clean Water Act suit to force the government to take action to reduce harmful pollution. Although, plaintiffs, for the most part, do not challenge a specific agency action and urge the court to order government-wide action for the benefit of the earth and mankind, they also seek "other relief as the Court deems just and proper." Id.

The court has previously granted the National Association of Manufacturers (NAM), American Fuel & Petrochemical Manufacturers (AFPM), and American Petroleum Institute (API) motion to intervene in this action. These organizations represent various entities in the coal, oil, and gas industry, including businesses that extract, refine, and use such energy sources. The intervenors move to dismiss the amended complaint. The government similarly moves to dismiss all claims.[1]

Movants assert plaintiffs lack standing to bring this suit, raise non-justiciable political questions, and they fail to state a constitutional claim. In addition, the

[1] The government also moves to strike various exhibits to declarations and declarations submitted by plaintiffs in opposition to the motion to dismiss. This recommendation is made without resort to these materials. Accordingly, the motion to strike is denied.

movants assert the public trust doctrine does not provide a cognizable federal cause of action.

A. Standing

Plaintiffs must demonstrate standing for each claim they seek to press and for each form of relief sought. DaimlerChrysler Corp. v. Cuno, 547 U.S. 332, 352, 126 S. Ct. 1854, 164 L. Ed. 2d 589 (2006). At the pleading stage, general factual allegations of injury resulting from the defendant's conduct may suffice. Lujan v. Defenders of Wildlife, 504 U.S. 555, 561, 112 S. Ct. 2130, 119 L. Ed. 2d 351 (1992). For Article III standing, plaintiffs must satisfy three "irreducible constitutional minimum" requirements: (1) they suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. *Id.* at 560-61, 112 S. Ct. 2130.

1. Concrete, Particularized, Imminent Injury

Plaintiffs allege that climate change endangers humanity and nature and is a consequence of human caused or influenced green house gases, primarily CO_2, derived from the combustion of fossil fuels. First Amended Complaint (FAC) (# 7) at ¶ 202. Plaintiffs allege because CO_2 persists in the atmosphere, future emissions will lead to severe impacts on children and future generations and the current level of CO_2 has already taken our country into the "danger zone." Id. At 206-07. Plaintiffs aver emissions must be rapidly and systematically reduced in order to avoid crossing the tipping points that set in motion disastrous, irrevocable impacts to human civilization and nature. Id.

At 208. According to plaintiffs it will be nearly impossible for them to adapt to all of the current climate change impacts in the quick time-frame in which they will occur and that, therefore, "the survival and well-being of plaintiffs is significantly threatened by climate destabilization." Id. at ¶ 208, ¶ 211. Plaintiffs further allege that climate change is "already damaging human and natural systems, causing loss of life and pressing species to extinction." Id. at ¶ 213. Plaintiffs allege specifics regarding global changes that also lead to local harm such as: disintegration of both the West and East Antarctic ice sheets with concomitant sea level rise damaging coastal regions; changing rainfall and atmospheric conditions affecting water and heat distribution causing severe storm surges, floods, hurricanes, droughts, insect infestation, reduced crop yields, increased invasive vegetation, and fires; ocean acidification damaging sea life; increase in allergies, asthma, cancer, and other diseases; and harm to national security causing destabilization in various regions of the world. Id. at ¶¶ 213-241.

However, plaintiffs also assert injuries that are personal in nature such as: jeopardy to family farms resulting from the planned Jordan Cove gas line,[2] in-

[2] Following oral argument on the motions, the Federal Energy Regulatory Commission denied applications to locate the Jordan Cove Energy Project in Coos Bay, Oregon and its associated pipeline. The decision, balancing the need of the project against adverse impacts on landowners and the environment appears to be primarily based on a lack of current market need from natural gas customers in Asia. The applicants, Veresen Inc. and the Williams Partners, are free to reapply in the future and the Commission will reconsider the planned pipeline if they can demonstrate a market need for liquified natural gas. In addition, the applicants plan to

creased temperatures, and wildfires (FAC at ¶¶ 31-34, 23-30); lost recreational opportunities (e.g., FAC at ¶¶ 28-29, 31-34); and harm to family dwellings from superstorms (e.g., FAC at ¶ 71-72),[3] etc. See, Memorandum of Plaintiffs in Opposition to Federal Defendants' Motion to Dismiss (# 41) at pp. 29-33. While the personal harms are a consequence of the alleged broader harms, noted above, that does not discount the concrete harms already suffered by individual plaintiffs or likely to be suffered by these plaintiffs in particular in the future. See Federal Election Com'n v. Akins, 524 U.S. 11, 24, 118 S. Ct. 1777, 141 L. Ed. 2d 10 (1998):

> Often the fact that an interest is abstract and the fact that it is widely shared go hand in hand. But their association is not invariable, and where a harm is concrete, though widely shared, the Court has found "injury in fact." See Public Citizen [v. U.S. Dept. of Justice], 491 U.S. [at 440,] 449-50, 109 S. Ct.

file a request to rehear the decision. For purposes of the motion to dismiss, the court takes as true the allegations of an imminent threat from the proposed project.

[3] Plaintiff Victoria B's allegations (in addition to other plaintiffs) raise another issue not addressed in the motions to dismiss regarding this court's jurisdiction to address harms arising outside of the district from action and inaction by various government agencies that often also arise outside of the District of Oregon. *See, e.g.*, FAC at ¶ 72-73 (damage to home and school in New York as a result of superstorm Sandy). While such allegations highlight the unwieldy nature of the case, the allegations establish that CO_2 emissions cross geographic boundaries and cause harm within the district and outside the district from many of the same sources regulated by the defendants.

> at [2558,] 2564-2565[, 105 L. Ed. 2d 377 (1989)] ("The fact that other citizens or groups of citizens might make the same complaint after unsuccessfully demanding disclosure . . . does not lessen [their] asserted injury"). Thus the fact that a political forum may be more readily available where an injury is widely shared (while counseling against, say, interpreting a statute as conferring standing) does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where sufficiently concrete, may count as an "injury in fact." This conclusion seems particularly obvious where (to use a hypothetical example) large numbers of individuals suffer the same common-law injury (say, a widespread mass tort), or where large numbers of voters suffer interference with voting rights conferred by law. C.f. Lujan, supra, at 572, 112 S. Ct. at 2142-2143: Shaw v. Hunt, 517 U.S. 899, 905, 116 S. Ct. 1894, 1900-1901, 135 L. Ed. 2d 207 (1996).

The court must accept the allegations as true and those allegations plausibly allege harm, though widespread, that is concrete.

Of course, federal courts are not forums in which to air generalized grievances about the conduct of government. See Flast v. Cohen, 392 U.S. 83, 106, 88 S. Ct. 1942, 20 L. Ed. 2d 947 (1968). The constitutional limits on standing eliminate claims in which a plaintiff has failed to make out a case or controversy between himself and the defendant. In order to satisfy Art. III, a plaintiff must show that he personally has suffered some actual or threatened injury as a result of the putatively illegal conduct of the defendant. Duke Power Co. v. Carolina Environmental Study

Group, Inc., 438 U.S. 59, 72, 98 S. Ct. 2620, 57 L. Ed. 2d 595 (1978).

> Even when a case falls within these constitutional boundaries, a plaintiff may still lack standing under the prudential principles by which the judiciary seeks to avoid deciding questions of broad social import where no individual rights would be vindicated and to limit access to the federal courts to those litigants best suited to assert a particular claim. For example, a litigant normally must assert an injury that is peculiar to himself or to a distinct group of which he is a part, rather than one "shared in substantially equal measure by all or a large class of citizens." Warth v. Seldin, 422 U.S. at 499, 95 S. Ct. at 2205. He also must assert his own legal interests rather than those of third parties, [footnote omitted] Ibid. Accord, Arlington Heights v. Metropolitan Housing Dev. Corp., supra, 429 U.S. at 263, 97 S. Ct. at 561. Gladstone Realtors v. Village of Bellwood, 441 U.S. 91, 99-100, 99 S. Ct. 1601, 60 L. Ed. 2d 66 (1979).

Given the allegations of direct or threatened direct harm, albeit shared by most of the population or future population, the court should be loath to decline standing to persons suffering an alleged concrete injury of a constitutional magnitude. See U.S. v. Students Challenging Regulatory Agency Procedures, 412 U.S. 669, 687, 93 S. Ct. 2405, 37 L. Ed. 2d 254 (1973):

> standing is not to be denied simply because many people suffer the same injury. Indeed some of the cases on which we relied in Sierra Club demonstrated the patent fact that persons across the Nation could be adversely affected by major govern-

> mental actions. See, e.g., Environmental Defense Fund v. Hardin, 138 U.S. App. D.C. 391, 428 F.2d 1093, 1097 [(D.C. Cir. 1970)] (interests of consumers affected by decision of Secretary of Agriculture refusing to suspend registration of certain pesticides containing DDT); Reade v. Ewing, 205 F.2d 630, 631-632 [(2d Cir. 1953)] (interests of consumers of oleomargarine in fair labeling of product regulated by Federal Security Administration). To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody. We cannot accept that conclusion.

While the FAC identifies numerous climatic, meteorologic, and political harms that the Earth and its inhabitants will suffer as a result of the government's action and failure to act with respect to CO_2 emissions, the plaintiffs differentiate the impacts by alleging greater harm to youth and future generations.[4] At this stage of the proceedings, the allegations, which must be taken as true, establish action/inaction that injures plaintiffs in a concrete and personal way.

The debate about climate change and its impact has been before various political bodies for some time now. Plaintiffs give this debate justiciability by asserting harms that befall or will befall them personally and to a greater extent than older segments of society. It may be that eventually the alleged harms, assuming the cor-

[4] The plaintiffs essentially allege that the defendants have "discounted" emissions so as to pass on more severe impacts to younger and future generations to allow the present (and older) generations to reap the economic benefits of higher carbon emissions.

rectness of plaintiffs' analysis of the impacts of global climate change, will befall all of us. But the intractability of the debates before Congress and state legislatures and the alleged valuing of short term economic interest despite the cost to human life, necessitates a need for the courts to evaluate the constitutional parameters of the action or inaction taken by the government. This is especially true when such harms have an alleged disparate impact on a discrete class of society.

To reiterate, at this stage of the proceedings the court must accept the allegations of concrete particularized harm or imminent threat of such harm as true. The question then becomes whether the alleged harm is traceable to defendants' conduct and whether the court can redress such harm.

2. Causation

As noted above, there must be a causal connection between the injury and the conduct of which plaintiffs complained. In other words, the injury has to be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court. Simon v. Eastern Ky. Welfare Rights Organization, 426 U.S. 26, 41-42, 96 S. Ct. 1917, 48 L. Ed. 2d 450 (1976).

At the pleading stage, general factual allegations of injury resulting from the defendants' conduct may suffice because the court must presume that general allegations embrace those specific facts that are necessary to support the claim. Lujan v. Defenders of Wildlife, 504 U.S. 555, 561, 112 S. Ct. 2130, 119 L. Ed. 2d 351 (1992). The government asserts that the asso-

ciation between the complained of conduct (such as subsidizing the fossil fuel industry, favorable revenue code provisions, allowing transport of fossil fuels, and authorizing fossil fuel combustion in the energy/ refinery/transportation/manufacturing sectors) and the associated greenhouse gas emissions that ultimately cause the harm is tenuous and filled with countless intervening actions by unidentified third parties. However, as alleged, without the complained of conduct, the third parties would not be able to engage as extensively in the activities that allegedly cause climate change and the resulting harm.

To survive a motion to dismiss for lack of constitutional standing, plaintiffs must establish a line of causation between defendants' action and their alleged harm that is more than attenuated. Allen v. Wright, 468 U.S. 737, 757, 104 S. Ct. 3315, 82 L. Ed. 2d 556 (1984). A causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible. Nat'l Audubon Soc., Inc. v. Davis, 307 F.3d 835, 849 (9th Cir. 2002). In cases where a chain of causation involves numerous third parties whose independent decisions collectively have a significant effect on plaintiffs' injuries, the causal chain may be too weak to support standing at the pleading stage. See Allen, 468 U.S. at 759, 104 S. Ct. 3315.

But here, there is an alleged strong link between all the supposedly independent and numerous third party decisions given the government's regulation of CO_2 emissions. See, e.g., 42 U.S.C. § 7409 (providing the EPA the authority to regulate national ambient air quality standards for the attainment and maintenance

of the public health); Massachusetts v. EPA, 549 U.S. 497, 127 S. Ct. 1438, 167 L. Ed. 2d 248 (2007) (EPA has power to regulate greenhouse gas emissions). If the allegations in the complaint are to be believed, the failure to regulate the emissions has resulted in a danger of constitutional proportions to the public health. Presumably, sweeping regulations by this agency (the EPA) alone could result in curtailing of major CO_2 producing activities by not just the defendant agencies, but by the purported independent third parties as well.[5] At this pleading stage, the court need not sort out the necessity or propriety of all the various agencies and individuals to participate as defendants, at least with respect to issues of standing. For now, it is sufficient that EPA's action/inaction with respect to the regulation of greenhouse gases allegedly results in the numerous instances of emissions that purportedly cause or will cause the plaintiffs harm. Assuming lack of EPA or other government action to reduce emissions, the analysis turns to redressability.

3. Redressability of the Injury

At this stage of the proceedings, the court's job is not to determine whether increased greenhouse gases

[5] The court is aware that there are administrative procedures to petition EPA to make rules and that a denial of that decision is reviewable by the courts. The plaintiffs have apparently not sought such rulemaking to limit CO_2 emissions, but the court does have jurisdiction to address alleged constitutional violations by government agencies and to provide equitable relief. C.f. Reeves Brothers, Inc. v. EPA, 956 F. Supp. 665 (W.D. Va. 1995) (CERCLA general prohibition against federal court jurisdiction over challenges to remedial actions did not bar constitutional challenges to actions of EPA).

have impacted the climate and will have dire consequences for future generations. The issue is whether the court can fashion a remedy to address that alleged harm should plaintiffs prove it. Redressability does not require certainty, but it does require a substantial likelihood that the injury will be redressed by a favorable judicial decision. Wolfson v. Brammer, 616 F.3d 1045, 1056 (9th Cir. 2010).

Assuming plaintiffs are correct that the United States is responsible for about 25% of the global CO_2 emissions, the court cannot say, without the record being developed, that it is speculation to posit that a court order to undertake regulation of greenhouse gas emissions to protect the public health will not effectively redress the alleged resulting harm. The impact is an issue for the experts to present to the court after the case moves beyond the pleading stage. And although this court has no authority outside of its jurisdiction, it is worth noting that a Dutch court, on June 24, 2015, did order a reduction of greenhouse gas emissions nationwide by at least 25% by 2020. See Urgenda Foundation v. The State of The Netherlands, The Hague District Court, Chamber for Commercial Affairs, Case No. C/09/456689/HAZA 13-1396 (June 24, 2015) (http://deeplink.rechtspraak.n1/uitspraak?id=ECLI:NL:RBDHA:2015:7196) (rejecting arguments that a reduction of Netherlands' emissions would be ineffectual in light of other nations' practices, observing that "The state should not hide behind the argument that the solution to the global climate problem does not depend solely on Dutch efforts. Any reduction of emissions contributes to the prevention of dangerous climate change and as a developed country the Netherlands should take the lead in this."). Thus, regula-

tion by this country, in combination with regulation already being undertaken by other countries, may very well have sufficient impact to redress the alleged harms. The effect may or may not be scientifically indiscernible, but that is an issue better resolved at summary judgment or trial rather than on a motion to dismiss. See Washington Environmental Council v. Bellon, 732 F.3d 1131, 1142-43 (9th Cir. 2013) (deciding at the summary judgment stage that numerous greenhouse gas sources inside and outside the U.S. contribute to the effect and that the nexus between the state's refinery emissions and localized impacts was too scientifically uncertain). Plaintiffs allege that expert evidence will show that the effect resulting from a court order for the government to take action to deter fossil fuel production and regulate emissions will have a discernible impact on the alleged constitutional harms likely to befall plaintiffs if the court does nothing.

At this stage, the court will not dismiss the premise that an order to regulate, per EPA's statutory authority to regulate CO_2, will result in that impact. The allegations establish that, for instance, the EPA's failure to regulate impacts the younger population within this district and it may very well be that an order to act to protect the public health as directed will address that harm.[6] Given the complexities of the allegations and the need for expert opinion to establish the harm associated with government action and the extent to which a court order can limit that harm, the issue may be better addressed at the summary judgment stage.

[6] Plaintiffs allege that 'events, omissions, and harms giving rise to the claims herein arise in substantial part in this judicial district.' (FAC at ¶ 15)

In sum, for the above reasons, the court should decline to dismiss the case for a lack of standing.

B. Political Question

Closely related to the standing issue, is the issue of non-justiciable political questions. As plaintiffs note, "Standing is just the obverse of political question. If a litigant claims that an individual right has been invaded, the lawsuit by definition does not involve a political question." Plaintiffs' Memorandum in Opposition to Intervenors' Motion to Dismiss (# 56) at p. 16, n.12 (citing Howard Fink & Mark Tushnet, *Federal Jurisdiction: Policy and Practice* 231 (2d ed. 1987).

> It is apparent that several formulations which vary slightly according to the settings in which the questions arise may describe a political question, although each has one or more elements which identify it as essentially a function of the separation of powers. Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker v. Carr, 369 U.S. 186, 217, 82 S. Ct. 691, 7 L. Ed. 2d 663 (1962).

While on the surface this case appears to implicate authority of the Congress, courts can order agencies delegated that authority (via Congress) to craft regulations, to engage in such process. Some defendant agencies have undertaken regulation of greenhouse gases allegedly exercising their discretion to prioritize relatively cheap energy over deleterious impacts to the environment. While courts cannot intervene to assert "better" policy, see, e.g., Massachusetts v. E.P.A., 549 U.S. at 533, 127 S. Ct. 1438 (once EPA has responded to a petition for rulemaking, its reasons for action or inaction must conform to the authorizing statute), they can address constitutional violations by government agencies and provide equitable relief. C.f. Reeves Brothers, Inc. v. EPA, 956 F. Supp. 665 (W.D. Va. 1995) (CERCLA general prohibition against federal court jurisdiction over challenges to remedial actions did not bar constitutional challenges to actions of EPA). The complaint does raise issues of whether government action/inaction violates the Constitution and these are issues committed to the courts rather than either of the political branches.

As implied above, the amended complaint's broad request for relief does implicate some unmanageable issues, but that does not bar the case completely. As also noted, at a minimum, the EPA is charged with regulating greenhouse gas emissions to protect the public health. While the efficacy of any proposed regulations is perhaps beyond the expertise of the court, it can evaluate the competing experts on either side of the issues and direct the EPA to take a hard look at the

best available scientific evidence. The court need not dictate any regulations, only direct the EPA to adopt standards that prevent the alleged constitutional harm to the youth and future generation plaintiffs, should plaintiffs prevail in demonstrating such is possible.[7] Again, it is too early in the proceedings to determine whether the issue can be resolved without expressing lack of respect due to the executive branch in conducting its rule-making authority delegated it by Congress. The motion to dismiss, on this basis, should be denied at this time.

Turning to the next issue, plaintiffs' standing and the lack of political questions require a valid constitutional claim.

C. Valid Constitutional Claim

Defendants argue that there is no constitutional right to be free from CO_2 emissions, that the complaint fails to allege a classification appropriate for an equal protection claim, that the Ninth Amendment does not provide any substantive rights, and that the plaintiffs have failed to allege an otherwise complete lack of any rational basis for the purported aggregate action/inaction taken by defendants. However, at this stage

[7] Although not the route plaintiffs have expressly chosen in the prayer for remedies, they have asked for "other relief [deemed] just and proper" and, the court can compel EPA to perform non-discretionary acts or duties. 42 U.S.C. § 7604(a)(2); *see, e.g., Sierra Club v. Thomas,* 828 F.2d 783, 787-92 (D.C. Cir. 1987). The court's authority in this regard demonstrates that simply ordering an agency to take action delegated it by Congress in order to avoid constitutional harms does implicate justiciability and negates a finding that the issue is committed solely to another branch of government.

of the proceedings, defendants take an overly simplistic approach in construing the constitutional claims raised by plaintiffs. The complaint does not assert a right to be free from CO_2 emissions.[8] Plaintiffs assert that the defendants' action/inaction with respect to their obligations regarding regulating environmental pollutants has violated their substantive due process rights and has done so in favor of older generations.

The Fifth Amendment provides in part that "no person shall . . . be deprived of life, liberty, or property, without due process of law." U.S. Const. amend. V.

Courts must employ caution and restraint when employing substantive due process protections to government action. See Moore v. City of East Cleveland, Ohio, 431 U.S. 494, 502, 97 S. Ct. 1932, 52 L. Ed. 2d 531 (1977). However, courts must not abandon substantive due process rights either. Id. Accordingly, substantive due process rights are limited by careful respect for the teachings of history and recognition of the basic values that underlie our society. Id. at 503, 97 S. Ct. 1932. Therefore, only official conduct that "shocks the conscience" is cognizable as a due process violation. Porter v. Osborn, 546 F.3d 1131, 1137 (9th Cir. 2008).

Generally, the Due Process Clause limits the government's power to act, but does not guarantee certain minimal levels of safety and security. DeShaney v.

[8] Plaintiffs do, however, assert that future generations are a suspect class. The court should decline to create a new separate suspect class based on posterity. Nonetheless, the complaint does allege discrimination against a class of younger individuals with respect to a fundamental right protected by substantive due process.

Winnebago County Dept. of Social Services, 489 U.S. 189, 195, 109 S. Ct. 998, 103 L. Ed. 2d 249 (1989). The language of the Due Process Clause does not impose an affirmative obligation on the government to ensure that those interests do not come to harm through other means. Id. However, there is an exception where government action creates the danger. See L.W. v. Grubbs, 974 F.2d 119, 121-22 (9th Cir. 1992). In such cases, deliberate indifference may suffice to establish a due process violation. See L.W. v. Grubbs, 92 F.3d 894, 896 (9th Cir. 1996). Deliberate indifference requires creation of a dangerous situation with actual knowledge or willful ignorance of impending harm. Id. at 900. Plaintiffs allege that the defendants' action in this case has created a life-threatening situation and that defendants have willfully ignored long-standing and overwhelming scientific evidence of that impending harm to the young and future generations.

The government argues that the complaint fails to allege a clear and present danger of imminent harm, an overt government act that proximately causes the dangerous situation, deliberate indifference on the part of the government to plaintiffs' safety, or subsequent physical harm or loss of life. For purposes of a motion to dismiss, plaintiffs need only plead government action, or failure to act where it has a duty to do so, which creates a threat of imminent harm, and the government's deliberate indifference to that threat of harm.

In this case, the government has allegedly taken action through subsidies, regulations, etc. that creates massive CO_2 emissions, and has failed to limit such emissions despite a duty to do so. Plaintiffs further allege they are prevented any means of escape from

the resulting climate that threatens their property, health, and even existence. As noted above, the EPA has a duty to regulate CO_2 emissions for the benefit of the public health and plaintiffs allege a deliberate indifference to the purported catastrophic risk to their health and well-being. Whether such action, or inaction in the face of a duty to act, shocks the conscience cannot be determined on a motion to dismiss, which is focused solely on the plaintiffs' complaint and is bereft of any evidentiary record.[9] Accordingly, the court should decline to dismiss the complaint for failure to allege a substantive due process claim.

D. Public Trust Doctrine

Similarly, the court should decline to dismiss any notions in the amended complaint that the Due Process Clause also provides a substantive right under the public trust doctrine. As noted above, the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, "deeply rooted in this Nation's history and tradition," Moore, 431 U.S. at 503, 97 S. Ct. 1932; Snyder v. Massachusetts, 291 U.S. 97, 105, 54 S. Ct. 330, 78 L. Ed. 674 (1934) ("so rooted in the traditions and conscience of our people as to be ranked as fundamental"), and "implicit in the concept of ordered liberty," such that "neither liberty nor justice would exist if they were sacrificed," Palko v. Connecticut, 302 U.S. 319, 325, 326, 58 S. Ct. 149, 82 L. Ed. 288 (1937).

[9] For example, discovery may produce evidence regarding when defendants and intervenors were aware of the harmful effects of CO_2 emissions and whether the public was purposely misled about those effects, which evidence would be relevant to the "shocks the conscience" standard.

Defendants argue that the Supreme Court and the Ninth Circuit have already foreclosed on the possibility of an independent cause of action under the doctrine against the federal government by a private individual. See PPL Montana, LLC v. Montana, 565 U.S. 576, 132 S. Ct. 1215, 1235, 182 L. Ed. 2d 77 (2012) (the public trust doctrine remains a matter of state law); U.S. v. 32.42 Acres of Land. More or Less. Located in San Diego County, Cal., 683 F.3d 1030, 1038 (9th Cir. 2012) (While the equal-footing doctrine is grounded in the Constitution, "the public trust doctrine remains a matter of state law").

However, the cases cited by defendants are distinguishable. In PPL Montana, LLC, the Supreme Court essentially held that the State of Montana did not hold title to riverbeds under segments of river that were non-navigable at the time of statehood. Under the equal footing doctrine, which is embedded in the Constitution, a State takes title to all riverbeds of navigable rivers upon statehood. In response to the State of Montana's argument that "denying the State title to the riverbeds here in dispute will undermine the public trust doctrine," the Court observed:

> While equal-footing cases have noted that the State takes title to the navigable waters and their beds in trust for the public, see Shively, 152 U.S. at 49, 15-17, 24, 46, 14 S. Ct. 548, the contours of that public trust do not depend upon the Constitution. Under accepted principles of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine.

PPL Montana, LLC, 132 S. Ct. at 1235.

In other words, Montana's argument essentially was an attempt to conflate the equal footing doctrine with the public trust doctrine resulting in the State having title to even non-navigable riverbeds pursuant to the latter doctrine. The Court merely rejected this contention as "apples and oranges," pointing out that the equal footing doctrine requires that a State take title to riverbeds of *navigable* rivers upon statehood, and that thereafter state law determines the scope of the public trust over such waters. The question whether the United States has public trust obligations for waters over which it alone has sovereignty (e.g., the territorial seas of its coastline) was simply not presented to or decided by the Court in PPL Montana, LLC.

The seminal case for the public trust doctrine is Illinois Cent. R. Co. v. State of Illinois, 146 U.S. 387, 13 S. Ct. 110, 36 L. Ed. 1018 (1892) which likewise implicated an equal footing question and in which the Court noted:

> That the state holds the title to the lands under the navigable waters of Lake Michigan, within its limits, in the same manner that the state holds title to soils under tide water, by the common law, we have already shown; and that title necessarily carries with it control over the waters above them, whenever the lands are subjected to use. But it is a title different in character from that which the state holds in lands intended for sale. It is different from the title which the United States hold in the public lands which are open to pre-emption and sale. It is a title held in trust for the people of the state, that they may enjoy the navigation of the waters, carry on

> commerce over them, and have liberty of fishing therein, freed from the obstruction or interference of private parties.

Id. at 452, 13 S. Ct. 110.

Once the State obtains sovereignty over navigable riverbeds, the United States has ceded all its title and thus the public trust doctrine governing the State's disposition of such lands "remains a matter of state law." PPL Montana, LLC, 132 S. Ct. at 1235.

Likewise, in U.S. v. 32.42 Acres of Land, More or Less, Located in San Diego County, Cal., the Ninth Circuit dealt with a case wherein the federal government exercised its powers of eminent domain to acquire San Diego Port District tidelands (for use by the United States Navy) which had been transferred to the State of California under the equal footing doctrine in 1850 when California was admitted to the Union. In response to the California Lands Commission argument that the public trust doctrine restricted the ability of both federal and State governments to alienate public trust lands free of the public trust, the Ninth Circuit held:

> While the equal-footing doctrine is grounded in the Constitution, "the public trust doctrine remains a matter of state law," the contours of which are determined by the states, not by the United States Constitution. PPL Montana, 565 U.S. 576, 132 S. Ct. 1215 at 1235, 182 L. Ed. 2d 77. Holding that California's public trust interest in the Property survives the federal government's attempt to condemn it would subjugate the federal government's eminent domain power to California's state law pub-

> lic trust doctrine. See [U.S. v.] Carmack, 329 U.S. at [230,] 240-42, 67 S. Ct. 252[, 91 L. Ed. 209 (1946)]; United States v. 11.037 Acres of Land, 685 F. Supp. 214, 217 (N.D. Cal. 1988) (holding that California's public trust is extinguished by United States' declaration of taking because state law public trust is trumped by federal power). The Supremacy Clause prevents this outcome. U.S. Const., art. VI, cl. 2.

U.S. v. 32.42 Acres of Land, More or Less, Located in San Diego County, Cal., 683 F.3d at 1038.

I also note that in the 32.42 Acres case the district court had specifically found, over the government's objection, that a portion of the land acquired by the United States within the tidelands (4.88 acres) was acquired subject to its own federal trust. See Order dated April 28, 2006 (# 24) at p. 11 in United States v. 32.42 Acres of Land, Case No. 05-cv-1137-DMS, (S.D. Cal. April 28, 2006) (emphases added). The government did not cross-appeal this part of the district court's order and it was not disturbed or addressed by the Ninth Circuit.

This case is different in that it does not at all implicate the equal footing doctrine or public trust obligations of the State of Oregon. The public trust doctrine invoked instead is directed against the United States and its unique sovereign interests over the territorial ocean waters and atmosphere of the nation.

The doctrine is deeply rooted in our nation's history and indeed predates it. See, e.g., Shively v. Bowlby, 152 U.S. 1, 14 S. Ct. 548, 38 L. Ed. 331 (1894) (recounting the American history of the doctrine). As observed in Shively :

> At common law, the title and the dominion in lands flowed by the tide were in the king for the benefit of the nation. Upon the settlement of the colonies, like rights passed to the grantees in the royal charters, in trust for the communities to be established. Upon the American Revolution, these rights, charged with a like trust, were vested in the original states within their respective borders, subject to the rights surrendered by the constitution to the United States.
>
> Upon the acquisition of a territory by the United States, whether by cession from one of the states, or by treaty with a foreign country, or by discovery and settlement, the same title and dominion passed to the United States, for the benefit of the whole people, and in trust for the several states to be ultimately created out of the territory.
>
> The new states admitted into the Union since the adoption of the constitution have the same rights as the original states in the tide waters, and in the lands under them, within their respective jurisdictions. The title and rights of riparian or littoral proprietors in the soil below high-water mark, therefore, are governed by the laws of the several states, subject to the rights granted to the United States by the Constitution.

Id. at 57-58, 14 S. Ct. 548.

While the scope of the public trust doctrine may only reach the low water mark on the regions of the sea and great lakes, the water over those lands, and the waters and streams of any consequence, see, e.g., *The Public Trust Doctrine in Natural Resource Law:*

Effective Judicial Intervention, 68 Mich. L. Rev. 471, 556 (1970), the complaint touches upon protected areas (territorial ocean waters at a minimum) impacted by the government's alleged conduct and harm to many plaintiffs given the alleged sea level rise, ocean acidification, and atmosphere change.

What emerges from an analysis of the public trust doctrine is that it is rare to find instances where the United States retains vestiges of trust obligations once territories become states and title vests in the newly formed state pursuant to the equal footing doctrine of the Constitution. Some guidance is found, however, in those cases wherein the United States has reacquired tidelands through eminent domain from the State. One such case is United States v. 32.42 Acres of Land, supra. Another is City of Alameda v. Todd Shipyards Corp., 635 F. Supp. 1447 (N.D. Cal. 1986), wherein the court squarely held that "The United States may not abdicate the role of trustee for the public when it acquires land by condemnation." Id. at 1450. See also United States v. 1.58 Acres of Land Situated in City of Boston, Suffolk County, Com. of Mass., 523 F. Supp. 120, 124-25 (D. Mass. 1981):

> we hold that the federal government may take property below the low water mark in "full fee simple" insofar as no other principal may hold a greater right to such land. It must be recognized, however, that the federal government is as restricted as the Commonwealth in its ability to abdicate to private individuals its sovereign jus publicum in the land. So restricted, neither the Commonwealth's nor the federal government's trust responsibilities are destroyed by virtue of this taking, since neither gov-

ernment has the power to destroy the trust or to destroy the other sovereign.

The court's intervention in this area may seemingly touch upon powers committed to Congress under Article IV, § 3, C1. 2 (Congress shall have the power to dispose and make all needful rules and regulations respecting the territory and other property of the United States). In addition, it is not for the courts to say how the trust in resources and the territory shall be administered, that is for Congress to determine. State of Alabama v. State of Texas, 347 U.S. 272, 273, 74 S. Ct. 481, 98 L. Ed. 689 (1954) (citing United States v. California, 332 U.S. 19, 27, 67 S. Ct. 1658, 91 L. Ed. 1889 (1947) ("the constitutional power of Congress under Article IV, § 3, C1. 2 is without limitation."). However, even defendant Department of the Interior has recognized limits on government control over the territorial sea. See United States Department of Justice, Office of Legal Counsel, Memorandum Opinion for the Solicitor Department of the Interior, *Administration of Coral Reef Resources in the Northwest Hawaiian Islands,* 2000 WL 34475732 at *7 (September 15, 2000) (the public trust doctrine, which the Court did not address in Alabama, might limit in some ways the extent of the Government's control over the territorial sea). The Department further noted that doctrine does grant the government power to exercise dominion over that area to protect it and its resources for public enjoyment and noted the government's role as public trustee. Id. And, as noted above, courts have noted and restricted the federal government's actions with respect to tidelands based on the federal public trust. United States v. 32.42 Acres of Land, Case No.

05-cv-1137-DMS, supra; City of Alameda v. Todd Shipyards Corp., 635 F. Supp. 1447, supra.

At the hearing on defendants and intervenors' motions to dismiss, the court their queried counsel whether, hypothetically, Congress could alienate the territorial waters of the United States off the West Coast to a private corporation, or whether that would implicate a public trust issue under the Constitution. Both parties suggested Congress could cede the territorial waters to a private corporation, and that PPL Montana, LLC, forecloses any argument that the public trust doctrine applies to the federal government.

As explained above, I cannot read PPL Montana, LLC, given the context of the argument being addressed by the Courts to have such a sweeping and profound effect.[10] Nor can I imagine that our coastal sea waters could possibly be privatized without implicating principles that reflect core values of our Constitution and the very essence of the purpose of our nation's government.

When combined with the EPA's duty to protect the public health from airborne pollutants and the government's public trust duties deeply ingrained in this country's history, the allegations in the complaint state,

[10] In Shively, which the Court cited in its PPL Montana, LLC decision, expressly held that "[u]pon the acquisition of a territory by the United States, whether by cession from one of the states, or by treaty with a foreign country, or by discovery and settlement, the same title and dominion passed to the United States, for the benefit of the whole people, and in trust for the several states to be ultimately created out of the territory. Shively, 152 U.S. at 57, 14 S. Ct. 548. Thus, a federal public trust doctrine was recognized in Shively, and PPL Montana, LLC did not overrule this precedent.

for purposes of a motion to dismiss, a substantive due process claim. At this stage of the proceedings, the court cannot say that the public trust doctrine does not provide at least some substantive due process protections for some plaintiffs within the navigable water areas of Oregon. Accordingly, the court should not dismiss any claims under the public trust doctrine to that extent.

The nascent nature of these proceedings dictate further development of the record before the court can adjudicate whether any claims or parties should not survive for trial. Accordingly, the court should deny the motions to dismiss.

CONCLUSION

For the reasons stated above, the intervenors' motion to dismiss (# 19) and the government's motion to dismiss (# 27) should be denied. The government's motion to strike (# 58) is denied.

This recommendation is not an order that is immediately appealable to the Ninth Circuit Court of appeals. Any notice of appeal pursuant to Rule 4(a)(1), Federal Rules of Appellate Procedure, should not be filed until entry of the district court's judgment or appealable order. The parties shall have fourteen (14) days from the date of service of a copy of this recommendation within which to file specific written objections with the court. Thereafter, the parties shall have fourteen (14) days within which to file a response to the objections. Failure to timely file objections to any factual determination of the Magistrate Judge will be considered as a waiver of a party's right to de novo consideration of the factual issues and will constitute a

waiver of a party's right to appellate review of the findings of fact in an order or judgment entered pursuant to this recommendation.

No. 18A-_____

IN THE SUPREME COURT OF THE UNITED STATES

IN RE UNITED STATES OF AMERICA, ET AL.

APPLICATION FOR A STAY PENDING DISPOSITION
OF A PETITION FOR A WRIT OF MANDAMUS TO THE
UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON
AND ANY FURTHER PROCEEDINGS IN THIS COURT
AND REQUEST FOR AN ADMINISTRATIVE STAY

NOEL J. FRANCISCO
Solicitor General
Counsel of Record
Department of Justice
Washington, D.C. 20530-0001
SupremeCtBriefs@usdoj.gov
(202) 514-2217

PARTIES TO THE PROCEEDING

Petitioners (defendants in the district court, and mandamus petitioners in the court of appeals) are the United States of America; Donald J. Trump, in his official capacity as the President of the United States*; Office of the President of the United States; the Director of Council on Environmental Quality; Mick Mulvaney, in his official capacity as the Director of the Office of Management and Budget; the Director of the Office of Science and Technology Policy; U.S. Department of Agriculture; Sonny Perdue, in his official capacity as the Secretary of Agriculture; U.S. Department of Commerce; Wilbur Ross, in his official capacity as the Secretary of Commerce; U.S. Department of Defense; James N. Mattis, in his official capacity as the Secretary of Defense; U.S. Department of Energy; Rick Perry, in his official capacity as the Secretary of Energy; U.S. Environmental Protection Agency (EPA); Andrew R. Wheeler, in his official capacity as the Acting Administrator of the EPA; U.S. Department of the Interior; Ryan Zinke, in his official capacity as the Secretary of the Interior; U.S. Department of State; Michael R. Pompeo, in his official capacity as the Secretary of State; U.S. Department of Transportation; and Elaine Chao, in her official capacity as the Secretary of Transportation.

* On October 15, 2018, the district court dismissed President Trump from the suit without prejudice. See Pet. App. 77a. The government opposes that relief because the President should be dismissed with prejudice. The President accordingly joins in this petition for a writ of mandamus.

Respondent in this Court is the United States District Court for the District of Oregon. Respondents also include Kelsey Cascadia Rose Juliana; Xiuhtezcatl Tonatiuh M., through his Guardian Tamara Roske-Martinez; Alexander Loznak; Jacob Lebel; Zealand B., through his Guardian Kimberly Pash-Bell; Avery M., through her Guardian Holly McRae; Sahara V., through her Guardian Toña Aguilar; Kiran Isaac Oommen; Tia Marie Hatton; Isaac V., through his Guardian Pamela Vergun; Miko V., through her Guardian Pamela Vergun; Hazel V., through her Guardian Margo Van Ummersen; Sophie K., through her Guardian Dr. James Hansen; Jaime B., through her Guardian Jamescita Peshlakai; Journey Z., through his Guardian Erika Schneider; Victoria B., through her Guardian Daisy Calderon; Nathaniel B., through his Guardian Sharon Baring; Aji P., through his Guardian Helaina Piper; Levi D., through his Guardian Leigh-Ann Draheim; Jayden F., through her Guardian Cherri Foytlin; Nicholas V., through his Guardian Marie Venner; Earth Guardians, a nonprofit organization; and future generations, through their Guardian Dr. James Hansen (collectively plaintiffs in the district court, and real parties in interest in the court of appeals).

IN THE SUPREME COURT OF THE UNITED STATES

_____

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_____

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_____

Pursuant to Rule 23 of the Rules of this Court and the All Writs Act, 28 U.S.C. 1651, the Solicitor General, on behalf of the United States, the President of the United States, the Executive Office of the President, the U.S. Environmental Protection Agency, the U.S. Departments of Agriculture, Commerce, Defense, Energy, the Interior, State, and Transportation, and all other federal parties, respectfully applies for a stay of discovery and trial in the United States District Court for the District of Oregon, pending the disposition of the government's petition for a writ of mandamus, filed concurrently with this application, and any further proceedings in this Court. Petitioners also request an administrative stay pending the Court's consideration of this stay application.

This suit is an attempt to redirect federal environmental and energy policies through the courts rather than through the political process, by asserting a new and unsupported fundamental due process right to certain climate conditions. Rather than challenging specific agency actions or inactions, the plaintiffs allege that the "affirmative aggregate acts" of the federal defendants for the past 50 years in the area of fossil-fuel production and use are causing a "dangerous climate system" and systematically violating their asserted substantive due process rights. Am. Compl. ¶ 289. The plaintiffs ask the district court to address these alleged wrongs by ordering the defendant agencies and officials to prepare and implement a national remedial plan, without regard to the procedural and substantive limitations in those agencies' organic statutes and the Administrative Procedure Act (APA), and by retaining jurisdiction indefinitely to ensure compliance.

The district court has allowed this improper suit to proceed for nearly three years over the repeated objections of the government, and the case is now on the eve of a bifurcated trial, of which the liability phase alone is estimated to last for 50 days. In 2016, the court refused to dismiss the plaintiffs' claims, concluding that the plaintiffs had adequately pleaded facts sufficient to establish Article III standing, that the plaintiffs had stated a violation of an asserted fundamental right to "a climate system capable of sustaining human life," Pet. App.

141a, and that the court could remedy that violation by ordering defendants to "move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system," id. at 137a.

When the district court declined to certify its ruling for interlocutory appeal, the government sought from the Ninth Circuit a writ of mandamus ordering dismissal. But that court declined to intervene. In the court's view, there remained the opportunity for the government to raise and re-raise legal objections to the plaintiffs' claims and for the district court to reconsider its prior decisions, including whether the claims are "too broad to be legally sustainable" and whether this litigation must be "focus[ed] * * * on specific governmental decisions and orders." Pet. App. 99a-101a. The court of appeals stated that it expected the claims to be "vastly narrowed as litigation proceed[ed]" beyond that "very early stage" of litigation. Id. at 101a-102a.

Following the Ninth Circuit's first decision, the government took every step contemplated by that court in its decision to raise and re-raise the government's legal objections and at least to narrow this case. In a motion for judgment on the pleadings, the government moved to dismiss the President and made two additional arguments for why the plaintiffs' claims are not justiciable. In

a motion for summary judgment, the government restated its prior objections to the plaintiffs' standing and to the merits of their claims, permitting the district court to reconsider those rulings on the basis of a more developed record. And the government moved for a protective order against all discovery, explaining that discovery was categorically inappropriate because it violated the APA's judicial-review provisions, as well as the APA's comprehensive regulation of agency decisionmaking and the Constitution's separation of powers.

The district court summarily denied the government's motion for a protective order, refused to stay discovery and trial pending consideration of the two dispositive motions, and repeatedly stated its expectation that, absent intervention from a higher court, trial would begin on October 29, 2018. The government therefore again petitioned the Ninth Circuit for mandamus relief, requesting an order directing dismissal or, at a minimum, an order directing the district court to stay all discovery and trial pending the resolution of the government's pending dispositive motions. The government also separately moved -- first in the district court, then in the court of appeals, and finally in this Court -- for a stay of discovery and trial pending disposition of its petition for a writ of mandamus by the court of appeals and any further proceedings in this Court.

The Ninth Circuit again denied the government's petition, insisting that "[t]he merits of th[is] case can be resolved by the

district court or in a future appeal." Pet. App. 85a. On July 30, 2018, this Court denied the government's application for a stay "without prejudice." United States v. U.S. Dist. Court, No. 18A65, 2018 WL 3615551, at *1 (Juliana). Although the Court noted its view that the government's application was "premature," it stated that the "breadth of respondents' claims is striking" and "the justiciability of those claims presents substantial grounds for difference of opinion." Ibid. The Court directed the district court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." Ibid.

More than two months after this Court's order, and only weeks before trial was set to commence, the district court had yet to resolve the government's dispositive motions. On October 5, the government informed the district court that it planned to petition this Court for a writ of mandamus (or, in the alternative, a writ of certiorari) and respectfully requested a stay of discovery and trial pending this Court's consideration.

Two days ago, the district court issued an opinion largely denying the government's dispositive motions. The court dismissed the President "without prejudice" and granted the government summary judgment on respondents' "freestanding" Ninth Amendment claim, but it otherwise denied the government's motions. Pet. App. 23a, 69a. The court rejected the government's argument that respondents were required to assert their challenges under the

APA, concluding that the "APA does not govern" claims seeking equitable relief for alleged constitutional violations based on "aggregate action by multiple agencies," id. at 31a; refused to revisit its prior holdings on the justiciability and merits of respondents' due process and public-trust claims; and denied the government summary judgment on respondents' equal protection claim to the extent it is based on the same fundamental right to a particular climate composition.

The district court declined to certify its order for interlocutory appeal under 28 U.S.C. 1292(b), which authorizes certification where, inter alia, an "order involves a controlling question of law as to which there is substantial ground for difference of opinion." Despite this Court's intervening statement that "the justiciability of [respondents'] claims presents substantial grounds for difference of opinion," Juliana, 2018 WL 3615551, at *1, the district court concluded that there have been no relevant changes in legal authority since that court's earlier refusal to certify. Pet. App. 74a (reasoning that the court's prior refusal to certify is "law of the case"). The court subsequently denied the government's request to stay discovery and trial pending this Court's consideration of this petition. App., infra, 1a-2a.

Given the district court's resolution of the government's dispositive motions and the trial set to begin on October 29, the government has little choice but to renew its requests for relief

from this Court. Contemporaneous with this application, the government has filed a petition for (1) a writ of mandamus to the district court seeking dismissal of this suit; (2) a writ of certiorari to the court of appeals seeking review of that court's denial of similar relief; or (3) a common-law writ of certiorari to the district court seeking review of that court's denial of the government's dispositive motions. And the government respectfully requests a stay of any further discovery and trial pending consideration of its petition and any further proceedings in this Court.[1]

The standards for granting a stay are readily met in this case. As explained more fully in the government's petition (at 13-28), the district court manifestly erred in recognizing a new fundamental substantive due process right to certain climate conditions in the context of litigation over which the district court lacks jurisdiction under Article III and that is otherwise deeply flawed as a procedural matter. Absent relief from this Court, the government imminently will be forced to participate in a 50-day trial that would violate bedrock requirements for agency decisionmaking and judicial review imposed by the APA and the separation of powers. In light of these impending harms, the Court

[1] In accordance with Supreme Court Rule 23.3, on October 12, the government also requested a stay of discovery and trial from the court of appeals pending this Court's consideration of its petition for a writ of mandamus or, in the alternative, a writ of certiorari. That request remains pending before the court of appeals.

is therefore likely to order dismissal of this suit. Moreover, in contrast to the obvious harms to the government, respondents can make no credible claim of imminent, irreparable harm. Their alleged injuries stem from the cumulative effects of CO_2 emissions from every source in the world over decades; whatever additions to the global atmosphere that could somehow be attributed to the government over the time it takes to resolve the pending petition are plainly de minimis. Accordingly, the government requests that this Court stay discovery and trial pending consideration of the government's petition and any further proceedings in this Court. In addition, the government requests an administrative stay of discovery and trial while the Court considers this application.

STATEMENT

1. As explained in more detail in the petition (at 2-3), this suit was filed in 2015 by 21 minor individuals, an organization known as Earth Guardians, and future generations, purportedly represented by a self-appointed guardian. Respondents sued President Obama, the Executive Office of the President, and numerous Cabinet-level Executive officials and agencies, alleging that these Executive officials and agencies have enabled the combustion of fossil fuels, which releases greenhouse gases into the atmosphere, thereby violating rights that respondents assert under the Fifth and Ninth Amendments to the Constitution and an asserted federal public-trust doctrine. Respondents do not challenge specific agency actions, but rather focus on what they

term the government's "aggregate actions," Am. Compl. ¶ 129, which they assert have caused "climate instability," id. ¶ 288. Respondents ask the district court to order the Executive Branch to "prepare a consumption-based inventory of U.S. CO_2 emissions" and "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," id. at 94, and to retain jurisdiction for an indefinite period of time to monitor the government's compliance with that remedial plan.

2. In 2016, the district court denied the government's motion to dismiss respondents' claims for lack of jurisdiction and failure to state a claim. Pet. App. 104a-200a. The court concluded that respondents had established standing by alleging that they had been harmed by the effects of climate change; the government's regulation of (and failure to further regulate) fossil fuels had caused respondents' injuries; and the court could redress those injuries by "order[ing] [the government] to cease [its] permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." Id. at 137a (citation omitted); see id. at 124a-137a.

On the merits, the district court concluded that respondents had stated a claim under the Fifth Amendment's Due Process Clause and a federal public-trust doctrine. Pet. App. 137a-167a. The court found in the Due Process Clause a new fundamental right to a "climate system capable of sustaining human life." Id. at 141a. It also articulated a federal public-trust doctrine, also grounded in substantive due process, which it held imposes a judicially enforceable prohibition on the federal government against "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." Id. at 148a (citation omitted).

3. When the district court declined to certify its order for interlocutory appeal, the government filed its first petition to the Ninth Circuit for a writ of mandamus ordering dismissal. The court of appeals stayed the case for nearly eight months while it considered the government's request, but ultimately "decline[d] to exercise [its] discretion to grant mandamus relief." Pet. App. 103a; see id. at 91a-103a. The court recognized that "some of [respondents'] claims as currently pleaded are quite broad, and some of the remedies [respondents] seek may not be available as redress." Id. at 103a. But the court reasoned that the case was "at a very early stage," and the government would "have ample opportunity to raise legal challenges to decisions made by the district court on a more fully developed record, including decisions as to whether to focus the litigation on specific

governmental decisions and orders." Id. at 101a. The court also observed that "[c]laims and remedies often are vastly narrowed as litigation proceeds" and that it had "no reason to assume this case will be any different." Id. at 103a. And the court stated that the government could continue to "raise and litigate any legal objections," including moving to "dismiss the President as a party"; "reasserting a challenge to standing, particularly as to redressability"; or "asking the district court to certify orders for interlocutory appeal of later rulings," id. at 99a, 101a-103a.

4. The government then filed a series of motions in the district court as contemplated by the Ninth Circuit's decision. First, the government filed a motion for judgment on the pleadings, reiterating that respondents lack standing and the fundamental rights they assert lack any support in the Constitution, as well as presenting three new grounds for dismissing some or all of respondents' claims: (1) the court lacks jurisdiction to enjoin the President in his official duties; (2) the APA provides the sole mechanism for challenging the federal administrative actions that underlie respondents' claims, but respondents fail to challenge specifically identified and discrete agency action as the APA requires; and (3) respondents' claims and requested relief would violate the separation of powers by requiring the court to usurp the roles of Congress in enacting a government-wide regulatory framework and the President in calling on the expertise

and resources of the Executive Branch to formulate environmental and energy policies. D. Ct. Doc. 195 (May 9, 2018).

Shortly thereafter, the government filed a motion for summary judgment, reasserting that (1) respondents lack standing, as a matter of law and as judged against the evidentiary record; (2) respondents have not satisfied the APA's requirement to challenge discrete agency action; and (3) respondents' claims fail on the merits. The government also contended that, even aside from respondents' lack of standing, this suit is not a case or controversy within the meaning of Article III. D. Ct. Doc. 207 (May 22, 2018).

The government also filed a motion for a protective order barring all discovery, arguing that (1) because this case may proceed only under the APA, judicial review must be based on the administrative record of specifically identified actions and (2) in any event, discovery in this case would be independently barred by the procedural requirements that the APA imposes on agency fact-finding and decisionmaking and the separation of powers. The government further requested, at a minimum, a stay of all discovery until the court ruled on the government's dispositive motions. D. Ct. Doc. 196 (May 9, 2018).

5. On May 25, 2018, the magistrate judge denied the government's motion for a protective order. Pet. App. 88a-90a. He rejected the government's argument that challenges to agency action must proceed pursuant to the APA, under which review must

be based on the administrative record and discovery unavailable, concluding that respondents may proceed in a sweeping manner against all federal defendants collectively because their claims are "based on alleged violations of their constitutional rights." Id. at 89a. He also declined to grant a protective order based on the separation of powers, stating instead that "[s]hould a specific discovery request arise during discovery in this case that implicates a claim of privilege the government wishes to assert, the government may file a motion for a protective order directed at any such specific request." Id. at 90a.

The district court summarily affirmed the magistrate judge's order, Pet. App. 86a-87a, stating that it had "carefully reviewed [that] order in light of [the government's] objections" and "conclude[d] that the order is not clearly erroneous or contrary to law," id. at 87a. The court provided no further explanation for its decision and declined "to certify [its] decision for interlocutory appeal under 28 U.S.C. § 1292(b)." Ibid.

The district court set an opening trial date of October 29, 2018, and indicated its expectation that the trial will last for approximately 50 trial days. See D. Ct. Doc. 189 (Mar. 26, 2018); D. Ct. Doc. 192 (Apr. 12, 2018); 4/12/18 Tr. 8 (Coffin, J.). The court has repeatedly made clear that it has no intention of delaying trial. See, e.g., 10/4/18 Tr. 19 (Coffin, J.) ("Th[e] trial date of October 29th is a firm trial date and will not be changed unless changed by order of an appellate court or the

Supreme Court."); 5/23/18 Tr. 16-17 (Aiken, J.); 5/10/18 Tr. 27 (Coffin, J.).

6. On July 5, 2018, the government again petitioned the Ninth Circuit for a writ of mandamus. The government explained that, in an effort to terminate or narrow this case, it had taken every step that the Ninth Circuit had contemplated in its prior decision, but the district court was moving forward with discovery and an impending trial without narrowing the claims in any respect. The government accordingly asked the Ninth Circuit to order dismissal of this case, or at a minimum, to direct the district court to stay all discovery and trial pending the resolution of the government's dispositive motions, and to consider certifying for interlocutory appeal any rulings on those motions.

On July 20, 2018, the court of appeals denied the government's mandamus petition. Pet. App. 78a-85a. The court noted that "the government has not challenged a single specific discovery request," and that the "government retains the ability to challenge any specific discovery order that it believes would be unduly burdensome or would threaten the separation of powers." Id. at 81a-82a. The court further rejected the government's separation-of-powers argument, stating that "allowing the usual legal processes to go forward will not threaten the separation of powers in any way not correctable on appeal." Id. at 84a. The court denied the "mandamus petition without prejudice," adding that the

"merits of the case can be resolved by the district court or in a future appeal." Id. at 85a.

7. While its second mandamus petition was pending before the court of appeals, the government filed a stay application in this Court. The government asked this Court to stay discovery and trial pending the Ninth Circuit's consideration of the mandamus petition. As an alternative, the government noted that the Court could direct dismissal of the case itself by construing the stay application as a petition for a writ of mandamus or a petition for a writ of certiorari.

On July 30, 2018, this Court denied the stay application "without prejudice." Juliana, 2018 WL 3615551, at *1. While noting its view that the government's application was "premature," the Court observed that the "breadth of respondents' claims is striking" and that "the justiciability of those claims presents substantial grounds for difference of opinion." Ibid. The Court directed the district court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." Ibid.

8. Despite this Court's expectation of "a prompt ruling on the Government's pending dispositive motions," Juliana, 2018 WL 3615551, at *1, the district court issued no ruling on those motions for more than two months after this Court's order, which itself came more than two months after the motions were filed.

With the trial date of October 29 just weeks away, the government on October 5 filed another stay request with the district court. The government informed the court that it planned to file a petition for a writ of mandamus (or, in the alternative, a petition for a writ of certiorari) with this Court, and asked the district court to stay discovery and trial pending this Court's resolution of that petition. One week after asking the district court for a stay, the government asked the court of appeals to stay discovery and trial pending this Court's review of the government's petition.[2]

9. On October 15, 2018 -- roughly five months after the motions were filed, only two weeks before the start of the scheduled trial, and only after the government informed the court that it intended to file a mandamus petition in this Court -- the district court ruled on the government's dispositive motions. Pet. App. 1a-77a. The court dismissed the President "without prejudice" and granted summary judgment to the government on respondents' "freestanding claim under the Ninth Amendment," but otherwise denied the government's motions. Id. at 23a, 69a, 77a.

[2] Under Ninth Circuit precedent, the court of appeals lacks jurisdiction to consider a motion for a stay pending Supreme Court review after the court of appeals has previously denied a mandamus petition. See In re United States, 875 F.3d 1177, 1178 (2017). The government disagrees with that precedent but accepted it for purposes of this case and accordingly submitted its stay request to the Ninth Circuit in the form of an additional petition for a writ of mandamus.

The district court first rejected the government's argument that respondents were required to assert their challenges under the APA, concluding instead that the "APA does not govern" claims seeking equitable relief for alleged constitutional violations based on "aggregate action by multiple agencies." Pet. App. 31a. It also rejected the government's argument that respondents had failed to establish standing under the more rigorous standard that applies at the summary-judgment stage (as compared to the motion-to-dismiss stage). Id. at 55a. It largely reiterated its earlier holdings on the governments other central arguments. Id. at 31a-34a; see also id. at 56a-69a. And the court denied the government summary judgment on respondent's equal protection claim, concluding that it "would be aided by further development of the factual record." Id. at 73a; see id. at 70a-73a.

The district court again declined to certify its order for interlocutory appeal under 28 U.S.C. 1292(b), which authorizes certification where, inter alia, an "order involves a controlling question of law as to which there is substantial ground for difference of opinion." See Pet. App. 73a-77a. The court did not address this Court's express statement that "the justiciability of [respondents'] claims presents substantial grounds for difference of opinion." Juliana, 2018 WL 3615551, at *1. The court subsequently denied the government's request to stay discovery and trial pending this Court's consideration of this petition. D. Ct. Doc. 374 (Oct. 15, 2018).

ARGUMENT

The government respectfully requests that this Court grant a stay of all further discovery and trial pending the disposition of the government's petition for a writ of mandamus (or, in the alternative, certiorari). The government also respectfully requests an administrative stay pending this Court's ruling on this application for a stay. Months ago, this Court flagged the "striking" breadth of respondents' claims and the "substantial" doubts about their justiciability, reciting the standard for interlocutory certification and thereby indicating that appellate review is warranted before trial. United States v. U.S. Dist. Court, No. 18A65, 2018 WL 3615551, at *1 (July 30, 2018). The district court refused to heed that instruction. The court has declined to meaningfully narrow respondents' claims or to certify its orders for interlocutory appeal. And trial is now set to begin in less than two weeks. The government therefore has no choice but to again ask this Court to intervene -- and to end this profoundly misguided suit.

A stay pending the disposition of a petition for a writ of mandamus is warranted if there is (1) "a fair prospect that a majority of the Court will vote to grant mandamus," and (2) "a likelihood that irreparable harm will result from the denial of a stay." Hollingsworth v. Perry, 558 U.S. 183, 190 (2010) (per curiam). A stay pending the disposition of a petition for a writ of certiorari (which the government seeks in the alternative) is

appropriate if there is "(1) a reasonable probability that four Justices will consider the issue sufficiently meritorious to grant certiorari; (2) a fair prospect that a majority of the Court will vote to reverse the judgment below; and (3) a likelihood that irreparable harm will result from the denial of a stay." Ibid. All of those requirements are readily met here.

1. There is a "fair prospect" that a majority of this Court will decide either to issue a writ of mandamus directly to the district court or to reverse the Ninth Circuit's denial of mandamus relief. Perry, 558 U.S. at 190. As this Court has observed, the traditional use of mandamus has been "to confine the court against which mandamus is sought to a lawful exercise of its prescribed jurisdiction." Cheney v. United States Dist. Court, 542 U.S. 367, 380 (2004) (brackets and citation omitted). Mandamus may also be justified by errors "amounting to a judicial 'usurpation of power'" or a "clear abuse of discretion." Ibid. (citation omitted). A court may issue a writ of mandamus when the petitioner establishes that (1) the petitioner's "right to issuance of the writ is 'clear and indisputable'"; (2) "no other adequate means [exist] to attain the relief he desires"; and (3) "the writ is appropriate under the circumstances." Perry, 558 U.S. at 190 (quoting Cheney, 542 U.S. at 380-381) (brackets in original). As explained in the government's petition (at 13-33), those prerequisites for mandamus relief are met in this case and the court of appeals erred in concluding otherwise.

a. The government's right to the dismissal of this case is "clear and indisputable" in at least three independent ways. Perry, 558 U.S. at 190 (citation omitted); see Pet. 16-28.

i. Most fundamentally, this suit fails to qualify as a "Case[]" or "Controvers[y]" within the meaning of Article III. U.S. Const. Art. III, § 2, Cl. 1.

First, respondents lack Article III standing. Pet. 16-20. To demonstrate standing, a plaintiff must prove that (1) he has suffered "an invasion of a legally protected interest which is (a) concrete and particularized," "and (b) actual or imminent, not conjectural or hypothetical"; (2) such injury is "fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court"; and (3) it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-561 (1992) (citations and internal quotation marks omitted; brackets in original). Here, however, respondents cannot show any of the three standing requirements.

The injuries that respondents claim all involve the diffuse effects of a generalized phenomenon on a global scale that are the same as those felt by any other person in their communities, in the United States, or throughout the world at large. Such alleged injuries are "generalized grievance[s]," not "an invasion of a legally protected interest" that is "concrete and particularized"

sufficient to satisfy the first prong of the standing analysis. Defenders of Wildlife, 504 U.S. at 560, 575 (citation omitted); see, e.g., Lexmark Int'l, Inc. v. Static Control Components, Inc., 572 U.S. 118, 125, 127 n.3 (2014); Lance v. Coffman, 549 U.S. 437, 439 (2007) (per curiam).

Even if respondents alleged adequate injuries, they cannot establish that the government policies they challenge -- expressed in broad and undifferentiated terms, rather than directed to discrete agency actions -- caused their asserted injuries. See Defenders of Wildlife, 504 U.S. at 560. Respondents principally complain of the government's regulation (or lack thereof) of private parties not before the district court. But respondents cannot establish a causal link between the amorphously described policy decisions they purport to challenge and the specific harms that they allege, as opposed to the independent actions by private persons both within and outside the United States. As this Court has explained, "emissions in New Jersey may contribute no more to flooding in New York than emissions in China." American Elec. Power Co. v. Connecticut, 564 U.S. 410, 422 (2011). But even respondents' extremely broad challenge does not suggest that petitioners can control "emissions in China." Ibid.

Finally, even if respondents could somehow establish cognizable injury-in-fact and causation, respondents have not even begun to articulate a remedy that a federal court would have authority to award and that could move the needle on the complex

phenomenon of global climate change, much less likely redress their alleged injuries. See Simon v. Eastern Ky. Welfare Rights Org., 426 U.S. 26, 40-46 (1976). The district court assumed that it had the authority to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." Pet. App. 172a (quoting Am. Compl. 94); see id. at 184a. But neither respondents nor the court cited any legal authority that would permit such a usurpation of legislative and executive authority by an Article III court.

Second, quite aside from these fatal flaws with respect to standing, this suit simply is not one that a federal court may entertain consistent with the Constitution. Pet. 20-22. The "judicial Power of the United States," U.S. Const. Art. III, § 1, is "'one to render dispositive judgments'" in "cases and controversies" as defined by Article III. Plaut v. Spendthrift Farm, Inc., 514 U.S. 211, 218-219 (1995) (citation omitted). It can "come into play only in matters that were the traditional concern of the courts at Westminster" and when those matters arise "in ways that to the expert feel of lawyers constituted 'Cases' or 'Controversies.'" Vermont Agency of Natural Res. v. United States ex rel. Stevens, 529 U.S. 765, 774 (2000) (citation omitted). Respondents' suit is not such a case or controversy.

Respondents ask the district court to review and assess the entirety of Congress's and the Executive Branch's programs and

policies relating to climate change and then to undertake to pass upon the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. See, e.g., Am. Compl. ¶¶ 277-310. No federal court, nor any court at Westminster, has ever purported to use the "judicial Power" to perform such a review -- and for good reason: the Constitution commits to Congress the power to enact comprehensive government-wide measures of the sort respondents seek. And it commits to the President the power to oversee the Executive Branch in its administration of existing law and to draw on its expertise and formulate policy proposals for changing existing law. Such functions are not the province of Article III courts. See U.S. Const. Art. I, § 1; id. Art. II, § 2, Cl. 1; id. § 3; cf. Cheney, 542 U.S. at 385. "There simply are certain things that courts, in order to remain courts, cannot and should not do." Missouri v. Jenkins, 515 U.S. 70, 132 (1995) (Thomas, J., concurring). One of those things is "running Executive Branch agencies." Id. at 133. And it surely includes running all of them.

ii. Beyond these limitations imposed by Article III, the APA also supplies an insurmountable obstacle to this suit. Pet. 22-25. The APA provides that a "person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. 702. It authorizes a reviewing court to "hold unlawful and set aside agency action" that is

"arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or "contrary to constitutional right, power, privilege, or immunity," 5 U.S.C. 706(2)(A)-(B), and to "compel agency action unlawfully withheld or unreasonably delayed," 5 U.S.C. 706(1). In so doing, the APA provides a comprehensive remedial scheme for a person "adversely affected or aggrieved by agency action" or alleged inaction with respect to regulatory requirements and standards, permitting, and other administrative measures. See Wilkie v. Robbins, 551 U.S. 537, 551-554 (2007). It is, in other words, "an umbrella statute governing judicial review of all federal agency action." Webster v. Doe, 486 U.S. 592, 607 n.* (1988) (Scalia, J., dissenting). "[I]f review is not available under the APA it is not available at all." Ibid.

Respondents allege that a vast number of largely unspecified "agency action[s]" and inactions spanning the last several decades are, in the words of the APA, "contrary to constitutional right." 5 U.S.C. 702, 706(2)(B). But respondents' claims cannot proceed under the APA because the APA allows only for challenges to specifically identified and "circumscribed, discrete" final agency action, not the sort of "broad programmatic attack" on agency policies that respondents assert here. Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 62, 64 (2004) (SUWA); see Lujan v. National Wildlife Fed'n, 497 U.S. 871, 891 (1990). Respondents expressly cast their claims as a challenge to "affirmative

aggregate actions" by the numerous defendant agencies, Am. Compl. ¶ 5 -- the antithesis of a challenge to specifically identified and "discrete agency action" as permitted by Congress under the APA, SUWA, 542 U.S. at 64.

Respondents and the district court suggest that respondents' claims need not comply with the APA's limitations because the Constitution itself provides the right of action for constitutional claims. Am. Compl. ¶ 13; see Pet. App. 23a-31a. But as noted, the APA itself contemplates claims that agency action is "contrary to constitutional right." 5 U.S.C. 706(2)(B). And this Court has never suggested the Constitution itself provides an across-the-board right of action for all constitutional claims -- and especially not for the sweeping constitutional claims concerning governmental regulation that respondents advance here or for the sweeping relief they seek. To the contrary, this Court has recognized that, although federal courts have equitable authority in some circumstances "to enjoin unlawful executive action," that equitable power is "subject to express and implied statutory limitations." Armstrong v. Exceptional Child Ctr., Inc., 135 S. Ct. 1378, 1385 (2015). Here, even if the equitable authority of an Article III court could ever extend to a suit of a sort remotely resembling what respondents have brought here, the APA provides "express * * * statutory limitations" that "'foreclose,'" ibid. (citation omitted), respondents' asserted constitutional claims against the broad and largely unspecified

"aggregate actions" of the federal government as a whole, Am. Compl. ¶ 129.

iii. Finally, even if the district court could reach the merits of respondents' constitutional theories, it should not have allowed their claims to move forward, let alone to a ten-week trial. Pet. 25-28. In declining to dismiss the case, the district court concluded that respondents stated two related constitutional claims based on substantive due process: (1) a previously unidentified judicially enforceable fundamental right to "a climate system capable of sustaining human life"; and (2) a federal public-trust doctrine to the same effect. Pet. App. 141a; see id. at 138a-167a. Both claims are baseless.

The district court's recognition of an "unenumerated fundamental right" to "a climate system capable of sustaining human life," Pet. App. 141a, is entirely without basis in "this Nation's history and tradition." Washington v. Glucksberg, 521 U.S. 702, 721 (1997) (citation omitted). It threatens to wrest fundamental policy issues of energy development and environmental regulation affecting everyone in the country from "the arena of public debate and legislative action," id. at 720, and to thrust them into the supervision of the federal courts -- indeed, here, into a single district court at the behest of a handful of individuals, a person purporting to act on behalf of future generations, and a single environmental organization, advancing just one perspective on the complex issues involved. And although the court relied principally

on the Court's recognition of a fundamental right to same-sex marriage in Obergefell v. Hodges, 135 S. Ct. 2584 (2015), Pet. App. 140a-141a, there is plainly no relationship between a distinctly personal and circumscribed right to same-sex marriage and the alleged right to a climate system capable of sustaining human life that apparently would run indiscriminately to every individual in the United States.

Respondents' novel public-trust claim fares no better. Respondents appeal to a public-trust concept that has been relied upon to hold that, as a matter of state law, the sovereign "owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." National Audubon Soc'y v. Superior Court, 658 P.2d 709, 718 (Cal.), cert. denied, 464 U.S. 977 (1983) (citation and internal quotation marks omitted). They attempt to invoke that concept to impose judicially enforceable, extra-statutory obligations on the federal government's regulation of the fossil-fuel industry and its alleged effects on the atmosphere. They fail, however, to identify a single decision applying a public-trust doctrine in this novel manner. And even if such a doctrine could ever dictate a sovereign's regulation of private parties, respondents' claim would be unavailing against the federal government because, as this Court has recognized, the public-trust concept is purely a matter of state law and pertains only to a State's functions. See, e.g., PPL Montana LLC v. Montana, 565 U.S. 576, 603 (2012) ("[T]he

public trust doctrine remains a matter of state law.") (citing Idaho v. Coeur d'Alene Tribe, 521 U.S. 261, 284-286 (1997)).

b. As the petition further explains (at 28-31), the government has no adequate means to obtain relief from the district court's egregious errors in refusing to dismiss this litigation or to prevent the impending trial. To be sure, the government could raise some of the arguments asserted here after the 50-day liability phase of trial, a finding that the federal government is effectively liable for the harms of climate change, and further proceedings to impose an unprecedented invasive remedy, but an appellate reversal at that point would hardly provide an "adequate means" of obtaining relief. Cheney, 542 U.S. at 380 (emphasis added; citation omitted); see, e.g., In re Kellogg Brown & Root, Inc., 756 F.3d 754, 761 (D.C. Cir. 2014) (Kavanaugh, J.) (granting mandamus where appeal after a final judgment would not provide an "adequate" means of obtaining relief), cert. denied, 135 S. Ct. 1163 (2015); In re Justices of Supreme Court of Puerto Rico, 695 F.2d 17, 20-25 (1st Cir. 1982) (Breyer, J.) (same).

The federal sovereign and the Executive Branch agencies and officials sued by respondents will "suffer a special institutional harm by being forced to remain" in this suit through a trial, a finding of liability, and the entry of a remedy. In re Justices, 695 F.2d at 20. As this Court observed in Cheney, "mandamus standards are broad enough to allow a court of appeals to prevent a lower court from interfering with a coequal branch's ability to

discharge its constitutional responsibilities." 542 U.S. at 382; see ibid. (recognizing the "paramount necessity of protecting the Executive Branch from vexatious litigation that might distract it from the energetic performance of its constitutional duties"). Here, compelling petitioners to participate in the fundamentally misguided trial envisioned by the district court would constitute a "judicial 'usurpation of power'" warranting mandamus for at least two additional reasons. Id. at 380 (citation omitted).

First, subjecting petitioners to trial on respondents' claims would violate the APA's carefully reticulated scheme for agencies to make factual assessments and policy determinations through rulemaking with public participation and through agency adjudication, not civil litigation in Article III courts. The APA sets forth a "comprehensive regulation of procedures" for agency decisionmaking. Wong Yang Sung v. McGrath, 339 U.S. 33, 36 (1950); see 5 U.S.C. 551-554 (2012 & Supp. V 2017). To require agencies to take official positions on factual assessments and questions of policy concerning the climate through the civil litigation process -- and then, if liability is found, to participate in further judicial proceedings to impose on them an "enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," Am. Compl. 94 -- would impermissibly conflict with the APA's procedures and deprive other interested parties and the public of the ability to provide input where those procedures require.

Second, subjecting petitioners to trial on respondents' claims would violate the Constitution's separation of powers. Even before the enactment of the APA, this Court recognized that permitting an agency's "findings to be attacked or supported in court by new evidence would substitute the court for the administrative tribunal," Tagg Bros. & Moorhead v. United States, 280 U.S. 420, 444 (1930), a step that would improperly allow the court to "usurp[] the agency's function," Unemployment Comp. Comm'n v. Aragon, 329 U.S. 143, 155 (1946). Limiting judicial review to agency actions taken in the administrative process reflects fundamental separation-of-powers principles.

By seeking to leverage the civil litigation process to direct petitioners' decisions outside the congressionally prescribed statutory framework, respondents would run roughshod over those separation-of-powers principles. Respondents' proposed approach violates the vesting of the "legislative Powers" in Congress to the extent it would require agencies to transgress the substantive and procedural constraints imposed on them by statute. U.S. Const. Art. I, § 1. And to the extent respondents seek to require the President and Executive agencies to develop and implement such policies, they seek to violate the Constitution's vesting of "executive Power * * * in a President of the United States." Id. Art. II, § 1, Cl. 1. Granting mandamus relief is the only "adequate means" of preventing such intrusions. Cheney, 542 U.S. at 380 (citation omitted).

c. As the petition explains (at 31-32), mandamus relief is "appropriate under the circumstances." Cheney, 542 U.S. at 381. As noted, mandamus was traditionally used "to confine [an inferior court] to a lawful exercise of its prescribed jurisdiction," and granting mandamus based on the total absence of Article III jurisdiction and of any cognizable constitutional rights on the merits would be consistent with that use. Id. at 380 (citation omitted); see Pet. 32 (collecting examples of such cases).

Mandamus is particularly appropriate here because dismissing the case is the only way "to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." Cheney, 542 U.S. at 382; see ibid. (emphasizing "separation-of-powers considerations"). Indeed, in its order declining to intervene at an earlier stage of this case, this Court indicated that appellate review before trial was appropriate by reciting critical language from the statute authorizing certification for interlocutory appeal, 28 U.S.C. 1292(b),. See Juliana, 2018 WL 3615551, at *1. But the district court declined to follow this Court's lead, leaving an extraordinary writ as the only means for appellate review before much of the Executive Branch is subject to a trial on baseless claims that the district court has no authority to remedy. The "novelty of the District Court's" ruling, "combined with its potentially broad and destabilizing effects," underscores that granting the writ is "'appropriate under the circumstances.'" In re Kellogg Brown & Root, 756 F.3d

at 763 (quoting Cheney, 542 U.S. at 381). And for many of the same reasons, even if the Court declines to issue a writ of mandamus directly to the district court, it would be appropriate for the Court to issue a writ of certiorari under 28 U.S.C. 1254(1) to review the Ninth Circuit's refusal to intervene or a common-law writ of certiorari under 28 U.S.C. 1651 to directly review the district court's resolution of the government's dispositive motions. See Pet. 14-15.

2. Irreparable harm inevitably "will result from the denial of a stay" of further discovery and trial pending consideration of the government's petition. Perry, 558 U.S. at 190. Absent a stay, the government will be forced to proceed with a 50-day liability trial that is fundamentally inconsistent with Article III and the separation of powers under the Constitution, as well as with procedures Congress has prescribed in agencies' organic statutes and the APA for agencies to consider factual and legal issues concerning major policy and for the courts to review their determinations. Trial would force the government to address climate-change policy not in APA rulemakings and other agency actions authorized by statutes such as the Clean Air Act, but in a single trial court in Oregon. These injuries caused by the trial itself could not be remedied on appeal.

The more tangible costs of these proceedings should also not be ignored. The Department of Justice alone has already devoted nearly 13,000 attorney and paralegal hours and spent millions of

taxpayer dollars in expert fees, travel expenses, and other non-attorney fees defending against respondents' baseless claims. App., infra, 3a-4a. If the liability phase of trial proceeds as scheduled, the parties are expected to present up to 72 witnesses -- 43 lay witnesses and 29 expert witnesses -- and 3000 exhibits. Id. at 4a. Expert testimony would be expected on a diverse range of topics -- including the impacts of climate change on ocean chemistry, sea level, glaciers, terrestrial ecosystems, and human physical and emotional health, as well as the technical and economic feasibility of transitioning to renewable sources of energy and sequestering carbon from the atmosphere, to name just a few examples -- described in over 1,100 pages worth of expert reports. Ibid. And respondents' exhibit list includes documents dating back to the Washington Administration. See id. at 31a-150a. To conduct a trial of this staggering complexity, even under conservative estimates, the Department's Environmental and Natural Resources Division attorneys and paralegals are likely to commit an additional 7300 hours of their time between now and February 2019 to proceedings that should never occur. Id. at 4a-5a. The government, of course, recognizes the need to devote resources to defend against plausible claims and, in the ordinary course, it does not seek extraordinary relief from this Court or the courts of appeals simply because it disagrees with a district court's resolution of a dispositive motion. But the claims in this case are extraordinary and the district court's errors are egregious.

The real-world monetary and human costs that those errors would impose on the government, if the trial is permitted to proceed, would unavoidably "distract [the Department] from the energetic performance of its constitutional duties" in a manner that warrants this Court's intervention. Cheney, 542 U.S. at 382.

By contrast, respondents can make no credible claim that a relatively brief stay to decide the government's petition will cause them irreparable harm. Because respondents' alleged injuries stem from the cumulative effects of CO_2 emissions from every source in the world over decades, whatever additions to the global atmosphere that may somehow be attributed to the defendant agencies over the time it takes to resolve the government's pending petition are plainly de minimis in context and not a source of irreparable harm.

CONCLUSION

For the foregoing reasons, this Court should stay discovery and trial pending the disposition of the government's petition for a writ of mandamus (or, in the alternative, certiorari) and any further proceedings in this Court. The government also requests that this Court enter an administrative stay pending its consideration of this stay application.

Respectfully submitted.

NOEL J. FRANCISCO
Solicitor General

OCTOBER 2018

APPENDIX

Order Denying Stay of Discovery and Trial
(D. Ore. Oct. 15, 2018) 1a

Declaration of Guillermo A. Montero (Oct., 17, 2018).....3a

Exhibit A: Plaintiffs' Witness List
(Oct. 15, 2018) 7a

Exhibit B: Defendants' Witness List
(Oct. 15, 2018) 24a

Exhibit C: Plaintiffs' Trial Exhibit List
(Oct. 12, 2018) 31a

Exhibit D: Defendants' Exhibit List
(Oct. 12, 2018) 151a

From: info@ord.uscourts.gov
To: nobody@ord.uscourts.gov
Subject: Activity in Case 6:15-cv-01517-AA Juliana, et al v United States of America, et al Order on motion for stay
Date: Monday, October 15, 2018 4:59:23 PM

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U.S. District Court

District of Oregon

Notice of Electronic Filing

The following transaction was entered on 10/15/2018 at 1:57 PM PDT and filed on 10/15/2018
Case Name: Juliana, et al v United States of America, et al
Case Number: 6:15-cv-01517-AA
Filer:
Document Number: 374(No document attached)

Docket Text:
ORDER: Federal defendants Motion for Stay of Discovery and Trial [361] is DENIED. The Court has previously considered similar arguments to those raised in this motion. The Court finds that the government has not shown a likelihood success on the merits or irreparable injury that would justify a stay at this time. Nken v. Holder 556 U.S. 418, 433-34 (2009). Ordered on 10/15/2018 by Judge Ann L. Aiken. (rdr)

6:15-cv-01517-AA Notice has been electronically mailed to:

Andrea K. Rodgers andrearodgers42@gmail.com

Benjamin E. Tannen btannen@sidley.com, ben-tannen-8259@ecf.pacerpro.com, dcefilingnotice@sidley.com

C. Marie Eckert marie.eckert@millernash.com, jeannie.peurasaari@millernash.com

Clare Boronow clare.boronow@usdoj.gov, efile_nrs.enrd@usdoj.gov

Courtney B. Johnson courtney@crag.org

Erika Norman erika.norman@usdoj.gov

Frank J. Singer frank.singer@usdoj.gov

Frank R. Volpe fvolpe@sidley.com

Julia A. Olson juliaaolson@gmail.com, eliza.brown@gmail.com

Marissa Piropato marissa.piropato@usdoj.gov

Mark D Hopson mhopson@sidley.com

Peter Kryn Dykema peter.dykema@usdoj.gov

Philip L. Gregory pgregory@gregorylawgroup.com

Sean C. Duffy sean.c.duffy@usdoj.gov, efile_nrs.enrd@usdoj.gov, jamie.m.haydel@usdoj.gov, megan.moore2@usdoj.gov

Sean T. Malone seanmalone8@hotmail.com

6:15-cv-01517-AA Notice will <u>not</u> be electronically mailed to:

IN THE SUPREME COURT OF THE UNITED STATES

No. 18A-_____

IN RE UNITED STATES OF AMERICA, ET AL.

DECLARATION OF GUILLERMO A. MONTERO
IN SUPPORT OF APPLICATION FOR A STAY PENDING
DISPOSITION OF A PETITION FOR A WRIT OF MANDAMUS TO THE
UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON
AND ANY FURTHER PROCEEDINGS IN THIS COURT
AND REQUEST FOR AN ADMINISTRATIVE STAY

I, Guillermo A. Montero, do declare and if called upon would testify as follows:

1. I am an assistant chief in the Environment and Natural Resources Division ("ENRD") of the United States Department of Justice, where I have worked since 2004. In that capacity, I supervise the attorneys of record for Defendants in the district court proceedings of the above-captioned action. I have personal knowledge of the statements made herein, as informed by my review of district court filings, information in the ENRD case management system, and information compiled from the ENRD Office of the Comptroller, Expert Witness Unit, and Office of Litigation Support.

2. As of October 17, 2018, ENRD has devoted over 13,000 attorney and paralegal hours defending this case.

3. As of October 17, 2018, ENRD has expended $2,134,141.09 on expert witness invoice payments; $13,333.57 on invoice payments for depositions and transcripts; and $121,611.61 on employee travel expenses.

4. The liability phase of trial in this case will begin on October 29, 2018, and is expected to last approximately 50 calendar days over the course of several months. The district court has scheduled the first two weeks of this phase of trial for October 29 through November 9, 2018.

5. The parties have indicated that they will call 29 expert witnesses during this phase of trial, and as many as 43 lay witnesses, for a total of 72 potential witnesses. The expert witnesses will testify to a broad range of topics, including the impacts of climate change on ocean chemistry, sea level, glaciers, terrestrial ecosystems, and human physical and emotional health, as well as the technical and economic feasibility of transitioning to renewable sources of energy and sequestering carbon from the atmosphere. That proposed testimony is described in 1,156 pages of expert reports and approximately 130 hours of depositions completed as of October 12.

6. Between now and the end of the liability phase of trial, I estimate that ENRD will expend another $5.2 million in expert witness fees, in addition to the following sundry expenses: $198,986.65 for travel-related expenses from October 2018 through

February 2019; $40,000 in transcript, copying, and shipping costs; and $9,600 for a conference room at trial.

7. Primary responsibilities for handling this phase of trial have been assigned to five attorneys and three paralegals. I estimate that each attorney will expend anywhere from 60 to 80 hours per week on this case for the ten weeks I expect trial to be in session, and anywhere from 30 to 40 hours per week on this case when trial is not in session, *viz.*, the weeks of Nov. 12-16, Nov. 19-23, Dec. 17-21, Dec. 24-28, and Dec. 31-Jan. 4. I also estimate that each attorney will work between 10 and 12 hours per day between now and the start of this phase of trial on October 29. Similarly, I estimate that the three paralegals assigned to this trial will expend a combined total of 220 hours per week on this case for the ten weeks I expect trial to be in session, and a combined total of 100 hours per week on this case while trial is not in session. I also estimate that those three paralegals will work a combined 24 hours per day on this case between now and the start of this phase of trial on October 29. Based on the lowest number in each range, and if trial proceeds as expected, I conservatively estimate that ENRD attorneys and paralegals will expend at least 7,300 hours on the liability phase of trial between now and February, 2019.

8. Attached as Exhibit A is a true and correct copy of Plaintiffs' Witness List, which Plaintiffs filed with the district court on October 15, 2018.

9. Attached as Exhibit B is a true and correct copy of Defendants' Witness List, which Defendants filed with the district court on October 15, 2018.

10. Attached as Exhibit C is a true and correct copy of the Exhibit List Plaintiffs served on Defendants on October 12, 2018, with column-widths modified solely for purposes of facilitating printing.

11. Attached as Exhibit D is a true and correct copy of the Exhibit List Defendants served on Plaintiffs on October 12, 2018, with column-widths modified solely for purposes of facilitating printing.

I declare that the foregoing is true and correct. Executed on this 17th day of October, 2018.

GUILLERMO A. MONTERO

JULIA A. OLSON (OR Bar 062230)
JuliaAOlson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, OR 97401
Tel: (415) 786-4825

ANDREA K. RODGERS (OR Bar 041029)
Andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, WA 98117
Tel: (206) 696-2851

PHILIP L. GREGORY (*pro hac vice*)
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, CA 94062
Tel: (650) 278-2957
Attorneys for the Plaintiffs

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

KELSEY CASCADIA ROSE JULIANA; **XIUHTEZCATL TONATIUH M.**, through his Guardian Tamara Roske-Martinez; et al.,

Plaintiffs,

v.

The UNITED STATES OF AMERICA; **DONALD TRUMP**, in his official capacity as President of the United States; et al.,

Defendants.

Case No.: 6:15-cv-01517-AA

PLAINTIFFS' WITNESS LIST

Pursuant to the Court's Order in this matter, Youth Plaintiffs hereby submit the following Witness List. Youth Plaintiffs reserve the right to call any witnesses identified on Defendants' witness list. The Youth Plaintiffs hereby submit the following list of individuals who will or may be called to testify at the bench trial in the above-captioned case set to begin October 29, 2018.

I. FACT WITNESSES

The names and addresses of witnesses, other than experts, to be called at trial and the general nature of the testimony of each are:

1. **Jessica Wentz**, Senior Fellow and Associate Researcher, Sabin Center for Climate Change Law, Columbia Law School, WILL TESTIFY regarding actions of the Defendants taken during the Trump Administration to perpetuate a fossil fuel-based energy system. 435 West 116th Street, New York, New York 10027.
   Estimated time for direct examination: 5 hours.
2. **Aji P**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.
   Estimated time for direct examination: 2 hours.
3. **Alexander L**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.
   Estimated time for direct examination: 2 hours.
4. **Avery M**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

5. **Hazel V**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

6. **Isaac V**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

7. **Jacob L**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

8. **Jayden F**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

9. **Journey Z**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

10. **Kelsey Cascadia Rose Juliana** is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to

climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

11. **Kiran O**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

12. **Levi D**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

13. **Miko V**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

14. **Nathaniel B**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

15. **Nicholas V.** is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

16. **Sahara V**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

17. **Sophie K**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

18. **Tia H**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

19. **Victoria B**. is a Plaintiff in this action. She WILL TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

20. **Xiuhtezcatl Tonatiuh M**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

21. **Zealand B**. is a Plaintiff in this action. He WILL TESTIFY about how he has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

22. **Jaime B**. is a Plaintiff in this action. She MAY TESTIFY about how she has been injured due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

23. **Jamescita Peshlakai** MAY TESTIFY about how her daughter, Plaintiff Jaime B., has been harmed due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

24. **Mae Peshlakai** MAY TESTIFY about how her granddaughter, Plaintiff Jaime B., has been harmed due to the Defendants' conduct in causing and contributing to climate change and how Defendants' conduct has harmed Jaime's family, cultural, and spiritual traditions as a member of the Navajo Nation. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

25. **Sharon Baring** MAY TESTIFY about how her son, Plaintiff Nathan B., has been harmed due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours.

26. **Marie Venner** MAY TESTIFY about how her son, Plaintiff Nick V. has been harmed due to the Defendants' conduct in causing and contributing to climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 2 hours

27. **Rafe Pomerance** MAY TESTIFY about his experiences and observations working at World Resources Institute and the United States Department of State related to climate change outreach and oversight; c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours.

28. **Stephen Seidel** MAY TESTIFY about his experiences and observations working at the Environmental Protection Agency, Council on Environmental Quality, and White House Climate Change Task Force related to climate change activities; c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours.

29. **Susan Ying** MAY TESTIFY about her experiences and observations working in the aerospace and aeronautical industries related to renewable energy transportation; c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours

30. **Howard C. Sun** or other representative from Council on Environmental Quality MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

31. Representative from Office of Management and Budget MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

32. **Michael Kuperberg**, Ph.D. or other representative from Office of Science and Technology Policy MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct

examination: 1 hour

33. **Eric Boyle** or other representative from Department of Energy MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

34. **Benjamin Simon** or other representative from Department of Interior MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

35. **Darren Timothy** or other representative from Department of Transportation MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

36. **William Hohenstein** or other representative from Department of Agriculture MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

37. **William Sweet**, Ph.D., or other representative from Department of Commerce MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

38. **Rebecca Patton** or other representative from Department of Defense MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

39. **Marissa McInnis** or other representative from Department of Defense MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

40. **Rebecca Patton** or other representative from Department of Defense MAY TESTIFY

for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

41. **Kathleen White** or other representative from Department of Defense MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

42. **Jerry Drake** or other representative from Department of State MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

43. **Daniel Conrad** or other representative from Environmental Protection Agency MAY TESTIFY for purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

44. **Cheryl MacKay** MAY TESTIFY purposes of authentication and admissibility of government documents; Headquarters, Washington, D.C.; Estimated time for direct examination: 1 hour

45. Any witness called by Defendants.

46. Any necessary rebuttal witnesses.

II. EXPERT WITNESSES

The names and addresses of the expert witnesses to be used by the Youth Plaintiffs at the trial, the issue upon which each will testify, and the estimated time for direct examination are:

1. **Dr. James Hansen** WILL TESTIFY regarding expert testimony related to how climate change works, the energy imbalance created by human-caused greenhouse gas emissions, related temperature trends, sea level rise, climate tipping points, the urgency of returning

the planet to the Holocene temperature range, and the emission reduction and carbon sequestration prescription for stabilizing the climate system and restoring Earth's energy balance. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

2. **Dr. Eric Rignot** WILL TESTIFY regarding expert testimony related to the retreat of the grounding line of West Antarctica ice sheets, potential melting scenarios, the melting and ice disintegration trends for East Antarctica and Greenland, current and projected ice sheet loss, ocean warming patterns and global sea level rise. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

   Estimated time for direct examination: 5 hours.

3. **Dr. Kevin Trenberth** WILL TESTIFY regarding expert testimony related to the impact of fossil fuel emissions and climate change on the environment, the water cycle and precipitation, including drought and wildfires, the increasing severity and frequency of storms, significant rain events, and flooding. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

   Estimated time for direct examination: 5 hours.

4. **Dr. Steven Running** WILL TESTIFY regarding expert testimony related to the impacts of climate change on terrestrial ecosystems in the United States, including impacts on species, biodiversity, ecosystem shifts and collapse, and the effects of terrestrial climate change impacts on humans, including the Plaintiffs. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

   Estimated time for direct examination: 5 hours.

5. **Dr. Ove Hoegh-Guldberg** WILL TESTIFY regarding expert testimony related to the

impacts of fossil fuel emissions, atmospheric CO_2 levels and global warming on ocean acidification, ocean warming, coral reefs and other marine life, the corollary maximum concentration threshold of CO_2, the current state and trends of ocean acidification and ocean warming, and the ecosystem, food chain, and human impacts of present and ongoing harm to oceans from climate change and ocean acidification. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

6. **Dr. Lise Van Susteren** WILL TESTIFY regarding expert testimony related to the psychological, mental, emotional and physical impacts of climate change on young people, including Plaintiffs. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

7. **Peter Erickson** WILL TESTIFY regarding expert testimony related to the value of consumption-based and other greenhouse gas emissions inventories and how such inventories are prepared. Mr. Erickson will also testify regarding the influence of government subsidies and incentives on the production of fossil fuels and associated CO_2 emissions. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

8. **Dr. Mark Jacobson** WILL TESTIFY regarding expert testimony related to the feasibility of transitioning the United States from fossil fuel-based energy systems for all sectors to 100% clean, renewable energy in all energy sectors, and the time-frame it would take to do so. Dr. Jacobson will also testify regarding the economic feasibility of transitioning energy systems off of fossil fuels and the comparative impacts of fossil fuels

compared to clean, renewable energy on energy security, jobs, and land use. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

9. **Dr. Frank Ackerman** WILL TESTIFY regarding expert testimony related to the economic costs to society and future generations of climate change and a fossil fuel-based energy system. Dr. Ackerman will also testify to the lack of consideration of the risks of catastrophic climate change impacts in federal decision-making regarding climate and energy policy, the Federal Government's use of high discounting rates, and the undervaluing of the social cost of carbon. Dr. Ackerman will also testify to the economic impacts of delaying in mitigating climate change. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

10. **Andrea Wulf** WILL TESTIFY regarding expert testimony related to the historical evidence that a balanced order of nature and humanity's connection with nature, including the climate system, is deeply embedded in the history and tradition of the United States. Ms. Wulf will also testify as to the attitudes of the founding fathers and other leading thinkers of the early republic of the United States towards nature, and the interconnection between these attitudes and the philosophical and ideological underpinnings of the United States' political and legal system, as well as to the influence of the German explorer and scientist Alexander von Humboldt (1769-1859) on various early American thinkers, writers and environmentalists, including the founding fathers. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours.

11. **Professor Catherine Smith** WILL TESTIFY regarding expert testimony related to the historical and sociological legal basis for reviewing government actions that discriminate against and harm children under heightened judicial scrutiny. Professor Smith will also testify as to how children are situated differently from other classes of people, and receive and have historically received differential treatment in the American legal system and under international law, and thus merit the status of a protected class for the purpose of the Equal Protection Clause. Professor Smith will also testify regarding the historical and sociological legal basis for granting children in America extraordinary legal protection from government action and government action causing climate change-related harms. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours.

12. **Dr. G. Philip Robertson** WILL TESTIFY regarding expert testimony related to the potential capacity for improved management of United States forest, range and agricultural lands to achieve net negative carbon emissions (i.e., sequester atmospheric carbon) and avoid future greenhouse gas emissions, and the quantum of this potential for carbon sequestration and greenhouse gas mitigation. Dr. Roberston will also testify regarding the global carbon cycle generally, and how land management practices can contribute to negative and avoided greenhouse gas emissions. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours.

13. **James Gustave Speth** WILL TESTIFY regarding expert testimony related to the historical knowledge of the United States government, including Defendants, of climate change, climate science, obligations to present and future generations to mitigate climate

change and prevent climate change harms, and alternative pathways to power the United States' energy system other than through the use of fossil fuels. Mr. Speth will also testify regarding the actions, policies and decisions of the United States government, including Defendants, in the areas of climate change and energy, and particularly the promotion, maintenance and further entrenching of a fossil-fuel based energy system. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 6 hours.

14. **Dr. Harold R. Wanless** WILL TESTIFY regarding expert testimony related to climate change- and greenhouse gas emission-induced sea level rise; the relationship between CO_2 concentrations and fluctuations in sea level rise in the paleoclimate record; and the relationship between anthropogenic climate change, ocean warming, polar ice melt, and accelerating observed and projected sea-level rise. Dr. Wanless will also testify as to the harms associated with sea level rise that Plaintiffs face and the urgency of stopping additional greenhouse gas emissions in order to prevent and/or mitigate these harms. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

15. **Dr. Howard Frumkin** WILL TESTIFY regarding expert testimony related to the health impacts of climate change, and particularly those health impacts affecting children, as well as projected climate change-related health impacts on that will affect present generations of children as they reach adulthood. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 4 hours.

16. **Dr. James H. Williams** WILL TESTIFY regarding expert testimony related to the

technological pathways, feasibility and costs of achieving deep decarbonization of the United States energy system commensurate with stabilizing the climate system at non-dangerous levels; the policies that could be used to achieve this outcome; the capacity of the United States government, including Defendants, to achieve such a decarbonization of the United States energy system; and the implications of such a decarbonization of the United States energy system on quality of life and standards of living. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

17. **Dr. Joseph E. Stiglitz** WILL TESTIFY regarding expert testimony related to the economic dimensions of the climate change-related risks, costs and harms to Plaintiffs and other children that are occurring and will continue to occur if defendants continue to pursue policies perpetuating a fossil fuel-based energy system and defer action to mitigate climate change. Dr. Stiglitz will also testify regarding the economics, including the feasibility and benefits, of transitioning to a non-fossil fuel economy now rather than later, and the economic tools available to achieve this transition. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

18. **Dr. Susan E. Pacheco** WILL TESTIFY regarding expert testimony related to the public health impacts on children from climate change and air pollution from fossil fuels. Dr. Pacheco will also testify regarding the unique vulnerability of children to the impacts of climate change and air pollution from fossil fuels, and the particular vulnerability of certain populations of children, including several Plaintiffs. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

19. **Dr. Karrie P. Walters** WILL TESTIFY regarding expert testimony related to the expert reports of Dr. Jeffrey Sugar and Dr. Lise Van Susteren; psychological harms from climate change; and the psychological coping strategies and options of Plaintiffs in the face of anthropogenic climate change. Dr. Walters will also testify as to the distinction between, on the one hand, mental health disorders and diagnoses, and, on the other hand, the identification of mental health harm. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 3 hours.

20. **Dr. Akilah Jefferson** WILL TESTIFY regarding expert testimony related to the expert reports of Dr. Normal Klein, Dr. Arthur Partikian, Dr. Howard Frumkin, Dr. Susan Pacheco and Dr. Jerome Paulson; the connection between climate change, and asthma and allergies; the way in which Plaintiffs are being specifically harmed by climate change-connected asthma and allergies; and the empirical and clinical evidence that climate change is a significant factor in exacerbating the risk, longevity, and severity of asthma and allergies. c/o Gregory Law Group, 1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 3 hours.

21. **Dr. Jerry Paulson** MAY TESTIFY regarding expert testimony related to the public health impacts on children from climate change and air pollution from fossil fuels. Dr. Paulson will also testify regarding the unique vulnerability of children to the impacts of climate change and air pollution from fossil fuels, and the particular vulnerability of certain populations of children, including several Plaintiffs. c/o Gregory Law Group,

1250 Godetia Drive, Redwood City, CA 94062.

Estimated time for direct examination: 5 hours.

DATED this 15th day of October, 2018.

Respectfully submitted,

/s/ Andrea K. Rodgers
Andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, WA 98117
Tel: (206) 696-2851

Julia A. Olson (OR Bar 062230)
JuliaAOlson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, OR 97401
Tel: (415) 786-4825

Philip L. Gregory (*pro hac vice*)
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, CA 94062
Tel: (650) 278-2957

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar. No. 4103131)
MARISSA A. PIROPATO (MA Bar. No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
ERIKA NORMAN (CA Bar No. 268425)
Trial Attorneys
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA, *et al.*,

Defendants.

Case No. 6:15-CV-01517-TC

DEFENDANTS' WITNESS LIST

INTRODUCTION

Defendants maintain that this case should be dismissed. Defendants acknowledge that this Court has disagreed with Defendants' challenges, but respectfully reaffirm their position that this case is improper for several reasons. Among other things, Plaintiffs lack standing to bring this lawsuit, the Administrative Procedure Act requires Plaintiffs' lawsuit to challenge discrete government action or a discrete failure to act, which their complaint fails to do, Plaintiffs' claims infringe on legislative and executive functions that the Constitution assigns to the political branches, and the complaint fails to state legally cognizable theories of recovery. The Ninth Circuit and the Supreme Court contemplated a narrowing of this case before trial, which for the most part has not occurred. Trial is also improper because *de novo* proceedings are presumptively improper in cases governed by the APA's judicial review provisions. Defendants' compliance with Court orders, including the submission of a witness list, should not be viewed as a concession that trial is proper; nor should Defendants' compliance be viewed as a waiver of Defendants' objections to these proceedings.

Defendants intend to introduce the expert and fact witnesses listed below during trial. If called, the witnesses listed below will testify to the facts and opinions as delineated below. Depositions and other discovery are ongoing as of the date of this filing. Accordingly, Defendants reserve the right to supplement this list at a later date. Defendants also reserve the right to not call the witnesses listed below.

EXPERT WITNESSES

Howard Herzog: If called to testify, Mr. Herzog will offer the expert testimony that is memorialized in his expert report. Mr. Herzog's testimony rebuts the conclusion that it is both technologically and economically feasible to transition from a predominantly fossil fuel-based

energy system to a 100 percent renewable energy system for all energy sectors by 2050, with about 80 percent conversion by 2030.

Norman Klein: If called to testify, Dr. Klein will offer the expert testimony that is memorialized in his expert report. Dr. Klein's testimony elaborates on the standard of medical care applicable to Plaintiffs' allegations of respiratory health, and allergy issues. Dr. Klein's testimony further addresses Plaintiffs' experts' discussion of Plaintiffs' alleged respiratory health and allergy issues and climate change.

Arthur Partikian: If called to testify, Dr. Partikian will offer the expert testimony that is memorialized in his expert report. Dr. Partikian's testimony elaborates on the standard of medical care applicable to Plaintiffs' allegations of neurological harm. Dr. Partikian' testimony also addresses Plaintiffs' experts' discussion of Plaintiffs' alleged neurological harm and climate change.

Jeffrey Sugar: If called to testify, Dr. Sugar will offer the expert testimony that is memorialized in his expert report and expert rebuttal report. Dr. Sugar's testimony elaborates on the standard of medical care applicable to Plaintiffs' allegations of psychological harm. Dr. Sugar's testimony also addresses Plaintiffs' experts' discussion of Plaintiffs' alleged psychological harm and climate change.

Daniel Sumner: If called to testify, Dr. Sumner will offer the expert testimony that is memorialized in his expert report. Dr. Sumner's testimony evaluates the policy requirements, the feasibility, and the broader consequences of implementing the land management practices that Plaintiffs' experts' propose.

James Sweeney: If called to testify, Dr. Sweeney will offer the expert testimony that is memorialized in his expert report and expert rebuttal report. Dr. Sweeney will testify to the

objectives that are and have historically been balanced in formulating energy policy, the decarbonization of the U.S. economy over time, the role of federal policies and programs in the decarbonization of the U.S. economy over time, the role of federal policies and programs in the energy-related carbon intensity of the U.S. economy over time, the federal government's consideration of the policy proposals Plaintiffs and their experts propose, the relationship between the federal government's greenhouse gas emissions and Plaintiffs' alleged harms, and the technical feasibility and efficacy of Plaintiffs' experts' proposed changes to U.S. energy policy.

David Victor: If called to testify, Dr. Victor will offer the expert testimony that is memorialized in his expert report. Dr. Victor will assess Plaintiffs' experts' opinions on the U.S. share of greenhouse gas emissions and the feasibility of transitioning to a consumption-based accounting system. Dr. Victor will also address the impacts that Plaintiffs' experts' proposed reforms to fossil fuel subsidies and leases would have on greenhouse gas emissions. And Dr. Victor will address Plaintiffs' experts' conclusions on the federal government's role in the use of fossil fuels in the U.S. economy and the United States' need to engage international trading partners to adopt meaningful policy interventions to address climate change.

John Weyant: If called to testify, Dr. Weyant will offer the expert testimony that is memorialized in his expert report. Dr. Weyant will address the scope of conclusions on attribution and the results of different climate modeling runs that explore different U.S. emission scenarios.

FACT WITNESSES

Rebecca Patton: If called to testify, Ms. Patton will offer testimony to authenticate documents on behalf of the United States Department of Defense and other testimony in relation to those documents.

Marissa McInnis: If called to testify, Ms. McInnis will offer testimony to authenticate documents on behalf of the United States Department of Defense and other testimony in relation to those documents.

Kathleen White: If called to testify, Ms. White will offer testimony to authenticate documents on behalf of the United States Department of Defense and other testimony in relation to those documents.

Jerry Drake: If called to testify, Mr. Drake will offer testimony to authenticate documents on behalf of the United States Department of State and other testimony in relation to those documents.

Eric Boyle: If called to testify, Mr. Boyle will offer testimony to authenticate documents on behalf of the United States Department of Energy and other testimony in relation to those documents.

William Hohenstein: If called to testify Mr. Hohenstein will offer testimony to authenticate documents on behalf of the United States Department of Agriculture and other testimony in relation to those documents.

Daniel Conrad: If called to testify, Mr. Conrad will offer testimony to authenticate documents on behalf of the United States Environmental Protection Agency and other testimony in relation to those documents.

Howard C. Sun: If called to testify, Mr. Sun will offer testimony to authenticate documents on behalf of the United States Council on Environmental Quality and other testimony in relation to those documents.

Benjamin Simon: If called to testify, Mr. Simon will offer testimony to authenticate documents on behalf of the United States Department of the Interior and other testimony in relation to those documents.

William Sweet, Ph.D.: If called to testify, Mr. Sweet will offer testimony to authenticate documents on behalf of the United States Department of Commerce and other testimony in relation to those documents.

Michael Kuperberg, Ph.D.: If called to testify, Dr. James Michael ("Michael") Kuperberg will offer testimony to authenticate documents on behalf of the United States Office of Science and Technology Policy. In addition, Dr. Kuperberg will offer testimony to authenticate documents on behalf of the United States Global Change Research Program (USGCRP) and other testimony in relation to those documents.

Darren Timothy: If called to testify, Mr. Timothy will offer testimony to authenticate documents on behalf of the United States Department of Transportation and other testimony in relation to those documents.

Cheryl MacKay: If called to testify, Ms. MacKay will offer testimony to authenticate congressional documents on behalf of the United States as well as a summary of those documents pursuant to Fed. R. Evid. 1006.

Dated: October 15, 2018

Respectfully submitted,

JEFFREY H. WOOD
Acting Assistant Attorney General
Environment & Natural Resources Division

/s/ Sean C. Duffy
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
ERIKA NORMAN (CA Bar No. 268425)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

Category	Docket Number	Title of Document	Date	Bates numbers of Document	Agency Source and/or author of Document	Website URL for Document	Defendants object to authenticity?	Defendants object to admissibility?
MIL 1 (June 28, 2018)	299-191	Memorandum from Daniel Moynihan to John Ehrlichman	17-Sep-69	P00000029996-P00000029997	Daniel Moynihan	https://www.nixonlibrary.gov/virtuallibrary/releases/jul10/56.pdf		
MIL 1 (June 28, 2018)	299-192	Understanding Climatic Change. A Program for Action	1975	P00000039145-P00000039414	National Academy of Sciences	https://archive.org/details/understandingcli00unit		
MIL 1 (June 28, 2018)	299-193	Memorandum from Frank Press to the President, Release of Fossil CO2 and the Possibility of Catastrophic Climate Change	7-Jul-77	P00000030009-P00000030010	Frank Press			
MIL 1 (June 28, 2018)	299-194	Carbon Dioxide and Climate: A Scientific Assessment	1979	P00000030548-P00000030565	National Academy of Sciences (Jule Charney, Chairman)	https://www.bnl.gov/envsci/schwartz/charney_report1979.pdf		
MIL 1 (June 28, 2018)	299-195	Environmental Quality: The Eighth Annual Report of the Council on Environmental Quality	1977	P00000030011-P00000030486	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1977-the-eighth-annual-report-of-the-council-on-environmental-quality		
MIL 1 (June 28, 2018)	299-196	Environmental Quality: The Eleventh Annual Report of the Council of Environmental Quality	Dec-80	P00000030566-P00000031149	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1980-the-eleventh-annual-report-of-the-council-on-env		
MIL 1 (June 28, 2018)	299-197	Solar Energy: Progress and Promise	Apr-78	P00000030487-P00000030544	Council on Environmental Quality	https://files.eric.ed.gov/fulltext/ED164264.pdf		
MIL 1 (June 28, 2018)	299-198	Golden, Colorado Remarks at the Solar Energy Research Institute on South Table Mountain	3-May-78	P00000030545-P00000030547	Jimmy Carter	http://www.presidency.ucsb.edu/ws/print.php?pid=30746		
MIL 1 (June 28, 2018)	299-199	Global Energy Futures and the Carbon Dioxide Problem	1981	P00000031150-P00000031258	Council on Environmental Quality	http://hdl.handle.net/2027/umn.31951d003573546		
MIL 1 (June 28, 2018)	299-200	National Energy Program Fact Sheet on the President's Program	20-Apr-77	P00000029998-P00000030008	Jimmy Carter	http://www.presidency.ucsb.edu/ws/print.php?pid=7373		
MIL 1 (June 28, 2018)	299-201	Proceedings of the Workshop on First Detection of Carbon Dioxide Effects	June 8-10, 1981	P00000031259-P00000031819	U.S. DOE, Office of Energy Research	http://hdl.handle.net/2027/uc1.31822016268534		
MIL 1 (June 28, 2018)	299-202	Energy and Climate	1977	P00000039415-P00000039589	National Research Council			
MIL 1 (June 28, 2018)	299-203	Projecting the Climatic Effects of Increasing Carbon Dioxide (DOE/ER-0237)	Dec-85	P00000032164-P00000032575	U.S. DOE	https://www.researchgate.net/profile/Michael_MacCracken/publication/236534420_Projecting_the_Climatic_Effects_of_Increasing_Carbon_Dioxide/links/568edcd108aead3f42f075b4.pdf		
MIL 1 (June 28, 2018)	299-204	Detecting the Climatic Effects of Increasing Carbon Dioxide (DOE/ER-0235)	Dec-85	P00000032917-P00000033145	U.S. DOE	https://www.osti.gov/servlets/purl/6264945		
MIL 1 (June 28, 2018)	299-205	Atmospheric Carbon Dioxide and Global Carbon Cycle (DOE/ER-0239)	1985	P00000032576-P00000032916	U.S. DOE	https://www.osti.gov/servlets/purl/6048470		
MIL 1 (June 28, 2018)	299-206	Hearing before the U.S. Senate Committee on Energy and Natural Resources. Part 2.	23-Jun-88	P00000036792-P00000037010	Dr. James Hansen			
MIL 1 (June 28, 2018)	299-207	Environmental Quality: 13th Annual Report of the Council on Environmental Quality	1982	P00000031820-P00000032163	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1982-the-thirteenth-annual-report-of-the-council-on-environmental-quality		
MIL 1 (June 28, 2018)	299-208	PRD-12/Global Climate Change Policy Decision Paper	1993	P00000029864-P00000029871	U.S. DOS			
MIL 1 (June 28, 2018)	299-209	National Energy Strategy: Powerful Ideas for America	Feb-91	P00000033222-P00000033357	U.S. DOE			
MIL 1 (June 28, 2018)	299-210	Global Warming. Administration Approach Cautious Pending Validation of Threat	Jan-90	P00000039990-P00000040036	U.S. General Accounting Office	https://www.gao.gov/assets/150/148577.pdf		

MIL 1 (June 28, 2018)	299-211	Changing by Degrees: Steps to Reduce Greenhouse Gases	Feb-91	P00000033358-P00000033716	Congressional Office of Technology Assessment	https://repository.library.georgetown.edu/bitstream/handle/10822/708292/9111.PDF?sequence=1		
MIL 1 (June 28, 2018)	299-212	United Nations Framework Convention on Climate Change	1992	P00000033717-P00000033741	United Nations	https://unfccc.int/resource/docs/convkp/conveng.pdf		
MIL 1 (June 28, 2018)	299-213	Timothy Wirth. First Conference of the Parties to the Framework Convention on Climate Change	1995	P00000033761-P00000033772	Timothy Wirth			
MIL 1 (June 28, 2018)	299-214	Environmental Quality. Along the American River. The 1996 Report of the Council on Environmental Quality	1997	P00000039590-P00000039987	Council on Environmental Quality	https://ceq.doe.gov/docs/ceq-reports/ceq-annual-report-1996.pdf		
MIL 1 (June 28, 2018)	299-215	Environmental Quality. The 1997 Report of the Council on Environmental Quality	1998	P00000034026-P00000032393	Council on Environmental Quality	https://ceq.doe.gov/docs/ceq-reports/ceq-annual-report-1997.pdf		
MIL 1 (June 28, 2018)	299-216	Kyoto Protocol	1997	P00000029955-P00000029975	United Nations			
MIL 1 (June 28, 2018)	299-217	The Climate Change Action Plan	1993	P00000039000-P00000039142	William J. Clinton, Albert Gore, Jr.	http://hdl.handle.net/2027/uc1.31822033838525		
MIL 1 (June 28, 2018)	299-218	Selected Questions and Answers on the President's Climate Action Plan	1993	P00000033745-P00000033760	White House Office on Environmental Policy			
MIL 1 (June 28, 2018)	299-219	Scenarios of U.S Carbon Reductions: Potential Impacts of Energy Technologies by 2010 and Beyond	1997	P00000033773-P00000034025	U.S. DOE, Office of Energy Efficiency and Renewable Energy	https://www.osti.gov/biblio/814844-scenarios-carbon-reductions-potential-impacts-energy-efficient-low-carbon-technologies-beyond		
MIL 1 (June 28, 2018)	299-220	Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology	1999	P00000034394-P00000034561	U.S. DOE	https://www.osti.gov/servlets/purl/771125		
MIL 1 (June 28, 2018)	299-221	Remarks Announcing the Clear Skies and Global Climate Change Initiatives in Silver Spring, Maryland	14-Feb-02	P00000034732-P00000034735	George W. Bush	http://www.presidency.ucsb.edu/ws/index.php?pid=73200		
MIL 1 (June 28, 2018)	299-222	National Energy Policy, Report of the National Energy Policy Development Group	May-01	P00000034562-P00000034731	National Energy Policy Development Group	www.nrc.gov/docs/ML0428/ML042800056.pdf		
MIL 1 (June 28, 2018)	299-223	Political Interference with Climate Change Science Under the Bush Administration	Dec-07	P00000034736-P00000034773	U.S. House of Representatives Committee on Oversight and Government Reform	https://www.hsdl.org/?view&did=481710		
MIL 1 (June 28, 2018)	299-224	Second National Assessment: Global Climate Change Impacts in the United States	Jun-09	P00000034774-P00000034969	U.S. Global Change Research Program	https://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf		
MIL 1 (June 28, 2018)	299-225	Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act	Dec-09	P00000036586-P00000036637	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2009-12-15/pdf/E9-29537.pdf		
MIL 1 (June 28, 2018)	299-226	Climate Change Indicators in the United States (Third edition)	2014	P00000035635-P00000035744	U.S. EPA	https://www.epa.gov/sites/production/files/2016-07/documents/climateindicators-full-2014.pdf		
MIL 1 (June 28, 2018)	270-1	Climate Change Adaptation by Federal Agencies: An Analysis of Plans and Issues for Congress	23-Feb-15	P00000004358-P00000004461	Jane A. Leggett, Congressional Research Service	http://nationalaglawcenter.org/wp-content/uploads//assets/crs/R43915.pdf		
MIL 1 (June 28, 2018)	270-2	Agriculture and Climate Change	14-Oct-16	P00000007224-P00000007226	USDA, Economic Research Service	https://www.ers.usda.gov/topics/natural-resources-environment/climate-change/agriculture-and-climate-change/		

MIL 1 (June 28, 2018)	270-3	Land Areas of the National Forest System	Jan-12	P00000001268-P00000001532	USDA, Forest Service	https://www.fs.fed.us/land/staff/lar/LAR2011/LAR2011_Book_A5.pdf		
MIL 1 (June 28, 2018)	270-4	The U.S. Forest Service – An Overview	n.d.	P00000005071-P00000005122	USDA, Forest Service	https://www.fs.fed.us/sites/default/files/media/types/publication/field_pdf/USFS-overview0106MJS.pdf		
MIL 1 (June 28, 2018)	270-5	Federal Land Ownership: Overview and Data	3-Mar-17	P00000005006-P00000005033	Carol Hardy Vincent; Congressional Research Service	https://fas.org/sgp/crs/misc/R42346.pdf		
MIL 1 (June 28, 2018)	270-7	Forest Products Cut and Sold from the National Forests and Grasslands	n.d.	P00000007198-P00000007200	USDA, Forest Service	https://www.fs.fed.us/forestmanagement/products/cut-sold/index.shtml (last visited Mar. 10, 2018).		
MIL 1 (June 28, 2018)	270-8	Historic Harvest Trends: 1984 to Present	n.d.	P00000005059-P00000005067	USDA, Forest Service	https://www.fs.fed.us/forestmanagement/documents/harvest-trends/NFS-HarvestHistory1984-2017.pdf		
MIL 1 (June 28, 2018)	270-9	National Roadmap for Responding to Climate Change	Feb-11	P00000000986-P00000001017	USDA, Forest Service	https://www.fs.fed.us/climatechange/pdf/Roadmapfinal.pdf		
MIL 1 (June 28, 2018)	270-11	National Roadmap for Responding to Climate Change: A Summary	Sep-10	P00000000984-P00000000985	USDA, Forest Service	https://www.fs.fed.us/climatechange/pdf/Brochure_FINAL.pdf		
MIL 1 (June 28, 2018)	270-12	Climate Change Advisor's Office Briefing Paper: Baseline Estimates of Carbon Stocks in Forests and Harvested Wood Products for National Forest System Units	6-Mar-15	P00000004462-P00000004464	USDA, Forest Service	https://www.fs.fed.us/climatechange/documents/CarbonAssessmentsBriefingPaper.pdf		
MIL 1 (June 28, 2018)	270-14	Forests and Carbon Storage	n.d.	P00000007206-P00000007219	Mike Ryan; USDA, Forest Service	https://www.fs.usda.gov/ccrc/print/topics/forests-carbon		
MIL 1 (June 28, 2018)	270-15	Total Carbon Storage in U.S. Forests by State and Ownership Group	21-Jul-14	P00000004497-P00000004498	USDA, Forest Service, Forest Inventory and Analysis Program	https://www.fia.fs.fed.us/Forest%20Carbon/methods/docs/2014/Total%20forest%20carbon20140721.xlsx		
MIL 1 (June 28, 2018)	270-16	U.S. Forest Carbon Calculation Tool: Forest-Land Carbon Stocks and Net Annual Stock Change	8-Jan-10	P00000000794-P00000000831	James E. Smith; USDA, Forest Service	https://www.nrs.fs.fed.us/pubs/gtr/gtr_nrs13R.pdf		
MIL 1 (June 28, 2018)	270-18	The Rising Cost of Wildfire Operations: Effects on the Forest Service's Non-Fire Work	4-Aug-15	P00000004767-P00000004782	USDA, Forest Service	https://www.fs.fed.us/sites/default/files/2015-FireBudget-Report.pdf		
MIL 1 (June 28, 2018)	270-19	Federal Firefighting Costs (Suppression Only)	n.d.	P00000005070	National Interagency Fire Center	https://www.nifc.gov/fireInfo/fireInfo_documents/SuppCosts.pdf.		
MIL 1 (June 28, 2018)	270-20	Forest Service Wildland Fire Suppression Costs Exceed $2 Billion	14-Sep-17	P00000007079-P00000007081	USDA	https://www.usda.gov/media/press-releases/2017/09/14/forest-service-wildland-firesuppression-costs-exceed-2-billion		
MIL 1 (June 28, 2018)	270-21	Climate Change Impacts in the United States: The Third National Climate Assessment	May-14	P00000003301-P00000004141	U.S. Global Change Research Program	http://s3.amazonaws.com/nca2014/low/NCA3_Climate_Change_Impacts_in_the_United%20States_LowRes.pdf?download=1		
MIL 1 (June 28, 2018)	270-22	Science Update: Western Forests, Fire Risk, and Climate Change	Jan-04	P00000005557-P00000005567	Valerie Rapp	https://www.fs.fed.us/pnw/pubs/science-update-6.pdf		
MIL 1 (June 28, 2018)	270-23	Effects of Climatic Variability and Change on Forest Ecosystems: A Comprehensive Science Synthesis for the U.S. Forest Sector	Dec-12	P00000001791-P00000002072	USDA, Forest Service	https://www.usda.gov/oce/climate_change/effects_2012/FS_Climate1114%20opt.pdf		
MIL 1 (June 28, 2018)	270-24	Climate Change and Agriculture in the United States: Effects and Adaptation	Feb-13	P00000002073-P00000002265	C. L. Walthall; USDA	https://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20(02-04-2013)b.pdf		
MIL 1 (June 28, 2018)	270-25	Climate Solutions	n.d.	P00000007220-P00000007221	USDA	https://www.usda.gov/topics/climate-solutions		

MIL 1 (June 28, 2018)	270-26	Carbon Sequestration	n.d.	P00000007222-P00000007223	National Resource Conservation Service	https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_066823.pdf		
MIL 1 (June 28, 2018)	270-32	Grazing Statistical Summary: FY2015	Mar-16	P00000004816-P00000004925	USDA, Forest Service	https://www.fs.fed.us/rangeland-management/documents/grazingstats/2010s/GrazingStatisticalSummaryFY2015.pdf		
MIL 1 (June 28, 2018)	270-33	Agriculture and Forestry Greenhouse Gas Inventory: 1990–2008	Jun-11	P00000005123-P00000005284	USDA	https://www.usda.gov/oce/climate_change/AFGG_Inventory/USDA_GHG_Inv_1990-2008_June2011.pdf		
MIL 1 (June 28, 2018)	270-34	Methane: An Introduction to Emission Sources and Reduction Strategies	18-Nov-16	P00000004955-P00000005005	Richard K. Lattanzio; Congressional Research Service	http://nationalaglawcenter.org/wpcontent/uploads//assets/crs/R43860.pdf		
MIL 1 (June 28, 2018)	270-35	Welcome to Minerals & Geology Management (MGM)	23-Mar-18	P00000007227-P00000007229	USDA, Forest Service	https://www.fs.fed.us/geology/index.html		
MIL 1 (June 28, 2018)	270-36	Challenges Facing Domestic Oil and Gas Development: Review Of Bureau Of Land Management/U.S. Forest Service Ban On Horizontal Drilling On Federal Lands: Hearing Before the H. Subcomm on Energy & Mineral Resources & the H. Subcomm. on Conservation, Energy, & Forestry	8-Jul-11	P00000001180-P00000001267	112th Congress	https://www.gpo.gov/fdsys/pkg/CHRG-112hhrg72151/pdf/CHRG112hhrg72151.pdf		
MIL 1 (June 28, 2018)	270-37	Coal	2-Jan-13	P00000007192-P00000007193	USDA, Forest Service	https://www.fs.fed.us/geology/energyCoal.html		
MIL 1 (June 28, 2018)	270-38	The American Energy Initiative, Part 27: A Focus On Growing Differences For Energy Development On Federal Versus Non–Federal Lands: Hearing Before the Subcomm. on Energy & Power	2-Aug-12	P00000002886-P00000003056	112th Congress	https://www.gpo.gov/fdsys/pkg/CHRG112hhrg82689/pdf/CHRG-112hhrg82689.pdf		
MIL 1 (June 28, 2018)	270-39	Strategic Sustainability Performance Plan	n.d.	P00000001765-P00000001790	USDA			
MIL 1 (June 28, 2018)	270-40	Climate Change Mitigation Strategies in the Forest and Agriculture Sectors	Jun-95	P00000000001-P00000000084	U.S. EPA and U.S. Forest Service			
MIL 1 (June 28, 2018)	270-41	Carbon dioxide effects research and assessment program. A comprehensive plan. Part I. The global carbon cycle and climatic effects of increasing carbon dioxide	Aug-80	P00000010000-P00000010099	David H. Slade, U.S. DOE Office of Health and Environmental Research, Carbon Dioxide and Climate Division	https://www.osti.gov/servlets/purl/5046001		
MIL 1 (June 28, 2018)	270-42	Overview of the Department of Energy Carbon Dioxide Research Program	Feb-85	P00000017171-P00000017177	Michael R. Riches & Frederick A. Koomanoff, U.S. DOE Office of Basic Energy Sciences, Carbon Dioxide Research Division	https://journals.ametsoc.org/doi/pdf/10.1175/1520-0477%281985%29066%3C0152%3AOOTDOE%3E2.0.CO%3B2		
MIL 1 (June 28, 2018)	270-44	U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather	Jul-13	P00000017302-P00000017385	Craig Zamuda, U.S. DOE Office of Policy and International Affairs	https://www.energy.gov/sites/prod/files/2013/07/f2/20130710-Energy-Sector-Vulnerabilities-Report.pdf		
MIL 1 (June 28, 2018)	270-45	Department of Energy Seeks Information on Small-Scale Modular Coal-Based Power Plants of the Future	8-May-18	P00000017981-P00000017983	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/articles/department-energy-seeks-information-small-scale-modular-coal-based-power-plants-future		

MIL 1 (June 28, 2018)	270-46	How to Obtain Authorization to Import and/or Export Natural Gas and LNG	n.d.	P00000017944-P00000017947	U.S. DOE, Office of Fossil Energy	https://energy.gov/fe/services/natural-gas-regulation/how-obtain-authorizationimport-andor-export-natural-gas-and-lng		
MIL 1 (June 28, 2018)	270-47	Long Term Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of March, 16, 2018)	16-Mar-18	P00000017927-P00000017933	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2018/03/f49/Summary%20of%20LNG%20Export%20Applications.pdf		
MIL 1 (June 28, 2018)	270-48	LNG Monthly (YTD – through December 2016)	n.d.	P00000012109-P00000012120	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2017/03/f34/LNG%202016_0.pdf		
MIL 1 (June 28, 2018)	270-50	U.S. Energy Facts Explained: Consumption & Production	19-May-17	P00000017956-P00000017957	U.S. DOE, Energy Information Administration	https://www.eia.gov/energyexplained/?page=us_energy_home		
MIL 1 (June 28, 2018)	270-51	How Much Carbon Dioxide is Produced When Different Fuels Are Burned?	8-Jun-17	P00000017943	U.S. DOE, Energy Information Administration	https://www.eia.gov/tools/faqs/faq.php?id=73&t=11		
MIL 1 (June 28, 2018)	270-52	Strategic Petroleum Reserve	n.d.	P00000017988-P00000017993	U.S. DOE, Office of Fossil Energy	https://energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve		
MIL 1 (June 28, 2018)	270-53	Long Term Strategic Review of the U.S. Strategic Petroleum Reserve: Report to Congress	Aug-16	P00000011652-P00000011774	Ernest J. Moniz, U.S. DOE	https://www.energy.gov/sites/prod/files/2016/09/f33/Long-Term%20Strategic%20Review%20of%20the%20U.%20S.%20Strategic%20Petroleum%20Reserve%20Report%20to%20Congress_0.pdf		
MIL 1 (June 28, 2018)	270-54	Appliance and Equipment Standards Program	n.d.	P00000017934-P00000017939	U.S. DOE Office of Energy Efficiency & Renewable Energy	https://www.energy.gov/eere/buildings/appliance-and-equipment-standards-program		
MIL 1 (June 28, 2018)	270-55	Deep Energy Retrofit Guidance for the Building America Solutions Center	2015	P00000011199-P00000011293	Brennan Less & Iain Walker, U.S. DOE Lawrence Berkeley National Laboratory, Environmental Energy Technologies Division	https://eta.lbl.gov/sites/default/files/publications/brennan_less_-_deep_energy_retrofit_guidance_for_the_building_america_solutions_center.pdf		
MIL 1 (June 28, 2018)	270-56	Energy Research at DOE: Was It Worth It? Energy Efficiency and Fossil Energy Research 1978 to 2000	2001	P00000011806-P00000012046	Committee on Benefits of DOE R&D on Energy Efficiency and Fossil Energy, National Research Council	https://www.nap.edu/catalog/10165/energy-research-at-doe-was-it-worth-it-energy-efficiency		
MIL 1 (June 28, 2018)	270-57	Federal MultiAgency Collaboration on Unconventional Oil and Gas Research: A Strategy for Research & Development	18-Jul-18	P00000011180-P0000001119	U.S. DOE, U.S. DOI, U.S. EPA	https://www.energy.gov/sites/prod/files/2017/04/f34/Multiagency_UOG_Research_Strategy.pdf		
MIL 1 (June 28, 2018)	270-58	FOTW #1022, March 26, 2018: U.S. Crude Oil Exports Skyrocketed in 2016 and 2017	26-Mar-18	P00000017994-P00000017996	U.S. DOE, Office of Energy Efficiency and Renewable Energy, Vehicle Technologies Office	https://www.energy.gov/eere/vehicles/articles/fotw-1022-march-26-2018-us-crude-oil-exports-skyrocketed-2016-and-2017		
MIL 1 (June 28, 2018)	270-59	WindVision: A New Era for Wind Power in the United States	Apr-15	P00000011294-P00000011641	U.S. DOE	https://www.energy.gov/sites/prod/files/WindVision_Report_final.pdf		
MIL 1 (June 28, 2018)	270-60	Methane Hydrate	n.d.	P00000017984-P00000017987	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/fe/science-innovation/oil-gas-research/methane-hydrate		
MIL 1 (June 28, 2018)	270-62	Address at The Future of Energy Global Summit	Apr-18	P00000017948-P00000017949	Rick Perry, U.S. DOE	https://vimeo.com/264052877#t=1260s		

MIL 1 (June 28, 2018)	270-64	US Energy Secretary: CO2 is Not the Primary Control Knob for Climate Change	19-Jun-17	P00000017958-P00000017962	CNBC	https://www.cnbc.com/video/2017/06/19/us-energy-secretary-rick-perry-co2-is-not-the-primary-control-knob-for-climate-change.html		
MIL 1 (June 28, 2018)	270-65	Revolution . . . Now: The Future Arrives for Five Clean Energy Technologies – 2016 Update	Sep-16	P00000011775-P00000011804	Paul Donohoo-Vallett, U.S. DOE Office of Energy Efficiency & Renewable Energy	https://www.energy.gov/sites/prod/files/2016/09/f33/Revolutionâ€Now%202016%20Report_2.pdf		
MIL 1 (June 28, 2018)	270-67	Strategic Plan	May-11	P00000029877-P00000029936	U.S. DOE	https://www.energy.gov/sites/prod/files/2011_DOE_Strategic_Plan_.pdf		
MIL 1 (June 28, 2018)	270-68	Strategic Plan 2014-2018	Mar-14	P00000011148-P00000011179	U.S. DOE	https://www.energy.gov/sites/prod/files/2014/04/f14/2014_dept_energy_strategic_plan.pdf		
MIL 1 (June 28, 2018)	270-69	Statement of Donna R. Fitzpatrick	22-Sep-88	P00000010512-P00000010781	Donna R. Fitzpatrick, U.S. DOE			
MIL 1 (June 28, 2018)	270-70	Perry Welcomes Foreign Investment on All Energy Fronts	20-Jun-17	P00000017963-P00000017965	Peter Behr, E&E News	https://www.eenews.net/stories/1060056274		
MIL 1 (June 28, 2018)	270-71	U.S. Will Be The World's Largest Oil Producer By 2023, Says IEA	5-Mar-18	P00000017978-P00000017979	The White House	https://www.whitehouse.gov/briefings-statements/u-s-will-worlds-largest-oil-producer-2023-says-iea/		
MIL 1 (June 28, 2018)	270-72	An America First Energy Plan	n.d.	P00000011805	The White House	https://www.documentcloud.org/documents/3387865-An-America-First-Energy-Plan-From-WhiteHouse-gov.html		
MIL 1 (June 28, 2018)	270-73	President Donald J. Trump Unleashes America's Energy Potential	27-Jun-17	P00000017966-P00000017970	The White House	https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-unleashes-americas-energy-potential/		
MIL 1 (June 28, 2018)	270-74	President Donald J. Trump's Six Months of America First	20-Jul-17	P00000017971-P00000017977	The White House	https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-six-months-america-first/		
MIL 1 (June 28, 2018)	270-75	Statement from the Press Secretary on Fuel-Secure Power Facilities	1-Jun-18	P00000017980	The White House	https://www.whitehouse.gov/briefings-statements/statement-press-secretary-fuel-secure-power-facilities/		
MIL 1 (June 28, 2018)	270-76	Presidential Permit Review for Cross-Border Pipelines & Electric Transmission	19-Apr-17	P00000020356-P00000020376	Congressional Research Service	https://fas.org/sgp/crs/misc/R44140.pdf		
MIL 1 (June 28, 2018)	270-77	Presidential Memorandum Regarding Construction of the Keystone XL Pipeline	24-Jan-17	P00000020399-P00000020401	Office of the President	https://www.whitehouse.gov/presidential-actions/presidential-memorandum-regarding-construction-keystone-xl-pipeline/		
MIL 1 (June 28, 2018)	270-78	Presidential Permits for Border Crossing Energy Facilities	1-Aug-17	P00000020377-P00000020387	Congressional Research Service	https://fas.org/sgp/crs/misc/R43261.pdf		
MIL 1 (June 28, 2018)	270-79	Bureau of Energy Resources	n.d.	P00000020414-P00000020416	U.S. DOS	https://www.state.gov/e/enr/index.htm		
MIL 1 (June 28, 2018)	270-80	Press Releases, "Central American Senior-Level Natural Gas Policy and Investment Roundtable,"	16-Apr-18	P00000020417-P00000020418	U.S. DOS	https://www.state.gov/r/pa/prs/ps/2018/04/280511.htm		
MIL 1 (June 28, 2018)	270-81	News & Events, Remarks by DAS Sandra Oudkirk, Bureau of Energy Resources, at Martens Centre in Brussels (March 20, 2018)	20-Mar-18	P00000020417-P00000020418	U.S. DOS	https://useu.usmission.gov/remarks-das-sandra-oudkirk-bureau-energy-resources-martens-centre-brussels/		
MIL 1 (June 28, 2018)	270-82	John McCarrick, Deputy Assistant Sec., Remarks at the U.S. Gas Infrastructure Exports Initiative Launch Event	17-Nov-17	P00000020412-P00000020413	U.S. DOS	https://www.state.gov/e/enr/rls/2017/275826.htm		

MIL 1 (June 28, 2018)	270-83	Remarks at the Platts 40th Coal Marketing Conference	26-Sep-17	P00000020419-P00000020423	U.S. DOS	https://www.state.gov/e/enr/rls/2017/274576.htm		
MIL 1 (June 28, 2018)	270-84	Three Presidential Permits Issued for U.S-Mexico Pipelines	29-Jun-17	P00000020424-P00000020425	U.S. DOS	https://www.state.gov/r/pa/prs/ps/2017/06/272288.htm		
MIL 1 (June 28, 2018)	270-85	Issuance of Presidential Permit to TransCanada for Keystone XL Pipeline	24-Mar-17	P00000020426-P00000020427	U.S. DOS	https://www.state.gov/r/pa/prs/ps/2017/03/269074.htm		
MIL 1 (June 28, 2018)	270-86	"Acting Special Envoy Mary Bruce Warlick's Remarks for Petroleum Equipment and Services Association Members and Foreign and Civil Service Oil and Gas Industry Training Session Participants," (Feb. 8, 2017)	8-Feb-17	P00000020428-P00000020431	U.S. DOS	https://www.state.gov/e/enr/rls/2017/268180.htm		
MIL 1 (June 28, 2018)	270-87	Office of Global Change, Remarks, Briefings, Reports and Releases	16-Nov-17	P00000020432	U.S. DOS	https://www.state.gov/e/oes/climate/rmks/index.htm		
MIL 1 (June 28, 2018)	270-88	FY 2014 Climate Change Adaptation Plan (unclassified)	n.d.	P00000020333-P00000020355	U.S. DOS	https://www.state.gov/documents/organization/233779.pdf		
MIL 1 (June 28, 2018)	270-89	Observations by the United States of America on the Relationship Between Climate Change and Human Rights	n.d.	P00000020325-P00000020332	U.S. DOS	https://www.state.gov/documents/organization/138855.pdf		
MIL 1 (June 28, 2018)	270-92	Second Conference of the Parties Framework Convention on Climate Change, Geneva Switzerland (July 17, 1996)	17-Jul-96	P00000037883-P00000037887	The Honorable Timothy E. Wirth, Under Secretary for Global Affairs on behalf of the United States of America			
MIL 1 (June 28, 2018)	270-93	Climate Adaptation Plan: Ensuring Transportation Infrastructure and System Resilience 5–6 (2014),	2014	P00000028083-P00000028111	U.S. DOT	https://www.transportation.gov/sites/dot.dev/files/docs/DOT%20Adaptation%20Plan.pdf		
MIL 1 (June 28, 2018)	270-94	Transportation's Role in Reducing U.S. Greenhouse Gas Emissions: Volume 1 Synthesis Report	Apr-10	P00000028491-P00000029095	U.S. DOT	N/A		
MIL 1 (June 28, 2018)	270-95	Sources of Greenhouse Gas Emissions	n.d.	P00000029759-P00000029775	U.S. EPA	https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions		
MIL 1 (June 28, 2018)	270-96	Research, Development, and Technology Strategic Plan	Dec-16	P00000026778-P00000026909	U.S. DOT	https://www.transportation.gov/sites/dot.gov/files/docs/USDOT-RD%26T-Strategic-Plan-Final-011117.pdf		
MIL 1 (June 28, 2018)	270-97	March 2018: Monthly Energy Review	27-Mar-18	P00000027839-P00000028082	U.S. EIA	https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf		
MIL 1 (June 28, 2018)	270-98	Transportation Energy Data Book	Dec-17	P00000027319-P00000027718	Oak Ridge National Lab	https://cta.ornl.gov/data/index.shtml		
MIL 1 (June 28, 2018)	270-99	Use of Energy in the United States Explained	n.d.	P00000028377-P00000028378	U.S. EIA	na		
MIL 1 (June 28, 2018)	270-100	Transportation Statistics Annual Report	2016	P00000026910-P00000027155	U.S. DOT, Bureau of Transportation Statistics,	https://www.bts.gov/sites/bts.dot.gov/files/docs/TSAR_2016.pdf		
MIL 1 (June 28, 2018)	270-102	Power Sector Carbon Dioxide Emissions Fall Below Transportation Sector Emissions	19-Dec-17	P00000027314-P00000027316	U.S. EIA	https://www.eia.gov/todayinenergy/detail.php?id=34192		
MIL 1 (June 28, 2018)	270-104	Carbon Intensity of Energy Use is Lowest in U.S. and Electric Power Sectors,	1-May-17	P00000027317-P00000027318	U.S. EIA	https://www.eia.gov/todayinenergy/detail.php?id=31012		
MIL 1 (June 28, 2018)	270-105	Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2017	Jan-18	P00000028212-P00000028369	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100TGDW.pdf		
MIL 1 (June 28, 2018)	270-108	Fast Facts: U.S. Transportation Sector Greenhouse Gas Emissions 1990–2015	Jul-17	P00000028476-P00000028480	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100S7NK.pdf		

MIL 1 (June 28, 2018)	270-109	Use of Energy in the United States Explained: Energy Use for Transportation	17-May-17	P00000028375-P00000028376	U.S. EIA	https://www.eia.gov/energyexplained/?page=us_energy_transportation#tab2		
MIL 1 (June 28, 2018)	270-111	2016 Strategic Sustainability Performance Plan	Jun-16	P00000028379-P00000028467	U.S. DOT	https://cms.dot.gov/sites/dot.gov/files/2016%20DOT%20SSPP%20Final_Complete_Sept_2016.pdf.		
MIL 1 (June 28, 2018)	270-113	Corporate Average Fuel Economy (CAFE) Standards	n.d.	P00000028468-P00000028470	U.S. DOT	https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economy-cafe-standards		
MIL 1 (June 28, 2018)	270-114	Information about Corporate Average Fuel Economy (CAFE) Standards	Feb-10	P00000029776	U.S. DOT	https://www.nhtsa.gov/staticfiles/laws_regs/pdf/811286.pdf		
MIL 1 (June 28, 2018)	270-115	Transportation Energy Data Book	Dec-17	P00000027319-P00000027718	U.S. DOT	https://cta.ornl.gov/data/index.shtml		
MIL 1 (June 28, 2018)	270-119	Table A-22: Long-Distance Trips and Trip Miles by Mode, in Millions	20-May-17	P00000029777-P00000029778	Bureau of Transportation Statistics	https://www.bts.gov/archive/publications/highlights_of_the_2001_national_household_travel_survey/table_a22		
MIL 1 (June 28, 2018)	270-120	Supplemental Table A: Means of Transportation by Selected Characteristics: 2009	2009	P00000026461-P00000026465	U.S. Census Bureau	https://www2.census.gov/programs-surveys/commuting/tables/2009/acs-15/means-of-transportation.pdf		
MIL 1 (June 28, 2018)	270-121	Public Transportation's Role in Responding to Climate Change	Jan-10	P00000026758-P00000026777	U.S. DOT	https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/PublicTransportationsRoleInRespondingToClimateChange2010.pdf		
MIL 1 (June 28, 2018)	270-122	Strategies for Integrating Electric Vehicles into the Grid	Feb-18	P00000027264-P00000027313	U.S. DOT	https://www.fhwa.dot.gov/environment/sustainability/energy/publications/ev_deployment/fhwahep15021.pdf		
MIL 1 (June 28, 2018)	270-123	Feasibility and Implications of Electric Vehicle (EV) Deployment and Infrastructure Development	Jan-15	P00000026517-P00000026757	U.S. DOT	https://www.fhwa.dot.gov/environment/sustainability/energy/publications/ev_deployment/fhwahep15021.pdf		
MIL 1 (June 28, 2018)	270-125	FHWA NHTS Brief: Electric Vehicle Feasibility	Jul-16	P00000028370-P00000028373	U.S. DOT	https://nhts.ornl.gov/briefs/EVFeasibility20160701.pdf		
MIL 1 (June 28, 2018)	270-128	NHTSA Tire Fuel Efficiency Consumer Information Program Development: Phase 1 – Evaluation of Laboratory Test Protocols	May-09	P00000026357-P00000026460	U.S. DOT	https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/fmvss/Laboratory_Test_Protocols.pdf		
MIL 1 (June 28, 2018)	270-129	Tire Fuel Efficiency Consumer Information—Part 2	2016	P00000029779-P00000029780	Office of Info. & Reg. Affairs	https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201610&RIN=2127-AK76		
MIL 1 (June 28, 2018)	270-130	Gas Pipeline Miles by System Type – 2017	2017	P00000028374	PHMSA	https://www.phmsa.dot.gov/faqs/general-pipeline-faqs		
MIL 1 (June 28, 2018)	270-132	U.S. Natural Gas Regulatory Authorities	n.d.	P00000029786-P00000029787	U.S. EIA	https://www.eia.gov/naturalgas/archive/analysis_publications/ngpipeline/regulatory.html		
MIL 1 (June 28, 2018)	270-133	General Pipeline FAQs	14-Feb-18	P00000029781-P00000029785	PHMSA	https://www.phmsa.dot.gov/faqs/general-pipeline-faqs		
MIL 1 (June 28, 2018)	270-134	Annual Report Mileage for Natural Gas Transmission & Gathering Systems	4-Apr-18	P00000028471-P00000028473	PHMSA	https://www.phmsa.dot.gov/data-and-statistics/pipeline/annual-report-mileage-natural-gas-transmission-gathering-systems		
MIL 1 (June 28, 2018)	270-135	Annual Report Mileage for Gas Distribution System	4-Apr-18	P00000029096-P00000029098	PHMSA	https://www.phmsa.dot.gov/data-and-statistics/pipeline/annual-report-mileage-gas-distribution-systems		
MIL 1 (June 28, 2018)	270-136	Underground Natural Gas Storage	n.d.	P00000029099-P00000029100	PHMSA	https://primis.phmsa.dot.gov/ung/index.htm		

MIL 1 (June 28, 2018)	270-137	Natural Gas Consumption (Billion Cubic Feet)	n.d.	P00000029805-P00000029809	Bureau of Transportation Statistics	https://www.transtats.bts.gov/osea/seasonaladjustment/?PageVar=NATURAL_GAS		
MIL 1 (June 28, 2018)	270-138	Pipeline Spills	Jun-18	P00000029804	PHMSA	https://hip.phmsa.dot.gov/ (last visited Apr. 25, 2018) (access through search in Pipeline Data Mart). https://www.phmsa.dot.gov/data-and-statistics/pipeline/national-pipeline-performance-measures (access through "Accidents Impacting People or the Environment" link)		
MIL 1 (June 28, 2018)	270-140	Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2016	2018	P00000029104-P00000029758	U.S. EPA	https://www.epa.gov/sites/production/files/2018-01/documents/2018_complete_report.pdf		
MIL 1 (June 28, 2018)	270-141	Overview	n.d.	P00000028474-P00000028475	Fed. Railroad Admin	https://www.fra.dot.gov/Page/P0351		
MIL 1 (June 28, 2018)	270-142	Freight Facts and Figures 2017	2017	P00000027156-P00000027263	U.S. DOT	https://www.bts.gov/sites/bts.dot.gov/files/docs/FFF_2017.pdf		
MIL 1 (June 28, 2018)	270-143	Movements of Crude Oil and Selected Products by Rail	n.d.	P00000028481-P00000028482	U.S. EIA	https://www.eia.gov/dnav/pet/pet_move_railNA_a_EPC0_RAIL_mbbl_a.htm		
MIL 1 (June 28, 2018)	270-144	Transporting Crude Oil by Rail: State and Federal Action	30-Oct-15	P00000028483-P00000028490	Daniel Shea, Kristy Hartman, & Sijia Qiu	http://www.ncsl.org/research/energy/transporting-crude-oil-by-rail-state-and-federal-action.aspx		
MIL 1 (June 28, 2018)	270-146	Aviation and Climate Change: Aircraft Emissions Expected to Grow, but Technological and Operational Improvements and Government Policies Can Help Control Emission	Jun-09	P00000028112-P00000028211	U.S. Government Accountability Office			
MIL 1 (June 28, 2018)	270-147	Airline Fuel Cost and Consumption (U.S. Carriers – Scheduled)	2018	P00000029788-P00000029795	U.S. DOT	https://www.transtats.bts.gov/fuel.asp		
MIL 1 (June 28, 2018)	270-148	Aviation Emissions, Impacts & Mitigation: A Primer	Jan-15	P00000026475-P00000026516	Fed. Aviation Admin	https://www.faa.gov/regulations_policies/policy_guidance/envir_policy/media/Primer_Jan2015.pdf		
MIL 1 (June 28, 2018)	270-149	Aviation Environmental and Energy Policy Statement	Jul-12	P00000026466-P00000026474	Fed. Aviation Admin	https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/media/FAA_EE_Policy_Statement.pdf		
MIL 1 (June 28, 2018)	270-150	Busting Myths about the FAA and Unmanned Aircraft	n.d.	P00000029101-P00000029103	Fed. Aviation Admin	https://www.faa.gov/news/updates/?newsId=76240		
MIL 1 (June 28, 2018)	270-151	Deepwater Port Licensing Program: Welcome to the Maritime Administration's Deepwater Port Licensing for LNG and Oil Webpage	n.d.	P00000029796-P00000029797	MARAD	https://www.marad.dot.gov/ports/office-of-deepwater-ports-and-offshore-activities/		
MIL 1 (June 28, 2018)	270-152	Deepwater Port Licensing Program: Approved Applications and Operational Facilities	n.d.	P00000029798-P00000029803	MARAD	https://www.marad.dot.gov/ports/office-of-deepwater-ports-and-offshore-activities/		
MIL 1 (June 28, 2018)	270-154	Public Land Statistics 2015	May-16	P00000024610-P00000024885	U.S. DOI, U.S. BLM	https://www.blm.gov/sites/blm.gov/files/documents/files/Public%20Land%20Statistics2015%20%281%29.pdf		
MIL 1 (June 28, 2018)	270-156	New Energy Frontier	13-Jan-12	P00000020743-P00000020756	U.S. DOI	https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/FY2013_BIB_DH027.pdf		

MIL 1 (June 28, 2018)	270-157	How it Works: Coal	n.d.	P00000024957-P00000024962	U.S. DOI, Natural Resources Revenue Data	https://revenuedata.doi.gov/how-it-works/coal/		
MIL 1 (June 28, 2018)	270-158	DOI Secretarial Order 3338: Discretionary Programmatic Environmental Impact Statement to Modernize the Federal Coal Program	15-Jan-16	P00000024079-P00000024088	U.S. DOI	https://www.blm.gov/sites/blm.gov/files/programs_energyandminerals_coalSO3338.pdf		
MIL 1 (June 28, 2018)	299-1	Energy Fast Facts	n.d.	P00000024963-P00000024967	U.S. DOI	https://www.doi.gov/energy/fast-facts		
MIL 1 (June 28, 2018)	299-2	Coal Data Browser	n.d.	P00000024968-P00000024969	U.S. EIA	https://www.eia.gov/electricity/data/browser		
MIL 1 (June 28, 2018)	299-3	Electricity Data Browser	n.d.	P00000024940-P00000024941	U.S. EIA	https://www.eia.gov/electricity/data/browser		
MIL 1 (June 28, 2018)	299-4	2 Final Environmental Impact Statement: Eastern Powder River Coal Basin of Wyoming	n.d.	P00000024110-P00000024327	U.S. BLM	https://eplanning.blm.gov/epl-frontoffice/projects/nepa/67005/82492/98469/EPRB_FEIS_Vol2.pdf		
MIL 1 (June 28, 2018)	299-5	BLM Oil and Gas Lease Sales Generate $360 Million in 2017: Total Is Highest in Nearly a Decade	31-Jan-18	P00000024970-P00000024972	U.S. BLM	https://www.blm.gov/press-release/blm-oil-andgas-lease-sales-generate-360-million-2017.		
MIL 1 (June 28, 2018)	299-6	Press Release: Secretary Zinke Announces Plan for Unleashing America's Offshore Oil and	4-Jan-18	P00000024973-P00000024979	U.S. DOI	https://www.doi.gov/pressreleases/secretary-zinke-announces-plan-unleashing-americasoffshore-oil-and-gas-potential.		
MIL 1 (June 28, 2018)	299-8	Coal	n.d.	P00000024895-P00000024899	U.S. BLM	https://www.blm.gov/programs/energy-and-minerals/coal		
MIL 1 (June 28, 2018)	299-9	Coal Data	n.d.	P00000024595	U.S. BLM	https://www.blm.gov/programs/energy-and-minerals/coal/coal-data		
MIL 1 (June 28, 2018)	299-10	Instruction Memorandum No. 2018-034: Updating Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews	31-Jan-18	P00000024980-P00000024989	U.S. BLM	https://www.blm.gov/policy/im-2018-034.		
MIL 1 (June 28, 2018)	299-11	Oil and Gas Statistics	n.d.	P00000025010	U.S. BLM	https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/oil-and-gas-statistics		
MIL 1 (June 28, 2018)	299-13	U.S. Crude Oil and Natural Gas Production in Federal and Nonfederal Areas	22-Jun-16	P00000024096-P00000024109	Marc Humphries; Congressional Service	https://fas.org/sgp/crs/misc/R42432.pdf.		
MIL 1 (June 28, 2018)	299-14	BLM Releases Statistics on Oil and Gas Activity on Federal, Indian Lands	11-Apr-16	P00000025011-P00000025014	U.S. DOI, U.S. BLM	https://www.blm.gov/press-release/blmreleases-statistics-oil-and-gas-activity-federal-indian-lands-0.		
MIL 1 (June 28, 2018)	299-16	Interior Department Supported $106 Billion in Recreation, Conservation, Water and Renewable Energy Investments, Supporting More than 860,000 Jobs in FY 2015	17-Jun-16	P00000024900-P00000024906	U.S. DOI	https://www.doi.gov/pressreleases/interior-department-supported106-billion-recreation-conservation-water-and-renewable.		
MIL 1 (June 28, 2018)	299-17	Total Number of Leases in Effect	n.d.	P00000024585-P00000024594	U.S. DOI	https://www.blm.gov/sites/blm.gov/files/oilandgas_ogstatistics_t2totalnumberleasesineffect.xlsx		
MIL 1 (June 28, 2018)	299-18	Sales of Fossil Fuels Produced from Federal and Indian Lands, FY 2003 through FY 2014	Jul-15	P00000024043-P00000024078	U.S. EIA	https://www.eia.gov/analysis/requests/federallands/pdf/eiafederallandsales.pdf.		
MIL 1 (June 28, 2018)	299-20	Annual Summary of Production for Entire Region 2005-2018	6-Mar-18	P00000024886	U.S. DOI, Bureau of Safety and Environmental Enforcement, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Annual%20Production%202005%20-%20Present.pdf.		

MIL 1 (June 28, 2018)	299-21	Annual Summary of Production for Entire Region 2000-2004	4-May-06	P00000020449	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Annual%20Production%202000%20-%202004.pdf.		
MIL 1 (June 28, 2018)	299-22	Annual Summary of Production for Entire Region 1995-1999	4-May-06	P00000020450	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Annual%20Production%201995%20-%201999.pdf.		
MIL 1 (June 28, 2018)	299-23	Annual Summary of Production for Entire Region 1989-1994	14-Oct-97	P00000024887	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201989-1994.pdf.		
MIL 1 (June 28, 2018)	299-24	Annual Summary of Production for Entire Region 1983-1988	14-Oct-97	P00000024888	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201983-1988.pdf.		
MIL 1 (June 28, 2018)	299-25	Annual Summary of Production for Entire Region 1977-1982	14-Oct-97	P00000024889	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201977-1982.pdf.		
MIL 1 (June 28, 2018)	299-26	Annual Summary of Production for Entire Region 1971-1976	14-Oct-97	P00000024890	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201971- 1976.pdf.		
MIL 1 (June 28, 2018)	299-27	Annual Summary of Production for Entire Region 1965-1970	14-Oct-97	P00000024891	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201965-1970.pdf.		
MIL 1 (June 28, 2018)	299-28	Annual Summary of Production for Entire Region 1959-1964	14-Oct-97	P00000024892	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201959-1964.pdf.		
MIL 1 (June 28, 2018)	299-29	Annual Summary of Production for Entire Region 1953-1958	14-Oct-97	P00000024893	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201953-1958.pdf.		
MIL 1 (June 28, 2018)	299-30	Annual Summary of Production for Entire Region 1947-1952	14-Oct-97	P00000024894	U.S. DOI, Minerals Management Service, Gulf of Mexico Region	https://www.data.boem.gov/Production/Files/Region%20Production%20by%20Year%201947-1952.pdf.		
MIL 1 (June 28, 2018)	299-32	Remarks by President Trump at Signing Executive Order to Create Energy Independence	28-Mar-17	P00000024990-P00000024994	The White House	https://www.whitehouse.gov/briefings-statements/remarkspresident-trump-signing-executive-order-create-energy-independence		
MIL 1 (June 28, 2018)	299-33	2019 Beaufort Sea OCS Oil and Gas Lease Sale	n.d.	P00000024995	Bureau of Ocean Energy Management	https://www.boem.gov/beaufort-call/		
MIL 1 (June 28, 2018)	299-34	BOEM to Extend Call for Information and Nominations for Proposed 2019 Beaufort Sea Lease Sale	25-Apr-18	P00000024996	Bureau of Ocean Energy Management	https://www.boem.gov/press04252018/.		
MIL 1 (June 28, 2018)	299-36	President Trump Takes Action to Expedite Priority Energy and Infrastructure Projects	24-Jan-17	P00000025001-P00000025004	The White House	https://www.whitehouse.gov/briefings-statements/president-trump-takesaction-expedite-priority-energy-infrastructure-projects/.		

MIL 1 (June 28, 2018)	299-37	Livestock Grazing on Public Lands	n.d.	P00000024913-P00000024916	U.S. DOI, U.S. BLM	https://www.blm.gov/programs/natural-resources/rangelands-and-grazing/livestock-grazing		
MIL 1 (June 28, 2018)	299-39	Public Land Statistics 2014	May-15	P00000023763-P00000024042	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls14/pls2014.pdf.		
MIL 1 (June 28, 2018)	299-40	Public Land Statistics 2013	2014	P00000037603-P00000037882	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls13/pls2013.pdf.		
MIL 1 (June 28, 2018)	299-41	Public Land Statistics 2012	Jun-13	P00000023479-P00000023762	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls12/pls2012.pdf		
MIL 1 (June 28, 2018)	299-42	Public Land Statistics 2011	May-12	P00000020757-P00000021042	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls11/pls2011.pdf.		
MIL 1 (June 28, 2018)	299-43	Public Land Statistics 2010	Jun-11	P00000020453-P00000020742	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls10/pls10.pdf.		
MIL 1 (June 28, 2018)	299-44	Public Land Statistics 2009	May-10	P00000021043-P00000021317	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls09/pls09.pdf.		
MIL 1 (June 28, 2018)	299-45	Public Land Statistics 2008	May-09	P00000021318-P00000021587	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls08/pls08.pdf.		
MIL 1 (June 28, 2018)	299-46	Public Land Statistics 2007	May-08	P00000021588-P00000021854	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls07/pls07.pdf.		
MIL 1 (June 28, 2018)	299-47	Public Land Statistics 2006	Apr-07	P00000021855-P00000022118	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls06/pls06.pdf.		
MIL 1 (June 28, 2018)	299-48	Public Land Statistics 2005	Apr-05	P00000022119-P00000022379	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls05/pls05.pdf		
MIL 1 (June 28, 2018)	299-49	Public Land Statistics 2004	Apr-05	P00000022380-P00000022646	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls04/pls04.pdf		
MIL 1 (June 28, 2018)	299-50	Public Land Statistics 2003	n.d.	P00000022647-P00000022931	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls03/pls03.pdf.		
MIL 1 (June 28, 2018)	299-51	Public Land Statistics 2002	n.d.	P00000022932-P00000023208	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls02/pls02.pdf.		
MIL 1 (June 28, 2018)	299-52	Public Land Statistics 2001	n.d.	P00000023209-P00000023478	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls01/pls01.pdf		
MIL 1 (June 28, 2018)	299-53	Public Land Statistics 1999	Mar-00	P00000024917-P00000024923	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls99/index.html.		
MIL 1 (June 28, 2018)	299-54	Public Land Statistics 1998	Mar-99	P00000024924-P00000024929	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls98/index.html		
MIL 1 (June 28, 2018)	299-55	Public Land Statistics 1997	Mar-98	P00000024930-P00000024935	U.S. DOI, U.S. BLM	https://www.blm.gov/public_land_statistics/pls97/index.html		
MIL 1 (June 28, 2018)	299-56	Public Land Statistics 1996	31-Dec-96	P00000024936-P00000024939	U.S. DOI, U.S. BLM	https://www.gpo.gov/fdsys/pkg/GPO-DOI-BLM-PUBLAND-1996/content-detail.html		
MIL 1 (June 28, 2018)	299-58	Wildlife Refuge Oil and Gas Activity	31-Oct-01	P00000020433-P00000020448	U.S. Government Accountability Office	http:www.gao.gov/new.items/d0264r.pdf.		
MIL 1 (June 28, 2018)	299-59	Non-Federal Oil and Gas Activities on National Wildlife Refuge System Lands	Nov-16	P00000024328-P00000024329	U.S. Fish and Wildlife Services	https://www.fws.gov/refuges/oil-and-gas/pdfs/Oil-Gas-Fact-sheet.pdf.		
MIL 1 (June 28, 2018)	299-60	Fact Sheet on Methane and Waste Prevention Rule	n.d.	P00000024330-P00000024333	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/methane_waste_prevention_rule_factsheet.pdf.		

MIL 1 (June 28, 2018)	299-61	Regulatory Impact Analysis for: Revisions to 43 CFR 3100 (Onshore Oil and Gas Leasing) and 43 CFR 3600 (Onshore Oil and Gas Operations); Additions of 43 CFR 3178 (Royalty-Free Use of Lease Production) and 43 CFR 3179 (Waste Prevention and Resource Conservation)	10-Nov-16	P00000024334-P00000024500	U.S. DOI, U.S. BLM	https://www.regulations.gov/contentStreamer?documentId=BLM-2016-0001-9127&contentType=pdf.		
MIL 1 (June 28, 2018)	299-62	OCS Oil and Natural Gas: Potential Lifecycle Greenhouse Gas Emissions and Social Cost of Carbon	Nov-16	P00000024501-P00000024556	E. Wolvovsky & W. Anderson; U.S. DOI, Bureau of Ocean Energy Management	https://www.boem.gov/OCS-Report-BOEM-2016-065/		
MIL 1 (June 28, 2018)	299-64	Powering Up Renewable Energy on Public Lands	Sep-16	P00000024943-P00000024951	U.S. DOI	https://www.doi.gov/blog/powering-renewable-energy-public-lands.		
MIL 1 (June 28, 2018)	299-65	Wind Energy Fact Sheet	Mar-18	P00000024942	U.S. DOI, U.S. BLM	https://www.blm.gov/sites/blm.gov/files/energy_renewablewindfactsheet.pdf.		
MIL 1 (June 28, 2018)	299-66	Solar Energy Fact Sheet	Mar-18	P00000037602	U.S. DOI, U.S. BLM	https://www.blm.gov/sites/blm.gov/files/energy_renewablesolarfactsheet.pdf.		
MIL 1 (June 28, 2018)	299-68	The U.S. Geological Survey's Gas Hydrates Project	Jan. 2018	P00000024606-P00000024609	U.S. Geological Survey	https://pubs.usgs.gov/fs/2017/3079/fs20173079.pdf.		
MIL 1 (June 28, 2018)	299-69	Gas Hydrates on Alaska's North Slope	11-Nov-08	P00000025005	Jessica Robertson; U.S. Geological Survey	https://www.usgs.gov/media/audio/gas-hydrates-alaskas-north-slope.		
MIL 1 (June 28, 2018)	299-70	News Release: Gas Hydrates on Alaska's North Slope Hold One of Nation's Largest Deposits of Technically Recoverable Natural Gas	12-Nov-08	P00000024952-P00000024953	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/archive/news/archive/08_News_Releases/111208.html.		
MIL 1 (June 28, 2018)	299-71	New Interior Department Survey Shows Significant Increase in Recoverable Energy Resources in Federal, State and Tribal Lands and Waters in Alaska	22-Dec-17	P00000024954-P00000024956	U.S. Geological Survey	https://www.usgs.gov/news/new-interior-department-survey-shows-significant-increaserecoverable-energy-resources-federal.		
MIL 1 (June 28, 2018)	299-72	Issue Summary: Energy Management in DOD Facilities	n.d.	P00000019919	Government Accountability Office	https://www.gao.gov/key_issues/energy_management_dod_facilities/issue_summary		
MIL 1 (June 28, 2018)	299-74	Annual Energy Management Report Fiscal Year 2015	Jun-16	P00000019314-P00000019464	U.S. DOD	https://www.acq.osd.mil/eie/downloads/ie/fy%202015%20aemr.pdf		
MIL 1 (June 28, 2018)	299-75	Defense	n.d.	P00000020214-P00000020217	National Renewable Energy Lab.	https://www.nrel.gov/workingwithus/defense.html		
MIL 1 (June 28, 2018)	299-76	Comprehensive Annual Energy Data and Sustainability Performance	n.d.	P00000020301-P00000020302	U.S. DOE	http://ctsedwweb.ee.doe.gov/Annual/Report/TotalSiteDeliveredEnergyUseInAllEndUseSectorsByFederalAgencyBillionBtu.aspx		
MIL 1 (June 28, 2018)	299-77	Today in Energy	5-Feb-15	P00000020218-P00000020219	U.S. EIA	https://www.eia.gov/todayinenergy/detail.php?id=19871 (February 5, 2015)		
MIL 1 (June 28, 2018)	299-79	Implications for US National Security of Anticipated Climate Change	21-Sep-16	P00000019557-P00000019569	National Intelligence Council	https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/Implications_for_US_National_Security_of_Anticipated_Climate_Change.pdf		
MIL 1 (June 28, 2018)	299-80	Screening-Level Assessment of Projects with Respect to Sea Level Change	Jun-15	P00000019290-P00000019313	U.S. Army Corps of Engineers	http://www.corpsclimate.us/docs/CESL_Screening_level_assessment_sea_level_change_JUN_2015.pdf		
MIL 1 (June 28, 2018)	299-81	Climate Preparedness and Resilience: Climate Change Adaptation	n.d.	P00000019920-P00000019921	U.S. Army Corps of Engineers	http://www.corpsclimate.us/ccaceslcurves.cfm		

MIL 1 (June 28, 2018)	299-84	Climate-Related Risk to DoD Infrastructure: Initial Vulnerability Assessment Survey (SLVAS) Report 2 (2018)	Jan-18	P00000019827-P00000019858	U.S. DOD	https://climateandsecurity.files.wordpress.com/2018/01/tab-b-slvas-report-1-24-2018.pdf		
MIL 1 (June 28, 2018)	299-85	Secretary of Defense Speech, Conference of Defense Ministers of the Americas, As Prepared For Delivery by Secretary of Defense Chuck Hagel, Arequipa, Peru, October 13, 2014	13-Oct-14	P00000020220-P00000020224	U.S. DOD	https://www.defense.gov/News/Speeches/Speech-View/Article/605617/		
MIL 1 (June 28, 2018)	299-89	The Joint Operating Environment 2010	18-Feb-10	P00000018694-P00000018769	U.S. Joint Forces Command	https://fas.org/man/eprint/joe2010.pdf		
MIL 1 (June 28, 2018)	299-91	Climate Change Adaptation: DOD Needs to Better Incorporate Adaptation into Planning and Collaboration at Overseas Installations	2017	P00000019730-P00000019812	U.S. Government Accountability Office	https://www.gao.gov/assets/690/688323.pdf		
MIL 1 (June 28, 2018)	299-92	Quadrennial Defense Review Report	Feb-10	P00000018566-P00000018693	U.S. DOD	https://www.defense.gov/Portals/1/features/defenseReviews/QDR/QDR_as_of_29JAN10_1600.pdf		
MIL 1 (June 28, 2018)	299-93	Quadrennial Defense Review 2014	4-Mar-14	P00000019062-P00000019149	U.S. DOD	https://www.defense.gov/Portals/1/features/defenseReviews/QDR/2014_Quadrennial_Defense_Review.pdf		
MIL 1 (June 28, 2018)	299-94	2014 Climate Change Adaptation Roadmap	2014	P00000019221-P00000019240	U.S. DOD	https://www.acq.osd.mil/eie/Downloads/CCARprint_wForward_e.pdf		
MIL 1 (June 28, 2018)	299-85	Response to Congressional Inquiry on National Security Implications of Climate-Related Risks and a Changing Climate	23-Jul-15	P00000019276-P00000019289	U.S. DOD	http://archive.defense.gov/pubs/150724-congressional-report-on-national-implications-of-climate-change.pdf?source=govdelivery		
MIL 1 (June 28, 2018)	299-98	Summary of the 2018 National Defense Strategy of the United States of America	2018	P00000019813-P00000019826	U.S. DOD	https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf		
MIL 1 (June 28, 2018)	299-99	City of Imperial Beach, et al. v. Chevron Corp., et al.		P00000019690-P00000019727	N.D. California	No. 4:17-cv-04934 (N.D. Cal.) (filed Aug. 24, 2017)		
MIL 1 (June 28, 2018)	299-100	Relocation Planning Project Master Plan: Kivalina, Alaska	Jun-06	P00000018329-P00000018464	U.S. Army Corps of Engineers	http://www.poa.usace.army.mil/Portals/34/docs/civilworks/reports/KivalinaMasterPlanMainReportJune2006.pdf		
MIL 1 (June 28, 2018)	299-101	Alaska District, AVETA Report Summary – Shishmaref, Alaska	n.d.	P00000018486-P00000018491	U.S. Army Corps of Engineers	http://www.poa.usace.army.mil/Portals/34/docs/civilworks/BEA/Shishmaref_Final%20Report.pdf		
MIL 1 (June 28, 2018)	299-102	R44880, Oil and Natural Gas Pipelines: Role of the U.S. Army Corps of Engineers		P00000019657-P00000019689	Congressional Research Service	https://www.everycrsreport.com/files/20170628_R44880_1105a52fd838d2e8d342c75e49199c8bcdeb6607.pdf		
MIL 1 (June 28, 2018)	299-103	Global Climate Change and Implications for the United States Navy (May 1990)	May-90	P00000035548-P00000035634	U.S. Naval War College	http://documents.theblackvault.com/documents/weather/climatechange/globalclimatechange-navy.pdf.		
MIL 1 (June 28, 2018)	299-104	Corps Grants Easement to Dakota Access, LLC, Release No. 17-015	8-Feb-17	P00000020259	U.S. Army Corps of Engineers	http://www.nwo.usace.army.mil/Media/News-Releases/Article/1077134/corps-grants-easement-to-dakota-access-llc/		
MIL 1 (June 28, 2018)	299-106	Sustainable Solutions to America's Water Resources Needs	2016	P00000019150-P00000019185	U.S. Army Corps of Engineers	http://cdm16021.contentdm.oclc.org/utils/getfile/collection/p16021coll9/id/61		
MIL 1 (June 28, 2018)	299-107	U.S. Army Corps of Engineers Issues Report on Nationwide Permits, Release No. 17-110	25-Oct-17	P00000019922-P00000019923	U.S. Army Corps of Engineers	http://www.usace.army.mil/Media/News-Releases/News-Release-Article-View/Article/1353578/us-army-corps-of-engineers-issues-report-on-nationwide-permits/		

MIL 1 (June 28, 2018)	299-108	Report on Potential Actions to Reduce Regulatory Burdens on Domestic Energy Production, 82 Fed. Reg. 56192	28-Nov-17	P00000019728-P00000019729	U.S. Army Corps of Engineers	82 Fed. Reg. 56,192, 56,192 (Nov. 28, 2017)		
MIL 1 (June 28, 2018)	299-109	Coal and Coke: Monthly Indicator for Internal U.S. Waterways		P00000019924	U.S. Army Corps of Engineers, Navigation Data Ctr.	http://www.navigationdatacenter.us/wcsc/wcmcoal.htm		
MIL 1 (June 28, 2018)	299-110	The U.S. Waterway System: 2016 Transportation Facts & Information	Oct-17	P00000019925-P00000019936	U.S. Army Corps of Engineers	http://www.navigationdatacenter.us/factcard/FactCard2016.pdf		
MIL 1 (June 28, 2018)	299-111	Port Performance Freight Statistics Program: Annual Report to Congress	2017	P00000019937-P00000020212	U.S. DOT			
MIL 1 (June 28, 2018)	299-112	Petroleum: Monthly Indicator for Internal U.S. Waterways	last revised 2018	P00000020213	U.S. Army Corps of Engineers, Navigation Data Ctr., Waterborne Commerce Statistics Ctr.	http://www.navigationdatacenter.us/wcsc/wcmpetro.htm		
MIL 1 (June 28, 2018)	332-1 (filed conventionally)	Ports and Waterways Facilities	12-Sep-11	P00000037018-P00000037019 Accompanying excel sheet was filed conventionally with the Court	U.S. Army Corps of Engineers, Navigation Data Ctr.	http://www.navigationdatacenter.us/ports/ports.htm		
MIL 1 (June 28, 2018)	299-117	Secretary of Defense Speech, Halifax Int'l Security Forum (DoD Arctic Strategy)	22-Nov-13	P00000020260-P00000020263	U.S. DOD	http://archive.defense.gov/Speeches/Speech.aspx?SpeechID=1821		
MIL 1 (June 28, 2018)	299-118	National Security Strategy	Feb-15	P00000019186-P00000019220	President of the U.S.	http://nssarchive.us/wp-content/uploads/2015/02/2015.pdf		
MIL 1 (June 28, 2018)	299-121	Strategic Environmental Research & Development Program, Assessing Impacts of Climate Change on Coastal Military Installations: Policy Implications	Jan-13	P00000018994-P00000019061	U.S. DOD	https://climateandsecurity.files.wordpress.com/2014/01/serdp-coastal-assessment-white-paper_january-2013.pdf		
MIL 1 (June 28, 2018)	299-122	News Transcript, DOD News Briefing with Deputy Secretary Lynn and Assistant Secretary Burke from the Pentagon on the DOD Operational Energy Strategy	14-Jun-11	P00000020264-P00000020268	U.S. DOD	http://archive.defense.gov/transcripts/transcript.aspx?transcriptid=4840		
MIL 1 (June 28, 2018)	299-123	Nomination Hearing: James Mattis, Secretary of Defense, Committee on Armed Services, U.S. Senate, One Hundred Fifteenth Congress, First Session	12-Jan-17	P00000019570-P00000019625	U.S. DOD	https://www.armed-services.senate.gov/hearings/17-01-12-confirmation-hearing_-mattis. See Advanced Policy Questions.		
MIL 1 (June 28, 2018)	299-124	Climate Change Roadmap	21-May-10	P00000018770-P00000018797	U.S. Navy	http://www.navy.mil/navydata/documents/CCR.pdf		
MIL 1 (June 28, 2018)	299-125	Navy, Energy, Environment and Climate Change	n.d.	P00000020269-P00000020270	U.S. Navy	http://navysustainability.dodlive.mil/home/		
MIL 1 (June 28, 2018)	299-130	Report of the International Geophysical Year	1957	P00000018200-P00000018328	Hrg. before the Subcomm of the Comm. on Appropriations			
MIL 1 (June 28, 2018)	299-132	Regulations for Greenhouse Gas Emissions from Aircraft	17-Aug-17	P00000009997-P00000009999	U.S. EPA	https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-aircraft		

MIL 1 (June 28, 2018)	299-133	EPA Strategic Plan Public Review Draft	12-Feb-18	P00000009270-P00000009316	U.S. EPA	https://www.epa.gov/sites/production/files/2018-02/documents/fy-2018-2022-epa-strategic-plan.pdf.		
MIL 1 (June 28, 2018)	299-134	Climate Change in the United States: Benefits of Global Action	Jun-15	P00000026257-P00000026352	U.S. EPA			
MIL 1 (June 28, 2018)	299-135	Projecting Future Sea Level Rise: Methodology, Estimates to the Year 2100 & Research Needs	Oct-83	P00000025022-P00000025149	U.S. EPA			
MIL 1 (June 28, 2018)	299-136	The Potential Effects of Global Climate Change on the United States Draft Report to Congress	Dec-89	P00000007438-P00000007908	U.S. EPA			
MIL 1 (June 28, 2018)	299-137	Testimony of Linda J. Fisher, Assistant Administrator for Policy, Planning, and Evaluation for the U.S. EPA	Dec-88	P00000025150-P00000025173	U.S. EPA			
MIL 1 (June 28, 2018)	299-138	Environmental Protection in the Bush Administration: Measures By Which to Judge Us	1989	P00000025174-P00000025184	U.S. EPA Administrator William K. Reilly			
MIL 1 (June 28, 2018)	299-139	Policy Options for Stabilizing Global Climate	Dec-90	P00000007909-P00000008481	U.S. EPA			
MIL 1 (June 28, 2018)	299-140	Response and Feedbacks of Forest Systems to Global Climate Change	Sep-90	P00000025185-P00000025353	U.S. EPA			
MIL 1 (June 28, 2018)	299-141	Sequestering Carbon in Soils: A Workshop to Explore the Potential for Mitigating Global Climate Change	Apr-91	P00000025927-P00000026026	U.S. EPA			
MIL 1 (June 28, 2018)	299-142	Program Overview for the Adaptation Branch of EPA's Climate Change Division (Office of Policy		P00000026248-P00000026256	U.S. EPA			
MIL 1 (June 28, 2018)	299-143	The Probability of Sea Level Rise	Oct-95	P00000008566-P00000008761	U.S. EPA			
MIL 1 (June 28, 2018)	299-144	Climate Change and the Health of Children	May-16	P00000026353-P00000026356	U.S. EPA			
MIL 1 (June 28, 2018)	299-145	Global Methane Emissions from Livestock and Poultry Manure	Feb-92	P00000026027-P00000026247	U.S. EPA			
MIL 1 (June 28, 2018)	299-146	Can We Delay A Greenhouse Warming?	Sep-83	P00000007230-P00000007437	U.S. EPA			
MIL 1 (June 28, 2018)	299-147	Letter from Paul C. Cahill to Alan Hill	1982	P00000025015-P00000025021	Paul C. Cahill, Director of U.S. EPA's Office of Federal Activities			
MIL 1 (June 28, 2018)	299-162	Historical Geographic Place Names Removed From NOAA Charts	4-Aug-14	P00000018151-P00000018154	NOAA, Office of Coast Survey	https://historicalcharts.noaa.gov/pdfs/HistoricalPlacenames_Louisiana.pdf		
MIL 1 (June 28, 2018)	299-163	Secretary Ross and Secretary Perry Hail New Coal Deal with Ukraine	31-Jul-17	P00000018174-P00000018178	U.S. DOC	https://www.commerce.gov/news/press-releases/2017/07/secretary-ross-and-secretary-perry-hail-new-coal-deal-ukraine		
MIL 1 (June 28, 2018)	299-165	U.S. Exports of Crude Oil	31-May-18	P00000018179-P00000018183	U.S. EIA	https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCREXUS1&f=A		
MIL 1 (June 28, 2018)	299-166	Petroleum and Other Liquids: Exports	n.d.	P00000018184-P00000018185	U.S. EIA	https://www.eia.gov/dnav/pet/pet_move_exp_dc_NUS-Z00_mbbl_a.htm		
MIL 1 (June 28, 2018)	299-167	U.S. Crude Oil Exports: Licensing and Data Issues	28-Oct-13	P00000018046-P00000018049	Congressional Research Service	https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=73e6832f-9670-445b-b8c5-9b254d9f5bca		

MIL 1 (June 28, 2018)	299-168	U.S. Exports of Finished Petroleum Products	31-May-18	P00000018186-P00000018189	U.S. EIA	https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MTPEXUS1&f=A		
MIL 1 (June 28, 2018)	299-170	Review of National Marine Sanctuaries and Marine National Monuments Designated or Expanded Since April 28, 2007; Notice of Opportunity for Public Comment	26-Jun-17	P00000018133-P00000018135	NOAA	https://www.gpo.gov/fdsys/pkg/FR-2017-06-26/pdf/2017-13308.pdf.		
MIL 1 (June 28, 2018)	299-171	Top Markets Series: Oil and Gas Equipment	n.d.	P00000018160-P00000018161	U.S. DOC			
MIL 1 (June 28, 2018)	299-172	U.S. Department of Commerce Releases Report on Promoting Energy Independence and Economic Growth Through Deregulation	25-Oct-17	P00000018162-P00000018166	U.S. DOC			
MIL 1 (June 28, 2018)	299-173	Op-Ed: Why Addressing Climate Change Makes Good Business Sense	22-Apr-16	P00000018167-P00000018173	U.S. DOC			
MIL 1 (June 28, 2018)	299-174	Letter from Joseph Smagorinsky, Director	14-May-75	P00000018002	U.S. Energy Research and Development Admin.			
MIL 1 (June 28, 2018)	299-175	Planning for Sea Level Rise in the Northeast: Considerations for the Implementation of Tidal Wetland Habitat Restoration Projects	2011	P00000018003-P00000018045	NOAA	https://repository.library.noaa.gov/view/noaa/4016.		
MIL 1 (June 28, 2018)	299-177	Top Markets Report Upstream Oil and Gas Equipment	May-17	P00000018049-P00000018132	U.S. DOC	https://www.trade.gov/topmarkets/pdf/Oil_and_Gas_Top_Markets_Report.pdf		
MIL 1 (June 28, 2018)	299-178	The Department of Commerce's Final Report Reviewing Agency Actions as Required by Executive Order 13783, "Promoting Energy Independence and Economic Growth"; Memo to Mick Mulvaney, Director, OMB	25-Oct-17	P00000018136-P00000018150	U.S. DOC	https://www.commerce.gov/sites/commerce.gov/files/the_department_of_commerces_final_report_reviewing_agency_actions_as_required_by_executive_order_13783_promoting_energy_independence_and_economic_growth.pdf		
MIL 1 (June 28, 2018)	299-180	America’s Children and the Environment. Third Edition	Jan-13	P00000035044-P00000035115	U.S. EPA	https://www.epa.gov/sites/production/files/2015-06/documents/ace3_2013.pdf		
MIL 1 (June 28, 2018)	299-181	Remarks by the President in State of the Union Address	24-Jan-12	P00000035022-P00000035043	Barack Obama	https://obamawhitehouse.archives.gov/the-press-office/2012/01/24/remarks-president-state-union-address		
MIL 1 (June 28, 2018)	299-182	Remarks by the President on American-Made Energy	22-Mar-12	P00000037011-P00000037015	Barack Obama	https://obamawhitehouse.archives.gov/the-press-office/2012/03/22/remarks-president-american-made-energy		
MIL 1 (June 28, 2018)	299-183	America First: A Budget Blueprint to Make America Great Again	2017	P00000012047-P00000012108	Executive Office of the President, Office of Management and Budget,	https://www.whitehouse.gov/wp-content/uploads/2017/11/2018_blueprint.pdf		
MIL 1 (June 28, 2018)	299-184	EPA Administrator Pruitt: GHG Emissions Standards for Cars and Light Trucks Should Be Revised	2-Apr-18	P00000037600-P00000037601	U.S. EPA	https://www.epa.gov/newsreleases/epa-administrator-pruitt-ghg-emissions-standards-cars-and-light-trucks-should-be		
MIL 1 (June 28, 2018)	299-185	Wildland Fire, in U.S. Forest Resource Facts and Historical Trends	Aug-14	P00000004250-P00000004313	National Interagency Fire Center	https://www.fia.fs.fed.us/library/brochures/docs/2012/ForestFacts_1952-2012_English.pdf		
MIL 1 (June 28, 2018)	299-186	Remarks by President Trump at Signing of Executive Order on an American-First Offshore Energy Strategy	28-Mar-17	P00000029950-P00000029954	The White House	https://www.whitehouse.gov/briefings-statements/remarks-president-trump-signing-executive-order-america-first-offshore-energy-strategy/		

MIL 1 (June 28, 2018)	299-187	PSD and Title V Permitting Guidance for Greenhouse Gases	2011	P00000037019-P00000037114	U.S. EPA	https://www.epa.gov/sites/production/files/2015-12/documents/ghgpermittingguidance.pdf		
MIL 1 (June 28, 2018)	299-189	Transporting Hazmat Under the Hazardous Materials Regulations	2016	P00000037286-P00000037296	U.S. DOT	www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/approvals-and-permits/hazmat/general-approvals/17656/approvalsbrochureweb2.pdf		
MIL 1 (June 28, 2018)	332-1	Statement of Abigail Ross Hopper, Director, Bureau of Ocean Energy Management, U.S. Department of the Interior: Before the House Committee on Natural Resources Subcommittee on Energy and Mineral Resources	2-Mar-16	P00000024089-P00000024095	U.S. DOI, Bureau of Ocean Energy Management	https://www.boem.gov/FY2017-Budget-Testimony-03-01-2016.		
MIL 2 (August 24, 2018)	341-1	Statement by President Trump on the Paris Climate Accord	1-Jun-17	P00000040104-P00000040112	Office of the White House	https://www.whitehouse.gov/briefings-statements/statement-president-trump-paris-climate-accord/		
MIL 2 (August 24, 2018)	341-2	Press Release: Statement from Senator Tom Carper (D-Del) on EPA's Decision to Deny Further Action on Cross-State Air Pollution	29-Jun-18	P00000040117-P00000040119	Senator Tom Carper	https://www.carper.senate.gov/public/index.cfm/2018/6/carper-alarmed-at-epa-s-decision-to-deny-further-action-on-cross-state-air-pollution		
MIL 2 (August 24, 2018)	341-3	Media Note: Communication Regarding Intent to Withdraw from Paris Agreement	4-Aug-17	P00000040127	U.S. DOS	https://www.state.gov/r/pa/prs/ps/2017/08/273050.htm		
MIL 2 (August 24, 2018)	341-4	Background on the Information Request for the Oil and Natural Gas Industry	2-Mar-17	P00000040130-P00000040131	U.S. EPA	https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/background-information-request-oil-and		
MIL 2 (August 24, 2018)	341-5	Review of the Clean Power Plan, 82 Fed. Reg. 16329	4-Apr-17	P00000040132-P00000040133	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-04-04/pdf/2017-06522.pdf		
MIL 2 (August 24, 2018)	341-6	EPA Launches Back-To-Basics Agenda at Pennsylvania Coal Mine	13-Apr-17	P00000040134-P00000040136	U.S. EPA	https://www.epa.gov/newsreleases/epa-launches-back-basics-agenda-pennsylvania-coal-mine		
MIL 2 (August 24, 2018)	341-7	Press Release: EPA, DOT Open Comment Period on Reconsideration of GHG Standards for Cars and Light Trucks	10-Aug-17	P00000040148-P00000040149	U.S. EPA	https://www.epa.gov/newsreleases/epa-dot-open-comment-period-reconsideration-ghg-standards-cars-and-light-trucks		
MIL 2 (August 24, 2018)	341-8	Letter from EPA Administrator Scott Pruitt to Douglas Green and Samuel Boxerman, Petitions Concerning Coal Combustion Residuals Rule	13-Sep-17	P00000040150-P00000040151	Scott Pruitt, U.S. EPA	https://www.regulations.gov/document?D=EPA-HQ-OLEM-2017-0286-0002		
MIL 2 (August 24, 2018)	341-9	Regulatory Announcement, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, EPA-420-F-12-051	Aug-12	P00000040208-P00000040217	U.S. EPA, Office of Transportation and Air Quality	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF		
MIL 2 (August 24, 2018)	341-10	The President's Climate Action Plan	Jun-13	P00000040218-P00000040238	Office of the President	https://obamawhitehouse.archives.gov/sites/default/files/image/president27sclimateactionplan.pdf		
MIL 2 (August 24, 2018)	341-11	Exec. Order 13653, Preparing the United States for the Impacts of Climate Change, 78 Fed. Reg. 66819	6-Nov-13	P00000040239-P00000040246	Barack Obama, The White House	https://www.gpo.gov/fdsys/pkg/FR-2013-11-06/pdf/2013-26785.pdf		

MIL 2 (August 24, 2018)	341-12	Climate Action Plan Strategy to Reduce Methane Emissions	Mar-14	P00000040247-P00000040261	Office of the President	https://obamawhitehouse.archives.gov/sites/default/files/strategy_to_reduce_methane_emissions_2014-03-28_final.pdf		
MIL 2 (August 24, 2018)	341-13	Regulatory Impact Analysis for the Clean Power Plan Final Rule, EPA-452/R-15-003	August 2015 (corrected October 23, 2015)	P00000040262-P00000040604	U.S. EPA	https://www3.epa.gov/ttnecas1/docs/ria/utilities_ria_final-clean-power-plan-existing-units_2015-08.pdf		
MIL 2 (August 24, 2018)	341-14	Carbon Pollution Emission Guidelines for Existing Stationary Sources; Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64662	23-Oct-15	P00000040605-P00000040908	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf		
MIL 2 (August 24, 2018)	341-15	Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64510	23-Oct-15	P00000040909-P00000041060	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22837.pdf		
MIL 2 (August 24, 2018)	341-16	Presidential Memorandum of November 3, 2015: Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, 80 Fed. Reg. 68743	6-Nov-15	P00000041061-P00000041065	Barack Obama, The White House	https://www.gpo.gov/fdsys/pkg/FR-2015-11-06/pdf/2015-28466.pdf		
MIL 2 (August 24, 2018)	341-17	Hazardous and Solid Waste Management Systems: Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, 80 Fed. Reg. 21302	17-Apr-15	P00000041066-P00000041266	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2015-04-17/pdf/2015-00257.pdf		
MIL 2 (August 24, 2018)	341-18	Presidential Memorandum of June 25, 2013: Power Sector Carbon Pollution Standards, 78 Fed. Reg. 39535	1-Jul-13	P00000041267-P00000041271	Barack Obama, The White House	https://www.gpo.gov/fdsys/pkg/FR-2013-07-01/pdf/2013-15941.pdf		
MIL 2 (August 24, 2018)	341-19	2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards; Final Rule, 77 Fed. Reg. 62623	15-Oct-12	P00000041272-P00000041849	U.S. EPA and U.S. DOT	https://www.gpo.gov/fdsys/pkg/FR-2012-10-15/pdf/2012-21972.pdf		
MIL 2 (August 24, 2018)	341-20	Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals; Final Rule, 76 Fed. Reg. 48208	8-Aug-11	P00000041850-P00000042126	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2011-08-08/pdf/2011-17600.pdf		
MIL 2 (August 24, 2018)	341-21	Fact Sheet: Modernizing the Federal Coal Program	16-Jan-16	P00000042127-P00000042129	U.S. DOI	https://www.blm.gov/sites/blm.gov/files/programs_energyandminerals_CoalReformFactSheet.pdf		
MIL 2 (August 24, 2018)	341-22	Supplemental Finding That It Is Appropriate and Necessary To Regulate Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units; Final Rule, 81 Fed. Reg. 24420	25-Apr-16	P00000042130-P00000042163	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2016-04-25/pdf/2016-09429.pdf		
MIL 2 (August 24, 2018)	341-23	Energy Conservation Standards for Manufactured Housing, RIN 1904-AC11	2016	P00000042164-P00000042336	U.S. DOE	https://reginfo.gov/public/do/eAgendaViewRule?pubId=201610&RIN=1904-AC11		
MIL 2 (August 24, 2018)	341-24	Energy Conservation Standards for Manufactured Housing; Proposed Rule, 81 Fed. Reg. 39756	17-Jun-16	P00000042337-P00000042388	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2016-06-17/pdf/2016-13547.pdf		

MIL 2 (August 24, 2018)	341-25	EPA and NHTSA Adopt Standards to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, EPA-420-F-16-044	Aug-16	P00000042389-P00000042393	U.S. EPA, Office of Transportation and Air Quality	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P7NL.PDF?Dockey=P100P7NL.PDF		
MIL 2 (August 24, 2018)	341-26	Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews	1-Aug-16	P00000042394-P00000042427	Christina Goldfuss, Council on Environmental Quality	https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf		
MIL 2 (August 24, 2018)	341-27	Standards of Performance for Municipal Solid Waste Landfills; Final Rule, 81 Fed. Reg. 59331	29-Aug-16	P00000042428-P00000042481	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2016-08-29/pdf/2016-17687.pdf		
MIL 2 (August 24, 2018)	341-28	Energy Conservation Program: Energy Conservation Standards for Air Compressors; Final rule, RIN 1904-AC83	Dec-16	P00000042482-P00000042838	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/Compressors_Standards_Final_Rule.pdf		
MIL 2 (August 24, 2018)	341-29	Addendum to Technical Support Document on Social Cost of Carbon for Regulatory Impact Analysis Under Exec. Order 12866: Application of the Methodology to Estimate the Social Cost of Methane and the Social Cost of Nitrous Oxide	Aug-16	P00000042839-P00000042858	Interagency Working Group on the Social Cost of Greenhouse Gases	https://www.epa.gov/sites/production/files/2016-12/documents/addendum_to_sc-ghg_tsd_august_2016.pdf		
MIL 2 (August 24, 2018)	341-30	Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Exec. Order 12866	Aug-16	P00000042859-P00000042893	Interagency Working Group on the Social Cost of Greenhouse Gases	https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf		
MIL 2 (August 24, 2018)	341-31	Energy Conservation Program: Energy Conservation Standards for Commercial Packaged Boilers; Final Rule, RIN 1904-AD01	Dec-16	P00000042894-P00000043212	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/CPB_ECS_Final_Rule.pdf		
MIL 2 (August 24, 2018)	341-32	Energy Conservation Program: Energy Conservation Standards for Portable Air Conditioners; Final Rule, RIN 1904-AD02	Dec-16	P00000043213-P00000043472	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/PAC_ECS_Final_Rule.pdf		
MIL 2 (August 24, 2018)	341-33	Energy Conservation Program: Energy Conservation Standards for Uninterruptible Power Supplies; Final Rule, RIN 1904-AD69	Dec-16	P00000043473-P00000043669	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/UPS_ECS_Final_Rule.pdf		
MIL 2 (August 24, 2018)	341-34	Energy Conservation Program: Energy Conservation Standards for Walk-in Cooler and Freezer Refrigeration System; Final Rule, RIN 1904-AD59	Dec-16	P00000043670-P00000043951	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/WICF_ECS_Final_Rule_0.pdf		
MIL 2 (August 24, 2018)	341-35	Energy Conservation Program: Energy Conservation Standards for Dedicated-Purpose Pool Pumps; Final Rule, RIN 1904-AD52	Dec-16	P00000043952-P00000044264	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/DPPP_ECS_Direct_Final_Rule.pdf		
MIL 2 (August 24, 2018)	341-36	Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation, EPA-420-R-17-001	Jan-17	P00000044265-P00000044297	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100QQ91.pdf		
MIL 2 (August 24, 2018)	341-37	Federal Coal Program Programmatic Environmental Impact Statement – Scoping Report Appendices, Vol. 2	Jan-17	P00000044298-P00000045485	U.S. BLM	https://eplanning.blm.gov/epl-front-office/projects/nepa/65353/95054/114914/Coal_PEIS_Scoping_Report_Vol_II_508.pdf		

MIL 2 (August 24, 2018)	341-38	Federal Coal Program Programmatic Environmental Impact Statement – Scoping Report, Vol. 1	Jan-17	P00000045486-P00000045675	U.S. BLM	https://eplanning.blm.gov/epl-front-office/projects/nepa/65353/95106/115023/CoalPEIS_RptsScoping_Vol1_508.pdf		
MIL 2 (August 24, 2018)	341-39	Energy Conservation Program: Test Procedure for Walk-in Coolers and Walk-in Freezers; Final Rule; Delay of Effective Date, 82 Fed. Reg. 8805	31-Jan-17	P00000045676-P00000045677	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-01-31/pdf/2017-01956.pdf		
MIL 2 (August 24, 2018)	341-40	Exec. Order 13777, Enforcing the Regulatory Reform Agenda, 82 Fed. Reg. 12285	1-Mar-17	P00000045678-P00000045680	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-03-01/pdf/2017-04107.pdf		
MIL 2 (August 24, 2018)	341-41	Petition for Review, Alliance of Automobile Manufacturers v. EPA, No. 17-1086	13-Mar-17	P00000045681-P00000045718		https://perma.cc/89LQ-XVTE; https://www.eenews.net/assets/2017/03/15/document_gw_02.pdf		
MIL 2 (August 24, 2018)	341-42	Energy Conservation Program: Energy Conservation Standards for Ceiling Fans; Final Rule; Further Delay of Effective Date, 82 Fed. Reg. 14427	21-Mar-17	P00000045719	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-03-21/pdf/2017-05477.pdf		
MIL 2 (August 24, 2018)	341-43	Energy Conservation Program: Test Procedure for Walk-in Coolers and Walk-in Freezers; Final Rule; Further Delay of Effective Date, 82 Fed. Reg. 14426	21-Mar-17	P00000045724	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-03-21/pdf/2017-05479.pdf		
MIL 2 (August 24, 2018)	341-44	Energy Conservation Program: Test Procedures for Central Air Conditioners and Heat Pumps; Final Rule; Further Delay of Effective Date, 82 Fed. Reg. 14425	21-Mar-17	P00000045725	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-03-21/pdf/2017-05481.pdf		
MIL 2 (August 24, 2018)	341-45	Energy Conservation Program: Test Procedures for Compressors; Final Rule; Further Delay of Effective Date, 82 Fed. Reg. 14426	21-Mar-17	P00000045726-P00000045727	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-03-21/pdf/2017-05479.pdf		
MIL 2 (August 24, 2018)	341-46	Energy Efficiency Standards for the Design and Construction of New Federal Low-Rise Residential Buildings' Baseline Standards Update; Final Rule; Delay of Effective Date, 82 Fed. Reg. 14427	21-Mar-17	P00000045728-P00000045729	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-03-21/pdf/2017-05485.pdf		
MIL 2 (August 24, 2018)	341-47	Notice of Intention To Reconsider the Final Determination of the Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 Light Duty Vehicles, 82 Fed. Reg. 14671	22-Mar-17	P00000045730-P00000045731	NHTSA and U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-03-22/pdf/2017-05316.pdf		
MIL 2 (August 24, 2018)	341-48	DOI Secretarial Order No. 3348: Concerning the Federal Coal Moratorium	29-Mar-17	P00000045732-P00000045733	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/so_3348_coal_moratorium.pdf		
MIL 2 (August 24, 2018)	341-49	DOI Secretarial Order No. 3349: American Energy Independence	29-Mar-17	P00000045734-P00000045738	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/so_3349_-american_energy_independence.pdf		
MIL 2 (August 24, 2018)	341-50	Exec. Order 13783, Promoting Energy Independence and Economic Growth, 82 Fed. Reg. 16093	31-Mar-17	P00000045739-P00000045743	Donald Trump, The White House			

MIL 2 (August 24, 2018)	341-51	Withdrawal of Proposed Rules: Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations; and Clean Energy Incentive Program Design Details, 82 Fed. Reg. 16144	3-Apr-17	P00000045744-P00000045746	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-04-03/pdf/2017-06518.pdf		
MIL 2 (August 24, 2018)	341-52	Review of the 2016 Oil and Gas New Source Performance Standards for New, Reconstructed, and Modified Sources, 82 Fed. Reg. 16331	4-Apr-17	P00000045747-P00000045748	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-04-04/pdf/2017-06658.pdf		
MIL 2 (August 24, 2018)	341-53	Review of the Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Generating Units, 82 Fed. Reg. 16330	4-Apr-17	P00000045749-P00000045750	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-04-04/pdf/2017-06519.pdf		
MIL 2 (August 24, 2018)	341-54	Letter from EPA Administrator Scott Pruitt, Convening a Proceeding for Reconsideration of Final Rule, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed and Modified Sources	18-Apr-17	P00000045751-P00000045752	Scott Pruitt, U.S. EPA	https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0505-10792&contentType=pdf		
MIL 2 (August 24, 2018)	341-55	Truck Trailer Manufacturers Association, Inc. v. EPA, No. 16-1430, Motion to Hold Cases in Abeyance	20-Apr-17	P00000045753-P00000045759	D.C. Cir.	https://perma.cc/7A8B-SWJ8; http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20170420_docket-16-1430_motion.pdf		
MIL 2 (August 24, 2018)	341-56	Exec. Order 13792, Review of Designations Under the Antiquities Act, § 1, 82 Fed. Reg. 20429	1-May-17	P00000045760-P00000045762	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-05-01/pdf/2017-08908.pdf		
MIL 2 (August 24, 2018)	341-57	DOI Secretarial Order No. 3351: Strengthening the Department of Interior's Energy Portfolio	1-May-17	P00000045767-P00000045769	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3351.pdf		
MIL 2 (August 24, 2018)	341-58	Letter from EPA Administrator Scott Pruitt, Convening a Proceeding for Reconsideration of Final Rules Entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 81 Fed. Reg. 59276	5-May-17	P00000045774-P00000045775	Scott Pruitt, U.S. EPA	https://www.epa.gov/sites/production/files/2017-05/documents/signed_-_letter_-_municipal_solid_waste_landfills.pdf		
MIL 2 (August 24, 2018)	341-59	Review of Certain National Monuments Established Since 1996; Notice of Opportunity for Public Comment, 82 Fed. Reg. 22016	11-May-17	P00000045776-P00000045777	U.S. DOI	https://www.gpo.gov/fdsys/pkg/FR-2017-05-11/pdf/2017-09490.pdf		
MIL 2 (August 24, 2018)	341-60	Energy Conservation Program: Energy Conservation Standards for Ceiling Fans; Final Rule, 82 Fed. Reg. 23723	24-May-17	P00000045778	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-05-24/pdf/2017-10633.pdf		
MIL 2 (August 24, 2018)	341-61	Energy Conservation Program: Energy Conservation Standards for Residential Central Air Conditioners and Heat Pumps; Final Rule; 82 Fed. Reg. 24211	26-May-17	P00000045780-P00000045783	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-05-26/pdf/2017-10869.pdf		

MIL 2 (August 24, 2018)	341-62	Stay of Standards of Performance for Municipal Solid Waste Landfills and Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, 82 Fed. Reg. 24878	31-May-17	P00000045784-P00000045785	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-05-31/pdf/2017-10752.pdf		
MIL 2 (August 24, 2018)	341-63	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Grant of Reconsideration and Partial Stay, 82 Fed. Reg. 25730	5-Jun-17	P00000045786-P00000045790	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-06-05/pdf/2017-11457.pdf		
MIL 2 (August 24, 2018)	341-64	Waste Prevention, Production Subject to Royalties, and Resource Conservation; Postponement of Certain Compliance Dates, 82 Fed. Reg. 27430	15-Jun-17	P00000045791-P00000045792	U.S. BLM	https://www.gpo.gov/fdsys/pkg/FR-2017-06-15/pdf/2017-12325.pdf		
MIL 2 (August 24, 2018)	341-65	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements; Proposed Rule, 82 Fed. Reg. 27645	16-Jun-17	P00000045793-P00000045800	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-06-16/pdf/2017-12698.pdf		
MIL 2 (August 24, 2018)	341-66	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Three Month Stay of Certain Requirements; Proposed Rule, 82 Fed. Reg. 27641	16-Jun-17	P00000045801-P00000045805	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-06-16/pdf/2017-12473.pdf		
MIL 2 (August 24, 2018)	341-67	DOI Secretarial Order No. 3354: Supporting and Improving the Federal Onshore Oil and Gas Leasing Program and Federal Solid Mineral Leasing Program	5-Jul-17	P00000045806-P00000045808	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/doi-so-3354.pdf		
MIL 2 (August 24, 2018)	341-68	Coal Combustion Residuals State Permit Program Guidance Document; Interim Final	Aug-17	P00000045811-P00000046057	U.S. EPA, Office of Land and Emergency Management	https://www.epa.gov/sites/production/files/2017-08/documents/eo12866_ccr_state_permit_prog_guide_2050-za10_significant_guidance_20170809_final_omb_clean_copy_002508.pdf		
MIL 2 (August 24, 2018)	341-69	Request for Comment on Reconsideration of the Final Determination of the Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 Light-Duty Vehicles; Request for Comment on Model Year 2021 Greenhouse Gas Emissions Standards, 82 Fed. Reg. 39551	21-Aug-17	P00000046058-P00000046060	NHTSA and U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-08-21/pdf/2017-17419.pdf		
MIL 2 (August 24, 2018)	341-70	Staff Report to the Secretary on Electricity Markets and Reliability	Aug-17	P00000046061-P00000046247	U.S. DOE	https://www.energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf		
MIL 2 (August 24, 2018)	341-71	Exec. Order 13807, Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects, 82 Fed. Reg. 40463	24-Aug-17	P00000046248-P00000046254	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-08-24/pdf/2017-18134.pdf		
MIL 2 (August 24, 2018)	341-72	Utility Solid Waste Activities, et al. v. EPA, No. 15-1219, Respondents' Motion to Continue Oral Argument and Hold These Proceedings in Abeyance	18-Sep-17	P00000046255-P00000046265	D.C. Cir.	https://perma.cc/UG9W-ASPG; http://consideringthegrid.com/wp-content/uploads/2017/09/2017.09.18-EPA-Motion-to-Continue-Oral-Argument-1.pdf		

MIL 2 (August 24, 2018)	341-73	Truck Trailer Manufacturers Association, Inc. v. EPA, No. 16-1430, Motion to Continue Abeyance	18-Sep-17	P00000046266-P00000046271	D.C. Cir.	https://perma.cc/JGM5-5HTJ; http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20170918_docket-16-1430_motion.pdf		
MIL 2 (August 24, 2018)	341-74	Regulatory Impact Analysis for the Review of the Clean Power Plan: Proposal	Oct-17	P00000046272-P00000046460	U.S. EPA	https://www.epa.gov/sites/production/files/2017-10/documents/ria_proposed-cpp-repeal_2017-10.pdf		
MIL 2 (August 24, 2018)	341-75	Proposed Rule: Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48035	16-Oct-17	P00000046461-P00000046475	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-10-16/pdf/2017-22349.pdf		
MIL 2 (August 24, 2018)	341-76	Final Report: Review of the Department of Interior Actions that Potentially Burden Domestic Energy	24-Oct-17	P00000046476-P00000046519	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/interior_energy_actions_report_final.pdf		
MIL 2 (August 24, 2018)	341-77	Proposed Rule; Notice of Data Availability: Oil and Gas Sector, Emission Standards for New, Reconstructed and Modified Sources: Stay of Certain Requirements, 82 Fed. Reg. 51788	8-Nov-17	P00000046520-P00000046526	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-11-08/pdf/2017-24344.pdf		
MIL 2 (August 24, 2018)	341-78	Proposed Rule; Notice of Data Availability: Oil and Gas Sector, Emission Standards for New, Reconstructed and Modified Sources: Three Month Stay of Certain Requirements, 82 Fed. Reg. 51794	8-Nov-17	P00000046527-P00000046533	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-11-08/pdf/2017-24341.pdf		
MIL 2 (August 24, 2018)	341-79	Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits, 82 Fed. Reg. 53442	16-Nov-17	P00000046534-P00000046541	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-11-16/pdf/2017-24884.pdf		
MIL 2 (August 24, 2018)	341-80	Memorandum from Secretary of the Interior Ryan Zinke to the President, Final Report Summarizing Findings of the Review of Designations Under the Antiquities Act	5-Dec-17	P00000046542-P00000046561	Ryan K. Zinke, U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/revised_final_report.pdf		
MIL 2 (August 24, 2018)	341-81	Waste Prevention, Production Subject to Royalties, and Resource Conservation; Delay and Suspension of Certain Requirements; Final Rule, 82 Fed. Reg. 58050	8-Dec-17	P00000046562-P00000046585	U.S. BLM	https://www.gpo.gov/fdsys/pkg/FR-2017-12-08/pdf/2017-26389.pdf		
MIL 2 (August 24, 2018)	341-82	Presidential Proclamation 9681 of December 4, 2017: Modifying the Bears Ears National Monument, 82 Fed. Reg. 58081	4-Dec-17	P00000046610-P00000046616	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-12-08/pdf/2017-26709.pdf		
MIL 2 (August 24, 2018)	341-83	Presidential Proclamation 9682 of December 4, 2017: Modifying the Grand Staircase-Escalante National Monument, 82 Fed. Reg. 58089	8-Dec-17	P00000046617-P00000046624	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-12-08/pdf/2017-26714.pdf		
MIL 2 (August 24, 2018)	341-84	DOI Secretarial Order No. 3360: Rescinding Authorities Inconsistent with Secretary's Order 3349, "American Energy Independence"	22-Dec-17	P00000046625-P00000046627	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/elips/documents/3360_-_rescinding_authorities_inconsistent_with_secretarys_order_3349_american_energy_independence.pdf		
MIL 2 (August 24, 2018)	341-85	ANPR: State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 82 Fed. Reg. 61507	28-Dec-17	P00000046628-P00000046640	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-12-28/pdf/2017-27793.pdf		

MIL 2 (August 24, 2018)	341-86	Notice of Availability of the 2019-2024 Draft Proposed Outer Continental Shelf Oil and Gas Leasing Program and Notice of Intent To Prepare a Programmatic Environmental Impact Statement, 83 Fed. Reg. 829	8-Jan-18	P00000046641-P00000046646	Bureau of Ocean Energy Management	https://www.gpo.gov/fdsys/pkg/FR-2018-01-08/pdf/2018-00083.pdf		
MIL 2 (August 24, 2018)	341-87	Order Terminating Rulemaking Proceeding, Initiating New Proceeding, and Establishing Additional Procedures, 162 FERC ¶ 61,012	8-Jan-18	P00000046647-P00000046677	Federal Energy Regulatory Commission	https://www.ferc.gov/CalendarFiles/20180108161614-RM18-1-000.pdf		
MIL 2 (August 24, 2018)	341-88	Draft Proposed Program: 2019-2024 National Outer Continental Shelf Oil and Gas Leasing	Jan-18	P00000046678-P00000047057	Bureau of Ocean Energy Management	https://www.boem.gov/NP-Draft-Proposed-Program-2019-2024/		
MIL 2 (August 24, 2018)	341-89	Exec. Order 13771, Reducing Regulation and Controlling Regulatory Costs, 82 Fed. Reg. 9339	3-Feb-17	P00000047058-P00000047060	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-02-03/pdf/2017-02451.pdf		
MIL 2 (August 24, 2018)	341-90	Notice Regarding Withdrawal of Obligation to Submit Information, 82 Fed. Reg. 12817	7-Mar-17	P00000047061	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2017-03-07/pdf/2017-04458.pdf		
MIL 2 (August 24, 2018)	341-91	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Final Rule, 81 Fed. Reg. 35824	3-Jun-16	P00000047098-P00000047216	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2016-06-03/pdf/2016-11971.pdf		
MIL 2 (August 24, 2018)	341-92	Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2; Final Rule, 81 Fed. Reg. 73478	25-Oct-16	P00000047217-P00000048013	U.S. EPA and NHTSA	https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf		
MIL 2 (August 24, 2018)	341-93	Waste Prevention, Production Subject to Royalties, and Resource Conservation; Final Rule, 81 Fed. Reg. 83008	18-Nov-16	P00000048014-P00000048095	U.S. BLM	https://www.gpo.gov/fdsys/pkg/FR-2016-11-18/pdf/2016-27637.pdf		
MIL 2 (August 24, 2018)	341-94	Exec. Order 13693, Planning for Federal Sustainability in the Next Decade, 80 Fed. Reg. 15869	25-Mar-15	P00000048096-P00000048109	Barack Obama, The White House	https://www.gpo.gov/fdsys/pkg/FR-2015-03-25/pdf/2015-07016.pdf		
MIL 2 (August 24, 2018)	341-95	Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements, Proposed Rule 83 Fed. Reg. 7924	22-Feb-18	P00000048110-P00000048134	U.S. BLM	https://www.gpo.gov/fdsys/pkg/FR-2018-02-22/pdf/2018-03144.pdf		
MIL 2 (August 24, 2018)	341-96	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Amendments; Final Rule, 83 Fed. Reg. 10628	12-Mar-18	P00000048135-P00000048145	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-03-12/pdf/2018-04431.pdf		
MIL 2 (August 24, 2018)	341-97	Response to June 1, 2016 Clean Air Act Section 126(b) Petition From Connecticut; Notice of Final Action, 83 Fed. Reg. 16064	13-Apr-18	P00000048146-P00000048158	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-04-13/pdf/2018-07752.pdf		
MIL 2 (August 24, 2018)	341-98	Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 Light-Duty Vehicles, 83 Fed. Reg. 16077	13-Apr-18	P00000048159-P00000048169	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-04-13/pdf/2018-07364.pdf		
MIL 2 (August 24, 2018)	341-99	Proposed Rule: Strengthening Transparency in Regulatory Science, 83 Fed. Reg. 18768	30-Apr-18	P00000048170-P00000048176	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-04-30/pdf/2018-09078.pdf		
MIL 2 (August 24, 2018)	341-100	Memorandum re: Preparations for Chartered SAB Discussions of Proposed Rule: Strengthening Transparency in Regulatory Science RIN 2080-AA14	12-May-18	P00000048177-P00000048181	Alison Cullen	https://yosemite.epa.gov/sab/sabproduct.nsf/E21FFAE956B548258525828C00808BB7/$File/WkGrp_memo_2080-AA14_final_05132018.pdf		
MIL 2 (August 24, 2018)	341-101	Exec. Order 13834, Efficient Federal Operations, 83 Fed. Reg. 23771	22-May-18	P00000048182-P00000048185	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2018-05-22/pdf/2018-11101.pdf		

MIL 2 (August 24, 2018)	341-102	Response to Clean Air Act Section 126(b) Petitions From Delaware and Maryland; Notice of Proposed Action, 83 Fed. Reg. 26666	8-Jun-18	P00000048226-P00000048242	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-06-08/pdf/2018-12374.pdf		
MIL 2 (August 24, 2018)	341-103	ANPR: Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process, 83 Fed. Reg. 27524	13-Jun-18	P00000048243-P00000048247	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-06-13/pdf/2018-12707.pdf		
MIL 2 (August 24, 2018)	341-104	Advance Notice of Proposed Rulemaking; Update to the Regulations for Implementing the Procedural Provisions of the National Environmental Quality Act, 83 Fed. Reg. 28591	20-Jun-18	P00000048248-P00000048249	Council on Environmental Quality	https://www.gpo.gov/fdsys/pkg/FR-2018-06-20/pdf/2018-13246.pdf		
MIL 2 (August 24, 2018)	341-105	Letter from EPA Science Advisory Board to EPA Administrator Scott Pruitt re: Science Advisory Board (SAB) Consideration of EPA Proposed Rule: Strengthening Transparency in Regulatory Science	28-Jun-18	P00000048250-P00000048257	Science Advisory Board, U.S. EPA Office of the Administrator	https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/4ECB44CA28936083852582BB004ADE54/$File/EPA-SAB-18-003+Unsigned.pdf		
MIL 2 (August 24, 2018)	341-106	Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard, 83 Fed. Reg. 31915	10-Jul-18	P00000048302-P00000048326	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-07-10/pdf/2018-14737.pdf		
MIL 2 (August 24, 2018)	341-107	Presidential Memorandum of September 21, 2016: Climate Change and National Security	21-Sep-16	P00000048327-P00000048335	The White House	https://obamawhitehouse.archives.gov/the-press-office/2016/09/21/presidential-memorandum-climate-change-and-national-security		
MIL 2 (August 24, 2018)	341-108	Remarks by President Trump at the Unleashing American Energy Event	29-Jun-17	P00000048336-P00000048342	Office of the President	https://www.whitehouse.gov/briefings-statements/remarks-president-trump-unleashing-american-energy-event/		
MIL 2 (August 24, 2018)	341-109	President Trump Vows to Usher in Golden Era of American Energy Dominance	30-Jun-17	P00000048343-P00000048345	Office of the President	https://www.whitehouse.gov/articles/president-trump-vows-usher-golden-era-american-energy-dominance/		
MIL 2 (August 24, 2018)	341-110	Secretary Zinke Issues Lease for 56 Million Tons of Coal in Central Utah	15-Mar-17	P00000048400-P00000048404	U.S. DOI	https://www.doi.gov/pressreleases/secretary-zinke-issues-lease-56-million-tons-coal-central-utah		
MIL 2 (August 24, 2018)	341-111	Gulf of Mexico Region-Wide Oil and Gas Lease Sale Yields $121 Million in High Bids on 508,096 Acres	16-Aug-17	P00000048405-P00000048410	U.S. DOI	https://www.doi.gov/pressreleases/gulf-mexico-region-wide-oil-and-gas-lease-sale-yields-121-million-high-bids-508096		
MIL 2 (August 24, 2018)	341-112	BLM Eastern States Oil and Gas Lease Sale Nets More than $200,000	22-Sep-17	P00000048411-P00000048412	U.S. BLM	https://www.blm.gov/press-release/blm-eastern-states-oil-and-gas-lease-sale-nets-more-200000		
MIL 2 (August 24, 2018)	341-113	BLM Instruction Memorandum No. 2018-093, Compensatory Mitigation	24-Jul-18	P00000048413-P00000048417	U.S. BLM	https://www.blm.gov/policy/im-2018-093		
MIL 2 (August 24, 2018)	341-114	BLM Wyoming Oil and Gas Lease Sale Nets More than $38 Million	22-Sep-17	P00000048418-P00000048419	U.S. BLM	https://www.blm.gov/press-release/blm-wyoming-oil-and-gas-lease-sale-nets-more-38-million		
MIL 2 (August 24, 2018)	341-115	Presidential Memorandum of January 24, 2017: Construction of the Keystone XL Pipeline, Memorandum for the Secretary of State, the Secretary of the Army, and the Secretary of the Interior, 82 Fed. Reg. 8663	30-Jan-17	P00000048524-P00000048526	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-01-30/pdf/2017-02035.pdf		

MIL 2 (August 24, 2018)	341-116	Presidential Memorandum of January 24, 2017: Construction of the Dakota Access Pipeline, Memorandum for the Secretary of the Army, 82 Fed. Reg. 11129	17-Feb-17	P00000048527-P00000048528	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-02-17/pdf/R1-2017-02032.pdf		
MIL 2 (August 24, 2018)	341-117	U.S. Climate Change Regulation and Litigation: Selected Legal Issues	3-Apr-17	P00000048597-P00000048639	Congressional Research Service	https://fas.org/sgp/crs/misc/R44807.pdf		
MIL 2 (August 24, 2018)	341-118	Keystone XL: Greenhouse Gas Emissions Assessments in the Final Environmental Impact Statement	7-Mar-14	P00000048640-P00000048658	Congressional Research Service	https://fas.org/sgp/crs/misc/R43415.pdf		
MIL 2 (August 24, 2018)	341-119	Guidance for Section 2 of Exec. Order 13783, Titled "Promoting Energy Independence and Economic Growth", M-17-24	8-May-17	P00000048660-P00000048664	Dominic J. Mancini	https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2017/M-17-24.pdf		
MIL 2 (August 24, 2018)	341-120	Five-Year Program for Federal Offshore Oil and Gas Leasing: Status and Issues in Brief	19-May-17	P00000048670-P00000048685	Congressional Research Service	https://www.everycrsreport.com/files/20170519_R44692_4a62717b19dd5fa376dad853fabcdfe40356bbff.pdf		
MIL 2 (August 24, 2018)	341-121	The U.S. Is the Biggest Carbon Polluter in History. It Just Walked Away From the Paris Climate Deal	1-Jun-17	P00000048686-P00000048690	Justin Gillis and Nadja Popovich, The New York Times	https://www.nytimes.com/interactive/2017/06/01/climate/us-biggest-carbon-polluter-in-history-will-it-walk-away-from-the-paris-climate-deal.html		
MIL 2 (August 24, 2018)	341-122	Review of Offshore Energy Leasing: President Trump's Executive Order	5-May-17	P00000048691-P00000048693	Congressional Research Service	https://www.everycrsreport.com/reports/IN10698.html		
MIL 2 (August 24, 2018)	341-123	Regulatory Impact Analysis, Development of Social Cost of Carbon Estimates	Jul-14	P00000048757-P00000048792	U.S. Government Accountability Office	https://www.gao.gov/assets/670/665016.pdf		
MIL 2 (August 24, 2018)	341-124	Protection of Stratospheric Ozone: Notification of Guidance and a Stakeholder Meeting Concerning the Significant New Alternatives Policy (SNAP) Program, 83 Fed. Reg. 18431	27-Apr-18	P00000048819-P00000048824	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2018-04-27/pdf/2018-08310.pdf		
MIL 2 (August 24, 2018)	341-125	EPA Chief Scott Pruitt Says Carbon Dioxide is Not A Primary Contributor to Global Warming	9-Mar-17	P00000048825-P00000048829	Tom DiChristopher, CNBC	https://www.cnbc.com/2017/03/09/epa-chief-scott-pruitt.html		
MIL 2 (August 24, 2018)	341-126	Memorandum from EPA Administrator Scott Pruitt to Assistant Administrators, Back to Basics Process for Reviewing National Ambient Air Quality Standards	9-May-18	P00000048831-P00000048841	Scott Pruitt, U.S. EPA	https://www.epa.gov/sites/production/files/2018-05/documents/image2018-05-09-173219.pdf		
MIL 2 (August 24, 2018)	341-127	National Performance Management Measures: Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program, Final Rule 83 Fed. Reg. 24920	31-May-18	P00000048844-P00000048860	U.S. DOT, Federal Highway Administration	https://www.gpo.gov/fdsys/pkg/FR-2018-05-31/pdf/2018-11652.pdf		
MIL 2 (August 24, 2018)	341-128	DOE Addendum, Draft, Grid Memo	29-May-18	P00000048861-P00000048900	U.S. DOE	https://perma.cc/2XLL-3DT2; https://www.eenews.net/assets/2018/06/01/document_gw_01.pdf		
MIL 2 (August 24, 2018)	341-129	Review of 12 Nationwide Permits Pursuant to Exec. Order 13783, Executive Summary	25-Sep-17	P00000048922-P00000049228	U.S. Army Corps of Engineers	https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/6902		
MIL 2 (August 24, 2018)	341-130	Final Report on Regulatory Review under Exec. Order 13783	24-Oct-17	P00000049229-P00000049235	U.S. DOE	https://www.energy.gov/sites/prod/files/2017/10/f38/EXEC-2017-003431%20Final%20EO%2013783%20dated%2010-24-17.pdf		
MIL 2 (August 24, 2018)	341-131	Final Report for Exec. Order 13783: Agency Recommendations to Alleviate or Eliminate Actions That Burden Domestic Energy Production	25-Oct-17	P00000049236-P00000049242	U.S. DOT	https://cms.dot.gov/sites/dot.gov/files/docs/regulations/288101/dot-report-presidential-energy-initiative.pdf		

MIL 2 (August 24, 2018)	341-132	USDA Final Report Pursuant to Exec. Order 13782 on Promoting Energy Independence and Economic Growth	Oct-17	P00000049243-P00000049255	USDA	https://www.fs.fed.us/sites/default/files/eo-13783-usda-final-report-10.11.17.pdf		
MIL 2 (August 24, 2018)	341-133	Short-Term Energy Outlook	Jul-18	P00000049256-P00000049311	U.S. EIA	https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf		
MIL 2 (August 24, 2018)	341-134	Final Report on Review of Agency Actions that Potentially Burden the Safe, Efficient Development of Domestic Energy Resources Under Exec. Order 13783	25-Oct-17	P00000049356-P00000049371	U.S. EPA	https://www.epa.gov/sites/production/files/2017-10/documents/eo-13783-final-report-10-25-2017.pdf		
MIL 2 (August 24, 2018)	341-135	Interior Announces Region-wide Oil and Gas Lease Sale for Gulf of Mexico	12-Jul-18	P00000049372-P00000049376	U.S. DOI	https://www.doi.gov/pressreleases/interior-announces-region-wide-oil-and-gas-lease-sale-gulf-mexico		
MIL 2 (August 24, 2018)	341-136	Small-Scale Natural Gas Exports, Final Rule, 83 Fed. Reg. 35106	25-Jul-18	P00000049377-P00000049390	U.S. DOE, Office of Fossil Energy	https://www.gpo.gov/fdsys/pkg/FR-2018-07-25/pdf/2018-15903.pdf		
MIL 2 (August 24, 2018)	341-137	EPA Now Requires Political Aide's Sign-off for Agency Awards, Grant Applications	4-Sep-17	P00000049391-P00000049395	Juliet Eilperin, Washington Post	https://www.washingtonpost.com/politics/epa-now-requires-political-aides-sign-off-for-agency-awards-grant-applications/2017/09/04/2fd707a0-88fd-11e7-a94f-3139abce39f5_story.html?noredirect=on&utm_term=.d5f2efe8bbd1		
MIL 2 (August 24, 2018)	341-138	EPA Website Removes Climate Science Site from Public View After Two Decades	29-Apr-17	P00000049396-P00000049400	Chris Mooney and Juliet Eilperin, Washington Post	https://www.washingtonpost.com/news/energy-environment/wp/2017/04/28/epa-website-removes-climate-science-site-from-public-view-after-two-decades/?utm_term=.343b4f3f2e4b		
MIL 2 (August 24, 2018)	341-139	Pentagon Revised Obama-era Report to Remove Risks from Climate Change	10-May-18	P00000049401-P00000049404	Chris Mooney and Missy Ryan, Washington Post	https://www.washingtonpost.com/news/energy-environment/wp/2018/05/10/pentagon-revised-obama-era-report-to-remove-risks-from-climate-change/?noredirect=on%E2%80%A6&utm_term=.b0023bf063b7		
MIL 2 (August 24, 2018)	341-140	Trump Administration Announces $50 Million in Construction Projects Approved for the U.S. Fish and Wildlife Service	7-Jun-18	P00000049405-P00000049440	U.S. DOI	https://www.doi.gov/pressreleases/trump-administration-announces-50-million-construction-projects-approved-us-fish-and		
MIL 2 (August 24, 2018)	341-141	Wipeout: Human Role in Climate Change Removed from Science Report	2-Apr-18	P00000049441-P00000049452	Elizabeth Shogren, Reveal	https://www.revealnews.org/article/wipeout-human-role-in-climate-change-removed-from-science-report/		
MIL 2 (August 24, 2018)	341-142	Human Health: Impacts, Adaptation, and Co-benefits, *in* IPCC Working Group II Assessment and Review	2014	P00000051524-P00000051569	K.R. Smith et al.	https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap11_FINAL.pdf		
MIL 2 (August 24, 2018)	341-143	Oregon Climate and Health Profile Report. Portland OR: Oregon Health Authority	2014	P00000051619-P00000051706	B. Haggerty et al.	https://www.oregon.gov/oha/ph/HealthyEnvironments/climatechange/Documents/oregon-climate-and-health-profile-report.pdf		
MIL 2 (August 24, 2018)	341-148	Household Food Security in the United States in 2015	Sep-16	P00000052224-P00000052267	A. Coleman-Jensen et al., USDA	https://www.ers.usda.gov/webdocs/publications/79761/err-215.pdf		
MIL 2 (August 24, 2018)	341-149	Weather and Climate Modification, Report of the Special Commission on Weather Modification	20-Dec-65	P00000054000-P00000054157	National Science Foundation	https://www.nsf.gov/nsb/publications/1965/nsb1265.pdf		

MIL 2 (August 24, 2018)	341-150	Responses of the Federal Departments and Agencies to the President's Science Advisory Committee Report, Restoring the Quality of Our Environment	May-67	P00000054158-P00000054192	Office of Science and Technology	The Lyndon Baines Johnson Presidential Library, Administrative History, Office of Science and Technology, Volume I-II, Box 1		
MIL 2 (August 24, 2018)	341-151	The Automobile and Air Pollution: A Program for Progress	Oct-67	P00000054193-P00000054238	U.S. DOC, Panel on Electrically Powered Vehicles, Commerce Technical Advisory Board	The Lyndon Baines Johnson Presidential Library, Presidential Task Force on Quality of the Environment, Gaither, Box 196		
MIL 2 (August 24, 2018)	341-152	Letter from President Richard Nixon to Lee DuBridge, Dir. of Office of Science and Technology	20-Nov-69	P00000054239	Richard Nixon	Richard Nixon Presidential Library		
MIL 2 (August 24, 2018)	341-153	*Excerpt of* World Weather Program, Plan for Fiscal Year 1971	Apr-70	P00000054240-P00000054244	U.S. DOC et al.	Richard Nixon Presidential Library		
MIL 2 (August 24, 2018)	341-154	The First Annual Report of the Council on Environmental Quality	Aug-70	P00000054245-P00000054581	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1970-environmental-quality-the-first-annual-report-of		
MIL 2 (August 24, 2018)	341-155	The Nation's Energy Future, A Report to Richard M. Nixon	1-Dec-73	P00000054582-P00000054768	Atomic Energy Commission	https://www.osti.gov/servlets/purl/4384705		
MIL 2 (August 24, 2018)	341-156	Carbon Dioxide Effects Research and Assessment Program, Workshop on the Global Effects of Carbon Dioxide from Fossil Fuels	Mar-77	P00000054769-P00000054900	U.S. DOE	https://www.osti.gov/servlets/purl/6385084		
MIL 2 (August 24, 2018)	341-157	Report to Congress, U.S. Coal Development – Promises, Uncertainties. EMD-77-43	22-Sep-77	P00000054901-P00000055354	Elmer B. Staats	https://www.gao.gov/products/EMD-77-43		
MIL 2 (August 24, 2018)	341-158	Environmental Quality: The Ninth Annual Report of the Council on Environmental Quality	Dec-78	P00000055831-P00000056466	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1978-the-ninth-annual-report-of-the-council-on-environmental-quality		
MIL 2 (August 24, 2018)	341-159	Environmental Quality: The Tenth Annual Report of the Council on Environmental Quality	1979	P00000056467-P00000057234	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1979-the-tenth-annual-report-of-the-council-on-environmental-quality		
MIL 2 (August 24, 2018)	341-160	The Good News About Energy	1979	P00000057235-P00000057307	Council on Environmental Quality	http://hdl.handle.net/2027/pur1.32754076106677		
MIL 2 (August 24, 2018)	341-161	The Long Term Impact of Atmospheric Carbon Dioxide on Climate. Technical Report JSR-78-07, DOE Contract Number: AT03-78ER10100	Apr-79	P00000057308-P00000057518	George MacDonald et al.	https://fas.org/irp/agency/dod/jason/co2.pdf; also available at https://www.osti.gov/biblio/5829641-jason-long-term-impact-atmospheric-carbon-dioxide-climate-technical-report		
MIL 2 (August 24, 2018)	341-162	President Jimmy Carter, Solar Energy Message to the Congress	20-Jun-79	P00000057519-P00000057524	Jimmy Carter	http://www.presidency.ucsb.edu/ws/print.php?pid=32503		
MIL 2 (August 24, 2018)	341-163	Scientists Warn U.S. of Carbon Dioxide Peril	10-Jul-79	P00000057525	Philip Shabecoff, The New York Times	https://www.nytimes.com/1979/07/11/archives/scientists-warn-us-of-carbon-dioxide-peril-advice-on-energy.html		
MIL 2 (August 24, 2018)	341-164	President Jimmy Carter, Address to the Nation on Energy and National Goals	15-Jul-79	P00000057526-P00000057529	Jimmy Carter	http://www.presidency.ucsb.edu/ws/print.php?pid=32596		
MIL 2 (August 24, 2018)	341-165	The Global 2000 Report to the President: Entering the Twenty-First Century	1980	P00000057530-P00000057595	Council on Environmental Quality and U.S. DOS	https://www.cartercenter.org/resources/pdfs/pdf-archive/global2000reporttothepresident--enteringthe21stcentury-01011991.pdf		
MIL 2 (August 24, 2018)	341-166	Memorandum to the President, Carbon Dioxide Increases	5-May-80	P00000057596-P00000057609	Frank Press	Jimmy Carter Presidential Library, Office of Science and Technology Policy, Frank Press, Container 2		

MIL 2 (August 24, 2018)	341-167	Summary of the Carbon Dioxide Effects Research and Assessment Program	Jul-80	P00000057610-P00000057645	U.S. DOE	https://www.osti.gov/servlets/purl/5102316		
MIL 2 (August 24, 2018)	341-168	Global Future: Time To Act	Jan-81	P00000058230-P00000058490	Council on Environmental Quality and U.S. DOS	Direct link to original link to source no longer available. Catalogue listing in Government Printing Office: https://catalog.gpo.gov/F/?func=direct&doc_number=000991018&local_base=GPO01PUB. Numerous copies available through Hathitrust: https://babel.hathitrust.org/cgi/pt?id=uc1.31210003501986		
MIL 2 (August 24, 2018)	341-169	The State of the Union Annual Message to the Congress	16-Jan-81	P00000058491-P00000058530	Jimmy Carter	http://www.presidency.ucsb.edu/ws/print.php?pid=44541		
MIL 2 (August 24, 2018)	341-170	12th Annual Report of the Council on Environmental Quality	1982	P00000058531-P00000058831	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1981-the-12th-annual-report-of-the-council-on-environmental-quality		
MIL 2 (August 24, 2018)	341-171	Carbon Dioxide and Climate: A Second Assessment	1982	P00000058832-P00000058926	National Research Council	http://nap.edu/18524		
MIL 2 (August 24, 2018)	341-172	Document collection from Danny Boggs file, Report on Hearing, Joint Hearing on Carbon Dioxide and the Greenhouse Effect	25-Mar-82	P00000058927-P00000058998	U.S. DOE, Dotty Curles	National Archives and Records Administration, Ronald Reagan Presidential Library, White House Staff Member and Office Files, Danny J. Boggs, Box 39		
MIL 2 (August 24, 2018)	341-173	Hearing before the Subcommittee on Natural Resources, Agricultural Resources and Environment and the Subcommittee on Investigations and Oversight of the Committee on Science and Technology, Carbon Dioxide and Climate: The Greenhouse Effect	25-Mar-82	P00000058999-P00000059151	U.S. House of Representatives	https://catalog.hathitrust.org/Record/002758682		
MIL 2 (August 24, 2018)	341-174	Environmental Societal Consequences of a Possible CO_2-Induced Climate Change: Response of the West Antarctic Ice Sheet to CO_2-Induced Climatic Warming, Vol. 11, Part I	Apr-82	P00000059152-P00000059194	U.S. DOE, Carbon Dioxide Effects Research and Assessment Program	https://www.osti.gov/servlets/purl/6728173		
MIL 2 (August 24, 2018)	341-175	Remarks at Organization for Economic Cooperation and Development	21-Jun-84	P00000059195-P00000059201	U.S. EPA, Administrator William D. Ruckelshaus	National Archives and Record Administration, College Park, Briefing Files of the Administrator, Record Group 412, A2-02-0000532-072-1-005-02		
MIL 2 (August 24, 2018)	341-177	Letter series, Letter from Sen. Al Gore to President Reagan (May 21, 1986); Letter from William L Ball to Sen. Al Gore, May 28, 1986	May 21, 1986; May 28, 1986	P00000059578-P00000059584	White House Office of Resource Management	Ronald Reagan Presidential Library, Subject File: White House Office of Resource Management, Science, Box 12		
MIL 2 (August 24, 2018)	341-178	Hearing before the Subcommittee on Environmental Pollution of the Committee on Environment and Public Works, Ozone Depletion, the Greenhouse Effect, and Climate Change	June 10-11, 1986	P00000059585-P00000059784	U.S. Senate	https://catalog.hathitrust.org/Record/002770388		
MIL 2 (August 24, 2018)	341-179	Letter from Senators George J. Mitchell et al., to U.S. EPA Administrator Lee Thomas	12-Sep-86	P00000059785-P00000059787	Senators George J. Mitchell et al.	National Archives and Records Administration, Ronald Reagan Presidential Library		

MIL 2 (August 24, 2018)	341-180	Global Climate, A Variable and Vulnerable Natural Resource	1-Oct-86	P00000059788-P00000059829	NOAA	Ronald Reagan Presidential Library, White House Staff Member and Office Files, Ralph C. Bledsoe Files, 1985-1988, Domestic Policy Council, Box 46		
MIL 2 (August 24, 2018)	341-181	Letter from Sec. of Energy John Herrington to President Reagan	16-Mar-87	P00000059830-P00000059859	John Herrington, U.S. DOE Secretary	Ronald Reagan Presidential Library, Graham R. Williams, Box 1		
MIL 2 (August 24, 2018)	341-182	Memorandum through Ralph C. Bledsoe for Nancy J. Risque, The Global Climate Protection Act	29-Dec-87	P00000059868	White House, Robert E. Johnson	Ronald Reagan Presidential Library, White House Staff Member and Office Files, Ralph C. Bledsoe Files, 1985-1988, Domestic Policy Council, Box 46		
MIL 2 (August 24, 2018)	341-183	Memorandum from Richard Smith to Ralph Bledsoe, White House Domestic Policy Council	15-Jan-88	P00000059869-P00000059885	Richard Smith, Acting Assistant Secretary, Bureau of Oceans and International Environmental and Scientific Affairs, U.S. DOS	Ronald Reagan Presidential Library, White House Staff Member and Office Files, Ralph C. Bledsoe Files, 1985-1988, Domestic Policy Council, Box 46		
MIL 2 (August 24, 2018)	341-184	Letter Series, Letter from Richard J. Smith, Bureau of Oceans and International Environmental and Scientific Affairs (OES) to Richard Hallgren, U.S. Permanent Representative to the World Meteorological Organization	27-Jan-88	P00000059886-P00000059899	Richard J. Smith	Ronald Reagan Presidential Library, White House Staff Member and Office Files, Ralph C. Bledsoe Files, 1985-1988, Domestic Policy Council, Box 46		
MIL 2 (August 24, 2018)	341-185	Report to Congress, United States Government Activities Related to the Greenhouse Effect	26-Jan-88	P00000059900-P00000059908	President Ronald Reagan	No online version of source publicly available.		
MIL 2 (August 24, 2018)	341-186	Letter Series, Letter from J. Edward Fox, Dept. of State to Sen. Chafee	29-Jul-88	P00000059909-P00000059925	J. Edward Fox, U.S. DOS	Ronald Reagan Presidential Library, Subject File:White House Office of Resource Management, Science, Box 12		
MIL 2 (August 24, 2018)	341-187	Environmental Quality 1989, 20th Annual Report of the Council on Environmental Quality	1989	P00000059926-P00000060445	Council on Environmental Quality	https://heinonline.org/HOL/LandingPage?handle=hein.usfed/enviroqu0019&div=1&src=home		
MIL 2 (August 24, 2018)	341-188	Memorandum from Fred Bernthal to Richard T. McCormack Under Secretary-Designate for Economic Affairs	9-Feb-89	P00000060446-P00000060462	Frederick M. Bernthal	https://www.washingtonpost.com/news/energy-environment/wp/2015/12/03/reagan-bush-41-memos-reveal-how-republicans-used-to-think-about-climate-change-and-the-environment/?utm_term=.d032a9d6c715		
MIL 2 (August 24, 2018)	341-189	Memorandum from Frederick Bernthal to the Secretary of the Department of State, Review of Key Foreign Policy Issues: The Environment	27-Feb-89	P00000060463-P00000060471	Frederick M. Bernthal	https://www.washingtonpost.com/news/energy-environment/wp/2015/12/03/reagan-bush-41-memos-reveal-how-republicans-used-to-think-about-climate-change-and-the-environment/?utm_term=.d032a9d6c715		
MIL 2 (August 24, 2018)	341-190	Hearing Before the Subcommittee on Science, Technology, and Space of the Committee on Commerce, Science, and Transportation, Climate Surprises	8-May-89	P00000060472-P00000060628	Senate Subcommittee on Science, Technology, and Space	http://heinonline.org/HOL/Page?handle=hein.cbhear/cbhearings4401&collection=congrec&id=1&startid=&endid=155		

MIL 2 (August 24, 2018)	341-191	Memorandum from Frederick Bernthal, OES, to The Secretary, United States Department of State, Preparations for an International Conference on the Environment	16-May-89	P00000060629-P00000060630	U.S. DOS, Frederick Bernthal	https://nsarchive2.gwu.edu/NSAEBB/NSAEBB536-Reagan-Bush-Recognized-Need-for-US-Leadership-on-Climate-Change-in-1980s/documents/Document%2011.pdf; FOIA results from National Security Archive project hosted by the George Washington University		
MIL 2 (August 24, 2018)	341-192	Memorandum from Donald Carr, Acting Assistant Attorney General, Land and Natural Resources Division, Department of Justice, to Kenneth Vale, Special Assistant to the President and Executive Secretary, Domestic Policy Council; Juanta D. Duggan, Special Assistant to the President for Cabinet Affairs; and Nancy A. Maloney, Associate Director, Environment, Energy & Resources, *CEQ Global Climate Change Directive*	23-Jun-89	P00000060631-P00000060650	Donald Carr	George H.W. Bush Presidential Library, White House, Barry McBee Files		
MIL 2 (August 24, 2018)	341-193	Memorandum from Alan Hill, CEQ Director, to Heads of Federal Agencies regarding Draft of Guidance Regarding Consideration of Global Climate Change in Preparation of Environmental Documents	21-Jun-89	P00000060651-P00000060670	Alan Hill	George H.W. Bush Presidential Library, White House, Barry McBee Files		
MIL 2 (August 24, 2018)	341-194	Memorandum from David Q. Bates, Assistant to President and Secretary to the Cabinet to Heads of Agencies	14-Jul-89	P00000060671-P00000060673	David Bates, Assistant to the President and Secretary to the Cabinet	George H.W. Bush Presidential Library, White House, Barry McBee Files		
MIL 2 (August 24, 2018)	341-195	Remarks on Signing the Natural Gas Wellhead Decontrol Act of 1989	26-Jul-89	P00000060674-P00000060675	George H.W. Bush	http://www.presidency.ucsb.edu/ws/index.php?pid=17354		
MIL 2 (August 24, 2018)	341-196	Presidential Address to Intergovernmental Panel on Climate Change, Georgetown University	5-Feb-90	P00000061194-P00000061202	George H.W. Bush	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62053		
MIL 2 (August 24, 2018)	341-197	Greenhouse Effect: DOE's Programs and Activities Relevant to the Global Warming Phenomenon	Mar-90	P00000061203-P00000061254	U.S. General Accounting Office	https://www.gao.gov/assets/80/77774.pdf		
MIL 2 (August 24, 2018)	341-198	CO_2 Emissions from Coal-Fired and Solar Electric Power Plants	Mar-90	P00000061255-P00000061306	Solar Energy Research Institute	https://www.nrel.gov/docs/legosti/old/3772.pdf		
MIL 2 (August 24, 2018)	341-199	Memorandum from D. Allan Bromley and Stephen Danzansky to Members of Global Change Strategy Task Force	21-May-90	P00000061307-P00000061314	D. Allan Bromley and Stephen Danzansky	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62059		
MIL 2 (August 24, 2018)	341-200	Memorandum from D. Allan Bromley to John Sununu, Sea Level Change and Environmental Matters	14-Jun-90	P00000061315-P00000061319	D. Allan Bromley	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		
MIL 2 (August 24, 2018)	341-201	Letter from Frederick Bernthal, National Science Foundation, to Bert Bolin	5-Jul-90	P00000061320-P00000061324	Frederick Bernthal	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		

MIL 2 (August 24, 2018)	341-202	Memorandum from Stephen Danzansky to Chris Dawson et al.	7-Aug-90	P00000061325-P00000061334	Steve Danzansky	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62059)		
MIL 2 (August 24, 2018)	341-203	The Economics of Long-Term Global Climate Change: A Preliminary Assessment	Sep-90	P00000061335-P00000061396	U.S. DOE	https://www.osti.gov/biblio/6487569-economics-long-term-global-climate-change		
MIL 2 (August 24, 2018)	341-204	Global Warming: Emission Reductions Possible as Scientific Uncertainties are Resolved	28-Sep-90	P00000061397-P00000061472	U.S. General Accounting Office	https://www.gao.gov/products/RCED-90-58		
MIL 2 (August 24, 2018)	341-205	Memorandum for the President, The Second World Climate Conference	23-Oct-90	P00000061473-P00000061475	Roger B. Porter	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID: 62059		
MIL 2 (August 24, 2018)	341-206	Briefing for Governor Sununu, Preparations for the First Framework Convention Negotiating Session, Washington, DC, February 4, 1991	7-Nov-90	P00000061476-P00000061543	White House Office of Science and Technology Policy	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		
MIL 2 (August 24, 2018)	341-207	Policy Implications of Greenhouse Warming, Committee on Science, Engineering, and Public Policy	1991	P00000062117-P00000062258	National Academy of Sciences	http://www.nap.edu/catalog/1794.html		
MIL 2 (August 24, 2018)	341-208	Memorandum for the Domestic Policy Council, Framework Convention on Climate Change	22-Jan-91	P00000062259-P00000062273	Global Change Working Group	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62057)		
MIL 2 (August 24, 2018)	341-209	Memorandum from D. Allan Bromley and Bob Grady to John Sununu, Update on First Session of Framework Convention Negotiations	24-Jan-91	P00000062274-P00000062278	D. Allan Bromley and Bob Grady	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62057		
MIL 2 (August 24, 2018)	341-210	Letter from Patrick Michaels and Richard Balling to President Bush	1-Feb-91	P00000062279-P00000062280	Patrick Michaels and Robert Balling	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		
MIL 2 (August 24, 2018)	341-211	Memorandum from D. Allan Bromley to John Sununu, The NRC Evans Report	8-Apr-91	P00000062281-P00000062299	D. Allan Bromley	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62052		
MIL 2 (August 24, 2018)	341-212	Memorandum from D. Allan Bromley to John H. Sununu, Possible Group from Whom to Obtain Reaction to the NAS/Evans Report	18-Apr-91	P00000062300-P00000062302	D. Allan Bromley	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, OA/ID: 62050		
MIL 2 (August 24, 2018)	341-213	Memorandum from Nancy Maynard to D. Allan Bromley, Environment Update – Week of May 26 and June 3, 1991	3-Jun-91	P00000062303-P00000062304	Nancy G. Maynard	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files, OA/ID Number: 62052		

MIL 2 (August 24, 2018)	341-214	Letter from David W. Loer, Minnkota Power to John Sununu, White House Chief of Staff	30-Jul-91	P00000062305-P00000062306	David W. Loer	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), OA/ID Number: 62050		
MIL 2 (August 24, 2018)	341-215	State of Scientific Understanding of Climate Change	8-Oct-93	P00000062307	J.D. Mahlman, D. Albritton and R.T. Watson	Clinton Digital Library Collection, Michael Waldman files https://clinton.presidentiallibraries.us/files/original/feea202b2281956c1fa5a1218ecb1061.pdf,		
MIL 2 (August 24, 2018)	341-216	Energy Conservation: DOE's Efforts to Promote Energy Conservation and Efficiency	Apr-92	P00000062308-P00000062347	U.S. General Accounting Office	http://archive.gao.gov/d32t10/146799.pdf		
MIL 2 (August 24, 2018)	341-217	Reports to the Nation on Our Changing Planet: The Climate System	Sep-92	P00000062348-P00000062371	NOAA	https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=40000PV0.txt		
MIL 2 (August 24, 2018)	341-218	Energy Policy: Options to Reduce Environmental and Other Costs of Gasoline Consumption	Sep-92	P00000062372-P00000062427	U.S. General Accounting Office	https://www.gao.gov/products/RCED-92-260		
MIL 2 (August 24, 2018)	341-219	Environmental Quality 1992, 23rd Annual Report of the Council on Environmental Quality	1993	P00000062428-P00000062899	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1992-the-23rd-annual-report-the-council-on-environmental-quality?qid=bdda870e-d539-4461-aa65-98d57640e2e0&v=&b=&from_search=17		
MIL 2 (August 24, 2018)	341-220	Effects of CO_2 and Climate Change on Forest Trees	Apr-93	P00000062900-P00000063043	U.S. EPA	https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=94X00LPI.txt		
MIL 2 (August 24, 2018)	341-221	Preparing for an Uncertain Climate: Vol. 1, OTA-0-567	Oct-93	P00000063301-P00000063665	U.S. Congress, Office of Technology Assessment	http://govinfo.library.unt.edu/ota/Ota_1/DATA/1993/9338.PDF		
MIL 2 (August 24, 2018)	341-222	Memorandum from Katie McGinty to the President and Vice President, Climate Change Action Plan	18-Oct-93	P00000063666-P00000063701	Katie McGinty, White House Office of Environmental Policy	Clinton Digital Library Collection, Michael Waldman files https://clinton.presidentiallibraries.us/files/original/feea202b2281956c1fa5a1218ecb1061.pdf,		
MIL 2 (August 24, 2018)	341-223	Domestic Oil and Gas Incentives	1994	P00000063711-P00000063824	Domestic Policy Council	Clinton Presidential Library, Domestic Policy Council, Brian Burke, Domestic Oil and Gas Initiative, Box 12		
MIL 2 (August 24, 2018)	341-224	Fax to Mike Toman, Post-2000 Option: CO_2, Cap & Emissions Trading for Electricity, Natural Gas, and Transportation Fuels	21-Oct-94	P00000063839-P00000063844	Rick Morgan	Clinton Presidential Library, Council of Economic Advisors, Document Request, Climate Change, ID/OA: 101894, Box 7		
MIL 2 (August 24, 2018)	341-225	Climate Change: State of Knowledge	Mar-95	P00000063873-P00000063876	White House Domestic Policy Council	William J. Clinton Presidential Library, Domestic Policy Council, Brian Burke, Climate: Global Climate, OA/ID: 6136; also available at EPA Headquarters Library, EJBM QC981.8.C5C612 1997		
MIL 2 (August 24, 2018)	341-226	Conference on Human Health and Global Climate Change: Summary of the Proceedings	1996	P00000063961-P00000064032	National Science and Technology Council and the Institute of Medicine/National Academy of Sciences	http://www.dtic.mil/dtic/tr/fulltext/u2/b209063.pdf		
MIL 2 (August 24, 2018)	341-227	Exec. Order 13045, Protection of Children from Environmental Health Risks and Safety Risks	1997	P00000064222-P00000064225	William J. Clinton	https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO13045childenvtlhealth.pdf		

MIL 2 (August 24, 2018)	341-228	Climatic Change in the National Parks, Wildlife Refuges and Other Department of Interior Lands in the United States	May-97	P00000064226-P00000064246	U.S. DOI	Clinton Digital Library, Office of Speechwriting and David Shipley, "Climate Change [1]," https://clinton.presidentiallibraries.us/items/show/57099.		
MIL 2 (August 24, 2018)	341-229	Coastal Wetlands and Global Change: Overview	Jun-97	P00000064247-P00000064250	U.S. Geological Survey	https://www.nwrc.usgs.gov/factshts/fs89_97.pdf		
MIL 2 (August 24, 2018)	341-230	Remarks by the President to the Business Roundtable, Washington, DC	12-Jun-97	P00000064296-P00000064305	William J. Clinton	Clinton Digital Library, Office of Speechwriting and Lowell Weiss, "Climate Change 10/22/97 - Previous POTUS Speeches," https://clinton.presidentiallibraries.us/items/show/47455		
MIL 2 (August 24, 2018)	341-231	Remarks by Vice President Al Gore at the SE Regional Climate Change Impacts Meeting, Vanderbilt University, Nashville, Tennessee	25-Jun-97	P00000064306-P00000064312	Al Gore	William J. Clinton Presidential Library, Digital Library, https://clinton.presidentiallibraries.us/items/show/47449		
MIL 2 (August 24, 2018)	341-232	Global Climate Change: An East Room Roundtable	24-Jul-97	P00000064313-P00000064326	The White House	Hard copy on file with Plaintiffs. Additional copy available at https://babel.hathitrust.org/cgi/pt?id=pur1.32754067086946; as well as the EPA library: https://cfpub.epa.gov/ols/catalog/advanced_brief_record.cfm?&FIELD1=SUBJECT&INPUT1=Global%20warming%2E&TYPE1=EXACT&LOGIC1=AND&COLL=&SORT_TYPE=MTIC&item_count=275&item_accn=290821		
MIL 2 (August 24, 2018)	341-233	Climate Change Briefing	24-Jul-97	P00000064327-P00000064348	Katie McGinty, Dan Albritton, and Jerry Melillo	Clinton Digital Library, Office of Speechwriting and David Shipley, "Climate Change [1]," https://clinton.presidentiallibraries.us/items/show/57099.		
MIL 2 (August 24, 2018)	341-234	Opening Remarks by the President and the Vice President at Discussion on Climate Change, The White House	24-Jul-97	P00000064349-P00000064354	William J. Clinton and Al Gore	Clinton Digital Library, Office of Speechwriting and David Shipley, "Climate Change [1]," https://clinton.presidentiallibraries.us/items/show/57099.		
MIL 2 (August 24, 2018)	341-235	Memorandum for the President, Climate Change Scenarios	15-Sep-97	P00000064359-P00000064374	Chair of the National Economic Council Gene Sperling, Chair of the Council on Environmental Quality Katie Mcginty, and Assistant to the President for International Economic Policy Dan Tarullo	https://nsarchive2.gwu.edu/NSAEBB/NSAEBB303/Document%208.pdf, FOIA results from National Security Archive project hosted by the George Washington University: https://nsarchive2.gwu.edu/NSAEBB/NSAEBB303/		

MIL 2 (August 24, 2018)	341-236	Remarks by the President at the White House Conference on Climate Change	6-Oct-97	P00000064385-P00000064411	William J. Clinton	Clinton Digital Library, Office of Speechwriting and Lowell Weiss, "Climate Change 10/22/97 - Previous POTUS Speeches," https://clinton.presidentiallibraries.us/items/show/47455		
MIL 2 (August 24, 2018)	341-237	Remarks by the President on Global Climate Change, National Geographic Society	22-Oct-97	P00000064412-P00000064419	William J. Clinton	Clinton Digital Library, Office of Speechwriting and Lowell Weiss, "Climate Change 10/22/97 - Previous POTUS Speeches," https://clinton.presidentiallibraries.us/items/show/47455		
MIL 2 (August 24, 2018)	341-238	Memorandum from Jonathan Z. Cannon to Carol M. Browner, EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources	10-Apr-98	P00000064420-P00000064425	Johnathan Z. Cannon, U.S. EPA	https://www.eenews.net/features/documents/2008/08/04/document_gw_05.pdf		
MIL 2 (August 24, 2018)	341-239	Global Warming: Administration's Proposal in Support of the Kyoto Protocol	4-Jun-98	P00000064426-P00000064439	U.S. General Accounting Office	https://www.gpo.gov/fdsys/pkg/GAOREPORTS-T-RCED-98-219/pdf/GAOREPORTS-T-RCED-98-219.pdf		
MIL 2 (August 24, 2018)	341-240	The Impact of Climate Change on America's Forests: A Technical Document Supporting the 2000 USDA Forest Service RPA Assessment	2000	P00000064556-P00000064694	USDA, Forest Service	https://www.fs.fed.us/rm/pubs/rmrs_gtr059.pdf		
MIL 2 (August 24, 2018)	341-241	Climate Change Science: An Analysis of Some Key Questions	Jun-01	P00000064695-P00000064730	National Academy of Sciences	https://www.nap.edu/catalog/10139/climate-change-science-an-analysis-of-some-key-questions		
MIL 2 (August 24, 2018)	341-242	Memorandum to the Vice President, National Energy Policy Development Group	29-Jan-01	P00000064731-P00000064735	George W. Bush	George W. Bush Presidential Library		
MIL 2 (August 24, 2018)	341-243	Remarks of Governor Christine Todd Whitman, Administrator of the U.S. Environmental Protection Agency, at The Business Council	22-Feb-01	P00000064736-P00000064739	Christine Todd Whitman, Administrator of the U.S. EPA	National Archives and Records Administration, College Park, Speeches, Remarks and Testimony of Administrator Christine Todd Whitman, 2/22/2001 - 12/12/2002, Record Group 412; *also available on* EPA web archive, https://archive.epa.gov/epapages/newsroom_archive/speeches/d14cb12b232b49a28525701a0052e465.html.		
MIL 2 (August 24, 2018)	341-244	Talking Points for Governor Christine Todd Whitman, Administrator, United States Environmental Protection Agency at the G8 Environmental Ministerial Meeting Working Session on Climate Change, Trieste, Italy	3-Mar-01	P00000064740-P00000064750	U.S. EPA	National Archives and Records Administration, College Park, Speeches, Remarks and Testimony of Administrator Christine Todd Whitman, 2/22/2001 - 12/12/2002, Record Group 412		
MIL 2 (August 24, 2018)	341-245	President Bush Discusses Global Climate Change, The Rose Garden	11-Jun-01	P00000064751-P00000064755	George W. Bush	George W. Bush Presidential Library, Domestic Policy Council, Jay Leftkowitz, Box 4		
MIL 2 (August 24, 2018)	341-246	Memorandum for Heads of Executive Departments and Agencies, and Independent Regulatory Agencies, Guidance for Implementing E.O. 13211	13-Jul-01	P00000064756-P00000064762	Mitchell E. Daniels	George W. Bush Presidential Library, Council of Economic Advisers Hubbard, R. Glenn - Subject Files, Office of Management and Budget, OA Number: 1551		

MIL 2 (August 24, 2018)	341-247	Memorandum from Randy Randol, ExxonMobil to Phil Cooney, CEQ	22-Mar-02	P00000064763-P00000064778	Council on Environmental Quality	http://www.climatefiles.com/exxonmobil/exxonmobil-memo-2002-from-randy-randol-to-phil-cooney-at-ceq/ (maintained by Climate Files, a project of the Climate Investigations Center, and first made public through a FOIA by Natural Resources Defense Council in 2002)		
MIL 2 (August 24, 2018)	341-248	U.S. Climate Action Report 2002, Third National Communication of the United States of America Under the United Nations Framework Convention on Climate Change	May-02	P00000064779-P00000065047	U.S. DOS	https://unfccc.int/resource/docs/natc/usnc3.pdf		
MIL 2 (August 24, 2018)	341-249	Statement of James L. Connaughton for the Hearing Before the Committee On Commerce, Science, and Transportation, U.S. Senate	11-Jul-02	P00000065048-P00000065055	James L. Connaughton, Chairman, White House Council on Environmental Quality	George W. Bush Presidential Library, Domestic Policy Council, Jay Leftkowitz, Box 4		
MIL 2 (August 24, 2018)	341-250	National Climatic Data Center, A Climatology of Recent Extreme Weather and Climate Events	Oct-02	P00000065056-P00000065073	NOAA	https://repository.library.noaa.gov/view/noaa/13825/noaa_13825_DS1.pdf?		
MIL 2 (August 24, 2018)	341-251	Memorandum from Robert Fabricant, EPA General Counsel, to Marianne Horniko, Acting EPA Administrator, EPA's Authority to Impose Mandatory Controls to Address Global Climate Change under the Clean Air Act	28-Aug-03	P00000065074-P00000065084	Robert Fabricant, U.S. EPA General Counsel	FOIA #: EPA-HQ-2015-007071, Request for Documents Pertaining to August 28, 2003, EPA Decision Not to Regulate Greenhouse Gas Emissions from New Motor Vehicles Pursuant to the Clean Air Act and the Subsequent Defense of that Decision in the U.S. Court of Appeals for the D.C. Circuit and the U.S. Supreme Court, EPA FOIA 7071 (May 13, 2015) https://www.foiaonline.gov/foiaonline/action/public/submissionDetails?trackingNumber=EPA-HQ-2015-007071&type=request		
MIL 2 (August 24, 2018)	341-252	The Economics of Climate Change: A Primer	Apr-03	P00000065085-P00000065162	Congressional Budget Office	https://www.cbo.gov/sites/default/files/108th-congress-2003-2004/reports/04-25-climatechange.pdf		
MIL 2 (August 24, 2018)	341-253	Renewable Energy: Wind Power's Contribution to Electric Power Generation and Impact of Farms and Rural Communities	2004	P00000065163-P00000065276	U.S. Government Accountability Office	https://www.gao.gov/new.items/d04756.pdf		
MIL 2 (August 24, 2018)	341-254	Los Alamos Scientific Laboratory Energy-Related History, Research, Managerial Reorganization Proposals, Actions Taken, and Results, 1945-1979	Mar-97	P00000065277-P00000065402	Edward F. Hammel	http://www.iaea.org/inis/collection/NCLCollectionStore/_Public/28/077/28077313.pdf		
MIL 2 (August 24, 2018)	341-255	U.S. Climate Change Policy, Presentation in Berlin, Germany	12-Aug-05	P00000065403-P00000065421	Dr. Harlan Watson	George W. Bush Presidential Library, Press Office-White House, Robert (Tony) Snow, Council on Environmental Quality Files, Box 1		
MIL 2 (August 24, 2018)	341-256	Memorandum to the President, Energy Policy – Interim Report	30-Sep-05	P00000065422-P00000065503	Keith Hennessey and Bryan Hannegan	George W. Bush Presidential Library, White House Office of Records Management, RS (Reports and Statistics), Hollinger ID# 59768, Box 1		

MIL 2 (August 24, 2018)	341-257	Exec. Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use, 83 Fed Reg. 28355	18-May-01	P00000065504-P00000065505	George W. Bush	https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO13211energyregs.pdf		
MIL 2 (August 24, 2018)	341-258	State of the Climate: Hurricanes and Tropical Storms - Annual 2005	Jan-06	P00000065506-P00000065510	NOAA	https://www.ncdc.noaa.gov/sotc/tropical-cyclones/200513		
MIL 2 (August 24, 2018)	341-259	A Reef Manager's Guide to Coral Bleaching	2006	P00000065511-P00000065688	NOAA	https://www.coris.noaa.gov/activities/reef_managers_guide/reef_managers_guide.pdf		
MIL 2 (August 24, 2018)	341-260	Email from Myron Ebell, Competitive Enterprise Institute to Philip Cooney, CEQ	3-Jun-02	P00000065689-P00000065695	Myron Ebell, Competitive Enterprise Institute, CEQ	http://www.documentcloud.org/documents/3869325-Competetive-Enterprise-Institute-Email-to-Cooney.html (obtained by Greenpeace in 2003 FOIA)		
MIL 2 (August 24, 2018)	341-261	Tackling Climate Change in the United States: The Potential Contribution from Wind Power	July 7-13, 2006	P00000065696-P00000065704	U.S. DOE, National Renewable Energy Laboratory	https://permanent.access.gpo.gov/lps85146/40230.pdf		
MIL 2 (August 24, 2018)	341-262	Energy Policy and Conservation Act of 1975 (Pub. L. 94–163, 89 Stat. 871, Sec. 502(a)(1), enacted December 22, 1975)	1975	P00000065705-P00000065803	U.S. Congress	https://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/Laws/EPCA_%20Pub-L-94-163.pdf		
MIL 2 (August 24, 2018)	341-263	Climate Change: Understanding the Degree of the Problem, Hearing Before the House of Representatives Committee on Government Reform	20-Jul-06	P00000065804-P00000066074	U.S. House of Representatives	https://www.gpo.gov/fdsys/pkg/CHRG-109hhrg29932/pdf/CHRG-109hhrg29932.pdf		
MIL 2 (August 24, 2018)	341-264	Evaluating the Role of Prices and R&D in Reducing Carbon Dioxide Emissions	Sep-06	P00000066075-P00000066106	Congressional Budget Office	https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=ea7f6232-d609-471f-99ff-c9415b2ce75f		
MIL 2 (August 24, 2018)	341-265	First State of the Arctic Report	Oct-06	P00000066107-P00000066148	NOAA	ftp://ftp.oar.noaa.gov/arctic/documents/ReportCard2006.pdf		
MIL 2 (August 24, 2018)	341-266	Department of Energy: Key Challenges Remain for Developing and Deploying Advanced Energy Technologies to Meet Future Needs, Report to Congressional Requesters	Dec-06	P00000066149-P00000066221	U.S. Government Accountability Office	https://www.gao.gov/new.items/d07106.pdf		
MIL 2 (August 24, 2018)	341-267	NOAA Climate Scientists Available to Discuss Latest U.N. Climate Panel Report	29-Jan-07	P00000066222-P00000066232	Office of Science and Technology Policy	George W. Bush Presidential Library, Press Office-White House, Robert (Tony) Snow, Council on Environmental Quality Files, Box 1		
MIL 2 (August 24, 2018)	341-268	Advanced Energy Technologies: Key Challenges to Their Development and Deployment, Statement of Jim Wells Before the Subcommittee on Energy and Water Development, Committee on Appropriations, House of Representatives	28-Feb-07	P00000066233-P00000066247	U.S. Government Accountability Office	https://www.gao.gov/products/GAO-07-550T		
MIL 2 (August 24, 2018)	341-269	Papers Detail Industry's Role in Cheney's Energy Report	18-Jul-07	P00000066248-P00000066250	Michael Abramowitz and Steven Mufson, Washington Post	http://www.washingtonpost.com/wp-dyn/content/article/2007/07/17/AR2007071701987.html?nav=rss_politi%20cs		
MIL 2 (August 24, 2018)	341-270	Deadlock Stymies Global Climate Talks	12-Dec-07	P00000066251-P00000066253	Thomas Fuller and Peter Gelling, The New York Times	https://www.nytimes.com/2007/12/12/world/12climate.html		
MIL 2 (August 24, 2018)	341-271	Carbon Cuts a Must to Halt Warming – U.S. Scientists	13-Dec-07	P00000066254-P00000066257	Amanda Beck, Reuters	https://www.reuters.com/article/idUSN13267425		

MIL 2 (August 24, 2018)	341-272	U.S. Government Accountability Office, Advanced Energy Technologies: Budget Trends and Challenges for DOE's Energy R&D Program, Statement of Mark E. Gaffigan Before the Subcommittee on Energy and Environment, Committee on Science and Technology, House of Representatives	5-Mar-08	P00000066370-P00000066389	U.S. Government Accountability Office	https://www.gao.gov/new.items/d08556t.pdf		
MIL 2 (August 24, 2018)	341-273	White House Tried to Silence EPA Proposal on Car Emissions	26-Jun-08	P00000066390-P00000066391	Juliet Eilperin, Washington Post	http://www.washingtonpost.com/wp-dyn/content/article/2008/06/25/AR2008062502713.html?noredirect=on		
MIL 2 (August 24, 2018)	341-274	Warming is Major Threat to Humans, EPA Warns	18-Jul-08	P00000066392-P00000066393	David Fahrenthold and Juliet Eilperin, Washington Post	http://www.washingtonpost.com/wp-dyn/content/article/2008/07/17/AR2008071701557.html		
MIL 2 (August 24, 2018)	341-275	Proposed Rules Regulating Greenhouse Gases Under the Clean Air Act, Fed. Reg. 44354, Vol. 73, No. 147	30-Jul-08	P00000066394-P00000066561	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2008-07-30/pdf/E8-16432.pdf		
MIL 2 (August 24, 2018)	341-276	Our Changing Planet: The U.S. Climate Change Science Program for Fiscal Year 2009	Jul-08	P00000066562-P00000066804	U.S. Climate Change Science Program and the Subcommittee on Global Change Research	https://downloads.globalchange.gov/ocp/ocp2009/ocp2009.pdf		
MIL 2 (August 24, 2018)	341-277	Energy Policy Act of 1992	1992	P00000066805-P00000067161	U.S. Congress	https://www.afdc.energy.gov/pdfs/2527.pdf		
MIL 2 (August 24, 2018)	341-278	Exec. Order 13212, Actions to Expedite Energy-Related Projects, Fed. Reg. 28357	18-May-01	P00000067162-P00000067163	George W. Bush	https://www.energy.gov/sites/prod/files/oeprod/DocumentsandMedia/Executive_Order_13212.pdf		
MIL 2 (August 24, 2018)	341-279	Scenarios of Greenhouse Gas Emissions and Atmospheric Concentrations (Part A)	Jul-07	P00000067200-P00000067363	U.S. Climate Change Science Program and the Subcommittee on Global Change Research, U.S. DOE	https://science.energy.gov/~/media/ber/pdf/Sap_2_1a_final_all.pdf		
MIL 2 (August 24, 2018)	341-280	Environmental Quality 1983, 14th Annual Report of the Council on Environmental Quality	1983	P00000067364-P00000067714	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1983-the-fourteenth-anual-report-of-the-council-on-environmental-quality		
MIL 2 (August 24, 2018)	341-281	Climate Change Impacts on National Parks in Colorado, Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources	24-Aug-09	P00000067859-P00000067908	U.S. Senate	https://www.gpo.gov/fdsys/pkg/CHRG-111shrg52524/pdf/CHRG-111shrg52524.pdf		
MIL 2 (August 24, 2018)	341-282	Science-Based Strategies for Sustaining Coral Ecosystems	Sep-09	P00000067909-P00000067912	U.S. Geological Survey	https://pubs.usgs.gov/fs/2009/3089/pdf/brewercoralfs3.pdf		
MIL 2 (August 24, 2018)	341-283	Advancing the Science of Climate Change. America's Climate Choices: Panel on Advancing the Science of Climate Change	2010	P00000067965-P00000068491	National Research Council	https://www.globalchange.gov/browse/reports/nrc-advancing-science-climate-change-america%E2%80%99s-climate-choices-panel-advancing		
MIL 2 (August 24, 2018)	341-284	Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, FCCC/CP/2009/11/Add.1	30-Mar-10	P00000068492-P00000068534	United Nations	https://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf		
MIL 2 (August 24, 2018)	341-285	Clean Energy Policies That Reduce our Dependence on Oil, Hearing before the Subcommittee on Energy and Environment of the Committee on Energy and Commerce	28-Apr-10	P00000068535-P00000068789	U.S. House of Representatives	https://www.gpo.gov/fdsys/pkg/CHRG-111hhrg76568/pdf/CHRG-111hhrg76568.pdf		

MIL 2 (August 24, 2018)	341-286	Our Common Future	1987	P00000068795-P00000069041	World Commission on Environment and Development	http://www.exteriores.gob.es/Portal/es/PoliticaExteriorCooperacion/DesarrollosostenibleDocuments/Informe%20Brundtland%20(En%20ingl%C3%A9s).pdf		
MIL 2 (August 24, 2018)	341-287	Options for a Federal Renewable Electricity Standard	12-Nov-10	P00000069042-P00000069073	Congressional Research Service	https://www.everycrsreport.com/files/20101112_R41493_f45e897330d863296b7420ddd8b65245ccce3d30.pdf		
MIL 2 (August 24, 2018)	341-288	Climate Stabilization Targets: Emissions, Concentrations, and Impacts over Decades to Millennia	2011	P00000069115-P00000069413	National Research Council	https://www.nap.edu/catalog/12877/climate-stabilization-targets-emissions-concentrations-and-impacts-over-decades-to		
MIL 2 (August 24, 2018)	341-289	Letter EPA Administrator Stephen L. Johnson to President George W. Bush	31-Jan-08	P00000069438-P00000069441	Stephen L. Johnson, U.S. EPA Administrator	https://motherjones.com/wp-content/uploads/enclosureletter_presdidentfromstephenjohnson_2.8.2011_2.pdf		
MIL 2 (August 24, 2018)	341-290	National Advisory Committee on Oceans and Atmosphere, A NACOA Retrospective: 1971-1977	1977	P00000069442-P00000069515	NOAA, National Advisory Committee on Oceans and Atmosphere	https://catalog.hathitrust.org/Record/007158717; *also available at* NOAA Library, GC64 .U51 1977, ftp://ftp.library.noaa.gov/noaa_documents.lib/NOS/CZIC/1419.pdf		
MIL 2 (August 24, 2018)	341-291	The Effects of Renewable or Clean Electricity Standards	Jul-11	P00000069516-P00000069561	Congressional Budget Office	http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/121xx/doc12166/07-26-energy.pdf		
MIL 2 (August 24, 2018)	341-292	Climate Change: Conceptual Approaches and Policy Tools	29-Aug-11	P00000069562-P00000069590	Congressional Research Service	https://biotech.law.lsu.edu/blog/R41973.pdf		
MIL 2 (August 24, 2018)	341-293	Climate Change Indicators in the United States, 2012, 2nd Edition	2012	P00000069593-P00000069676	U.S. EPA	https://www.epa.gov/sites/production/files/2016-08/documents/climateindicators-full-2012.pdf		
MIL 2 (August 24, 2018)	341-294	Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes, 53 FR 25447	6-Jul-88	P00000069677-P00000069715	U.S. EPA	https://archive.epa.gov/epawaste/nonhaz/industrial/special/web/txt/ogreg88.txt		
MIL 2 (August 24, 2018)	341-295	Renewable Electricity Futures Study, Vol. 1: Exploration of High-Penetration Renewable Electricity Futures	Jun-12	P00000069774-P00000070053	National Renewable Energy Laboratory	https://www.nrel.gov/docs/fy12osti/52409-1.pdf		
MIL 2 (August 24, 2018)	341-296	Exec. Order 13653, Preparing the United States for the Impacts of Climate Change	1-Nov-13	P00000070054-P00000070061	Barack Obama	https://www.gpo.gov/fdsys/pkg/FR-2013-11-06/pdf/2013-26785.pdf		
MIL 2 (August 24, 2018)	341-297	Report of the International Conference on the Assessment of the Role of Carbon Dioxide and of Other Greenhouse Gases in Climate Variations and Associated Impacts, Villach, Austria, October 9-15, 1985	1985	P00000070062-P00000070146	World Climate Programme	https://library.wmo.int/pmb_ged/wmo_661_en.pdf		
MIL 2 (August 24, 2018)	341-298	U.S. Greenhouse Gas Emissions: Recent Trends and Factors	24-Nov-14	P00000070147-P00000070162	Jonathan L. Ramseur, Congressional Research Service	https://fas.org/sgp/crs/misc/R43795.pdf		
MIL 2 (August 24, 2018)	341-299	U.S. Crude Oil Export Policy: Background and Considerations	31-Dec-14	P00000070163-P00000070207	Congressional Research Service, Phillip Brown et al.	https://fas.org/sgp/crs/misc/R43442.pdf		
MIL 2 (August 24, 2018)	341-300	Summary of Fuel Economy Performance	15-Dec-14	P00000070210-P00000070227	U.S. DOT	https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/performance-summary-report-12152014-v2.pdf		
MIL 2 (August 24, 2018)	341-301	Climate Change 2014 Synthesis Report: Summary for Policymakers	2014	P00000070228-P00000070259	IPCC	https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf		

MIL 2 (August 24, 2018)	341-302	The Economics of Coal Leasing on Federal Lands: Ensuring a Fair Return to Taxpayers	Jun-16	P00000070284-P00000070317	The White House	https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160622_cea_coal_leasing.pdf		
MIL 2 (August 24, 2018)	341-303	The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment	2016	P00000070329-P00000070660	U.S. Global Change Research Program	https://health2016.globalchange.gov/		
MIL 2 (August 24, 2018)	341-304	Transforming the Nation's Energy System, Ch. I	Jan-17	P00000070661-P00000070710	U.S. DOE	https://www.energy.gov/sites/prod/files/2017/01/f34/QER%20Transforming%20the%20Nations%20Electricity%20System%20Full%20Report.pdf		
MIL 2 (August 24, 2018)	341-305	Implementing Climate Change and Global Change Research: A Review of the Final U.S. Climate Change Science Program Strategic Plan	2004	P00000070714-P00000070822	National Research Council	http://nap.edu/10635		
MIL 2 (August 24, 2018)	341-306	Paris Agreement	2015	P00000070823-P00000070849	United Nations	https://unfccc.int/sites/default/files/english_paris_agreement.pdf		
MIL 2 (August 24, 2018)	341-307	DOI Secretarial Order 3350, America First Offshore Energy Strategy	28-Apr-17	P00000070850-P00000070853	Donald Trump	https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350.pdf		
MIL 2 (August 24, 2018)	341-308	Exec. Order 13795, Implementing an America-First Offshore Energy Strategy	28-Apr-17	P00000070854-P00000070857	Donald Trump	https://www.gpo.gov/fdsys/pkg/FR-2017-05-03/pdf/2017-09087.pdf		
MIL 2 (August 24, 2018)	341-309	Climate Science Special Report, Fourth National Climate Assessment (NCA4), Vol. I	2017	P00000071751-P00000072227	U.S. Global Change Research Program	https://science2017.globalchange.gov/		
MIL 2 (August 24, 2018)	341-310	National Security Strategy of the United States of America	Dec-17	P00000072228-P00000072295	The White House	https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf		
MIL 2 (August 24, 2018)	341-311	Withdrawal of Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, 82 Fed. Reg. 16576	5-Apr-17	P00000072708-P00000072709	Council on Environmental Quality	https://www.gpo.gov/fdsys/pkg/FR-2017-04-05/pdf/2017-06770.pdf		
MIL 2 (August 24, 2018)	341-312	Richard Nixon: Annual Message to the Congress on the State of the Union	22-Jan-70	P00000072860-P00000072866	Richard Nixon	http://www.presidency.ucsb.edu/ws/?pid=2921		
MIL 2 (August 24, 2018)	341-313	Monthly Energy Review, July 2018	Jul-18	P00000072919-P00000073162	U.S. EIA	https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf		
MIL 2 (August 24, 2018)	341-314	Memorandum from Lee Dubridge to John Erhlichman, Recommendation to Pursue Non-conventional Vehicle Development	19-Dec-69	P00000073163-P00000073166	Lee DuBridge	Richard Nixon Presidential Library		
MIL 2 (August 24, 2018)	341-315	Memorandum from E.E. David, Director of Office of Science and Technology to Peter Flanigan, Assistant to the President	20-Oct-70	P00000073167-P00000073168	Edward W. David, Jr.	Richard Nixon Presidential Library		
MIL 2 (August 24, 2018)	341-316	Memorandum from Bill Lear to Peter Flanigan, Executives Offices, The White House	5-May-71	P00000073169-P00000073174	Bill Lear	Richard Nixon Presidential Library, Alpha Files Box 76		
MIL 2 (August 24, 2018)	341-317	Weather and Climate Modification—Problems and Prospects, Vol. I: Summary and Recommendations, Final Report of the Panel on Weather and Climate Modification to the Committee on Atmospheric Sciences	1966	P00000073175-P00000073218	National Academy of Sciences	https://therealinstitute.files.wordpress.com/2014/05/weather_and_climate_modification_problem.pdf		
MIL 2 (August 24, 2018)	341-318	Message to the Congress Transmitting the National Energy Policy Plan	17-Jul-81	P00000073219-P00000073221	Ronald Reagan	https://www.reaganlibrary.gov/research/speeches/71781b		
MIL 2 (August 24, 2018)	341-319	The History of the Keeling Curve	3-Apr-13	P00000073222-P00000073225	Rob Monroe, Scripps Institution of Oceanography	https://scripps.ucsd.edu/programs/keelingcurve/2013/04/03/the-history-of-the-keeling-curve/		

MIL 2 (August 24, 2018)	341-320	Federal Offshore Statistics: 1995	1997	P00000073640-P00000073755	Rolando A. Gachter, U.S. DOI	https://inis.iaea.org/collection/NCLCollectionStore/_Public/29/011/29011370.pdf		
MIL 2 (August 24, 2018)	341-321	Outer Continental Shelf Lands Act Amendments of 1978 Statement on Signing S.9 Into Law	18-Sep-78	P00000073756-P00000073757	Jimmy Carter	http://www.presidency.ucsb.edu/ws/index.php?pid=29792		
MIL 2 (August 24, 2018)	341-322	President Jimmy Carter, Remarks at the Second Environmental Decade Celebration	29-Feb-80	P00000073758-P00000073761	Jimmy Carter	http://www.presidency.ucsb.edu/ws/index.php?pid=32999		
MIL 2 (August 24, 2018)	341-323	Where Did the Carter White House's Solar Panels Go?	6-Aug-10	P00000073762-P00000073770	David Biello, Scientific American	https://www.scientificamerican.com/article/carter-white-house-solar-panel-array/		
MIL 2 (August 24, 2018)	341-324	Edward E. David Jr., Who Elevated Science Under Nixon, Dies at 92	28-Feb-17	P00000073771-P00000073773	Sam Roberts, New York Times	https://www.nytimes.com/2017/02/28/science/edward-david-dead-science-adviser-to-nixon.html		
MIL 2 (August 24, 2018)	341-325	Trends in Atmospheric Carbon Dioxide, Mean Annual Temperature from Mauna Loa	Last visited August 3, 2018	P00000073774-P00000073775	NOAA	ftp://aftp.cmdl.noaa.gov/products/trends/co2/co2_annmean_mlo.txt		
MIL 2 (August 24, 2018)	341-326	U.S. Calls for Efforts To Combat Global Environmental Problems	15-Jan-81	P00000073779-P00000073780	Philip Shabecoff, The New York Times	https://www.nytimes.com/1981/01/15/world/us-calls-for-efforts-to-combat-global-envioronmental-problems.html		
MIL 2 (August 24, 2018)	341-327	For Reagan, a Ticking Ecological 'Time Bomb'	20-Jan-81	P00000073781-P00000073782	John B. Oakes, The New York Times	https://www.nytimes.com/1981/01/20/opinion/for-reagan-a-ticking-ecological-time-bomb.html		
MIL 2 (August 24, 2018)	341-328	Global Warming Has Begun, Expert Tells Senate	24-Jun-88	P00000073783-P00000073785	Philip Shabecoff, The New York Times	https://www.nytimes.com/1988/06/24/us/global-warming-has-begun-expert-tells-senate.html		
MIL 2 (August 24, 2018)	341-329	Scientist Says Budget Office Altered His Testimony	8-May-89	P00000073786-P00000073788	Philip Shabecoff, The New York Times	https://www.nytimes.com/1989/05/08/us/scientist-says-budget-office-altered-his-testimony.html		
MIL 2 (August 24, 2018)	341-330	The Whitehouse and the Greenhouse	9-May-89	P00000073789-P00000073790	The New York Times	https://www.nytimes.com/1989/05/09/opinion/the-white-house-and-the-greenhouse.html		
MIL 2 (August 24, 2018)	341-331	U.S. Signs a Pact to Reduce Gases Tied to Warming	13-Nov-98	P00000073791-P00000073793	John Cushman, The New York Times	https://www.nytimes.com/1998/11/13/world/us-signs-a-pact-to-reduce-gases-tied-to-warming.html		
MIL 2 (August 24, 2018)	341-332	The Halliburton Loophole	2-Nov-09	P00000073794-P00000073795	The New York Times	https://www.nytimes.com/2009/11/03/opinion/03tue3.html		
MIL 2 (August 24, 2018)	341-333	Obama on Climate Change: The Trends Are Terrifying	8-Sep-16	P00000073796-P00000073802	Julie Hirshfeld et al., The New York Times	https://www.nytimes.com/2016/09/08/us/politics/obama-climate-change.html		
MIL 2 (August 24, 2018)	341-334	Trump Prepares Lifeline for Money-Losing Coal Plants	31-May-18	P00000073817-P00000073819	Jennifer A. Dlouhy, Bloomberg	https://www.bloomberg.com/news/articles/2018-06-01/trump-said-to-grant-lifeline-to-money-losing-coal-power-plants-jhv94ghl		
MIL 2 (August 24, 2018)	341-335	Trump Orders a Lifeline for Struggling Coal and Nuclear Plants	1-Jun-18	P00000073820-P00000073823	Brad Plumer, The New York Times	https://www.nytimes.com/2018/06/01/climate/trump-coal-nuclear-power.html		
MIL 2 (August 24, 2018)	341-336	E.P.A. Drafts Rule On Coal Plants To Replace Clean Power Plan	5-Jul-18	P00000073824-P00000073826	Lisa Friedman and Brad Plumer, The New York Times	https://www.nytimes.com/2018/07/05/climate/clean-power-plan-replacement.html		
MIL 2 (August 24, 2018)	341-337	Cheney tells U.S. to Carry on Guzzling	10-May-01	P00000073830-P00000073832	Martin Kettle, The Guardian	https://www.theguardian.com/world/2001/may/10/dickcheney.martinkettle		
MIL 2 (August 24, 2018)	341-338	Remarks Announcing the Energy Plan in St. Paul, Minnesota	17-May-01	P00000073833-P00000073836	George W. Bush	http://www.presidency.ucsb.edu/ws/index.php?pid=45617		

MIL 2 (August 24, 2018)	341-339	President Discusses Energy Policy, Columbus, Ohio	9-Mar-05	P00000073837-P00000073843	Office of the Press Secretary	https://georgewbush-whitehouse.archives.gov/news/releases/2005/03/20050309-5.html		
MIL 2 (August 24, 2018)	341-340	Fact Sheet: U.S. Reports its 2025 Emissions Target to the UNFCCC	31-Mar-15	P00000073844-P00000073847	The White House	https://obamawhitehouse.archives.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc		
MIL 2 (August 24, 2018)	341-341	Statement of Administration Policy: H.R. 6 – Energy Policy Act of 2005 (Sen. Domenici)	14-Jun-05	P00000073848-P00000073850	George W. Bush	http://www.presidency.ucsb.edu/ws/index.php?pid=24834		
MIL 2 (August 24, 2018)	341-342	Remarks on Energy in Athens, Alabama	21-Jun-07	P00000073851-P00000073855	George W. Bush	http://www.presidency.ucsb.edu/ws/index.php?pid=75467		
MIL 2 (August 24, 2018)	341-343	Remarks on Energy and Climate Change	16-Apr-08	P00000073856-P00000073859	George W. Bush	http://www.presidency.ucsb.edu/ws/index.php?pid=76957		
MIL 2 (August 24, 2018)	341-344	Exec. Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance	5-Oct-09	P00000073860-P00000073868	Barack Obama	http://www.presidency.ucsb.edu/ws/index.php?pid=86728		
MIL 2 (August 24, 2018)	341-345	Inaugural Address by President Barack Obama	21-Jan-13	P00000073869-P00000073874	Barack Obama	https://obamawhitehouse.archives.gov/the-press-office/2013/01/21/inaugural-address-president-barack-obama		
MIL 2 (August 24, 2018)	341-346	Remarks by the President in the State of the Union Address	12-Feb-13	P00000073875-P00000073891	Barack Obama	https://obamawhitehouse.archives.gov/the-press-office/2013/02/12/remarks-president-state-union-address		
MIL 2 (August 24, 2018)	341-347	Remarks by the President on Climate Change, Georgetown University, Washington DC	25-Jun-13	P00000073892-P00000073905	Barack Obama	https://obamawhitehouse.archives.gov/the-press-office/2013/06/25/remarks-president-climate-change		
MIL 2 (August 24, 2018)	341-348	Remarks on Signing the Energy Policy Act of 1992 in Maurice, Louisiana	24-Oct-92	P00000073920-P00000073921	George H.W. Bush	http://www.presidency.ucsb.edu/ws/?pid=21652		
MIL 2 (August 24, 2018)	341-349	Bush Was Aloof in Warming Debate	31-Oct-92	P00000073922-P00000073926	Michael Weisskopf, Washington Post	https://www.washingtonpost.com/archive/politics/1992/10/31/bush-was-aloof-in-warming-debate/f14bea92-884c-401b-9870-5bef72960806/?noredirect=on&utm_term=.6732b994374a		
MIL 2 (August 24, 2018)	341-350	Remarks on Earth Day	21-Apr-93	P00000073927-P00000073931	William J. Clinton	http://www.presidency.ucsb.edu/ws/?pid=46460		
MIL 2 (August 24, 2018)	341-351	Remarks at the White House Conference on Climate Change, Unveiling of President Clinton's Climate Action Plan	19-Oct-93	P00000073932-P00000073933	William J. Clinton	http://www.presidency.ucsb.edu/ws/index.php?pid=47226		
MIL 2 (August 24, 2018)	341-352	Remarks on the 25th Observance of Earth Day in Havre de Grace, Maryland	21-Apr-95	P00000073948-P00000073951	William J. Clinton	http://www.presidency.ucsb.edu/ws/index.php?pid=51253		
MIL 2 (August 24, 2018)	341-353	Environmental Health Threats to Children	Sep-96	P00000073952-P00000073967	U.S. EPA	https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=40000839.TXT		
MIL 2 (August 24, 2018)	341-354	Open Letter on the President's Position on Climate Change	7-Feb-07	P00000073968-P00000073969	James L. Connaughton and John H. Marburger, III	https://georgewbush-whitehouse.archives.gov/news/releases/2007/02/20070207-5.html		
MIL 2 (August 24, 2018)	341-355	Remarks During a Meeting on Energy Security and Climate Change	28-Sep-07	P00000073970-P00000073973	George W. Bush	http://www.presidency.ucsb.edu/ws/?pid=75839		
MIL 2 (August 24, 2018)	341-356	Press Briefing via Conference Call by Senior Administration Officials on IPCC Report	16-Nov-07	P00000073974-P00000073980	White House Web Archives, Jim Connaughton, Sharon Hays, and Harlan Watson	https://georgewbush-whitehouse.archives.gov/news/releases/2007/11/20071116-21.html		

MIL 2 (August 24, 2018)	341-357	Statement of Administration Policy: S. 3036 - Lieberman-Warner Climate Security Act	2-Jun-08	P00000073982-P00000073984	George W. Bush	http://www.presidency.ucsb.edu/ws/?pid=77432; *also available at* https://www.epw.senate.gov/public/index.cfm/press-releases-all?ID=4a8d8507-802a-23ad-4db3-633d14bc46d6&Issue_id=		
MIL 2 (August 24, 2018)	341-358	U.S. Study Warns of Extensive Problems from Carbon Dioxide Pollution	14-Jan-81	P00000075000	Philip Shabecoff, The New York Times	https://www.nytimes.com/1981/01/14/us/us-study-warns-of-extensive-problems-from-carbon-dioxide-pollution.html		
MIL 2 (August 24, 2018)	341-359	The Earth Summit, Excerpts From Speech By Bush on 'Action Plan'	13-Jun-92	P00000075001-P00000075003	The New York Times	https://www.nytimes.com/1992/06/13/world/the-earth-summit-excerpts-from-speech-by-bush-on-action-plan.html		
MIL 2 (August 24, 2018)	341-360	Wind Powering America: Goals, Approach, Perspectives, and Prospects	Mar-02	P00000075009-P00000075015	U.S. DOE, National Renewable Energy Laboratory, L.T. Flowers and P.J. Dougherty	https://www.nrel.gov/docs/fy02osti/32097.pdf		
MIL 2 (August 24, 2018)	341-361	U.S. Government Disbands Climate-Science Advisory Committee	21-Apr-17	P00000075283-P00000075287	Jeff Tollefson	https://www.scientificamerican.com/article/u-s-government-disbands-climate-science-advisory-committee/		
MIL 2 (August 24, 2018)	341-362	Trump on Paris Accord: 'We're getting out'	2-Jun-17	P00000075288-P00000075292	Kevin Liptak and Jim Acosta, CNN	https://www.cnn.com/2017/06/01/politics/trump-paris-climate-decision/index.html		
MIL 2 (August 24, 2018)	341-363	Secretary Zinke Announces Largest Oil and Gas Lease Sale in U.S. History	24-Oct-17	P00000075293-P00000075297	U.S. DOI	https://www.doi.gov/pressreleases/secretary-zinke-announces-largest-oil-gas-lease-sale-us-history		
MIL 2 (August 24, 2018)	341-364	Trump Slaps Steep Tariffs on Foreign Washing Machines and Solar Products	22-Jan-18	P00000075298-P00000075301	Ana Swanson and Brad Plumer, The New York Times	https://www.nytimes.com/2018/01/22/business/trump-tariffs-washing-machines-solar-panels.html		
MIL 2 (August 24, 2018)	341-365	BLM Offers Revision to Methane Waste Prevention Rule	12-Feb-18	P00000075302-P00000075303	U.S. BLM	https://www.blm.gov/press-release/blm-offers-revision-methane-waste-prevention-rule		
MIL 2 (August 24, 2018)	341-366	Climate Change Indicators: Climate Forcing, Fig. 1	last visited August 7, 2018	P00000075304-P00000075307	U.S. EPA	https://www.epa.gov/climate-indicators/climate-change-indicators-climate-forcing		
MIL 2 (August 24, 2018)	341-367	Solar Industry Research Data	Last accessed August 6, 2018	P00000075311-P00000075319	Solar Energy Industry Association	https://www.seia.org/solar-industry-research-data		
MIL 2 (August 24, 2018)	341-368	Energy & Environment	Last accessed August 6, 2018	P00000075320-P00000075323	The White House	https://www.whitehouse.gov/issues/energy-environment/		
MIL 2 (August 24, 2018)	341-369	Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources	Aug-07	P00000076099-P00000076282	U.S. Government Accountability Office	https://www.gao.gov/new.items/d07863.pdf		
MIL 2 (August 24, 2018)	341-370	Status of Coral Reefs of the World: 2008	2008	P00000077023-P00000077326	Global Coral Reef Monitoring Network	https://www.icriforum.org/sites/default/files/GCRMN_Status_Coral_Reefs_2008.pdf		

MIL 2 (August 24, 2018)	341-373	Climate Change 2007, Synthesis Report, Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change	2007	P00000082352-P00000082463	IPCC	https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_full_report.pdf		
MIL 2 (August 24, 2018)	341-374	What Climate Change Means for Florida	Aug-16	P00000082471-P00000082472	U.S. EPA	https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100PCIX.txt		
MIL 2 (August 24, 2018)	341-375	Summary Report, The Economic Value of U.S. Coral Reefs	2013	P00000082545-P00000082572	NOAA	https://data.nodc.noaa.gov/coris/library/NOAA/CRCP/other/other_crcp_publications/Economic_Value_US_Coral_Reefs_Summary_2013.pdf		
MIL 2 (August 24, 2018)	341-376	WMO Statement on the State of the Global Climate in 2017, WMO-No. 1212	2018	P00000084584-P00000084623	WMO	https://library.wmo.int/doc_num.php?explnum_id=4453		
MIL 2 (August 24, 2018)	341-377	Washington: Editor Of Climate Reports Resigns	11-Jun-05	P00000085600	Andrew Revkin, The New York Times	https://www.nytimes.com/2005/06/11/us/national-briefing-washington-editor-of-climate-reports-resigns.html		
MIL 2 (August 24, 2018)	341-378	Climate Change and President Obama's Action Plan	n.d.	P00000085601-P00000085621	Barack Obama, The White House	https://obamawhitehouse.archives.gov/president-obama-climate-action-plan		
MIL 2 (August 24, 2018)	341-379	The Carbon Dioxide Problem: Implications for Policy in the Management of Energy and Other Resources, A Report to the Council on Environmental Quality	Jul-79	P00000085622-P00000085641	George M. Woodwell, Gordon J. MacDonald, Roger Revelle, and C. David Keeling	https://static01.nyt.com/packages/pdf/science/woodwellreport.pdf		
MIL 2 (August 24, 2018)	341-380	The Role of the Private Sector in Environmental Action	14-Nov-84	P00000085642-P00000085666	U.S. EPA, Administrator William D. Ruckelshaus	National Archives and Record Administration, College Park, Briefing Files of the Administrator, Record Group 412, A2-02-0000532-072-1-005-02		
MIL 2 (August 24, 2018)	341-381	Master Index for the Carbon Dioxide Research State-of-the-Art Report Series	Mar-87	P00000085667-P00000085928	U.S. DOE, Office of Energy Research, Office of Basic Energy Sciences	https://www.osti.gov/servlets/purl/6176904		
MIL 2 (August 24, 2018)	341-382	Remarks by James A. Baker III before the Response Strategies Working Group, Intergovernmental Panel on Climate Change	30-Jan-89	P00000085929-P00000085932	U.S. DOS	James Baker III Papers, Princeton University Library, link to finding aid: https://findingaids.princeton.edu/collections/MC197		
MIL 2 (August 24, 2018)	341-383	Investigative Summary Regarding Allegations that NASA Suppressed Climate Change Science and Denied Media Access to Dr. James E. Hansen, a NASA Scientist	Jun-08	P00000085933-P00000086025	NASA Office of the Inspector General	https://oig.nasa.gov/investigations/OI_STI_Summary.pdf		
MIL 2 (August 24, 2018)	341-384	White House Blocks EPA Emissions Draft	30-Jul-08	P00000086026-P00000086029	Ian Talley and Siobhan Hughes, The Wall Street Journal	https://www.wsj.com/articles/SB121478564162114625		
MIL 2 (August 24, 2018)	341-385	Million Solar Roofs	2003	P00000086030-P00000086033	U.S. DOE	https://www.nrel.gov/docs/fy04osti/34009.pdf		
MIL 2 (August 24, 2018)	341-386	The Cost of Delaying Action to Stem Climate Change	Jul-14	P00000086034-P00000086066	White House, Office of the President	https://obamawhitehouse.archives.gov/sites/default/files/docs/the_cost_of_delaying_action_to_stem_climate_change.pdf		

MIL 2 (August 24, 2018)	341-387	Second Biennial Report of the United States Under the United Nations Framework Convention on Climate Change	2016	P00000086067-P00000086146	U.S. DOS	https://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/2016_second_biennial_report_of_the_united_states_.pdf		
MIL 2 (August 24, 2018)	341-388	Exec. Order 13766, Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects, 82 Fed. Reg. 8657	30-Jan-17	P00000086147-P00000086148	Donald Trump, The White House	https://www.gpo.gov/fdsys/pkg/FR-2017-01-30/pdf/2017-02029.pdf		
MIL 2 (August 24, 2018)	341-389	Monthly Energy Review, May 2018	24-May-18	P00000086149-P00000086393	U.S. EIA	https://www.eia.gov/totalenergy/data/monthly/archive/00351805.pdf		
MIL 2 (August 24, 2018)	341-390	The Safer and Affordable Fuel Efficient Vehicles Proposed Rule for Model Years 2021- 2026 (pre-publication version)	1-Aug-18	P00000086394-P00000087371	U.S. EPA	https://www.epa.gov/sites/production/files/2018-08/documents/safe-my-2021-2026-cafe-ld-ghg-nhtsa-epa-nprm-2018-08-02.pdf		
MIL 2 (August 24, 2018)	341-391	Land Related Global Habitability Science Issues, NASA Tech Memorandum 85841	1983	P00000087434-P00000087557	NASA	https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19830021473.pdf		
MIL 2 (August 24, 2018)	341-392	Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers, State of Knowledge Report prepared for the Washington State Department of Ecology	2013	P00000087666-P00000087795	A.K. Snover et al.	http://cses.washington.edu/db/pdf/snoveretalsok816lowres.pdf		
MIL 2 (August 24, 2018)	341-393	Wildfire Management Funding: Background, Issues, and FY 2018 Appropriations	13-Oct-17	P00000088803-P00000088820	K. Hoover, Congressional Research Service	https://fas.org/sgp/crs/misc/R45005.pdf		
MIL 2 (August 24, 2018)	341-394	Wildfires – Annual 2017	2017	P00000088974-P00000088974	NOAA, NCEI	https://www.ncdc.noaa.gov/sotc/fire/201713		
MIL 2 (August 24, 2018)	341-395	State of the Climate: Global Climate Report for Annual 2016	2017	P00000088979-P00000088988	NOAA	https://www.ncdc.noaa.gov/sotc/global/201613		
MIL 2 (August 24, 2018)	341-396	Global Climate Report – Annual 2017, Global Temperatures	2017	P00000088989-P00000088999	NOAA	https://www.ncdc.noaa.gov/sotc/global/201713		
MIL 2 (August 24, 2018)	341-397	Climate Change	2018	P00000089000-P00000089001	U.S. DOI	https://www.doi.gov/climate; Web page available on wayback machine at: https://web.archive.org/web/20180618112612/https://www.doi.gov/climate		
MIL 2 (August 24, 2018)	341-398	OMB Circular No. A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs"	Oct-92	P00000090000-P00000090021	Office of Management and Budget	https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A94/a094.pdf		
MIL 2 (August 24, 2018)	341-399	Speech to the House of Representatives	June 8, 1789	P00000090022-P00000090035	James Madison	Library of Congress: https://memory.loc.gov/cgi-bin/ampage?collId=llac&fileName=001/llac001.db&recNum=221		
MIL 2 (August 24, 2018)	341-400	Special Message to the Senate and House of Representatives	22-Jan-09	P00000090036-P00000090040	Theodore Roosevelt	http://www.presidency.ucsb.edu/ws/index.php?pid=69658		
MIL 2 (August 24, 2018)	341-401	"Preserving Our Natural Heritage," Message from the President of the United States, transmitting "Programs for Controlling Pollution and Preserving our Natural and Historical Heritage"	23-Feb-66	P00000090041-P00000090050	The White House	https://coast.noaa.gov/data/Documents/OceanLawSearch/H.R.%20Doc.%20No.%2089-387.pdf		
MIL 2 (August 24, 2018)	341-402	IPCC Special Report on Emission Scenarios (SRES)	2000	P00000090076-P00000090102	IPCC	https://ipcc.ch/pdf/special-reports/spm/sres-en.pdf		
MIL 2 (August 24, 2018)	341-403	Exec. Order 12866, Regulatory Planning and Review	4-Oct-93	P00000090130-P00000090139	The White House	https://www.archives.gov/files/federal-register/executive-orders/pdf/12866.pdf		

MIL 2 (August 24, 2018)	341-404	Biomass as a Feedstock for a Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion-Ton Annual Supply	2005	P00000090140-P00000090217	U.S. DOE and USDA	https://www1.eere.energy.gov/bioenergy/pdfs/final_billionton_vision_report2.pdf		
MIL 2 (August 24, 2018)	341-405	Statement on Anticipated Sea Level Rise in the Coming Century, in Second Report and Initial Recommendations, Miami-Dade County Climate Change Advisory Task Force, April 2008	2008	P00000090218-P00000090318	Science Committee, Miami-Dade County Climate change Advisory Task Force	https://www.miamidade.gov/environment/library/brochures/08-10-04-ccatf-recommendations.pdf (pg. 28-36)		
MIL 2 (August 24, 2018)	341-406	Impact of Climate Change and Bioenergy on Nutrition	2008	P00000090319-P00000090409	M.J. Cohen et al.; Food and Agricultural Organisations of the United Nations and International Food Policy Research Institute	http://www.fao.org/docrep/pdf/010/ai799e/ai799e00.pdf		
MIL 2 (August 24, 2018)	341-407	Carbon Storage and Accumulation in U.S. Forest Ecosystems	1992	P00000090410-P00000090464	R.A. Birdsey, USDA	https://www.nrs.fs.fed.us/pubs/gtr/gtr_wo059.pdf		
MIL 2 (August 24, 2018)	341-408	White House Conference on Children and Youth: Records 1930–70	1992	P00000090465-P00000090594	Dwight D. Eisenhower Library	https://eisenhower.archives.gov/Research/Finding_Aids/pdf/White_House_Conference_on_Children_and_Youth.pdf		
MIL 2 (August 24, 2018)	341-409	Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems	Sep-08	P00000090595-P00000090812	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/60001JAV.PDF?Dockey=60001JAV.PDF		
MIL 2 (August 24, 2018)	341-410 to 414	Satellite Image Atlas of Glaciers of the World, Alaska	2008	P00000090813-P00000091366	U.S. Geological Survey	https://pubs.usgs.gov/pp/p1386k/pdf/1386K_complete.pdf		
MIL 2 (August 24, 2018)	341-415	Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act	17-Apr-09	P00000091367-P00000091537	Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100DDDS.PDF?Dockey=P100DDDS.PDF		
MIL 2 (August 24, 2018)	341-416	A Brighter Tomorrow: Climate Change, Child Rights and Intergenerational Justice	2010	P00000091538-P00000091549	UNICEF	https://downloads.unicef.org.uk/wp-content/uploads/2010/09/intergenerationaljustice.pdf		
MIL 2 (August 24, 2018)	341-417	"No-till" Farming is a Growing Practice, Economic Information Bulletin Number 70	Nov-10	P00000091587-P00000091614	J. Horowitz et al., USDA	https://ageconsearch.umn.edu/bitstream/96636/2/EIB70.pdf		
MIL 2 (August 24, 2018)	341-418	The National Energy Modeling System: An Overview 2009	2009	P00000091615-P00000091697	U.S. DOE	http://www.eia.gov/oiaf/aeo/overview/pdf/0581(2009).pdf		
MIL 2 (August 24, 2018)	341-419	Public Trust Doctrine, Module 8, Lesson 1, Federal Regulatory Authority Over Lands Beneath Navigable Waters	last visited July 20, 2017	P00000091698-P00000091699	NOAA, Coastal Services Center	direct weblink no longer available, archived webpage available here: https://web.archive.org/web/20111015200712/https://www.csc.noaa.gov/ptd/module08/lesson01/0801.htm		
MIL 2 (August 24, 2018)	341-420	Energy Savings Potential of Solid-State Lighting in General Illumination Applications	2012	P00000091700-P00000091783	U.S. DOE	http://apps1.eere.energy.gov/buildings/publications/pdfs/ssl/ssl_energy-savings-report_10- 30.pdf		
MIL 2 (August 24, 2018)	341-421	Energy Projects on Federal Lands: Leasing and Authorization	1-Feb-12	P00000091784-P00000091806	Adam Vann, Congressional Research Service	https://heinonline.org/HOL/P?h=hein.crs/crsmthaabap0001&i=1		

MIL 2 (August 24, 2018)	341-422	Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation	2012	P00000091807-P00000092400	IPCC	https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf		
MIL 2 (August 24, 2018)	341-423	Asthma-Related School Absenteeism and School Concentration of Low-Income Students in California	2012	P00000092401-P00000092408	Y.Y. Meng, S. Babey, & J. Wolstein	https://www.cdc.gov/pcd/issues/2012/11_0312.htm		
MIL 2 (August 24, 2018)	341-424	Climate Change 2007 - Impacts, Adaptation and Vulnerability, Contribution of Working Group II to the Fourth Assessment Report of the IPCC	2007	P00000093416-P00000094402	IPCC	https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4_wg2_full_report.pdf		
MIL 2 (August 24, 2018)	341-425	2012 Arctic Report Card	2012	P00000094403-P00000094571	NOAA-OAR	http://www.climatewatch.noaa.gov/article/2012/2012-arctic-report-card		
MIL 2 (August 24, 2018)	341-426	Global Sea Level Rise Scenarios for the United States National Climate Assessment. NOAA Technical Report OAR CPO-1	6-Dec-12	P00000094572-P00000094604	NOAA	https://repository.library.noaa.gov/view/noaa/11124/noaa_11124_DS1.pdf?		
MIL 2 (August 24, 2018)	341-427	Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels 2013	2013	P00000094605-P00000095046	Organisation for Economic Co-operation and Development	http://www.oecd-ilibrary.org/content/book/9789264187610-en		
MIL 2 (August 24, 2018)	341-428	Global Anthropogenic Non-CO_2 Greenhouse Gas Emissions: 1990-2030	2012	P00000095047-P00000095234	U.S. EPA	https://www.epa.gov/global-mitigation-non-co2-greenhouse-gases/global-anthropogenic-non-co2-greenhouse-gas-emissions		
MIL 2 (August 24, 2018)	341-429	Water Resource Policies and Authorities Incorporating Sea-level Change Considerations in Civil Works Programs, EC 1165-2-11	1-Jul-09	P00000095235-P00000095265	U.S. Army Corps of Engineers	https://web.law.columbia.edu/sites/default/files/microsites/climate-change/doa_engineering_circular_1165-2-211.pdf		
MIL 2 (August 24, 2018)	341-430	CCS in Industrial Applications: A Workshop of the CCUS Action Group in Preparation for the 4th Clean Energy Ministerial	20-Jan-13	P00000095266-P00000095290	International Energy Agency	http://www.iea.org/media/workshops/2013/ccs/industry/cem_workshopreport.pdf		
MIL 2 (August 24, 2018)	341-431	Climate Change and Extreme Heat Events	2013	P00000095291-P00000095310	Centers for Disease Control and Prevention	www.cdc.gov/climateandhealth/pubs/ClimateChangeandExtremeHeatEvents.pdf		
MIL 2 (August 24, 2018)	341-432	Summer Fallow in the Northern Great Plains (Winter Wheat), *in* Summer Fallow in the Western United States, Conservation Research Report No. 17	Apr-74	P00000095311-P00000095480	A.L. Black et al., USDA	https://archive.org/details/summerfallowinwe17unit		
MIL 2 (August 24, 2018)	341-433	Annual Energy Outlook 2013, DOE/EIA-0383	2013	P00000095481-P00000095724	U.S. DOE	http://www.eia.gov/forecasts/aeo/pdf/0383(2013).pdf		
MIL 2 (August 24, 2018)	341-434	Energy Balances of OECD Countries. Organization for Economic Cooperation and Development	2013	P00000095725-P00000096062	International Energy Agency	https://www.oecd-ilibrary.org/energy/energy-balances-of-oecd-countries-2013_energy_bal_oecd-2013-en		
MIL 2 (August 24, 2018)	341-435	Energy Balances of Non-OECD Countries. Organization for Economic Cooperation and Development	2013	P00000096063-P00000096616	International Energy Agency	https://www.oecd-ilibrary.org/energy/energy-balances-of-non-oecd-countries-2013_energy_bal_non-oecd-2013-en		
MIL 2 (August 24, 2018)	341-436	Biochemical Production of Ethanol from Corn Stover: 2007 State of Technology Model	2008	P00000096617-P00000096631	National Renewable Energy Laboratory	https://www.energy.gov/sites/prod/files/2014/03/f14/43205.pdf		
MIL 2 (August 24, 2018)	341-437	Potential for Energy Efficiency Improvement Beyond the Light-Duty-Vehicle Sector	2013	P00000096632-P00000096729	National Renewable Energy Laboratory	http://www.nrel.gov/docs/fy13osti/55637.pdf		

MIL 2 (August 24, 2018)	341-438	Lignocellulosic Biomass to Ethanol Process Design and Economics Utilizing Co-current Dilute Acid Prehydrolysis and Enzymatic Hydrolysis Current and Futuristic Scenarios (No. NREL/TP-580- 26157)	1999	P00000096730-P00000096861	R. Wooley et al., National Renewable Energy Laboratory	https://www.nrel.gov/docs/fy99osti/26157.pdf		
MIL 2 (August 24, 2018)	341-439	IARC: Outdoor Air Pollution a Leading Environmental Cause of Cancer Deaths	2013	P00000096862-P00000096865	International Agency for Research on Cancer	https://www.iarc.fr/en/media-centre/iarcnews/pdf/pr221_E.pdf		
MIL 2 (August 24, 2018)	341-440 to 450	Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change	2013	P00000096866-P00000098417	IPCC	http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf		
MIL 2 (August 24, 2018)	341-451	Global Mitigation of Non-CO_2 Greenhouse Gases: 2010-2030, EPA-430-R-13-011	Sep-13	P00000098418-P00000098827	U.S EPA	http://www.epa.gov/climatechange/Downloads/EPAactivities/MAC_Report_2013.pdf		
MIL 2 (August 24, 2018)	341-453	2012 Census of Agriculture, Vol. 1	May-14	P00000098849-P00000099543	National Agricultural Statistics Service, USDA	https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_US/usv1.pdf		
MIL 2 (August 24, 2018)	341-454	N_2O Emissions from Managed Soils, and CO_2 Emissions from Lime and Urea Application, in 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Vol. 4. Agriculture, Forestry and Other Land Use	2006	P00000099544-P00000099597	C. De Klein et al.	https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_11_Ch11_N2O&CO2.pdf		
MIL 2 (August 24, 2018)	341-455	Annual Energy Outlook 2014 with Projections to 2040	2014	P00000099598-P00000099866	U.S. EIA	http://www.eia.gov/forecasts/aeo/		
MIL 2 (August 24, 2018)	341-456	Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012, EPA 430-R-14-003	15-Apr-14	P00000099867-P00000100395	U.S EPA	http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2014-Main-Text.pdf		
MIL 2 (August 24, 2018)	341-457	CCS 2014: What lies in store for CCS? IEA Insight Series 2014	2014	P00000100396-P00000100503	International Energy Agency	https://www.iea.org/publications/insights/insightpublications/Insight_CCS2014_FINAL.pdf		
MIL 2 (August 24, 2018)	341-458	Norfolk Coastal Resilience Strategy	2014	P00000100504-P00000100517	City of Norfolk, VA	http://www.norfolk.gov/documentcenter/view/16292		
MIL 2 (August 24, 2018)	341-459	Ch. 3: Quantifying Greenhouse Sources and Sinks in Cropland and Grazing Land Systems, *in* Quantifying Greenhouse Gas Fluxes in Agriculture and Forestry: Methods for Entity-scale Inventory	2014	P00000100518-P00000100659	S.M. Ogle et al.	https://www.usda.gov/oce/climate_change/Quantifying_GHG/Chapter3S.pdf		
MIL 2 (August 24, 2018)	341-460	Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change	2014	P00000100660-P00000101809	IPCC	http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-PartA_FINAL.pdf		
MIL 2 (August 24, 2018)	341-461	Manual of Industrial Project Analysis in Developing Countries, Vol. 2	1969	P00000102960-P00000103241	I.M.D. Little and J.A. Mirrlees	http://121.52.153.178:8080/xmlui/bitstream/handle/123456789/8066/Manual%20Of%20Industrial%20Project%20Analysis.PDF?sequence=3		
MIL 2 (August 24, 2018)	341-462	Preparing the Nation for Change: Building a Sustained National Climate Assessment Process	2013	P00000103242-P00000103314	National Climate Assessment and Development Advisory Committee	https://sncaadvisorycommittee.noaa.gov/Portals/0/Meeting-Documents/NCA-SASRWG_Report_Print.pdf		
MIL 2 (August 24, 2018)	341-463	U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry	2011	P00000103315-P00000103549	U.S. DOE	http://www1.eere.energy.gov/bioenergy/pdfs/billion_ton_update.pdf		

MIL 2 (August 24, 2018)	341-464	Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change	2014	P00000103550-P00000105003	IPCC	http://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_full.pdf		
MIL 2 (August 24, 2018)	341-465	Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2013	Mar-15	P00000107912-P00000108006	U.S. EIA	https://www.eia.gov/analysis/requests/subsidy/pdf/subsidy.pdf		
MIL 2 (August 24, 2018)	341-466	Intended Nationally Determined Contribution	2015	P00000108007-P00000108011	U.S. Government	http://www4.unfccc.int/ndcregistry/PublishedDocuments/United%20States%20of%20America%20First/U.S.A.%20First%20NDC%20Submission.pdf		
MIL 2 (August 24, 2018)	341-467	Regulatory Impact Analysis for the Final Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units. EPA-452/R-15-005	Aug-15	P00000108244-P00000108406	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100MWLE.PDF?Dockey=P100MWLE.PDF		
MIL 2 (August 24, 2018)	341-468	Summary Report: 2012 National Resources Inventory	Aug-15	P00000108407-P00000108616	USDA	https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd396218.pdf		
MIL 2 (August 24, 2018)	341-469	United States Self-Review of Fossil Fuel Subsidies. Submitted December 2015 to the G-20 Peer Reviewers	Dec-15	P00000108617-P00000108630	U.S. Government	http://www.oecd.org/site/tadffss/publication/		
MIL 2 (August 24, 2018)	341-470	Notice of Intent to Prepare a Programmatic Environmental Impact Statement to Review the Federal Coal Program and to Conduct Public Scoping Meetings	30-Mar-16	P00000108646-P00000108654	U.S. DOI	https://federalregister.gov/a/2016-07138		
MIL 2 (August 24, 2018)	341-472	Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015, FCCC/CP/2015/10/Add.2	2013	P00000108711-P00000108739	United Nations Framework Convention on Climate Change	http://unfccc.int/resource/docs/2015/cop21/eng/10a02.pdf#page=25		
MIL 2 (August 24, 2018)	341-474	Guidelines for Preparing Economic Analyses	17-Dec-10	P00000108770-P00000109071	U.S. EPA	https://www.epa.gov/environmental-economics/guidelines-preparing-economicanalyses		
MIL 2 (August 24, 2018)	341-475	Climate Change, Health, and Environmental Justice, EPA 430-F-16-054	May-16	P00000109072-P00000109075	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100OW3J.PDF?Dockey=P100OW3J.PDF		
MIL 2 (August 24, 2018)	341-476	USDA Building Blocks for Climate Smart Agriculture and Forestry: Implementation Plan and Progress Report	May-16	P00000109076-P00000109137	USDA	https://www.usda.gov/sites/default/files/documents/building-blocks-implementation-plan-progress-report.pdf		
MIL 2 (August 24, 2018)	341-477	Potential Increases in Hurricane Damage in the United States: Implications for the Federal Budget	Jun-16	P00000109138-P00000109175	Congressional Budget Office	https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51518-hurricane-damage.pdf		
MIL 2 (August 24, 2018)	341-478	The Adaptation Finance Gap Report 2016	2016	P00000109176-P00000109247	U.N. Environment Programme	http://www.unepdtu.org/newsbase/2016/05/uneps-adaptation-finance-gap-report-released?id=377aa3d4-32c1-4100-8bee-ae65390b60ba		
MIL 2 (August 24, 2018)	341-479	Ambient Air Pollution: A Global Assessment of Exposure and Burden of Disease	2016	P00000109248-P00000109368	World Health Organization	http://www.who.int/phe/publications/air pollution- global-assessment/en/		
MIL 2 (August 24, 2018)	341-480	CO_2 Emissions from Fuel Combustion: Highlights	2016	P00000109369-P00000109534	International Energy Agency	Original link to source no longer available. Document available at: https://web.archive.org/web/20170713175046/http://www.iea.org:80/publications/freepublications/publication/CO2EmissionsfromFuelCombustion_Highlights_2016.pdf		

MIL 2 (August 24, 2018)	341-481	United States Mid-Century Strategy for Deep Decarbonization	2016	P00000109535-P00000109645	U.S. Government	https://unfccc.int/files/focus/longterm_strategies/application/pdf/mid_century_strategy_report-final_red.pdf		
MIL 2 (August 24, 2018)	341-482	Economic Analysis Methodology for the 2017–2022 Outer Continental Shelf Oil and Gas Leasing Program	Nov-16	P00000109646-P00000109716	Bureau of Ocean Energy Management	https://www.boem.gov/economic-analysis-methodology/		
MIL 2 (August 24, 2018)	341-483	World Energy Outlook 2016	15-Nov-16	P00000109717-P00000110400	International Energy Agency	Document filed is available to download from: https://webstore.iea.org/world-energy-outlook-2016		
MIL 2 (August 24, 2018)	341-484	Fact Sheet: President Obama Protects 125 Million Acres of the Arctic Ocean	Dec-16	P00000110401-P00000110408	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/2016_arctic_withdrawal_fact_sheet_for_release.pdf		
MIL 2 (August 24, 2018)	341-485	Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Exec. Order 12866	2010	P00000110409-P00000110459	Interagency Working Group	https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf		
MIL 2 (August 24, 2018)	341-486	Inaugural Meeting of the Advisory Committee for the Sustained National Climate Assessment	September 13-15, 2016	P00000110460-P00000110486	NOAA Advisory Committee for the Sustained National Climate Assessment	http://sncaadvisorycommittee.noaa.gov/Meetings/MeetingDocuments.aspx		
MIL 2 (August 24, 2018)	341-487	Monthly Energy Review, January 2017	Jan-17	P00000110487-P00000110729	U.S. EIA	http://www.eia.gov/totalenergy/data/monthly/archive/00351701.pdf		
MIL 2 (August 24, 2018)	341-488	Technical Report NOS CO-OPS 083, Global and Regional Sea-Level Rise Scenarios for the United States	2017	P00000110730-P00000110804	William V. Sweet et al., NOAA	https://tidesandcurrents.noaa.gov/pub.html		
MIL 2 (August 24, 2018)	341-489	Accomplishments of the U.S. Global Change Research Program	2017	P00000110811-P00000110901	Committee to Advise the U.S. Global Change Research Program	https://www.nap.edu/catalog/24670/accomplishments-of-the-us-global-change-research-program		
MIL 2 (August 24, 2018)	341-490	Ocean Acidification	last visited February 27, 2017	P00000110902-P00000110915	The Ocean Portal Team, reviewed by Jennifer Bennett (NOAA)	http://ocean.si.edu/ocean-acidification		
MIL 2 (August 24, 2018)	341-491	Short-Lived Climate Pollutant Reduction Strategy	2017	P00000110916-P00000111064	California Environmental Protection Agency Air Resources Board	https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf		
MIL 2 (August 24, 2018)	341-492	U.S. Energy-Related Carbon Dioxide Emissions, 2015	Mar-17	P00000111065-P00000111082	U.S. EIA	https://www.eia.gov/environment/emissions/carbon/pdf/2015_co2analysis.pdf		
MIL 2 (August 24, 2018)	341-493	Deep Decarbonization Pathways Analysis for Washington State: Executive Summary	Apr-17	P00000111083-P00000111088	B. Haley, G. Kwok, R. Jones, and J. H. Williams	https://www.governor.wa.gov/sites/default/files/DeepDecarbonizationPathwaysAnalysisforWashingtonSt.pdf		
MIL 2 (August 24, 2018)	341-494	Meeting of the Committee to Advise the USGCRP	April 20-21, 2017	P00000111089-P00000111091	National Research Council Committee to Advise the USGCRP	http://dels.nas.edu/Past-Events/USGCRP-Advisory-Committee-Meeting-April/AUTO-3-46-05-F		
MIL 2 (August 24, 2018)	341-495	Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015	14-Feb-17	P00000111092-P00000111724	U.S. EPA	https://www.epa.gov/ghgemissions/draft-inventory-us-greenhouse-gas-emissions-and-sinks-1990-2015		
MIL 2 (August 24, 2018)	341-496	FY 2018 USDA Budget Summary	2017	P00000111725-P00000111828	USDA	https://www.usda.gov/sites/default/files/documents/USDA-Budget-Summary-2018.pdf		

MIL 2 (August 24, 2018)	341-497	Review of the Draft Climate Science Special Report, Board on Atmospheric Sciences and Climate Committee to Review the Draft Climate Science Special Report	2017	P00000111829-P00000111961	Board on Atmospheric Sciences and Climate	https://www.nap.edu/catalog/24712/review-of-the-draft-climate-science-special-report		
MIL 2 (August 24, 2018)	341-498	Major Uses of Land in the United States, 2012. EIB-178	2017	P00000111962-P00000112030	D.P. Bigelow and A. Borchers, USDA	https://www.ers.usda.gov/webdocs/publications/84880/eib-178.pdf?v=42972		
MIL 2 (August 24, 2018)	341-499	Domestic Policy Review of Solar Energy	5-Dec-78	P00000112031-P00000112177	Jim Schlesinger	Jimmy Carter Presidential Library, Office of Staff Secretary; Series: Presidential Files; Folder: [12/22/78-Not Submitted-DF]; Container 101		
MIL 2 (August 24, 2018)	341-500	Key World Energy Statistics 2017	2017	P00000112178-P00000112274	International Energy Agency	https://www.iea.org/publications/freepublications/publication/KeyWorld2017.pdf		
MIL 2 (August 24, 2018)	341-501	Wildfire Suppression Spending: Background, Issues, and Legislation in the 115th Congress	5-Oct-17	P00000112275-P00000112322	K. Hoover & B. Lindsay, Congressional Research Service	https://fas.org/sgp/crs/misc/R44966.pdf		
MIL 2 (August 24, 2018)	341-502	National Transportation Statistics 2017	2017	P00000112361-P00000112830	U.S. DOT, Bureau of Transportation Statistics	https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/national-transportation-statistics/217651/ntsentire2017q4.pdf		
MIL 2 (August 24, 2018)	341-503	Arctic Report Card 2017	2017	P00000112831-P00000112926	J. Richter-Menge, J.E. Overland, J.T. Mathis, E. Osborne, Eds	http://www.arctic.noaa.gov/Report-Card		
MIL 2 (August 24, 2018)	341-504	Renewable Power Generation Costs in 2017	2018	P00000112927-P00000113086	International Renewable Energy Agency	https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Jan/IRENA_2017_Power_Costs_2018.pdf		
MIL 2 (August 24, 2018)	341-505	Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, John H. Knox, ¶¶ 7, 12, U.N. Doc. A/HRC/37/58	2018	P00000113087-P00000113105	U.N. General Assembly	https://www.right-docs.org/doc/a-hrc-37-58/		
MIL 2 (August 24, 2018)	341-506	Statement for the Record: Worldwide Threat Assessment of the U.S. Intelligence Community	13-Feb-18	P00000113182-P00000113209	Daniel R. Coats, Director of National Intelligence	https://www.intelligence.senate.gov/sites/default/files/documents/os-dcoats-021318.PDF		
MIL 2 (August 24, 2018)	341-507	FY 2019 USDA Budget Summary	2018	P00000113210-P00000113301	USDA	https://www.usda.gov/sites/default/files/documents/usda-fy19-budget-summary.pdf		
MIL 2 (August 24, 2018)	341-508	Annual Energy Outlook 2018	2018	P00000113302-P00000113375	U.S. EIA	http://www.eia.gov/forecasts/aeo/		
MIL 2 (August 24, 2018)	341-509	Patterns and Projections of High Tide Flooding Along the U.S. Coastline Using a Common Impact Threshold. NOAA Technical Report NOS CO-OPS 086	2018	P00000113376-P00000113431	W. V. Sweet, G. Dusek, J. Obeysekera, and J.J. Marra	https://tidesandcurrents.noaa.gov/publications/techrpt86_PaP_of_HTFlooding.pdf		
MIL 2 (August 24, 2018)	341-510	OMB Circular No. A-94, "Discount Rates to be Used in Evaluating Time-Distributed Costs and Benefits"	27-Mar-72	P00000113432-P00000113437	Office of Management and Budget	https://stacks.stanford.edu/file/druid:rv089pp2037/OMBCircular94.pdf		
MIL 2 (August 24, 2018)	341-511	Estimating CO_2 Emissions Embodied in Final Demand and Trade Using the OECD ICIO 2015. OECD Science, Technology and Industry Working Papers	3-Sep-16	P00000113438-P00000113476	Kirsten S. Wiebe and Norihiko Yamano	http://www.oecd-ilibrary.org/content/workingpaper/5jlrcm216xkl-en		

MIL 2 (August 24, 2018)	341-512	Offshore Oil and Gas Development: Legal Framework	13-Apr-18	P00000113477-P00000113501	Congressional Research Service	https://fas.org/sgp/crs/misc/RL33404.pdf		
MIL 2 (August 24, 2018)	341-513	Electrification Futures Study: End-Use Electric Technology Cost and Performance Projections Through 2050	2017	P00000113911-P00000114019	National Renewable Energy Laboratory	https://www.nrel.gov/docs/fy18osti/70485.pdf		
MIL 2 (August 24, 2018)	341-514	Address to the Agricultural Society of Albemarle	May 12, 1818	P00000114020-P00000114035	James Madison	https://founders.archives.gov/documents/Madison/04-01-02-0244		
MIL 2 (August 24, 2018)	341-515	Geographic Names Disappear from Charts, But Not from History	2014	P00000114036-P00000114037	M. Westington, NOAA, Office of Coast Survey	https://noaacoastsurvey.wordpress.com/2014/03/21/geographic-names-disappear-from-charts/		
MIL 2 (August 24, 2018)	341-516	Global Sea Level Likely to Rise as Much as 70 Feet in Future Generations. National Science Foundation News Release #12-051	2012	P00000114038-P00000114041	National Science Foundation	https://www.nsf.gov/news/news_summ.jsp?cntn_id=123545		
MIL 2 (August 24, 2018)	341-517	Report of the NOAA Panel on Contingent Valuation	1993	P00000114042-P00000114109	K. Arrow et al., NOAA	https://www.researchgate.net/profile/Edward_Leamer/publication/235737401_Report_of_the_NOAA_panel_on_Contingent_Valuation/links/5868422f08ae6eb871b75384.pdf		
MIL 2 (August 24, 2018)	341-518	Exec. Order 12291, Federal Regulation, 46 FR 13193	17-Feb-81	P00000114110-P00000114116	The White House	https://www.archives.gov/federal-register/codification/executive-order/12291.html		
MIL 2 (August 24, 2018)	341-519	SuperTruck Leading the Way in Efficiency for Heavy Duty, Long Haul Vehicles	27-Jun-16	P00000114117-P00000114120	U.S. DOE	https://www.energy.gov/eere/articles/supertruck-leading-way-efficiency-heavy-duty-long-haul-vehicles		
MIL 2 (August 24, 2018)	341-520	Interior Announces Date For Largest Oil and Gas Lease Sale in U.S. History	16-Feb-18	P00000114121-P00000114123	U.S. DOI	https://www.doi.gov/pressreleases/interior-announces-date-largest-oil-and-gas-lease-sale-us-history		
MIL 2 (August 24, 2018)	341-521	2016 Billion Ton Report: Advancing Domestic Resources for a Thriving Bioeconomy	2016	P00000114132-P00000114579	U.S. DOE	https://www.energy.gov/sites/prod/files/2016/12/f34/2016_billion_ton_report_12.2.16_0.pdf		
MIL 2 (August 24, 2018)	341-522	Historical CO_2 Record from the Siple Station Ice Core	1994	P00000114580	A. Neftel et al.	http://cdiac.ornl.gov/ftp/trends/co2/siple2.013		
MIL 2 (August 24, 2018)	341-523	U.S. Billion-Dollar Weather and Climate Disasters 1980-2018	2017	P00000114582-P00000114595	NOAA	https://www.ncdc.noaa.gov/billions/events/US/1980-2017		
MIL 2 (August 24, 2018)	341-524	2019-2024 National Continental Shelf Oil and Gas Leasing, Draft Proposed Program	Jan-18	P00000114596-P00000114601	Bureau of Ocean Energy Management	https://www.regulations.gov/document?D=BOEM-2017-0074-0001		
MIL 2 (August 24, 2018)	341-525	Remarks of President Barack Obama – State of the Union Address As Delivered	13-Jan-16	P00000114602-P00000114613	The White House	https://obamawhitehouse.archives.gov/the-press-office/2016/01/12/remarks-president-barack-obama-%E2%80%93-prepared-delivery-state-union-address		
MIL 2 (August 24, 2018)	341-526	United States-Canada Joint Arctic Leaders' Statement	20-Dec-16	P00000114614-P00000114617	The White House	https://obamawhitehouse.archives.gov/the-press-office/2016/12/20/united-states-canada-joint-arctic-leaders-statement		
MIL 2 (August 24, 2018)	341-527	Heat Illness Among High School Athletes --- United States, 2005-2009. Morbidity and Mortality Weekly Report	20-Aug-10	P00000114618-P00000114665	Centers for Disease Control and Prevention	https://www.cdc.gov/mmwr/pdf/wk/mm5932.pdf		
MIL 2 (August 24, 2018)	341-528	Growth in Urban Population Outpaces Rest of Nation, Census Bureau Reports	26-Mar-12	P00000114666-P00000114667	U.S. Census Bureau	https://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html		
MIL 2 (August 24, 2018)	341-529	U.S. Climate Resilience Toolkit, High-Tide Flooding	9-Apr-18	P00000114668-P00000114672	NOAA	https://toolkit.climate.gov/topics/coastal-flood-risk/shallow-coastal-flooding-nuisance-flooding		

MIL 2 (August 24, 2018)	341-530	National Commission on Children and Disasters, 2010 Report to the President and Congress	Oct-10	P00000114686-P00000114877	National Commission on Children and Disasters	https://archive.ahrq.gov/prep/nccdreport/nccdreport.pdf		
MIL 2 (August 24, 2018)	341-531	USA QuickFacts from the U.S. Census Bureau	2016	P00000114878-P00000114882	U.S. Census Bureau	https://www.census.gov/quickfacts/fact/table/US/PST045216		
MIL 2 (August 24, 2018)	341-532	Climate Change Indicators: Weather and Climate	last accessed July 3, 2018	P00000114883-P00000114887	U.S. EPA	https://www.epa.gov/climateindicators/weather-climate		
MIL 2 (August 24, 2018)	341-533	Reducing America's Dependence on Foreign Oil As a Strategy to Increase Economic Growth and Reduce Economic Vulnerability	29-Aug-13	P00000114888-P00000114891	Jason Furman and Gene Sperling	https://obamawhitehouse.archives.gov/blog/2013/08/29/reducing-america-s-dependence-foreign-oil-strategy-increase-economic-growth-and-redu		
MIL 2 (August 24, 2018)	341-534	The IMF's Work on Inequality: Bridging Research and Reality	22-Feb-17	P00000114892-P00000114895	Prakash Loungani and Jonathan D. Ostry	https://blogs.imf.org/2017/02/22/the-imfs-work-on-inequality-bridging-research-and-reality/		
MIL 2 (August 24, 2018)	341-535	The Impact of Climate Change on Natural Disasters	30-Mar-05	P00000114896-P00000114900	NASA	https://earthobservatory.nasa.gov/Features/RisingCost/rising_cost5.php		
MIL 2 (August 24, 2018)	341-536	The Study of Earth as an Integrated System	last accessed July 3, 2018	P00000114901-P00000114907	NASA	https://climate.nasa.gov/nasa_science/science/		
MIL 2 (August 24, 2018)	341-537	Billion-Dollar Weather and Climate Disasters: Overview	2018	P00000114908-P00000114911	NOAA, NCEI	https://www.ncdc.noaa.gov/billions/		
MIL 2 (August 24, 2018)	341-538	Global Warming and Hurricanes: An Overview of Current Research Results	6-Jun-18	P00000114912-P00000114924	NOAA	https://www.gfdl.noaa.gov/global-warmingand- hurricanes/		
MIL 2 (August 24, 2018)	341-539	Inequality Hurts Economic Growth, Finds OECD Research	last accessed July 3, 2018	P00000114925-P00000114926	OECD	http://www.oecd.org/newsroom/inequality-hurts-economic-growth.htm		
MIL 2 (August 24, 2018)	341-540	Economic Analysis of Federal Regulations Under Exec. Order 12866	11-Jan-96	P00000114927-P00000114947	The White House	https://obamawhitehouse.archives.gov/omb/inforeg_riaguide/		
MIL 2 (August 24, 2018)	341-541	Office of Fossil Energy FY 2019 Budget	last accessed July 3, 2018	P00000114948-P00000114950	U.S. DOE	https://www.energy.gov/fe/about-us/our-budget		
MIL 2 (August 24, 2018)	341-542	Global Greenhouse Gas Emissions Data	last accessed July 3, 2018	P00000114951-P00000114958	U.S. EPA	https://www.epa.gov/ghgemissions/global-greenhouse-gasemissions- data#Country		
MIL 2 (August 24, 2018)	341-543	Remarks to the National Committee for the 1960 White House Conference on Children and Youth	16-Dec-58	P00000114959-P00000114960	Dwight D. Eisenhower	http://www.presidency.ucsb.edu/ws/index.php?pid=11297		
MIL 2 (August 24, 2018)	341-544	Remarks at the First Meeting of the White House Child Health Conference Planning Committee	29-Jul-29	P00000114961-P00000114962	Herbert Hoover	http://www.presidency.ucsb.edu/ws/index.php?pid=21876		
MIL 2 (August 24, 2018)	341-545	Statement on Plans for a White House Conference on Child Health and Protection	2-Jul-29	P00000114963-P00000114964	Herbert Hoover	http://www.presidency.ucsb.edu/ws/index.php?pid=21852		
MIL 2 (August 24, 2018)	341-546	Address to the White House Conference on Child Health and Protection	19-Nov-30	P00000114965-P00000114968	Herbert Hoover	http://www.presidency.ucsb.edu/ws/?pid=22442		

MIL 2 (August 24, 2018)	341-547	Statement Announcing the Appointment of Stephen Hess as National Chairmen of the White House Conference on Children and Youth	5-Dec-69	P00000114969-P00000114970	Richard Nixon	http://www.presidency.ucsb.edu/ws/index.php?pid=2356		
MIL 2 (August 24, 2018)	341-548	Statement Announcing the White House Conference on Children and Youth	26-Oct-69	P00000114971-P00000114972	Richard Nixon	http://www.presidency.ucsb.edu/ws/index.php?pid=2284		
MIL 2 (August 24, 2018)	341-549	Remarks at the Opening Session of the White House Conference on Children	13-Dec-70	P00000114973-P00000114978	Richard Nixon	http://www.presidency.ucsb.edu/ws/index.php?pid=2845		
MIL 2 (August 24, 2018)	341-550	Eighth Annual Message to the Senate and House of Representative	8-Dec-08	P00000114979-P00000114998	Theodore Roosevelt	http://www.presidency.ucsb.edu/ws/index.php?pid=29549		
MIL 2 (August 24, 2018)	341-551	Address at the White House Conference on Children in a Democracy	23-Apr-39	P00000114999-P00000115001	Franklin D. Roosevelt	http://www.presidency.ucsb.edu/ws/index.php?pid=15747		
MIL 2 (August 24, 2018)	341-552	Radio Address at the White House Conference on Children in a Democracy	19-Jan-40	P00000115002-P00000115005	Franklin D. Roosevelt	http://www.presidency.ucsb.edu/ws/index.php?pid=15999		
MIL 2 (August 24, 2018)	341-553	Address Before the Midcentury White House Conference on Children and Youth	5-Dec-50	P00000115006-P00000115008	Harry S. Truman	http://www.presidency.ucsb.edu/ws/index.php?pid=13677		
MIL 2 (August 24, 2018)	341-554	First Inaugural Address	April 30, 1789	P00000115009-P00000115011	George Washington	http://www.archives.gov/exhibits/american_originals/inaugtxt.html		
MIL 2 (August 24, 2018)	341-555	Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model, GREET 2017 Release	9-Oct-17	P00000115012-P00000115015	Argonne National Laboratory	https://greet.es.anl.gov/		
MIL 2 (August 24, 2018)	341-556	Corn and Other Feed Grains: Background	2017	P00000115533-P00000115536	Economic Research Service, USDA	https://www.ers.usda.gov/topics/crops/corn/background.aspx		
MIL 2 (August 24, 2018)	341-557	Conservation Reserve Program Statistics	2017	P00000115537-P00000115539	Farm Service Agency, USDA	https://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index		
MIL 2 (August 24, 2018)	341-558	COMET-Farm: Whole Farm and Ranch Carbon and Greenhouse Gas Accounting System	2018	P00000116173	USDA	http://cometfarm.nrel.colostate.edu		
MIL 2 (August 24, 2018)	341-559	Fertilizer Use and Price	2018	P00000116174	USDA	https://www.ers.usda.gov/data-products/fertilizer-use-and-price/		
MIL 2 (August 24, 2018)	341-560	Greenhouse Gas Mitigation Potential in U.S. Forestry and Agriculture	Nov-05	P00000116175-P00000116328	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100GO8M.PDF?Dockey=P100GO8M.PDF		
MIL 2 (August 24, 2018)	341-561	About Rangeland Management	2018	P00000116329-P00000116330	U.S. Forest Service	https://www.fs.fed.us/rangeland-management/aboutus		
MIL 2 (August 24, 2018)	341-562	Intertemporal Equity, Discounting, and Economic Efficiency, *in* IPCC 1996, Second Assessment Report, Working Group III	1996	P00000116331-P00000116348	K. Arrow et al.	https://www.ipcc.ch/ipccreports/sar/wg_III/ipcc_sar_wg_III_full_report.pdf		
MIL 2 (August 24, 2018)	341-563	AHS 2013 National Summary Tables	2013	P00000116349-P00000116350	U.S. Census Bureau	https://www.census.gov/programs-surveys/ahs/data/2013/ahs-2013-summary-tables/national-summary-report-and-tables---ahs-2013.html		
MIL 2 (August 24, 2018)	341-564	Rights Under the Convention on the Rights of the Child	27-Mar-18	P00000116351-P00000116352	UNICEF	https://www.unicef.org/crc/index_30177.html		
MIL 2 (August 24, 2018)	341-565	The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, Draft Environmental Impact Statement	Jul-18	P00000116353-P00000116852	U.S. DOT, NHTSA	https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ld_cafe_my2021-26_deis_0.pdf		
MIL 2 (August 24, 2018)	341-567	Sixth Annual Report of the Chief, Children's Bureau to the Secretary of Labor, *in* Reports of the Department of Labor	30-Jun-18	P00000117147-P00000117909	U.S. DOL, Children's Bureau	https://ia800205.us.archive.org/13/items/annualreportchi02unkngoog/annualreportchi02unkngoog.pdf		

MIL 2 (August 24, 2018)	341-568	The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, Notice of Proposed Rulemaking, August 2018	Aug-18	P00000117910-P00000118887	U.S DOT, U.S. EPA	https://www.govinfo.gov/content/pkg/FR-2018-08-24/pdf/2018-16820.pdf		
MIL 2 (August 24, 2018)	341-569	National Global Change Research Plan 2012-2021	2012	P00000118890-P00000119041	Office of Science and Technology Policy, USGCRP	https://downloads.globalchange.gov/strategic-plan/2012/usgcrp-strategic-plan-2012.pdf		
MIL 2 (August 24, 2018)	341-570	Area of the Named Glaciers of Glacier National Park (GNP) and Flathead National Forest (FNF) Derived from Aerial and Satellite Imagery, 1966, 1998, 2005, 2015	2015	P00000119042-P00000119044	U.S. Geological Survey	https://www.usgs.gov/data-tools/area-named-glaciers-glacier-national-park-gnp-and-flathead-national-forest-fnf-derived		
MIL 2 (August 24, 2018)	341-571	Trends in Atmospheric Carbon Dioxide	2018	P00000119200-P00000119202	NOAA, Earth System Research Laboratory	https://www.esrl.noaa.gov/gmd/ccgg/trends/full.html		
MIL 2 (August 24, 2018)	341-572	Waste Prevention, Production Subject to Royalties, and Resource Conservation; Delay and Suspension of Certain Requirements; Proposed Rule, 82 Fed. Reg. 46458	5-Oct-17	P00000119203-P00000119220	U.S. BLM	https://www.gpo.gov/fdsys/pkg/FR-2017-10-05/pdf/2017-21294.pdf		
MIL 2 (August 24, 2018)	341-573	Preventing Disease Through Healthy Environments: Exposure to Air Pollution	2010	P00000119221-P00000119226	World Health Organization	http://www.who.int/ipcs/features/air_pollution.pdf		
MIL 2 (August 24, 2018)	341-574	Energy Efficiency Standards for the Design and Construction of New Federal Low-Rise Residential Buildings' Baseline Standards Update; Final Rule; Delay of Effective Date, 82 Fed. Reg. 9343	6-Feb-17	P00000119233-P00000119238	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-02-06/pdf/2017-02421.pdf		
MIL 2 (August 24, 2018)	341-575	Energy Conservation Program: Test Procedures for Central Air Conditioners and Heat Pumps; Final Rule; Delay of Effective Date, 82 Fed. Reg. 8985	2-Feb-17	P00000119239	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-02-02/pdf/2017-02136.pdf		
MIL 2 (August 24, 2018)	341-576	Energy Conservation Program: Test Procedures for Compressors; Final Rule; Delay of Effective Date; 82 Fed. Reg. 8985	2-Feb-17	P00000119240-P00000119241	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-02-02/pdf/2017-02134.pdf		
MIL 2 (August 24, 2018)	341-577	Energy Conservation Program: Energy Conservation Standards for Ceiling Fans; Final Rule; Delay of Effective Date, 82 Fed. Reg. 8806	31-Jan-17	P00000119242-P00000119243	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2017-01-31/pdf/2017-01958.pdf		
MIL 2 (August 24, 2018)	341-578	Circular A-94, Discount Rates and Procedures to be Used in Evaluating Deferred Costs and Benefits	26-Jun-69	P00000119244-P00000119250	Office of the President	National Archives Records Administration, College Park (provided via email by textual records reference librarian)		
MIL 2 (August 24, 2018)	341-579	National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units; Final Rule, 77 Fed. Reg. 9304	16-Feb-12	P00000119252-P00000119462	U.S. EPA	https://www.gpo.gov/fdsys/pkg/FR-2012-02-16/pdf/2012-806.pdf		
MIL 2 (August 24, 2018)	341-580	Trump Letter to UN on Leaving Paris Climate Accord – In Full	8-Jul-17	P00000119463-P00000119467	Karl Mathiesen	http://www.climatechangenews.com/2017/08/07/trump-tells-un-intention-leave-paris-climate-accord-full/		

MIL 2 (August 24, 2018)	341-581	Inventory of DOE Global Climate Change Programs 1989-1990 Update, Case File 89-CV-01483, Foundation on Econ, et al v. Watkins (1990)	Mar-89	P00000119779-P00000119817	U.S. DOE, Office of Technology Policy	National Archives and Records Administration, Records of the United States District Court for the District of Columbia, Record Group 21, Accession PT-021-2012-0254, Case File 89-CV-01483, Foundation on Econ, et al v. Watkins		
MIL 2 (August 24, 2018)	341-582	Climate Change Indicators in the United States, 4th Edition	2016	P00000121081-P00000121176	U.S. EPA	https://www.epa.gov/sites/production/files/2016-08/documents/climate_indicators_2016.pdf		
MIL 2 (August 24, 2018)	341-583	Greenhouse Gas Emissions from the U.S. Transportation Sector 1990–2003	2006	P00000121177-P00000121244	U.S. EPA	https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10023GQ.TXT		
MIL 2 (August 24, 2018)	341-584	Air Enforcement	2018	P00000121245-P00000121248	U.S. EPA	https://www.epa.gov/enforcement/air-enforcement		
MIL 2 (August 24, 2018)	341-585	Estimated Cost Savings and Forgone Benefits Associated with the Proposed Rule, "Oil and Natural Gas: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements"	17-Oct-17	P00000121262-P00000121284	U.S. EPA	https://www.epa.gov/sites/production/files/2017-11/documents/oilgas_memo_proposed-stay_2017-10.pdf		
MIL 2 (August 24, 2018)	341-586	The EPA is Rewriting the Most Important Number in Climate Economics	16-Nov-17	P00000121285-P00000121287	The Economist	https://www.economist.com/news/united-states/21731395-reducing-social-cost-carbon-would-allow-epa-dispense-regulations-epa		
MIL 2 (August 24, 2018)	341-587	LNG Monthly (YTD – through December 2017)	2018	P00000121288-P00000121306	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2018/04/f50/LNG%20Annual%20Report%20-%202017.pdf		
MIL 2 (August 24, 2018)	341-588	2002 Farm Bill- Conservation Reserve Program-Long Term Policy	8-May-03	P00000121307-P00000121323	USDA	https://www.federalregister.gov/documents/2003/05/08/03-11405/2002-farm-bill-conservation-reserve-program-long-term-policy		
MIL 2 (August 24, 2018)	341-589	National Water Program 2012 Strategy: Response to Climate Change	2012	P00000121324-P00000121455	U.S. EPA	https://www.epa.gov/sites/production/files/2015-03/documents/epa_2012_climate_water_strategy_full_report_final.pdf		
MIL 2 (August 24, 2018)	341-590	Letter to EPA Administrator Scott Pruitt re: Final Determination on the Appropriateness of the Model year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation	21-Feb-17	P00000121456-P00000121461	Mitch Bainwol	https://autoalliance.org/wp-content/uploads/2017/02/Letter-to-EPA-Admin.-Pruitt-Feb.-21-2016-Signed.pdf		
MIL 2 (August 24, 2018)	341-591	EPA Administrator Pruitt Proposes Cost-Benefit Analysis Reform	7-Jun-18	P00000121800-P00000121801	U.S. EPA	https://www.epa.gov/newsreleases/epa-administrator-pruitt-proposes-cost-benefit-analysis-reform		
MIL 2 (August 24, 2018)	341-592	Secretary Zinke Sends Monument Report to the White House	24-Aug-17	P00000121802-P00000121805	U.S. DOI	https://www.doi.gov/pressreleases/secretary-zinke-sends-monument-report-white-house		
MIL 2 (August 24, 2018)	341-593	Proceedings of the Conference on the Care of Dependent Children, Address of President Roosevelt	25-Jan-09	P00000121806-P00000122069	Theodore Roosevelt	https://ia801403.us.archive.org/28/items/proceedingsconf01statgoog/proceedingsconf01statgoog.pdf		
MIL 2 (August 24, 2018)	341-594	IPCC Special Report: Land Use, Land-Use Change and Forestry, summary for policymakers	2000	P00000122070-P00000122099	IPCC	https://www.ipcc.ch/pdf/special-reports/spm/srl-en.pdf		

MIL 2 (August 24, 2018)	341-595	The Ocean, *in* Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel of Climate Change	2014	P00000122100-P00000122176	O. Hoegh- Guldberg et al.	http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap30_FINAL.pdf		
MIL 2 (August 24, 2018)	341-596	United States Environmental Protection Agency, Coastal Areas Impacts and Adaptation	2012	P00000122177-P00000122179	U.S. EPA	https://web.archive.org/web/20121214213910/http://www.epa.gov/climatechange/impacts-adaptation/coasts.html		
MIL 2 (August 24, 2018)	341-597	Ground-Level Ozone: Health Effects. U.S. Environmental Protection Agency	2014	P00000122180-P00000122181	U.S. EPA	https://web.archive.org/web/20140616060355/http://www.epa.gov/groundlevelozone/health.html		
MIL 2 (August 24, 2018)	341-598	National Household Travel Survey	various	P00000122231-P00000122232	U.S. DOT, Federal Highway Administration	https://nhts.ornl.gov/		
MIL 2 (August 24, 2018)	341-599	Circular A-4, "Regulatory Analysis"	2003	P00000122233-P00000122280	Office of Management and Budget	https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf		
MIL 2 (August 24, 2018)	341-600	Carbon Dioxide Emissions from Energy Consumption (1973-2015) by Source, *in* Monthly Energy Review, April 2018	2017	P00000122281-P00000122524	U.S. EIA	https://www.eia.gov/totalenergy/data/monthly/archive/00351804.pdf		
MIL 2 (August 24, 2018)	341-601	Oil and Gas Resources: Actions Needed for Interior to Better Ensure a Fair Return	Dec-13	P00000122525-P00000122562	U.S. Government Accountability Office	https://www.gao.gov/assets/660/659515.pdf		
MIL 2 (August 24, 2018)	341-602	Decision 1/CP.21: Adoption of the Paris Agreement	12-Dec-15	P00000122577-P00000122612	United Nations Framework Convention on Climate Change	http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf		
MIL 2 (August 24, 2018)	341-603	Utility-Scale Solar 2015: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States	2016	P00000122613-P00000122667	M. Bolinger and J. Seel	https://emp.lbl.gov/publications/utility-scale-solar-2015-empirical		
MIL 2 (August 24, 2018)	341-604	Oregon 2005-2014 Consumption-Based Greenhouse Gas Emissions	1-Mar-16	P00000122668-P00000122669	State of Oregon Dept. of Environmental Quality	Provided by David Allaway, Senior Policy Analyst, Oregon DEQ		
MIL 2 (August 24, 2018)	341-605	Global, Regional, and National Fossil-Fuel CO_2 Emissions: Global Fossil-Fuel CO2 Emissions	2017	P00000122697-P00000122701	T.A. Boden, G. Marland and R. J. Andres, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory	http://cdiac.ess-dive.lbl.gov/trends/emis/tre_glob_2014.html		
MIL 2 (August 24, 2018)	341-606	Global, Regional, and National Fossil-Fuel CO_2 Emissions: CDIAC regional fossil fuel CO_2 emissions time series	2017	P00000122703-P00000122735	T.A. Boden, G. Marland and R. J. Andres, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory	http://cdiac.ess-dive.lbl.gov/trends/emis/tre_regional.html		
MIL 2 (August 24, 2018)	341-607	2018 Federal Energy Management Program Discount Rates	15-Mar-18	P00000122935 - P00000122936	U.S. DOE	https://www.energy.gov/sites/prod/files/2018/04/f50/2018discountrates.pdf		
MIL 2 (August 24, 2018)	341-608	The Potential for Carbon Sequestration in the United States	Sep-07	P00000122945-P00000122976	Congressional Budget Office	https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/09-12-carbonsequestration.pdf		

MIL 2 (August 24, 2018)	341-609	Global, Regional, and National Fossil-Fuel CO_2 Emissions: National, All countries, one file	2017	P00000122702	T.A. Boden, G. Marland and R. J. Andres, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory	http://cdiac.ess-dive.lbl.gov/trends/emis/tre_coun.html		
MIL 3		Wildfire Smoke Back into Lane County Overnight: Air Quality Alert in Effect until Sunday	15-Sep-17	P00000119100–P00000119104	KVAL	https://kval.com/news/local/wildfire-smoke-back-into-lane-county-overnight-air-quality-alert-in-effect-until-sunday		
MIL 3		Air Quality and School Activities	4-Sep-17	P00000119112–P00000119113	Eugene 4J School District, Oregon	https://www.4j.lane.edu/2017/09/air-quality/		
MIL 3		Algae alert issued for Odell Lake, popular summer spot in the Cascades	26-Jul-17	P00000119114–P00000119116	The Oregonian, Bill Monroe	https://www.oregonlive.com/sports/oregonian/bill_monroe/index.ssf/2017/07/algae_alert_issued_for_odell_l.html		
MIL 3		Danger in the Air	4-Sep-17	P00000119128–P00000119130	The Register Guard, Theresa Novak	https://www.registerguard.com/rg/news/local/35924696-75/danger-in-the-willamette-valley-air.html.csp		
MIL 3		How Important is Whitebark Pine to Grizzly Bears?	21-Dec-15	P00000119131–P00000119137	National Park Service	https://www.nps.gov/yell/learn/how-important-is-whitebark-pine-to-grizzly-bears.htm		
MIL 3		Is Hoodoo Done?	11-Feb-15	P00000119138–P00000119141	Bend Bulletin	https://www.bendbulletin.com/outdoors/2854005-151/barely-there		
MIL 3		Measuring the Impact of a Changing Climate on Threatened Yellowstone Grizzly Bears	11-May-17	P00000119142–P00000119144	U.C. San Diego News Center	https://ucsdnews.ucsd.edu/feature/measuring_the_impact_of_a_changing_climate_on_threatened_yellowstone_grizzl		
MIL 3		Mt. Pisgah Closes Trails Due to Fire Danger	1-Sep-17	P00000119145–P00000119148	KMTR	https://nbc16.com/news/local/mt-pisgah-closes-trails-due-to-fire-danger		
MIL 3		Record Low Snowpack in Cascades, Sierra Nevada	11-Mar-15	P00000119150–P00000119151	USDA	https://www.usda.gov/media/press-releases/2015/03/11/record-low-snowpack-cascades-sierra-nevada		
MIL 3		Tree pollen Count: Anything over 90 is High. The count Wednesday? 329	22-Mar-18	P00000119164-P00000119167	KVAL	https://kval.com/news/local/tree-pollen-count-anything-over-90-is-high-the-count-wednesday-329		
MIL 3		Wildfire Smoke Breaks Records	10-Sep-17	P00000119171–P00000119173	The Register Guard, Elon Glucklich	https://www.registerguard.com/rg/news/local/35939819-75/story.csp		
MIL 3		Thick Wildfire Smoke Socks in Portland Metro	15-Aug-18	P00000121766	KOIN 6, Joseph Dames	https://www.koin.com/weather/thick-wildfire-smoke-socks-in-portland-metro/1367604400		
MIL 3		15th Annual Report of the Council on Environmental Quality	1984	P00000123010-P00000123743	CEQ	https://www.slideshare.net/whitehouse/august-1984-the-fifteenth-annual-report-of-the-council-on-environmental-quality		
MIL 3		Restoring the Quality of Our Environment, Report of the Environmental Pollution Panel of the President's Science Advisory Committee	Nov-65	P00000123785-P00000124115	The White House	https://babel.hathitrust.org/cgi/pt?id=uiug.30112067733771		
MIL 3		Funding Energy Research and Development	26-Aug-70	P00000124116-P00000124124	Office of Science and Technology, Energy Policy Staff	Richard Nixon Presidential Library		
MIL 3		Letter to John Gibbons, Executive Director of U.S. Congress Office of Technology Assessment	23-Dec-86	P00000124125-P00000124126	Senators Stafford et al.	Obtained from former government employee		
MIL 3		Biennial Science and Technology Report to Congress: 1983-1984	1985	P00000124127-P00000124279	Office of Science and Technology Policy	https://babel.hathitrust.org/cgi/pt?id=uiug.30112101052089;view=1up;seq=3		

MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico, FE Dkt. No. 01-15-NG	7-May-01	P00000124376-P00000124379	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2001/orders/ord1678.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 02-15-NG	9-Apr-02	P00000124380-P00000124383	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2002/orders/ord1765.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas, FE Dkt. No. 02-26-LNG	29-May-02	P00000124384-P00000124388	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2002/orders/ord1780.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 02-59-NG	12-Sep-02	P00000124389-P00000124392	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2002/orders/ord1807.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 02-96-NG	2-Jan-03	P00000124393-P00000124396	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2003/orders/ord1839.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 02-97-NG	7-Jan-03	P00000124397-P00000124400	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2003/orders/ord1843.pdf		
MIL 3		Order Granting Blanket Authorization to Export Natural Gas to Canada and Mexico, FE Dkt. No. 97-24-NG	9-May-97	P00000124401-P00000124404	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1273.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 97-35-NG	6-May-97	P00000124405-P00000124410	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1272.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico, FE Dkt. No. 03-30-NG	15-Jul-03	P00000124411-P00000124414	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2003/orders/ord1877.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Federal Republic of Nigeria, FE Dkt. No. 03-76-LNG	30-Dec-03	P00000124415-P00000124418	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2003/orders/ord1932.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-23-NG	30-Mar-04	P00000124419-P00000124423	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1958.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-24-NG	30-Mar-04	P00000124424-P00000124428	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1959.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-26-NG	30-Mar-04	P00000124429-P00000124433	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1960.pdf		

MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-27-NG	30-Mar-04	P00000124434-P00000124438	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1961.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-33-NG	30-Mar-04	P00000124439-P00000124443	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1962.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-22-NG	1-Apr-04	P00000124444-P00000124448	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1970.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-25-NG	1-Apr-04	P00000124449-P00000124453	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1966.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-28-NG	1-Apr-04	P00000124454-P00000124458	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1971.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-29-NG	1-Apr-04	P00000124459-P00000124463	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1969.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-30-NG	1-Apr-04	P00000124464-P00000124469	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1967.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-32-NG	1-Apr-04	P00000124470-P00000124474	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1968.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Various International Sources, FE Dkt. No. 04-39-NG	19-Apr-04	P00000124475-P00000124478	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord1977.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-106-NG	16-Nov-04	P00000124479-P00000124482	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord2045.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-107-NG	16-Nov-04	P00000124483-P00000124486	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord2046.pdf		
MIL 3		Order Granting Authorization to Import Natural Gas from Canada, FE Dkt. No. 04-121-NG	6-Dec-04	P00000124487-P00000124490	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2004/orders/ord20512.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 05-24-NG	24-Jun-05	P00000124491-P00000124507	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2005/orders/ord2104.pdf		

MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 05-25-NG	24-Jun-05	P00000124508-P00000124526	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2005/orders/ord2103.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 05-27-NG	24-Jun-05	P00000124527-P00000124542	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2005/orders/ord2105.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 05-49-NG	28-Dec-05	P00000124543-P00000124547	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2005/orders/ord2164.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 05-104-NG	20-Mar-06	P00000124548-P00000124552	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2179.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 05-105-NG	20-Mar-06	P00000124553-P00000124557	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2180.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 05-106-NG	20-Mar-06	P00000124558-P00000124562	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2181.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 05-107-NG	20-Mar-06	P00000124563-P00000124567	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2182.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 05-108-NG	20-Mar-06	P00000124568-P00000124572	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2183.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada and to Vacating Prior Authorization, FE Dkt. No. 05-48-NG	20-Mar-06	P00000124573-P00000124577	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2186.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada and to Vacating Prior Authorization, FE Dkt. No. 05-50-NG	20-Mar-06	P00000124578-P00000124583	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2188.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Republic of Trinidad and Tobago, FE Dkt. No. 05-114-LNG	22-May-06	P00000124590-P00000124594	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2199.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 06-18-NG	21-Jul-06	P00000124595-P00000124599	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2230.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 06-19-NG	21-Jul-06	P00000124600-P00000124604	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2231.pdf		

MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 06-53-LNG	27-Oct-06	P00000124605-P00000124610	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2282.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Arab Republic of Egypt, FE Dkt. No. 06-01-LNG	17-Nov-06	P00000124611-P00000124624	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2283.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Arab Republic of Egypt, FE Dkt. No. 06-03-LNG	17-Nov-06	P00000124625-P00000124636	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2285.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Various International Sources, FE Dkt. No. 06-02-LNG	17-Nov-06	P00000124651-P00000124656	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2284.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Republic of Trinidad and Tobago, FE Dkt. No. 06-04-LNG	17-Nov-06	P00000124657-P00000124662	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2286.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Republic of Equatorial Guinea, FE Dkt. No. 06-06-LNG	17-Nov-06	P00000124663-P00000124668	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord2288.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-23-NG	14-May-07	P00000124669-P00000124673	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2352.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-24-NG	14-May-07	P00000124674-P00000124678	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2353.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-25-NG	14-May-07	P00000124679-P00000124683	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord23541.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Arab Republic of Egypt, FE Dkt. No. 06-05-LNG	17-Nov-06	P00000124684-P00000124695	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2006/orders/ord22871.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-100-NG	31-Oct-07	P00000124696-P00000124700	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2435.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-101-NG	31-Oct-07	P00000124701-P00000124706	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2436.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-102-NG	31-Oct-07	P00000124707-P00000124712	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2437.pdf		

MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-103-NG	31-Oct-07	P00000124713-P00000124718	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2438.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-93-NG	31-Oct-07	P00000124719-P00000124724	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2429.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-94-NG	31-Oct-07	P00000124725-P00000124730	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2430.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-95-NG	31-Oct-07	P00000124731-P00000124735	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2431.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-96-NG	31-Oct-07	P00000124736-P00000124741	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2432.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-97-NG	31-Oct-07	P00000124742-P00000124747	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2433.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-98-NG	31-Oct-07	P00000124748-P00000124753	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2439.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-99-NG	31-Oct-07	P00000124754-P00000124758	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2434.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Mexico, FE Dkt. No. 08-12-NG	29-Feb-08	P00000124759-P00000124763	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2008/orders/ord2473.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 08-26-NG	22-Apr-08	P00000124764-P00000124767	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2008/orders/ord2489.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico, FE Dkt. No. 08-38-NG	20-Jun-08	P00000124768-P00000124771	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2008/orders/ord2506.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Republic of Trinidad and Tobago, FE Dkt. No. 08-64-LNG	14-Aug-08	P00000124772-P00000124776	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2008/orders/ord2527.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico and Vacating Prior Authorization, FE Dkt. No. 08-136-NG	18-Dec-08	P00000124777-P00000124780	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2008/orders/ord2592.pdf		

MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Qatar, FE Dkt. No. 08-152-LNG	9-Feb-09	P00000124781-P00000124784	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2009/orders/ord2609.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 09-94-NG	7-Oct-09	P00000124785-P00000124788	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2009/orders/ord2712.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 09-95-NG	7-Oct-09	P00000124789-P00000124792	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2009/orders/ord2707.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 09-87-NG	26-Oct-09	P00000124793-P00000124797	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2009/orders/ord2717.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 09-88-NG	26-Oct-09	P00000124798-P00000124802	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2009/orders/ord2718.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 09-89-NG	19-Oct-09	P00000124803-P00000124807	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2009/orders/ord2719.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 10-06-NG	12-Feb-10	P00000124808-P00000124811	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2749.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada and Mexico, and to Import Liquefied Natural Gas from Various International Sources, FE Dkt. No. 10-43-NG	22-Apr-10	P00000124812-P00000124816	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2782.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Norway, FE Dkt. No. 10-36-LNG	22-Apr-10	P00000124817-P00000124821	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2781.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Nigeria, FE Dkt. No. 10-37-LNG	28-Apr-10	P00000124822-P00000124826	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2783.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Free Trade Nations, FE Dkt. No. 10-85-LNG	7-Sep-10	P00000124827-P00000124834	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord28332.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas, FE Dkt. No. 10-110-LNG	3-Dec-10	P00000124835-P00000124842	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2885.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas, FE Dkt. No. 10-114-LNG	8-Dec-10	P00000124843-P00000124851	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2888.pdf		

MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Qatar, FE Dkt. No. 10-143-LNG	13-Dec-10	P00000124852-P00000124855	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2010/orders/ord2889.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Qatar by Vessel, FE Dkt. No. 10-159-LNG	5-Jan-11	P00000124856-P00000124859	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord2898.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Liquefied Natural Gas from Freeport LNG Terminal to Free Trade Nations, FE Dkt. No. 10-160-LNG	10-Feb-11	P00000124860-P00000124871	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord2913.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from the Arab Republic of Egypt, FE Dkt. No. 11-09-LNG	17-Feb-11	P00000124872-P00000124876	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord2917.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas, FE Dkt. No. 10-152-LNG	3-Mar-11	P00000124877-P00000124884	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord2923.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Canada by Truck, FE Dkt. No. 11-76-LNG	18-Jul-11	P00000124885-P00000124888	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/applications/ord2985.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 11-51-LNG	19-Jul-11	P00000124889-P00000124901	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord29861.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 11-85-NG	25-Jul-11	P00000124902-P00000124905	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/applications/ord2989.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 11-86-NG	25-Jul-11	P00000124906-P00000124909	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/applications/ord2990.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations in Central America, South America, or the Caribbean by Vessel in ISO Containers, FE Dkt. No. 11-71-LNG	27-Jul-11	P00000124910-P00000124915	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/applications/ord2993.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cove Point LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 11-115-LNG	7-Oct-11	P00000124916-P00000124925	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3019.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-116-NG	31-Oct-11	P00000124926-P00000124929	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3022.pdf		

MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-117-NG	31-Oct-11	P00000124930-P00000124933	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3023.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-118-NG	31-Oct-11	P00000124934-P00000124937	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3024.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-119-NG	31-Oct-11	P00000124938-P00000124941	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3025.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-120-NG	31-Oct-11	P00000124942-P00000124945	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3026.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-121-NG	31-Oct-11	P00000124946-P00000124949	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3027.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 11-122-NG	31-Oct-11	P00000124950-P00000124953	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3028.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 11-109-LNG	22-Nov-11	P00000124954-P00000124964	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3038.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Jordan Cove LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 11-127-LNG	7-Dec-11	P00000124965-P00000124980	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/orders/ord3041.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 11-98-NG	9-Jan-12	P00000124981-P00000124995	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2011/applications/ord30551.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cameron LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 11-145-LNG	17-Jan-12	P00000124996-P00000125005	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3059.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 12-06-LNG	10-Feb-12	P00000125006-P00000125015	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3066.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Gulf LNG Energy, LLC Terminal to Free Trade Agreement Nations, FE Dkt. No. 12-47-LNG	15-Jun-12	P00000125016-P00000125025	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3104.pdf		

MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations in Central America, South America, or the Caribbean by Vessel in ISO Containers, FE Dkt. No. 12-50-LNG	15-Jun-12	P00000125026-P00000125031	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3105.pdf		
MIL 3		Order Granting Long-Term Multi Contract Authorization to Export Liquefied Natural Gas by Vessel from the Elba Island Terminal to Free Trade Agreement Nations, FE Dkt. No. 12-54-LNG	15-Jun-12	P00000125032-P00000125040	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3106.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Golden Pass LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 12-88-LNG	27-Sep-12	P00000125041-P00000125051	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3147.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-91-NG	4-Oct-12	P00000125052-P00000125055	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3151.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-92-NG	4-Oct-12	P00000125056-P00000125059	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3152.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 12-76-LNG	11-Oct-12	P00000125060-P00000125070	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3162.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Corpus Christi Liquefaction Project to Free Trade Agreement Nations, FE Dkt. No. 12-99-LNG	16-Oct-12	P00000125071-P00000125082	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3164.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-108-NG	13-Nov-12	P00000125083-P00000125086	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3188.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-109-NG	13-Nov-12	P00000125087-P00000125090	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3189.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed CE FLNG LNG Terminal in Plaquemines Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 12-123-LNG	21-Nov-12	P00000125091-P00000125101	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3193.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-105-NG	13-Nov-12	P00000125102-P00000125105	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3185correct.pdf		

MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-106-NG	13-Nov-12	P00000125106-P00000125109	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3186correct.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 12-107-NG	13-Nov-12	P00000125110-P00000125113	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3187correct.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Waller Point LNG Terminal in Cameron Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 12-152-LNG	20-Dec-12	P00000125114-P00000125125	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/orders/ord3211.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Compressed Natural Gas by Truck from the Proposed Compressor Station in Baileyville, Maine, to Canada, FE Dkt. No. 12-168-CNG	8-Jan-13	P00000125126-P00000125132	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3222.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed South Texas LNG Export Project to Free Trade Agreement Nations, FE Dkt. No. 12-174-LNG	30-Jan-13	P00000125133-P00000125144	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord32271.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 12-155-LNG	13-Feb-13	P00000125145-P00000125153	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3231.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Magnolia LNG Terminal in Lake Charles, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 12-183-LNG	26-Feb-13	P00000125154-P00000125166	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3245.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Canada, FE Dkt. No. 12-151-NG	27-Feb-13	P00000125167-P00000125172	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3246.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 12-161-LNG	5-Mar-13	P00000125173-P00000125185	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3247.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 13-04-LNG	7-Mar-13	P00000125186-P00000125199	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3252.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Gasfin LNG Export Project in Cameron Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 13-06-LNG	7-Mar-13	P00000125200-P00000125211	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3253.pdf		

MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 12-178-NG	1-May-13	P00000125212-P00000125215	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3274.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 12-179-NG	1-May-13	P00000125216-P00000125219	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3275.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 12-180-NG	1-May-13	P00000125220-P00000125223	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3276.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Main Pass Energy Hub™ Deepwater Port 16 Miles Offshore of Louisiana to Free Trade Agreement Nations, FE Dkt. No. 13-26-LNG	24-May-13	P00000125224-P00000125238	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3290.pdf		
MIL 3		Order Granting Authorization to Export Liquefied Natural Gas by Vessel Pursuant to the Long-Term Contract with Total Gas & Power North America, Inc. from the Sabine Pass LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 13-30-LNG	11-Jul-13	P00000125239-P00000125249	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3306.pdf		
MIL 3		Order Granting Authorization to Export Liquefied Natural Gas by Vessel Pursuant to the Long-Term Contract with Centrica PLC from the Sabine Pass LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 13-42-LNG	12-Jul-13	P00000125250-P00000125260	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3307.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 13-51-LNG	19-Jul-13	P00000125261-P00000125273	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3317.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Venture Global LNG Project in Cameron Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 13-69-LNG	27-Sep-13	P00000125274-P00000125288	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3345.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico, FE Dkt. No. 13-120-NG	24-Oct-13	P00000125289-P00000125292	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3348.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas in Approved ISO Containers Loaded at the Trussville, Alabama, LNG Facility and Exported Via Ocean-Going Vessel to Free Trade Agreement Nations, FE Dkt. No. 13-105-LNG	6-Nov-13	P00000125293-P00000125306	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3356.pdf		

MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 13-97-LNG	7-Nov-13	P00000125307-P00000125318	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3359.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at the Floridian Facility in Marin County, Florida, and Exported via Ocean-Going Vessel to Free Trade Agreement Nations in Central America and the Caribbean, FE Dkt. No. 13-104-LNG	14-Nov-13	P00000125319-P00000125328	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3360.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Port of Brownsville, Texas, to Free Trade Agreement Nations, FE Dkt. No. 13-115-LNG	26-Nov-13	P00000125329-P00000125342	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3364.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Port of Brownsville, Texas, to Free Trade Agreement Nations, FE Dkt. No. 13-117-LNG	26-Nov-13	P00000125343-P00000125356	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3365.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas to Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua in ISO Containers by Vessel, FE Dkt. No. 13-122-LNG	12-Dec-13	P00000125357-P00000125361	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2013/orders/ord3371.pdf		
MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 13-148-LNG	9-Jan-14	P00000125362-P00000125365	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3379.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from And to Canada And Mexico, FE Dkt. No. 13-156-NG	16-Jan-14	P00000125366-P00000125369	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3380.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from And to Canada, FE Dkt. No. 13-159-NG	16-Jan-14	P00000125370-P00000125373	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3381.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from And to Canada, FE Dkt. No. 14-01-NG	16-Jan-14	P00000125374-P00000125377	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3382.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 13-121-LNG	22-Jan-14	P00000125378-P00000125392	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3384.pdf		
MIL 3		Order Granting Blanket Authorization to Export Natural Gas to Mexico, FE Dkt. No. 14-03-NG	22-Jan-14	P00000125393-P00000125396	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3383.pdf		

MIL 3		Order Granting Blanket Authorization to Import and Export Liquefied Natural Gas from and to Canada and Mexico by Truck, Rail, Barge, and Non-Barge Waterborne Vessels, FE Dkt. No. 13-152-LNG	30-Jan-14	P00000125397-P00000125402	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3378.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Liquefied Natural Gas from And to Canada And Mexico by Truck, FE Dkt. No. 14-02-LNG	30-Jan-14	P00000125403-P00000125406	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3386.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from And to Canada And Mexico, FE Dkt. No. 14-07-NG	30-Jan-14	P00000125407-P00000125410	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3387.pdf		
MIL 3		Order Granting Blanket Authorization to Export Natural Gas to Mexico, FE Dkt. No. 14-10-NG	30-Jan-14	P00000125411-P00000125414	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3388.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-08-NG	6-Feb-14	P00000125415-P00000125418	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3389.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 14-12-NG	6-Feb-14	P00000125419-P00000125422	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3390.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from a Proposed Floating Liquefaction Project and Deepwater Port 30 Miles Offshore of Louisiana to Free Trade Agreement Nations, FE Dkt. No. 13-129-LNG	20-Feb-14	P00000125423-P00000125437	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3393.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Annova LNG Terminal in Brownsville, Texas, To Free Trade Agreement Nations, FE Dkt. No. 13-140-LNG	20-Feb-14	P00000125438-P00000125450	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3394.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas by Vessel from the Kenai LNG Facility to Free Trade Agreement Nations, FE Dkt. No. 13-154-LNG	19-Feb-14	P00000125451-P00000125459	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3392.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 14-04-NG	20-Feb-14	P00000125460-P00000125463	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3395.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 14-05-NG	20-Feb-14	P00000125464-P00000125467	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3396.pdf		
MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-06-LNG	20-Feb-14	P00000125468-P00000125471	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3397.pdf		

MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, and to Export Liquefied Natural Gas to Mexico by Vessel, FE Dkt. No. 14-09-LNG	20-Feb-14	P00000125472-P00000125476	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3398.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Mexico, FE Dkt. No. 14-16-NG	20-Feb-14	P00000125477-P00000125480	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3399.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 14-18-NG	20-Feb-14	P00000125481-P00000125484	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3400.pdf		
MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-11-NG	27-Feb-14	P00000125485-P00000125488	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3401.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-14-NG	27-Feb-14	P00000125489-P00000125492	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3402.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and to Export to Mexico, FE Dkt. No. 14-15-NG	27-Feb-14	P00000125493-P00000125496	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3403.pdf		
MIL 3		Order Granting Blanket Authorization to Export Natural Gas to Canada and Mexico, FE Dkt. No. 14-17-NG	27-Feb-14	P00000125497-P00000125500	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3404.pdf		
MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-20-LNG	27-Feb-14	P00000125501-P00000125504	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3405.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Magnolia LNG Terminal in Lake Charles, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 13-131-LNG	5-Mar-14	P00000125505-P00000125518	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3406.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Liquefied Natural Gas from and to Canada and Mexico by Truck, FE Dkt. No. 14-21-LNG	6-Mar-14	P00000125519-P00000125522	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3407.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Mexico, FE Dkt. No. 14-22-NG	6-Mar-14	P00000125523-P00000125526	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3408.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico, FE Dkt. No. 14-23-LNG	13-Mar-14	P00000125527-P00000125530	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3409.pdf		

MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-24-LNG	13-Mar-14	P00000125531-P00000125534	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3410.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-25-NG	13-Mar-14	P00000125535-P00000125538	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3411.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Import Natural Gas from Canada to the Proposed Jordan Cove LNG Terminal in the Port of Coos Bay, Oregon, FE Dkt. No. 13-141-LNG	18-Mar-14	P00000125539-P00000125552	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3412.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico and to Import Liquefied Natural Gas from Various International Sources by Vessel, and Vacating Prior Authorization, FE Dkt. No. 14-26-NG	10-Apr-14	P00000125553-P00000125557	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3415.pdf		
MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-27-LNG	10-Apr-14	P00000125558-P00000125561	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3416.pdf		
MIL 3		Order Granting Blanket Authorization to Export Natural Gas to Mexico, FE Dkt. No. 14-33-NG	10-Apr-14	P00000125562-P00000125565	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3417.pdf		
MIL 3		Order Granting Blanket Authorization to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-30-LNG	10-Apr-14	P00000125566-P00000125569	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3419.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas to Canada and Mexico in ISO Containers Transported by Vessel, and to Import Liquefied Natural Gas from Various International Sources in ISO Containers Transported by Vessel, FE Dkt. No. 14-28-LNG	25-Apr-14	P00000125570-P00000125574	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3414.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-32-NG	1-May-14	P00000125575-P00000125578	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3420.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-34-NG	1-May-14	P00000125579-P00000125582	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3421.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada and Vacating Prior Authorization, FE Dkt. No. 14-36-NG	1-May-14	P00000125583-P00000125586	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3422.pdf		

MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 14-37-NG	1-May-14	P00000125587-P00000125590	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3423.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, and to Export Natural Gas to Mexico, FE Dkt. No. 14-38-NG	1-May-14	P00000125591-P00000125594	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3424.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-39-NG	1-May-14	P00000125595-P00000125598	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3425.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-47-NG	1-May-14	P00000125599-P00000125602	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3428.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-40-NG	1-May-14	P00000125603-P00000125606	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3426.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 14-41-NG	1-May-14	P00000125607-P00000125610	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3427.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-42-NG	8-May-14	P00000125611-P00000125614	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3429.pdf		
MIL 3		Order Granting Blanket Authorization to Export Natural Gas to Mexico, FE Dkt. No. 14-43-NG	8-May-14	P00000125615-P00000125618	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3430.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-44-NG	8-May-14	P00000125619-P00000125622	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3431.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 14-45-NG	8-May-14	P00000125623-P00000125626	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3432.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico, to Export Liquefied Natural Gas to Canada and Mexico by Vessel and Truck, and to Import Liquefied Natural Gas from Various International Sources by Vessel, FE Dkt. No. 14-46-NG	8-May-14	P00000125627-P00000125631	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3433.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico, FE Dkt. No. 14-48-NG	8-May-14	P00000125632-P00000125635	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3434.pdf		

MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Texas LNG Terminal in Brownsville, Texas, to Free Trade Agreement Nations, FE Dkt. No. 13-160-LNG	11-Jun-14	P00000125636-P00000125651	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2014/06/f16/ord3443.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Compressed Natural Gas by Vessel from a Proposed CNG Compression and Loading Facility at the Port of Palm Beach, Florida, to Free Trade Agreement Nations, FE Dkt. No. 13-157-CNG	13-Jun-14	P00000125652-P00000125663	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2014/orders/ord3447.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 15-13-LNG	23-Apr-15	P00000125664-P00000125675	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/08/f25/ord3628.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at the Proposed Titusville Facility in Titusville, Florida, and Exported by Vessel to Free Trade Agreement Nations, FE Dkt. No. 15-19-LNG	29-May-15	P00000125676-P00000125690	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/08/f25/ord3656.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Venture Global Calcasieu Pass LNG Project in Cameron Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 15-25-LNG	17-Jun-15	P00000125691-P00000125708	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/06/f23/ord3662.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas in ISO Containers Loaded on Vessels and in LNG Vessels to Free Trade Agreement Nations, FE Dkt. No. 15-39-LNG	17-Jun-15	P00000125709-P00000125715	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/06/f23/ord3661.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cameron LNG Terminal in Cameron and Calcasieu Parishes, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 15-36-LNG	10-Jul-15	P00000125716-P00000125731	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/07/f24/ord3680.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Natural Gas to Canada and to Other Free Trade Agreement Nations, FE Dkt. No. 15-33-LNG	17-Jul-15	P00000125732-P00000125748	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/07/f24/ord3681.pdf		
MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed G2 LNG Terminal in Cameron Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 15-44-LNG	17-Jul-15	P00000125749-P00000125762	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/07/f24/ord3682.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at the Proposed Floridian Facility in Martin County, Florida, and Exported by Vessel to Free Trade Agreement Nations, FE Dkt. No. 15-38-LNG	31-Jul-15	P00000125763-P00000125778	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/08/f25/ord3691.pdf		

MIL 3		Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Port Arthur LNG Project in Port Arthur, Texas, to Free Trade Agreement Nations, FE Dkt. No. 15-53-LNG	20-Aug-15	P00000125779-P00000125791	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/08/f26/ord3698.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed LNG Terminal at the Port of Brownsville in Brownsville, Texas, to Free Trade Agreement Nations, FE Dkt. No. 15-62-LNG	24-Sep-15	P00000125792-P00000125807	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/09/f26/ord3716.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 15-139-NG	12-Nov-15	P00000125808-P00000125812	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/11/f27/ord3740.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 15-140-NG	12-Nov-15	P00000125813-P00000125817	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/11/f27/ord3741_1.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 15-141-NG	12-Nov-15	P00000125818-P00000125822	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/11/f27/ord3742.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 15-142-NG	12-Nov-15	P00000125823-P00000125827	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/11/f27/ord3743.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 15-130-LNG	16-Dec-15	P00000125828-P00000125839	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2015/12/f27/ord3754.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal Located in Cameron Parish, Louisiana, FE Dkt. No. 15-171-LNG	13-Jan-16	P00000125840-P00000125855	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/01/f28/ord3767.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers or in Bulk Loaded at the Stabilis LNG Eagle Ford, Llc Facility in George West, Texas, and Exported by Vessel to Free Trade Agreement Nations, FE Dkt. No. 15-168-LNG	13-Apr-16	P00000125856-P00000125869	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/04/f30/ord3809.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Canada by Truck, FE Dkt. No. 16-50-LNG	12-May-16	P00000125870-P00000125873	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/05/f31/ord3819.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas from Canada by Truck, FE Dkt. No. 16-49-LNG	16-May-16	P00000125874-P00000125877	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/05/f31/ord3824.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 16-29-LNG	26-May-16	P00000125878-P00000125888	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/05/f32/ord3825.pdf		
MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas to Free Trade Agreement Countries by Truck, Rail, Barge, and Non-Barge Waterborne Vessels, FE Dkt. No. 15-169-LNG	13-Jun-16	P00000125889-P00000125894	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/06/f32/ord3822.pdf		

MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico, FE Dkt. No. 16-55-NG	31-May-16	P00000125895-P00000125899	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2017/04/f34/ord3827.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from, or in ISO Containers Loaded at, the Proposed Eagle LNG Facility in Jacksonville, Florida, to Free Trade Agreement Nations, FE Dkt. No. 16-15-LNG	21-Jul-16	P00000125900-P00000125914	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/07/f33/ord3867.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Plaquemines LNG Terminal in Plaquemines Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 16-28-LNG	21-Jul-16	P00000125915-P00000125928	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/07/f33/ord3866.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Rio Grande LNG Terminal in Brownsville, Texas, to Free Trade Agreement Nations, FE Dkt. No. 15-190-LNG	17-Aug-16	P00000125929-P00000125943	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/08/f33/ord3869.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Canada, FE Dkt. No. 16-118-NG	31-Oct-16	P00000125944-P00000125947	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2016/11/f34/ord3912.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Driftwood LNG Facility in Calcasieu Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 16-144-LNG	28-Feb-17	P00000125995-P00000126008	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2017/03/f34/ord3968.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-05-NG	28-Jan-98	P00000126009-P00000126011	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1354.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-08-NG	10-Feb-98	P00000126012-P00000126014	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1361.pdf		
MIL 3		Order Granting Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-102-NG	28-Dec-99	P00000126015-P00000126017	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1449.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-12-NG	6-Mar-98	P00000126018-P00000126020	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1367.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-19-NG	7-Apr-98	P00000126021-P00000126024	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1373.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-20-NG	8-May-98	P00000126025-P00000126027	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1382.pdf		

MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-30-NG	20-May-98	P00000126028-P00000126030	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1385.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-76-NG	30-Oct-98	P00000126031-P00000126033	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1430.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Canada for Subsequent Re-Import, FE Dkt. No. 98-83-NG	9-Nov-98	P00000126034-P00000126037	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1434.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-85-NG	2-Nov-98	P00000126038-P00000126040	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1432.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas, Including Liquefied Natural Gas from and to Canada and Mexico, FE Dkt. No. 98-87-NG	12-Nov-98	P00000126041-P00000126043	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1435.pdf		
MIL 3		Order Granting Blanket Authorization to Import and Export Natural Gas from and to Canada and Mexico, FE Dkt. No. 98-92-NG	17-Dec-98	P00000126044-P00000126046	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1444.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 98-98-NG	17-Dec-98	P00000126047-P00000126049	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1998/orders/ord1445.pdf		
MIL 3		Order Amending Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-26-NG, A	11-Jul-97	P00000126050-P00000126052	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1190a.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 97-81-NG	5-Nov-97	P00000126053-P00000126055	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1327.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 97-87-NG	6-Nov-97	P00000126056-P00000126058	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1329.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 97-88-NG	31-Oct-97	P00000126059-P00000126061	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1326.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 97-89-NG	6-Nov-97	P00000126062-P00000126064	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1330.pdf		

MIL 3		Order Granting Blanket Authorization to Export Liquefied Natural Gas (LNG) in ISO Containers Loaded at a Proposed LNG Plant in Southern Alabama and Exported by Barge or Vessel to Free Trade Agreement Countries in the Caribbean and Latin America, FE Dkt. No. 16-188-LNG	18-Apr-17	P00000126065-P00000126070	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2017/05/f34/ord4019.pdf		
MIL 3		Order Granting Blanket Authorization to Export Previously Imported Liquefied Natural Gas by Vessel, FE Dkt. No. 17-23-LNG	27-Jun-17	P00000126071-P00000126082	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2017/06/f35/ord4054.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Fourchon LNG Facility in Lafourche Parish, Louisiana, to Free Trade Agreement Nations, FE Dkt. No. 17-105-LNG	11-Mar-18	P00000126083-P00000126096	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2018/03/f49/ord4162.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Galveston Bay LNG Project to be Located in Texas City, Texas, to Free Trade Agreement Nations, FE Dkt. No. 17-167-LNG	13-Jun-18	P00000126097-P00000126111	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2018/06/f53/ord4200.pdf		
MIL 3		Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers or in Bulk Loaded at the Hr Nu Blu Energy, Llc Liquefaction Facility in Port Allen, Louisiana, and Exported by Vessel to Free Trade Agreement Nations, FE Dkt. No. 18-27-LNG	25-Jun-18	P00000126112-P00000126124	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2018/06/f53/ord4202.pdf		
MIL 3		Order Granting Long-Term Authorization to Export Natural Gas to Mexico, FE Dkt. No. 18-87-NG	8-Aug-18	P00000126125-P00000126129	U.S. DOE, Office of Fossil Energy	https://www.energy.gov/sites/prod/files/2018/08/f54/ord4227.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 00-10-NG	8-Mar-00	P00000126130-P00000126134	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2000/orders/ord1573.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 01-28-NG	25-Jun-01	P00000126135-P00000126139	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2001/orders/ord1694.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 01-38-NG	10-Aug-01	P00000126140-P00000126143	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2001/orders/ord1703.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Liquefied Natural Gas, FE Dkt. No. 95-100-LNG	7-Nov-95	P00000126158-P00000126163	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1995/orders/ord1115.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 95-109-NG	20-Dec-95	P00000126164-P00000126170	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1995/orders/ord1135.pdf		

MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 95-111-NG	2-Jan-96	P00000126171-P00000126175	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1139.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 95-44-NG	30-Jun-95	P00000126176-P00000126181	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1995/orders/ord1068.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 95-64-NG	28-Sep-95	P00000126182-P00000126188	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1995/orders/ord1088.pdf		
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MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-02-NG	27-Mar-96	P00000126196-P00000126201	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1151.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-03-NG	27-Mar-96	P00000126202-P00000126207	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1152.pdf		
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MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada and Amending Authorization, FE Dkt. No. 96-22-NG	16-May-96	P00000126214-P00000126223	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1165.pdf		
MIL 3		Order Amending Long-Term and Blanket Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-26-NG	26-Jul-96	P00000126224-P00000126233	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1190.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-31-NG	25-Jun-96	P00000126234-P00000126242	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1178.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-39-NG	26-Jun-96	P00000126243-P00000126252	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1182.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 96-50-NG	18-Sep-96	P00000126253-P00000126263	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1996/orders/ord1201.pdf		
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MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 99-19-NG	18-Mar-99	P00000126309-P00000126313	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1999/orders/ord1470.pdf		
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MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 99-26-NG	5-May-99	P00000126318-P00000126321	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1999/orders/ord1479.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 99-27-NG	20-May-99	P00000126322-P00000126325	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1999/orders/ord1484.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 99-92-NG	23-Nov-99	P00000126326-P00000126332	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1999/orders/ord1543.pdf		
MIL 3		United States Climate Action Report 2014	2014	P00000126335-P00000126644	U.S. DOS	https://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/2014_u.s._climate_action_report[1]rev.pdf		
MIL 3		Message on Natural Beauty	8-Feb-65	P00000126645-P00000126660	President Lyndon B. Johnson	The Lyndon Baines Johnson Presidential Library		
MIL 3		Management of Small Docks and Piers Impacts to Navigation and Public Access	May-05	P00000126661-P00000126666	NOAA	Retrieved from noaa.gov, document no longer available on NOAA website		

MIL 3		The Federal Role in Weather Modification	Dec-75	P00000126667-P00000126708	White House Domestic Council, Environmental Resources Committee, Subcommittee on Climate Change	Gerald R. Ford Presidential Library		
MIL 3		Water, Climate Change, and Forests: Watershed Stewardship for a Changing Climate, PNW-GTR-812	Jun-10	P00000126709-P00000126788	USDA, Forest Service	https://www.fs.fed.us/pnw/pubs/pnw_gtr812.pdf		
MIL 3		Sharing the Fish: Toward a National Policy on Individual Fishing Quotas	1999	P00000126789-P00000127225	National Research Council	https://www.nap.edu/catalog/6335/sharing-the-fish-toward-a-national-policy-on-individual-fishing		
MIL 3		Administration of Coral Reef Resources in the Northwest Hawaiian Islands: Memorandum	15-Sep-00	P00000127226-P00000127254	U.S. DOJ	https://www.justice.gov/sites/default/files/olc/opinions/2000/09/31/op-olc-v024-p0183.pdf		
MIL 3		An Ocean Blueprint for the 21st Century	2004	P00000127255-P00000127930	U.S. Commission on Ocean Policy	http://govinfo.library.unt.edu/oceancommission/documents/full_color_rpt/welcome.html		
MIL 3		Natural Resource Trustees and Natural Resource Managers	2009	P00000127931-P00000127952	U.S. DOI / U.S. EPA (Gregory Hogue)	https://archive.epa.gov/emergencies/content/fss/web/pdf/hoguenatresmngts.pdf		
MIL 3		The Science Behind Atmospheric Rivers	Mar-15	P00000127953-P00000127953	NOAA	https://www.esrl.noaa.gov/psd/arportal/about/pdf/noaa-atmospheric-rivers-infographic.pdf		
MIL 3		Natural Resources and Services	n.d.	P00000127954-P00000127955	U.S. DOI / U.S. EPA (Gregory Hogue)	https://www.doi.gov/restoration/primer/resources		
MIL 3		Atmospheric Rivers	2017	P00000127956-P00000127957	NOAA, Earth System Research Laboratory	https://www.esrl.noaa.gov/psd/arportal/about/pdf/atmos_rivers-2017.pdf		
MIL 3		Hydrologic Cycle	n.d.	P00000127958-P00000127963	NOAA	https://www.nwrfc.noaa.gov/info/water_cycle/hydrology.cgi		
MIL 3		El Niño Southern Oscillation (ENSO)	n.d.	P00000127964-P00000127964	NOAA	https://www.esrl.noaa.gov/psd/enso/		
MIL 3		Ocean Acidification: The Other Carbon Dioxide Problem	n.d.	P00000127965-P00000127970	NOAA	https://www.pmel.noaa.gov/co2/story/Ocean+Acidification		
MIL 3		Public Trust Doctrine, Module 2, Lesson 1 (3 of 4), The American Public Trust Doctrine	15-Oct-11	P00000127971-P00000127972	NOAA	https://web.archive.org/web/20111021185258/http://www.csc.noaa.gov/ptd/module02/lesson01/0201b.htm		
MIL 3		Public Trust Doctrine, Module 2, Lesson 2 (3 of 3), The Ebb and Flow of Application	15-Oct-11	P00000127973-P00000127973	NOAA	https://web.archive.org/web/20111025120641/http://www.csc.noaa.gov/ptd/module02/lesson02/0202b.htm		
MIL 3		Public Trust Doctrine, Module 9, Lesson 1 (1 of 2), Public Trust Cases: Past vs. Present	15-Oct-11	P00000127974-P00000127975	NOAA	https://web.archive.org/web/20111015200800/http://www.csc.noaa.gov/ptd/module09/lesson01/0901.htm		
MIL 3		Water and Climate	n.d.	P00000127976-P00000127980	NOAA	https://www.esrl.noaa.gov/research/themes/water/		
MIL 3		Ocean-Atmosphere CO2 Exchange	n.d.	P00000127981-P00000127983	NOAA	https://sos.noaa.gov/datasets/ocean-atmosphere-co2-exchange/		
MIL 3		United States v. BP Exploration & Production Inc., et al., 2:10-cv-04536-CJB-SS, Complaint of the United States of America	15-Dec-10	P00000127984-P00000128040	United States of America / U.S. DOJ	https://docs.justia.com/cases/federal/district-courts/louisiana/laedce/2:2010cv04536/144523/1		

MIL 3		Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration; Proposed Rule	11-Sep-18	P00000128335-P00000128531	U.S. EPA	https://www.epa.gov/sites/production/files/2018-09/documents/frnoilgasreconsideration2060-at54nprm20180910.pdf		
MIL 3		Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements	18-Sep-18	P00000128532-P00000128657	U.S. BLM	https://www.blm.gov/sites/blm.gov/files/Final%20Rule%20-1004-AE53%20-%20%20Ready%20for%20OFR%209.18.18_508%20%281%29.pdf		
MIL 3		Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, Proposed Rule 40 CFR Part 51, 52, and 60, EPA-HQ-OAR-2017-0355-21117	31-Aug-18	P00000128658-P00000128725	U.S. EPA	https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0355-21117		
MIL 3		Grid Resiliency Pricing Rule	10-Oct-17	P00000128726-P00000128734	U.S. DOE	https://www.federalregister.gov/documents/2017/10/10/2017-21396/grid-resiliency-pricing-rule		
MIL 3		Oil Was Central in Decision to Shrink Bears Ears Monument, Emails Show	2-Mar-18	P00000128735-P00000128738	Eric Lipton and Lisa Friedman, The New York Times	https://www.nytimes.com/2018/03/02/climate/bears-ears-national-monument.html		
MIL 3		Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, EPA-452/R-18-006	Aug-18	P00000128739-P00000129027	U.S. EPA	https://www.epa.gov/sites/production/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf		
MIL 3		Press Release, EPA Proposes Affordable Clean Energy (ACE) Rule	21-Aug-18	P00000129028-P00000129029	U.S. EPA	https://www.epa.gov/newsreleases/epa-proposes-affordable-clean-energy-ace-rule		
MIL 3		Letter from Michael C. MacCracken, Deputy Division Leader, Atmospheric and Geophysical Sciences Division, Lawrence Livermore National Laboratory to Rudolf J. Engelmann, U.S. Energy Research and Development Administration	27-Mar-75	P00000129335-P00000129339	Michael C. MacCracken	Obtained from former government employee		
MIL 3		Climate Change and the Health of Indigenous Populations, EPA 430-F-16-053	May-16	P00000129340-P00000129343	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100OW3F.PDF?Dockey=P100OW3F.PDF		
MIL 3		Memo from Gene Sperling, Kathleen McGinty, Daniel Tarullo, Jim Steinburg, and Todd Stern to President Clinton re: Climate Change Recommendations	4-Oct-97	P00000129344-P00000129363	The White House, Gene Sperling et al.	Michael Waldman, Speechwriter," Clinton Digital Library, https://clinton.presidentiallibraries.us/items/show/14681. (PDF pg. 93)		
MIL 3		Global Climate Change: Implications for the United States Navy	May-90	P00000129364-P00000129448	U.S. Naval War College	U.S. Naval war College Newport, RI, Catalogue id: N420/F92/1990/no.17, also available at http://documents.theblackvault.com/documents/weather/climatechange/globalclimatechange-navy.pdf.		

MIL 3		Billion-Dollar Weather and Climate Disasters: Table of Events	2018	P00000129449-P00000129464	NOAA, National Centers for Environmental Information	https://www.ncdc.noaa.gov/billions/events/US/1980-2018		
MIL 3		DHS Climate Action Plan	Sep-13	P00000129465-P00000129506	U.S. Dept. of Homeland Security	https://www.dhs.gov/sites/default/files/publications/DHS%20Climate%20Action%20Plan.pdf		
MIL 3		U.S. Energy-Related CO2 Emissions Fell 1.7% in 2016	2017	P00000129507-P00000129508	U.S. EIA	https://www.eia.gov/todayinenergy/detail.php?id=30712		
MIL 3		Renewable Fuel Standard: Low Expected Production Volumes Make it Unlikely that Advanced Biofuels can Meet Increasing Targets	2016	P00000129509-P00000129546	U.S. Government Accountability Office	https://www.gao.gov/assets/690/681256.pdf		
MIL 3		Greenhouse Gas Mitigation Options and Costs for Agricultural Land and Animal Production within the United States, USDA Report No. AG-3142-P-10-0214	Frebruary 2013	P00000129547-P00000129816	ICF International, USDA	https://www.usda.gov/oce/climate_change/mitigation_technologies/GHG_Mitigation_Options.pdf		
MIL 3		Managing Agricultural Land for Greenhouse Gas Mitigation within the United States, USDA Report No. AG-3144-D-14-0292	Jul-16	P00000129817-P00000129882	ICF International, USDA	https://www.usda.gov/oce/climate_change/White_Paper_WEB_Final_v3.pdf		
MIL 3		Hydrogen Station Compression, Storage, and Dispensing Technical Status and Costs. Technical Report: NREL/BK-6A10-58564	May-14	P00000129883-P00000129956	National Renewable Energy Laboratory	https://www.nrel.gov/docs/fy14osti/58564.pdf		
MIL 3		Life Cycle Greenhouse Gas Emissions: Natural Gas and Power Production	2015	P00000129957-P00000129975	Timothy Skone, U.S. EIA	https://www.eia.gov/conference/2015/pdf/presentations/skone.pdf		
MIL 3		NOAA Fisheries, Species Directory	n.d.	P00000129976-P00000129977	NOAA	https://www.fisheries.noaa.gov/species-directory/threatened-endangered?species_title=salmon&field_species_categories_vocab_target_id=All&field_species_status_v%E2%80%A6		
MIL 3		Hydrogen Storage	2012	P00000129978-P00000130009	N. Stetson, U.S. DOE	https://www.hydrogen.energy.gov/pdfs/review12/st_plenary_stetson_2012_o.pdf		
MIL 3		USDA Announces Conservation Reserve Program Results. Press Release No. 0105.16	2016	P00000130012-P00000130015	USDA	https://www.usda.gov/media/press-releases/2016/05/05/usda-announces-conservation-reserve-program-results		
MIL 3		Fact of the Month May 2018: 10 Million Metric Tons of Hydrogen Produced Annually in the United States	May-18	P00000130016-P00000130018	U.S. DOE, Office of Energy Efficiency & Renewable Energy	https://www.energy.gov/eere/fuelcells/fact-month-may-2018-10-million-metric-tons-hydrogen-produced-annually-united-states		
MIL 3		Reclamation. Managing Water in the West. Hydroelectric Power.	2005	P00000130022-P00000130047	U.S. DOI	https://www.usbr.gov/power/edu/pamphlet.pdf		
MIL 3		Household Air Pollution and Health, Fact Sheet No. 292	Mar-14	P00000130048-P00000130052	World Health Organization	https://www.global-economic-symposium.org/knowledgebase/bringing-electricity-to-the-poor/virtual-library/who-household-air-pollution-and-health-factsheet/at_download/file		
MIL 3		Federal Support for the Development, Production, and Use of Fuels and Energy Technologies	Nov-15	P00000130053-P00000130086	CBO	https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/50980-energysupportonecol-3.pdf		

MIL 3		Department of Energy, Pacific Connector Gas Pipeline LP, Jordan Cove Energy Project LP; Notice of Schedule for Environmental Review Pacific Connector Pipeline Project and Jordan Cove Energy Project, 83 Fed. Reg. 45435	7-Sep-18	P00000130087-P00000130088	U.S. DOE	https://www.gpo.gov/fdsys/pkg/FR-2018-09-07/pdf/2018-19403.pdf		
MIL 3		About Commerce	n.d.	P00000130089-P00000130097	U.S. DOC	https://www.commerce.gov/page/about-commerce		
MIL 3		About the Department of Defense (DOD)	27-Jan-17	P00000130098-P00000130100	U.S. DOD	https://web.archive.org/web/20180823231811/https://dod.defense.gov/About/		
MIL 3		About Interior	n.d.	P00000130101-P00000130105	U.S. DOI	https://www.doi.gov/whoweare		
MIL 3		About the U.S. Department of Agriculture	n.d.	P00000130106-P00000130108	USDA	https://www.usda.gov/our-agency/about-usda		
MIL 3		FastStats - Asthma	31-Mar-17	P00000130109-P00000130116	CDC, National Center for Health Statistics	https://www.cdc.gov/nchs/fastats/asthma.htm		
MIL 3		Climate Change Increased Chances of Record Rains in Louisiana by at least 40 percent	7-Sep-16	P00000130117-P00000130119	NOAA	https://www.noaa.gov/media-release/climate-change-increased-chances-of-record-rains-in-louisiana-by-at-least-40-percent		
MIL 3		Coal Explained: Coal Imports and Exports	11-Jun-18	P00000130120-P00000130120	U.S. EIA	https://www.eia.gov/energyexplained/index.php?page=coal_imports		
MIL 3		Council on Environmental Quality	n.d.	P00000130122-P00000130124	CEQ	https://www.whitehouse.gov/ceq/		
MIL 3		Order Amending Long-term, Multi-contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Jordan Cove LNG Terminal to Free Trade Agreement Nations, FE Dkt. No. 11-127-LNG, A	20-Jul-18	P00000130125-P00000130129	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/3041-A_0.pdf		
MIL 3		Strategic Plan for Fiscal Years 2014-2018	2013	P00000130130-P00000130185	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/migrated/pmb/ppp/upload/DOI-Strategic-Plan-for-FY-2014-2018-POSTED-ON-WEBSITE-4.pdf		
MIL 3		Strategic Plan for Fiscal Years 2018-2022	2017	P00000130186-P00000130237	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/uploads/fy2018-2022-strategic-plan.pdf		
MIL 3		State of Louisiana—Highlighting low-lying areas derived from USGS digital elevation data: U.S. Geological Survey Scientific Investigations Map 3049, scale 1:700,000	2008	P00000130238-P00000130238	Kosovich, J.J., USGS	https://pubs.usgs.gov/sim/3049/		
MIL 3		Mission Areas	n.d.	P00000130239-P00000130241	USDA	https://www.usda.gov/our-agency/about-usda/mission-areas		
MIL 3		Ensemble Projections of Wildfire Activity and Carbonaceous Aerosol Concentrations Over the Western United States in the Mid-21st Century	2013	P00000130242-P00000130278	National Institute of Health, Xu Yue et al.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3763857/pdf/nihms494592.pdf		
MIL 3		Office of Management and Budget	n.d.	P00000130279-P00000130282	OMB	https://www.whitehouse.gov/omb/		
MIL 3		Office of Science and Technology Policy	n.d.	P00000130283-P00000130286	OSTP	https://www.whitehouse.gov/ostp/		
MIL 3		Our Mission and What We Do	n.d.	P00000130287-P00000130290	U.S. EPA	https://www.epa.gov/aboutepa/our-mission-and-what-we-do		
MIL 3		Our Mission, Values, and History	2016	P00000130291-P00000130292	U.S. DOS	https://www.state.gov/s/d/rm/rls/perfrpt/2016/html/265067.htm		

MIL 3		Permit List	n.d.	P00000130293-P00000130294	U.S. DOS	https://www.state.gov/p/wha/rt/permit/274063.htm		
MIL 3		Quarterly Coal Report: January-March 2018	Jul-18	P00000130295-P00000130359	U.S. EIA	https://www.eia.gov/coal/production/quarterly/archive/012118q1.pdf		
MIL 3		First on CNN: Tillerson Moves to Ditch Special Envoys	29-Aug-17	P00000130360-P00000130361	CNN, Elise Labott et al.	https://www.cnn.com/2017/08/28/politics/tillerson-state-dept-envoys/index.html		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-22-NG	14-May-07	P00000130362-P00000130366	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord2351.pdf		
MIL 3		Order Granting Long-Term Authorization to Import and Export Natural Gas from and to Canada, FE Dkt. No. 07-26-NG	14-May-07	P00000130367-P00000130371	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2007/orders/ord23551.pdf		
MIL 3		Order Granting Long-Term Authorization to Import Natural Gas from Canada, FE Dkt. No. 97-28-NG	20-Mar-97	P00000130372-P00000130376	U.S. DOE, Office of Fossil Energy	https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/1997/orders/ord1266.pdf		
MIL 3		Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide	2017	P00000130377-P00000130657	National Academies of Sciences, Engineering, and Medicine	https://www.nap.edu/catalog/24651/valuing-climate-damages-updating-estimation-of-the-social-cost-of		
MIL 3		The Fifth Annual Report of the Council on Environmental Quality	Dec-74	P00000130660-P00000131142	CEQ	https://www.slideshare.net/whitehouse/august-1974-the-fifth-annual-report-of-the-council-on-environmental-quality		
MIL 3		Climate Change: Energy Infrastructure Risks and Adaptation Efforts, GAO-14-74	Jan-14	P00000131143-P00000131216	U.S. Government Accountability Office	https://www.gao.gov/assets/670/660558.pdf		
MIL 3		Changing Climate: Report of the Carbon Dioxide Assessment Committee	1983	P00000131217-P00000131734	National Academy of Sciences	https://www.nap.edu/catalog/18714/changing-climate-report-of-the-carbon-dioxide-assessment-committee		
MIL 3		Addressing America's Energy Challenges	14-Oct-09	P00000131735-P00000131770	Steven E. Koonin, Under Secretary for Science and Energy, U.S. DOE	https://www.onr.navy.mil/-/media/Files/Conferences/Naval-Energy-Forum/Dr-Koonin-Under-Secretary-for-Science-DOE.ashx?la=en		
MIL 3		Press Release, Excerpts of Remarks for Vice President George Bush	31-Aug-88	P00000132056-P00000132062	The Vice President, Office of the Press Secretary	Ronald Reagan Presidential Library, White House Staff Member and Office Files, Ralph C. Bledsoe Files, 1985-1988, Domestic Policy Council, Box 46		
MIL 3		Statement of EPA Administrator Carol M. Browner to the White House Conference on Climate Action	21-Apr-94	P00000132063	U.S. EPA, Office of Communications, Education and Public Affairs	Obtained from former government employee		
MIL 3		White House Conference on Climate Action: Conference Summary	21-Apr-94	P00000132064-P00000132213	The White House	Obtained from former government employee		
MIL 3		Press Release, EIA Report Shows Increase in U.S. Greenhouse Gas Emissions	8-Nov-94	P00000132214-P00000132216	U.S. EIA, U.S. DOE	Obtained from former government employee		
MIL 3		Memorandum, Government by Example: Federal Greenhouse Gas Reduction Initiative	1994	P00000132217-P00000132228	The White House, Council of Economic Advisors	William J Clinton Presidential Library, Council of Economic Advisors, Michelle Jolin Files		

MIL 3		Memorandum from D. Allan Bromley, Assistant to the President for Science and Technology, to the DPC Working Group on Global Change, with the Preliminary Draft of The Economics of Global Climate Change: A Preliminary Assessment attached	20-Mar-90	P00000132229-P00000132330	The White House	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		
MIL 3		Draft Memorandum from Jonathan Wiener, Policy Counsel to D. Allan Bromley, Review of Cost Estimates of Limiting Greenhouse Gas Emissions	23-Apr-92	P00000132331-P00000132347	White House Policy Council	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		
MIL 3		President William J. Clinton Climate Change Event	24-Jul-97	P00000132348-P00000132354	William J. Clinton	Clinton Digital Library, Office of Speechwriting and Lowell Weiss, https://clinton.presidentiallibraries.us/items/show/47449 (pg. 11 of PDF)		
MIL 3		The White House At Work	1-Oct-97	P00000132355-P00000132357	The White House	Clinton Digital Library Collection		
MIL 3		Economic Report of the President	Feb-92	P00000132358-P00000132789	The White House, Council of Economic Advisors	http://www.presidency.ucsb.edu/economic_reports/1992.pdf		
MIL 3		President William Jefferson Clinton Address to the UN Session on Environment and Development, New York City	26-Jun-97	P00000132937-P00000132954	The White House	Clinton Digital Library Collection, Michael Waldman files, https://clinton.presidentiallibraries.us/items/show/45822		
MIL 3		National Energy Strategy: Powerful Ideas for America; One Year Later, DOE/S-92008000	1992	P00000132955-P00000133029	U.S. DOE	https://babel.hathitrust.org/cgi/pt?id=uc1.31210024771527		
MIL 3		Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity	Oct-98	P00000133030-P00000133276	U.S. EIA, U.S. DOE	Government Printing Office, https://catalog.gpo.gov/F/?func=direct&doc_number=000500685&local_base=GPO01PUB (archived direct link only available: https://web.archive.org/web/20110529091721/http://www.eia.gov/oiaf/kyoto/pdf/sroiaf9803.pdf)		
MIL 3		Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st Century	May-99	P00000133277-P00000133446	The President's Council on Sustainable Development	Government Printing Office, https://catalog.gpo.gov/F/?func=direct&doc_number=000566759&local_base=GPO01PUB (direct link: https://clintonwhitehouse2.archives.gov/PCSD/Publications/tsa.pdf)		
MIL 3		Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change	2001	P00000133447-P00000133968	U.S. Global Change Research Program	https://data.globalchange.gov/assets/e9/97/436129058f2107f4925aeec13ed8/nca-2000-foundation-report.pdf		
MIL 3		Memorandum for the President; Briefing Material on National Energy Plan	19-Oct-77	P00000133969-P00000134014	Jim Schlesinger and Stu Eizenstat	Jimmy Carter Presidential Library		
MIL 3		The Direct Use of Coal	Apr-79	P00000134015-P00000134435	U.S. Congress, Office of Technology Assessment	http://ota.fas.org/reports/7904.pdf		
MIL 3		Economics, Ethics, and Climate Policy	25-Nov-92	P00000135110-P00000135181	R.B. Howarth and P.A. Monahan, Lawrence Berkeley Laboratory	U.S. Department of Energy, https://www.osti.gov/biblio/6478079-economics-ethics-climate-policy		

MIL 3		Public Trust Doctrine, Module 1, Lesson 2 (1 of 2), For the Benefit of the Public	15-Oct-11	P00000135218-P00000135219	NOAA	https://web.archive.org/web/20111025120612/http://www.csc.noaa.gov/ptd/module01/lesson02/0102.htm		
MIL 3		U.S. Natural Gas Pipeline Exports to Canada	31-Aug-18	P00000135220-P00000135220	U.S. EIA	https://www.eia.gov/dnav/ng/hist/n9132cn2a.htm		
MIL 3		U.S. Natural Gas Pipeline Imports From Canada	31-Aug-18	P00000135221-P00000135221	U.S. EIA	https://www.eia.gov/dnav/ng/hist/n9102cn2a.htm		
MIL 3		U.S. Natural Gas Pipeline Imports From Mexico	31-Aug-18	P00000135222-P00000135222	U.S. EIA	https://www.eia.gov/dnav/ng/hist/n9102mx2a.htm		
MIL 3		U.S. Natural Gas Pipeline Exports to Mexico	31-Aug-18	P00000135223-P00000135223	U.S. EIA	https://www.eia.gov/dnav/ng/hist/n9132mx2a.htm		
MIL 3		Global Energy Futures and CO2-Induced Climate Change	15-Nov-83	P00000135224-P00000135561	D.J. Rose, M.M. Miller, and C. Agnew	https://dspace.mit.edu/handle/1721.1/89569		
MIL 3		Discounting for Public Policy: Theory and Recent Evidence on the Merits of Updating the Discount Rate	Jan-17	P00000135562-P00000135577	Council of Economic Advisors	https://obamawhitehouse.archives.gov/sites/default/files/page/files/201701_cea_discounting_issue_brief.pdf		
MIL 3		Discount Rate Policy	May-91	P00000135578-P00000135641	U.S. Government Accountability Office	https://www.gao.gov/assets/80/76086.pdf		
MIL 3		Response to Comments: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866	Jul-15	P00000135642-P00000135685	Interagency Working Group on Social Cost of Carbon	https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-response-to-comments-final-july-2015.pdf		
MIL 3		Director's Order #100: Resource Stewardship for the 21st Century	20-Dec-16	P00000135750-P00000135764	Jonathan B. Jarvis, National Park Service	https://www.nps.gov/policy/DOrders/DO_100.htm		
MIL 3		Executive Order 13690 - Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input	30-Jan-15	P00000135765-P00000135769	Barack Obama	https://obamawhitehouse.archives.gov/the-press-office/2015/01/30/executive-order-establishing-federal-flood-risk-management-standard-and-		
MIL 3		Top Interior Officials Ordered Parks to End Science Policy, Emails Show	25-Jul-18	P00000135770-P00000135774	Elizabeth Shogren	https://www.revealnews.org/blog/top-interior-officials-ordered-parks-to-end-science-policy-emails-show/		
MIL 3		Regulatory Impact Analysis: Final Rulemaking for 2017-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards	Aug-12	P00000135775-P00000136329	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZI1.PDF?Dockey=P100EZI1.PDF		
MIL 3		Department of Interior Climate Change Adaptation Plan	2014	P00000136330-P00000136379	U.S. DOI	https://www.doi.gov/sites/doi.gov/files/migrated/greening/sustainability_plan/upload/2014_DOI_Climate_Change_Adaptation_Plan.pdf		
MIL 3		Regulatory Impact Analysis of the Final Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources	May-16	P00000136380-P00000136575	U.S. EPA	https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2010-0505-7630&contentType=pdf		
MIL 3		Regulatory Impact Analysis for the Final Revisions to the Emission Guidelines for Existing Sources and The New Source Performance Standards in the Municipal Solid Waste Landfills Sector	Jul-16	P00000136576-P00000136802	U.S. EPA	https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2014-0451-0225&contentType=pdf		
MIL 3		Final Updates to Performance Standards for New, Modified and Reconstructed Landfills, and Updates to Emission Guidelines for Existing Landfills: Fact Sheet	Jul-16	P00000136803-P00000136808	U.S. EPA	https://www.epa.gov/sites/production/files/2016-09/documents/landfills-final-nsps-eg-factsheet.pdf		

MIL 3		EPA's Actions to Reduce Methane Emissions from the Oil and Natural Gas Industry: Final Rules and Draft Information Collection Request	May-16	P00000136809-P00000136814	U.S. EPA	https://www.epa.gov/sites/production/files/2016-09/documents/nsps-overview-fs.pdf		
MIL 3		Environmental Assessment: Waste Prevention, Production Subject to Royalties, and Resource Conservation	10-Nov-16	P00000136815-P00000136901	U.S. BLM	https://www.regulations.gov/contentStreamer?documentId=BLM-2016-0001-9128&contentType=pdf		
MIL 3		Withdrawal of Proposed Rules To Reduce Regulatory and Financial Burden	22-Dec-17	P00000137069-P00000137069	Dept. of Housing and Urban Development	https://www.gpo.gov/fdsys/pkg/FR-2017-12-22/pdf/2017-27615.pdf		
MIL 3		Floodplain Management and Protection of Wetlands; Minimum Property Standards for Flood Hazard Exposure; Building to the Federal Flood Risk Management Standard	28-Oct-16	P00000137070-P00000137082	Dept. of Housing and Urban Development	https://www.gpo.gov/fdsys/pkg/FR-2016-10-28/pdf/2016-25521.pdf		
MIL 3		Oil and Gas Resources, Advance Notice of Proposed Rulemaking; Request for Comment, 83 Fed. Reg. 46458	13-Sep-18	P00000137125-P00000137127	USDA, Forest Service	https://www.federalregister.gov/documents/2018/09/13/2018-19962/oil-and-gas-resources		
MIL 3		Glaciers, Ice Sheets, and Sea Level: Effect of a CO2-Induced Climatic Change	Sep-85	P00000137593-P00000137939	U.S. DOE	https://www.osti.gov/servlets/purl/5045109		
MIL 3		Environmental Quality: The Fourth Annual Report of the Council on Environmental Quality	Sep-73	P00000137943-P00000138465	CEQ	https://www.slideshare.net/whitehouse/august-1973-the-third-annual-report-of-the-council-on-environmental-quality		
MIL 3		Changing Climate	Sep-68	P00000138466-P00000138493	J.O. Fletcher	National Archives and Records Administration, Records of the National Science Foundation, Record Group 307		
MIL 3		Physical and Dynamical Basis for Predicting Climate Change: A Research Proposal	11-Jan-73	P00000138494-P00000138550	W.W. Kellogg et al.	National Archives and Records Administration, Records of the National Science Foundation, Record Group 307		
MIL 3		Environmental Quality: The Seventh Annual Report of the Council on Environmental Quality	Sep-76	P00000138551-P00000138975	Council on Environmental Quality	https://www.slideshare.net/whitehouse/august-1976-the-seventh-annual-report-of-the-council-on-environmental-quality		
MIL 3		Testimony of S. David Freeman before the Senate Environment and Public Works Committee on S. 2666 (Global Environmental Protection Act of 1988)	16-Sep-88	P00000138976-P00000138982	S. David Freeman	Hein Online database: https://heinonline.org/HOL/Page?handle=hein.cbhear/cbhearings3869&collection=congrec&id=318&startid=318&endid=323		
MIL 3		The Potential Effects of Global Climate Change on the United States: Appendix J Policy	1989	P00000138985-P00000139174	U.S. EPA	https://nepis.epa.gov/Exe/ZyPDF.cgi/91012SZV.PDF?Dockey=91012SZV.PDF		
MIL 3		Carbon Dioxide Effects Research and Assessment Program, Workshop on Environmental and Societal Consequences of a Possible CO2-Induced Climate Change	April 2-6, 1979	P00000139175-P00000139302	Dr. Roger Revelle, Chairman	Obtained from former government employee		
MIL 3		Letter to John F. Kennedy from Sen. Clinton Anderson regarding article called "Can We Survive Technology?" by John von Neumann	14-Feb-61	P00000139303-P00000139309	Clinton P. Anderson	National Archives Records Administration, John F. Kennedy Presidential Library		
MIL 3		Issue Paper Global Climate Change Draft	28-May-86	P00000139310-P00000139314	Ad Hoc Sub-Working Group on Climate Change	National Archives Records Administration, Ronald Reagan Presidential Library		

MIL 3		Energy Sources for the Future	Jul-75	P00000139329-P00000139636	Oak Ridge Associated Universities, U.S. Energy Research and Development Administration, Division of Biomedical and Environmental Research	https://www.osti.gov/servlets/purl/7351669		
MIL 3		Document collection: Memo from Ken to Allan Bromley; Memos from Allan Bromley	10-Jan-91	P00000139637-P00000139645	Ken; Allen Bromley	George H.W. Bush Presidential Library, White House Office of Science and Technology Policy (OSTP), Allan Bromley Files, Global Climate Change Files		
MIL 3		Climate Change, Points for Briefing of the President	17-Sep-97	P00000139646-P00000139647	U.S. DOS	George Washington University NSA archive: https://nsarchive2.gwu.edu/NSAEBB/NSAEBB303/Document%209.pdf		
MIL 3		Climate Change: Potential Regulation of Stationary Greenhouse Gas Sources Under the Clean Air Act	10-Dec-09	P00000139648-P00000139681	Congressional Research Service	https://www.everycrsreport.com/files/20091210_R40585_e94745bb78c90e966c66774d64d5806552a19409.pdf		
MIL 3		Aviation and Climate Change	27-Jan-10	P00000139682-P00000139696	Congressional Research Service	https://www.everycrsreport.com/files/20100127_R40090_d4e682926fcf49d5d77919d93d53e357688ebcc1.pdf		
MIL 3		Talking it Over	7-Oct-97	P00000139698-P00000139699	Hillary Rodham Clinton	National Archives Records Administration, Clinton Digital Library		
MIL 3		Carbon Dioxide and Climate: The Greenhouse Effect	31-Mar-83	P00000139700-P00000139750	Congressional Research Service	Congressional Research Service		
MIL 3		How Fast Can We Safely Burn Coal?	29-Nov-77	P00000139751-P00000139753	Congressman Bob Wilson	HeinOnline database: http://heinonline.org/HOL/Page?handle=hein.congrec/cr1230029&collection=congrec&id=1078&startid=1078&endid=1079		
MIL 3		Preparing for an Uncertain Climate-Vol. II, OTA-O-568	Oct-93	P00000139754-P00000140142	Office of Technology Assessment	https://ota.fas.org/reports/9339.pdf		
MIL 3		Text of Letter from the President to Senators Hagel, Helms, Craig, and Roberts	13-Mar-01	P00000141289	President George W. Bush	National Archives Records Administration, George W. Bush White House Web Archive: https://georgewbush-whitehouse.archives.gov/news/releases/2001/03/20010314.html		
MIL 3		Testimony of Gary S. Guzy before a Joint Hearing before a Joint Hearing of the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs of the Committee on Government Reform and the Subcommittee on Energy and Environment of the Committee on Science	6-Oct-99	P00000141290-P00000141293	Gary S. Guzy, General Council U.S. EPA	https://archive.epa.gov/ocir/hearings/testimony/106_1999_2000/web/html/100699gg.html		
MIL 3		Energy Efficiency & Renewable Energy, Comprehensive Energy Data and Sustainability Performance	n.d.	P00000141295	U.S. DOE	http://ctsedwweb.ee.doe.gov/Annual/Report/ComprehensiveGreenhouseGasGHGInventoriesByAgencyAndFiscalYear.aspx		
MIL 3		Carbon Dioxide Affects Global Ecology	1969	P00000141296-P00000141303	Eugene K. Peterson, U.S. BLM	https://pubs.acs.org/doi/pdf/10.1021/es60034a011		

MIL 3		EPA, Clean Air Act Overview, Air Pollution: Current and Future Challenges	*last updated March 22, 2018*	P00000141305-P00000141314	U.S. EPA	https://www.epa.gov/clean-air-act-overview/air-pollution-current-and-future-challenges		
MIL 3		Intergovernmental Panel on Climate Change, Climate Change: The IPCC Scientific Assessment, Policymakers Summary	1990	P00000141315-P00000141342	IPCC	https://www.ipcc.ch/ipccreports/far/wg_I/ipcc_far_wg_I_spm.pdf		
MIL 3		Small Hydro and Low-Head Hydro Power Technologies and Prospects	Mar-10	P00000141343-P00000141361	Congressional Research Service	https://www.everycrsreport.com/files/20100301_R41089_6e8c9c43d2560ac6e10a1372dbcdaadc4f934e48.pdf		
MIL 3		Climate Effects on Health	*last updated July 26, 2016*	P00000141370	CDC	https://www.cdc.gov/climateandhealth/effects/default.htm		
MIL 3		FastStats - Allergies and Hay Fever	*last updated March 30, 2017*	P00000141371-P00000141372	CDC, National Center for Health Statistics	https://www.cdc.gov/nchs/fastats/allergies.htm		
MIL 3		Will the Administration Implement the Kyoto Protocol Through the Back Door?, Hearing before the Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs, of the Committee on Government Reform and Oversight, House of Representatives, One Hundred Fifth Congress (numerous documents)	9-Oct-98	P00000141373-P00000141455	Kathleen McGinty, chair, Council on Environmental Quality, et al.	Government Printing Office: http://purl.fdlp.gov/GPO/gpo63037		
Plaintiff Records		Isaac — Allergy/Asthma Records from Michael V. Osborne, MD **[PROTECTIVE ORDER]**	11-Aug-14	P00000121740–P00000121760				
Plaintiff Records		Avery – Facebook Post from Village School about poor air quality **[PROTECTIVE ORDER]**	15-Sep-17	P00000119176	The Village School			
Plaintiff Records		Avery – Communication to Families from the Village School **[PROTECTIVE ORDER]**	5-Sep-17	P00000119174	The Village School			
Plaintiff Records		Nathan — Medical Records **[PROTECTIVE ORDER]**		P00000121524–P00000121607				
Plaintiff Records		Nick — Medical Records: Mile High Allergy Asthma Sinus **[PROTECTIVE ORDER]**		P00000121610				
Plaintiff Records		Nick — Medical Records: Kids First Pediatrics **[PROTECTIVE ORDER]**		P00000121611				
Plaintiff Records		Tia — Medical Records: Praxis Medical Group **[PROTECTIVE ORDER]**		P00000121620–P00000627				
Plaintiff Records		Alex — Medical Records: NYC Prescriptions and Eugene Allergy **[PROTECTIVE ORDER]**		P00000121632–P00000121640				
Plaintiff Records		Alex — Medical Records: Roseburg **[PROTECTIVE ORDER]**		P00000121641–P000012653				
Plaintiff Records		Alex — Email Exchange: Wildfires **[PROTECTIVE ORDER]**		P00000121657–P00000121677				
Plaintiff Records		Alex — Picture: Low River Level **[PROTECTIVE ORDER]**		P00000121702				
Plaintiff Records		Alex — Picture: Marked Tree **[PROTECTIVE ORDER]**		P00000121703				
Plaintiff Records		Alex — Picture: Wildfire **[PROTECTIVE ORDER]**		P00000121705				

Plaintiff Records		Alex — Picture: Tree Damage **[PROTECTIVE ORDER]**		P00000121707				
Plaintiff Records		Alex — Picture: Smoke **[PROTECTIVE ORDER]**		P00000121717				
Plaintiff Records		Zealand — Medical Records: PeaceHealth **[PROTECTIVE ORDER]**		P00000121775				
Plaintiff Records		Zealand — Picture: fire damage **[PROTECTIVE ORDER]**		P00000121776				
Plaintiff Records		Zealand — Picture: fire damage **[PROTECTIVE ORDER]**		P00000121778				
Plaintiff Records		Zealand — Picture: fire damage **[PROTECTIVE ORDER]**		P00000121781				
Plaintiff Records		Tia — Medical Records: Praxis Medical Group **[PROTECTIVE ORDER]**		P00000122185–P00000122224				
Plaintiff Records		Jacob — View of the farm during September 4, 2017 smoke event **[PROTECTIVE ORDER]**	4-Sep-17	P00000122900				
Plaintiff Records		Jacob – View of the farm during September 4, 2017 smoke event **[PROTECTIVE ORDER]**	4-Sep-17	P00000122901				
Plaintiff Records		Jacob — Jacob L. on family farm wearing mask during September 4, 2017 smoke event **[PROTECTIVE ORDER]**	4-Sep-17	P00000122902				
Plaintiff Records		Jacob — Jacob L. on family farm wearing mask during September 4, 2017 smoke event **[PROTECTIVE ORDER]**	4-Sep-17	P00000122903				
Plaintiff Records		Jacob — Purchased fire truck to protect property **[PROTECTIVE ORDER]**		P00000122904				
Plaintiff Records		Jacob — Picture of dead trees **[PROTECTIVE ORDER]**		P00000122913				
Plaintiff Records		Jacob — Picture of dead trees **[PROTECTIVE ORDER]**		P00000122915				
Plaintiff Records		Jacob — Picture of dead trees **[PROTECTIVE ORDER]**		P00000122921				
Plaintiff Records		Jacob — Picture of dead trees **[PROTECTIVE ORDER]**		P00000122926				
Plaintiff Records		Kelsey — Medical Records: bacterial infection from drinking water while hiking **[PROTECTIVE ORDER]**		P00000122937–P00000122940				
Plaintiff Records		Jacob – Property map **[PROTECTIVE ORDER]**		P00000122942				
Plaintiff Records		Alex [supplement] — Medical Records: Roseburg RX + Columbia Medical Center **[PROTECTIVE ORDER]**		P00000122980–P00000122997				
Plaintiff Records		Alex [supplement] — Medical Records: Roseburg Centennial Medical Group **[PROTECTIVE ORDER]**		P00000122998–P00000123001				
Plaintiff Records		Alex — Text Exchange: Wildfires **[PROTECTIVE ORDER]**		P0000012689–P00000121699				
Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137100				
Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137101				
Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137102				
Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137104				

Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137105				
Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137106				
Plaintiff Records		Jayden — Picture: Flooding **[PROTECTIVE ORDER]**		P00000137107				
Plaintiff Records		Jayden — Letter from Counselor **[PROTECTIVE ORDER]**		P00000137108				
Plaintiff Records		Kiran — Medical Records (Allergies) **[PROTECTIVE ORDER]**		P00000137113				
Plaintiff Records		Levi — Picture: erosion **[PROTECTIVE ORDER]**		P00000137130				
Plaintiff Records		Levi — Picture: flooding **[PROTECTIVE ORDER]**		P00000137131				
Plaintiff Records		Levi — Picture: Sea level rise poster **[PROTECTIVE ORDER]**		P00000137132				
Plaintiff Records		Journey — Picture: FB post about flooding **[PROTECTIVE ORDER]**		P00000137133				
Plaintiff Records		Sahara — Medical Records: asthma hospitalization **[PROTECTIVE ORDER]**		P00000137159				
Plaintiff Records		Sophie — Medical Records: Mental health counselor (De Jesus) **[PROTECTIVE ORDER]**		P00000137170				
Plaintiff Records		Sophie — Medical Records: Mental health counselor (Taff) **[PROTECTIVE ORDER]**		P00000141362				
Misc.		E.P.A. Places the Head of Its Office of Children's Health on Leave	26-Sep-18	P00000145970-P00000145972	Coral Davenport and Roni Caryn Rabin, The New York Times			
Misc.		Map of Pacific Connector Pipeline route near Roseburg Oregon	n.d.			www.jordancovelng.com/project/location		
Misc.		Trust Oregon Documentary Film	2012			https://vimeo.com/49915241		
Misc.		Trust Alaska Documentary Film	2011			https://vimeo.com/33921321		
Misc.		Trust Colorado Documentary Film	2012			https://vimeo.com/41747411		
Misc.		Trust Arizona Documentary Film	2012			https://www.youtube.com/watch?v=c97dQ_LpRu4		
Misc.		Arctic sea ice 2017: Tapping the Brakes in September	5-Oct-17		National Snow and Ice Data Center, NASA	http://nsidc.org/arcticseaicenews/2017/10/arctic-sea-ice-2017-tapping-the-brakes-in-september/ (last visited October 5, 2018)		
Misc.		Document Collection: William Cline Report on The Economics of Global Warming and Accompanying Correspondence	1992		D. Allen Bromley files			
Misc.		IPCC Global Warming of 1.5 degrees, Summary for Policymakers	Oct-18	P00000143766-P00000143799	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Headline Statements	Oct-18	P00000143800-P00000143802	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 1	Oct-18	P00000143803-P00000143863	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 1 Technical Annex	Oct-18	P00000143864-P00000143885	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 2	Oct-18	P00000143886-P00000143998	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 2 Technical Annex	Oct-18	P00000143999-P00000144097	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 3	Oct-18	P00000144098-P00000144343	IPCC	http://www.ipcc.ch/report/sr15/		

Misc.		IPCC Global Warming of 1.5 degrees, Chapter 3 Annex	Oct-18	P00000144344-P00000144454	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 4	Oct-18	P00000144455-P00000144652	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 4 Supplementary Material	Oct-18	P00000144653-P00000144823	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 5	Oct-18	P00000144824-P00000144900	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Chapter 5 - Table 5.3	Oct-18	P00000144901-P00000144920	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Glossary	Oct-18	P00000144921-P00000144975	IPCC	http://www.ipcc.ch/report/sr15/		
Misc.		IPCC Global Warming of 1.5 degrees, Changes to the Underlying Scientific Technical Assessment	Oct-18	P00000144976-P00000144991	IPCC	http://www.ipcc.ch/report/sr15/		
Video		Compilation of NBC and ABC television news reports on climate change, including [1] an untitled NBC report climate change conference in the Netherlands, at which States failed to agree on a plan to curb GHG emissions, and commentary on how the Bush administration had backtracked on its position on climate change (at 05:00–07:10)	7-Nov-89	P00000160205	NBC News			
Video		Compilation of NBC, ABC and CBS television news report on climate change, including; [1] an untitled, July 9, 1988 NBC news report discussing the impact of excessive heat and pollution on farmers and in cities, and links with the greenhouse effect. (at 01:43–04:23); [2] a July 27, 1988 ABC news report titled "Greenhouse Effect," describing the greenhouse effect, is causes, consequences, and responses. (at 04:25–09:01); [3] an October 20, 1988 ABC news report titled "Greenhouse Effect," regarding a draft EPA report to Congress outlining the environmental and economic impacts of the greenhouse effect. (at 09:35–11:07); and [4] a May 8, 1989 untitled NBC report regarding the White House Office of Management and Budget's alteration of congressional testimony by climate scientists regarding global warming. (at 23:44–26:25)	July 9, 1988 – May 8, 1989	P00000160206	NBC News; ABC News; CBS News			

Video		Compilation of NBC, ABC and CBS television news report on climate change, including; [1] an untitled, April 3, 1980 CBS news report on air pollution and the greenhouse effect. (at 07:18–10:02); [2] an untitled, March 25, 1982 CBS news report on the greenhouse effect. (at 10:56–13:48); [3] an untitled, July 20, 1982 NBC news report on new National Academy of Sciences report on the greenhouse effect. (at 13:50–15:33); [4] and untitled, October 18, 1983 ABC news report on a new EPA report on the greenhouse effect titled "Can We Delay a Greenhouse Warming?". (at 15:35–17:46); and [5] a June 23, 1988 NBC News report titled "Greenhouse Effect," regarding a heat wave that struck the US and its relation to greenhouse gases. (at 37:41–40:09)	April 3, 1980–June 23, 1988	P00000160207				
Video		President Obama on Climate Change in Alaska	2-Sep-15	P00000160208	C-SPAN	https://www.c-span.org/video/?327870-1/president-obama-remarks-kotzebue-alaska		
Video		(Pres. Clinton on) Global Climate Change Summit	24-Jul-97	P00000160209	C-SPAN	https://www.c-span.org/video/?88232-1/global-climate-change-summit		
Video		(Pres. George W. Bush) Global Warming Policy	4-Feb-02	P00000160210	C-SPAN	https://www.c-span.org/video/?168699-1/global-warming-policy		
Video		(Pres. George W. Bush on) Global Climate Change	16-Apr-08	P00000160211	C-SPAN	https://www.c-span.org/video/?204885-1/global-climate-change		
Video		President Obama on Paris Climate Agreement	5-Oct-16	P00000160212	C-SPAN	https://www.c-span.org/video/?416514-1/president-obamas-statement-eu-ratification-paris-climate-agreement-2016		
Video		President Obama at Yosemite	18-Jun-16	P00000160213	C-SPAN	https://www.c-span.org/video/?411399-1/president-marks-national-park-service-centennial		
Video		(Pres. Obama) Weekly Presidential Address	13-Aug-16	P00000160214	C-SPAN	https://www.c-span.org/video/?413989-1/weekly-presidential-address		
Video		President Obama News Conference	1-Dec-15	P00000160215	C-SPAN	https://www.c-span.org/video/?401442-1/president-obama-news-conference		
Video		(Pres. Obama) Weekly Presidential Address	29-Aug-15	P00000160216	C-SPAN	https://www.c-span.org/video/?327852-1/weekly-presidential-address		
Video		President Obama Remarks at the National Hurricane Center	28-May-15	P00000160217	C-SPAN	https://www.c-span.org/video/?326289-2/president-obama-visit-national-hurricane-center		
Video		President Obama on Climate Change and Public Health	7-Apr-15	P00000160218	C-SPAN	https://www.c-span.org/video/?325232-3/president-obama-remarks-roundtable-climate-change-impacts-public-health		
Video		President Trump on Climate Agreement	1-Jun-17	P00000160219	C-SPAN	https://www.c-span.org/video/?429363-1/president-announces-withdrawal-paris-climate-agreement		
Video		(Pres. Trump on) Executive Action on Power Plant Emissions	28-Mar-17	P00000160220	C-SPAN	https://www.c-span.org/video/?426114-1/president-trump-begins-rollback-obama-environmental-agenda		

Video		Video of Levi D. (Levi_ResidentialDamage_B015C001_161009ZOM01)	9-Oct-16	P00000160221				
Video		Video of Levi D. (Levi_DownedTree_B016C003_161010H0M01_2)	9-Oct-16	P00000160222				
Video		Video of Levi D. (Levi_ConstructionDebris_B015C004_161009BMM01)	9-Oct-16	P00000160223				
Video		Video of Levi D. (Levi_BeachErosion1_B015C027_161009R0M01_2)	9-Oct-16	P00000160224				
Video		Video of Levi D. (Levi_BeachErosion2_B015C027_161009R0M01_3)	9-Oct-16	P00000160225				
Video		Video of Jaime B. (Jaime_SheepBarnSite)	20-Jul-18	P00000160226				
Deposition		James Kuperberg Deposition	20-Jul-17		James Kuperberg			
Deposition		Mark Eakin Deposition	21-Jul-17		Mark Eakin			
Deposition Exhibit		Evaluation of a proposal for a reliable low-cost grid power with 100% wind, water, and solar	24-Feb-17		Christopher T. M. Clack, et al.	http://www.pnas.org/content/suppl/2017/06/16/1610381114.DCSupplemental		
Deposition Exhibit		Supporting Information for the paper "Evaluation of a proposal for reliable low-cost grid power with 100% wind, water, and solar"	8-May-17		Christopher T. M. Clack, et al.			
Deposition Exhibit		Eye on the Market, Annual Energy Paper	Apr-18		Michael Cembalest	https://am.jpmorgan.com/us/institutional/eotm-2018-energy-edition		
Deposition Exhibit		The feasibility of 100% renewable electricity systems: A response to critics	13-May-18		Mark Diesendorf, Ben Elliston	https://doi.org/10.1016/j.rser.2018.05.042		
Deposition Exhibit		Scaling up carbon dioxide capture and storage: From megatons to gigatons	27-Oct-10		Howard J. Herzog	https://www.sciencedirect.com/journal/energy-economics		
Deposition Exhibit		Pumping CO2 underground can help fight climate change. Why is it stuck in second gear?	12-Mar-15		Howard J. Herzog	https://theconversation.com/pumping-co2-underground-can-help-fight-climate-change-why-is-it-stuck-in-second-gear-37572		
Deposition Exhibit		Screenshot of website: Pumping CO2 underground can help fight climate change. Why is it stuck in second gear?	12-Mar-15		Howard J. Herzog	https://theconversation.com/pumping-co2-underground-can-help-fight-climate-change-why-is-itstuck-in-second-gear-37572		
Deposition Exhibit		CSI Sponsors, History of consortium membership	n.d.		MIT	https://sequestration.mit.edu/CSI/csi_participants.html		
Deposition Exhibit		Lazard's Levelized Cost of Energy analysis--Version 11.0	Nov-17		Lazard	https://www.lazard.com/media/450337/lazard-levelized-cost-of-energy-version-110.pdf		
Deposition Exhibit		Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma, Full Report 2007	28-Aug-07		U.S. Department of Health and Human Services	https://www.nhlbi.nih.gov/files/docs/guidelines/asthgdln.pdf		
Deposition Exhibit		Allergic Rhinitis and its Impact on Asthma (ARIA)	2001		Jean Bousquet	https://www.jacionline.org/article/S0091-6749(01)62488-6/abstract		
Deposition Exhibit		Risk factors of allergic rhinitis: genetic or environmental?	2005		De-Yun Wan	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1661616/pdf/tcrm0102-115.pdf		
Deposition Exhibit		Early-life risk factors and allergic rhinitis: Comparing European and US data	8-Jul-11		Allison Clare Ramsey, Peter M. G. Deane	https://www.jacionline.org/article/S0091-6749(11)01158-4/pdf		

Deposition Exhibit		Climate Change and Mental Health Connections	Jul-17		American Psychiatric Association	https://www.psychiatry.org/patients-families/climate-change-and-mental-health-connections		
Deposition Exhibit		AAPL Practice Guideline for the Forensic Assessment	2015		American Academy of Psychiatry and the Law	http://www.aapl.org/docs/pdf/Forensic_Assessment.pdf		
Deposition Exhibit		APA Resource Document on Mental Health and Climate Change	2017		Robert J. Ursano, et al.	https://www.psychiatry.org/File%20Library/Psychiatrists/Directories/Library-and-Archive/resource_documents/2017-Resource-Document-Mental-Health-Climate-Change.pdf		
Deposition Exhibit		How Climate-Related Natural Disasters Affect Mental Health	Mar-17		American Psychiatric Association	https://www.psychiatry.org/patients-families/climate-change-and-mental-health-connections/affects-on-mental-health		
Deposition Exhibit		Public Perception: How Americans See Climate Change	Jul-17		American Psychiatric Association	https://www.psychiatry.org/patients-families/climate-change-and-mental-health-connections/public-perception		
Deposition Exhibit		Climate-Related Natural Disasters: Resilience and Individual Actions	Jul-17		American Psychiatric Association	https://www.psychiatry.org/patients-families/climate-change-and-mental-health-connections/resilience-and-individual-actions		
Deposition Exhibit		Managing Agricultural Land for Greenhouse Gas Mitigation within the United States	Jul-16		USDA	https://www.usda.gov/oce/climate_change/mitigation_technologies/ICFMitgationReportWEB.pdf		
Deposition Exhibit		Case study on potential agricultural responses to climate change in a California landscape	26-Sep-11		L. E. Jackson, et al.	https://link.springer.com/article/10.1007/s10584-011-0306-3		
Deposition Exhibit		Final Paper - Potential for Adaptation to Climate Change in an Agricultural Landscape in the Central Valley of California	Aiugust 2009		L. E. Jackson, et al.	https://www.energy.ca.gov/2009publications/CEC-500-2009-044/CEC-500-2009-044-F.PDF		
Deposition Exhibit		Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change	24-Jan-08		Timothy Searchinger, et al.	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.337.4853&rep=rep1&type=pdf		
Deposition Exhibit		Weather Shocks and Inter-Hemispheric Supply Responses: Implications for Climate Change Effects on Global Food Markets	21-Nov-14		Travis J. Lybbert, et al.	https://www.worldscientific.com/doi/pdf/10.1142/S2010007814500109		
Deposition Exhibit		USDA Regulatory Decisionmaking Requirements	14-Mar-97		USDA	https://www.ocio.usda.gov/sites/default/files/docs/2012/DR1512-001_0.pdf		
Deposition Exhibit		USDA Handbook Subpart A - Economics Analysis and Conservation Planning	13-Jul-12		USDA	https://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=32045		
Deposition Exhibit		Stanford launches Strategic Energy Alliance with industry collaboration	Apr-18		Stanford	https://stanford.app.box.com/s/0az1erru3nsqnh2lns8dl63t70iqcwa8		
Deposition Exhibit		An Energy Policy for the Twenty-First Century	30-Jan-05		James L. Sweeney	https://www.hoover.org/research/energy-policy-twenty-first-century		
Deposition Exhibit		Market Failure and the Structure of Externalities	14-Jul-08		Kenneth Gillingham, James Sweeney	http://environment.yale.edu/gillingham/GillinghamSweeney_MktFailureStructureExternalities_proof.pdf		
Deposition Exhibit		National Security Consequences of U.S. Oil Dependency	2006		Council on Foreign Relations	https://cfrd8-files.cfr.org/sites/default/files/report_pdf/0876093659.pdf		
Deposition Exhibit		Trumping the Climate: Coming in Hot	1-Jun-17		Climate One	https://climateone.org/node/24060/#transcript		

Deposition Exhibit		Climate Change Low Carbon Economies, Resilient Societies	2008		World Bank Institute	https://elibrary.worldbank.org/toc/deor/10/1		
Deposition Exhibit		Investment versus Output Subsidies: Implications of Alternative Incentives for Wind Energy	Mar-18		Joseph E. Aldy, et al.	http://www.nber.org/papers/w24378		
Deposition Exhibit		Effects of Federal Policies on Gasoline Consumption	1979		James L. Sweeney	https://www.sciencedirect.com/science/article/pii/0165057279900197		
Deposition Exhibit		Energy Efficiency Building a Clean, Secure Economy	2016		James L. Sweeney	http://ebookcentral.proquest.com/lib/uoregon/detail.action?docID=4558117		
Deposition Exhibit		Barriers to Implementing Low Carbon Technologies	Feb-12		Kenneth Gillingham & James Sweeney	https://web.stanford.edu/group/peec/cgi-bin/docs/policy/research/Barriers%20to%20Implementing%20Low%20Carbon%20Technologies.pdf		
Deposition Exhibit		U.S. Energy Concerns Low; Increasing Supply Not a Priority	2-Apr-18		Jeffrey M. Jones	https://news.gallup.com/poll/232028/energy-concerns-low-increasing-supply-not-priority.aspx		
Deposition Exhibit		Two-Thirds of American give priority to developing alternative energy over fossil fuels	23-Jan-17		Brian Kennedy	http://www.pewresearch.org/fact-tank/2017/01/23/two-thirds-of-americans-give-priority-to-developing-alternative-energy-over-fossil-fuels/		
Deposition Exhibit		Gallup poll on Energy			Gallup	https://news.gallup.com/poll/2167/energy.aspx		
Deposition Exhibit		American Tilt Toward Protecting Environment, Alternative Fuels	15-Mar-17		Frank Newport	news.gallup.com/poll/206159/americans-tilt-toward-protecting-environment-alternative-fuels.aspx		
Deposition Exhibit		Slim Majority Now Opposes Oil Exploration on Federal Lands	24-Mar-17		Jeffrey M. Jones	https://news.gallup.com/poll/207035/slim-majority-opposes-oil-exploration-federal-lands.aspx		
Deposition Exhibit		Screenshot of David G. Victor, Course Materials, Current Courses at the School of International Relations and Pacific Studies, UC San Diego	2016		David G. Victor	http://pages.ucsd.edu/~dgvictor/course.html		
Deposition Exhibit		Undiplomatic Action: A practical guide to the new politics and geopolitics of climate change	Feb-18		David G. Victor & Bruce D. Jones	https://www.brookings.edu/wp-content/uploads/2018/02/esci_201802_undiplomatic_action.pdf		
Deposition Exhibit		Tsunamis of innovation are shaking the energy industry	15-Mar-18		David G. Victor	https://www.brookings.edu/blog/planetpolicy/2018/03/15/tsunamis-of-innovation-are-shaking-the-energy-industry/		
Deposition Exhibit		Trump just pulled out of the Paris Agreement - but the US has contributed more to climate change than any other country	1-Jun-17		Kevin Loria	https://www.businessinsider.com/us-effect-on-climate-change-co2-emissions-warming-2017-6		
Deposition Exhibit		Climate Extremes and Global Health: New Ways to Make Progress	31-Jul-18		Veerabhadran Ramanathan, et al.	https://www.foreignaffairs.com/articles/2018-07-31/climate-extremes-and-global-health		
Deposition Exhibit		Cooperation and discord in global climate policy	Jun-16		Robert O. Keohane & David G. Victor	https://www.nature.com/articles/nclimate2937		
Deposition Exhibit		After the failure of top-down mandates: The role of experimental governance in climate change policy	10-Nov-15		Robert O. Keohane & David G. Victor	https://voxeu.org/sites/default/files/file/keohane%20and%20victor.pdf		

Deposition Exhibit		Ditch the 2°C warming goal	2-Oct-14		David G. Victor & Charles F. Kennel	https://www.nature.com/news/climate-policy-ditch-the-2-c-warming-goal-1.16018		
Deposition Exhibit		A Madisonian Approach to Climate Policy	16-Sep-05		David G. Victor, et al.	http://science.sciencemag.org/content/309/5742/1820		
Deposition Exhibit		Letter dated July 12, 2018 from Marissa A. Piropato	12-Jul-18		Marissa A. Piropato			
Deposition Exhibit		Some Contributions of Integrated Assessment Models of Global Climate Change	2017		John Weyant	https://academic.oup.com/reep/article-abstract/11/1/115/3066306		
Deposition Exhibit		*Excerpts from* Discounting and Intergenerational Equity	1999		Paul R. Portney & John P. Weyant, ed.			
Deposition Exhibit		Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity	18-Aug-06		A. L. Westerling, et al.	http://science.sciencemag.org/content/313/5789/940		
Deposition Exhibit		Revisiting the social cost of carbon	14-Feb-17		William D. Nordhaus	http://www.pnas.org/content/pnas/114/7/1518.full.pdf		
Expert Report	257-1	Expert Report of Frank Ackerman, and attached exhibits	13-Apr-18	P00000142524-P00000142560	Frank Ackerman			
Expert Report	258-1	Expert Report of Peter A. Erickson, and attached exhibits	12-Apr-18	P00000144992-P00000145031	Peter A. Erickson			
Expert Report	259-1	Expert Report of Howard Frumkin, and attached exhibits	10-Apr-18	P00000142433-P00000142483	Howard Frumkin			
Expert Report	274-1	Expert Report of James E. Hansen, and attached exhibits	13-Apr-18	P00000170000-P00000170196	James E. Hansen			
Expert Report	274-2	Expert Report of James E. Hansen, Exhibit E- Maps of Sea Level Rise Projections for Rayne, Louisiana		P00000170197-P00000170201	NOAA; Surging Seas			
Expert Report	274-3	Expert Report of James E. Hansen, Exhibit F - Maps of Sea Level Rise Projections for Satellite Beach, Florida		P00000170202-P00000170207	NOAA; Surging Seas			
Expert Report	274-4	Expert Report of James E. Hansen, Exhibit G - Maps of Sea Level Rise Projections for Yachats, Oregon		P00000170208-P00000170212	NOAA; Surging Seas			
Expert Report	274-5	Expert Report of James E. Hansen, Exhibit H - Maps of Sea Level Rise Projections for Seattle, Washington		P00000170213-P00000170218	NOAA; Surging Seas			
Expert Report	274-6	Expert Report of James E. Hansen, Exhibit I - Maps of Sea Level Rise Projections for Kauai, Hawaii		P00000170219-P00000170225	NOAA; Surging Seas			
Expert Report	274-7	Expert Report of James E. Hansen, Exhibit J - Maps of Sea Level Rise Projections for New York City, New York		P00000170226-P00000170232	NOAA; Surging Seas			
Expert Report	274-8	Expert Report of James E. Hansen, Exhibit K - Maps of Sea Level Rise Projections for Manzanita, Oregon		P00000170233-P00000170237	NOAA; Surging Seas			
Expert Report	274-27	Expert Report of James E. Hansen, Exhibit L - Sea Level Rise in Rayne, Louisiana - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170365	NOAA; Surging Seas			

Expert Report	274-28	Expert Report of James E. Hansen, Exhibit M - Sea Level Rise in Indialantic, Florida - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170366	NOAA; Surging Seas			
Expert Report	274-29	Expert Report of James E. Hansen, Exhibit N - Sea Level Rise in Yachats, Oregon - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170367	NOAA; Surging Seas			
Expert Report	274-30	Expert Report of James E. Hansen, Exhibit O - Seal Level Rise in Seattle, Washington - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170368	NOAA; Surging Seas			
Expert Report	274-31	Expert Report of James E. Hansen, Exhibit P - Sea Level Rise in Kauai, Hawaii - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170369	NOAA; Surging Seas			
Expert Report	274-32	Expert Report of James E. Hansen, Exhibit Q - Sea Level Rise in NYC - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170370	NOAA; Surging Seas			
Expert Report	274-33	Expert Report of James E. Hansen, Exhibit R - Sea Level Rise in Manzanita, Oregon - Animation of sea level rise according to datasets from NOAA and Surging Seas **[PROTECTIVE ORDER]**		P00000170371	NOAA; Surging Seas			
Expert Report	274-9	Expert Report of James E. Hansen, Exhibit S - Callendar Curve to Keeling Curve		P00000170238	G. S. Callendar; NOAA			
Expert Report	274-34	Expert Report of James E. Hansen, Exhibit T - Sea Level Rise Dataset from NOAA **[PROTECTIVE ORDER]**		P00000170372	NOAA			
Expert Report	274-10	Expert Report of James E. Hansen, Exhibit U - History of atmospheric carbon dioxide from 800,000 years ago until January, 2016.	1979-2016	P00000170373	NOAA			
Expert Report	276	Expert Report of James E. Hansen, Exhibit V - spreadsheet of Exhibits E-U **[PROTECTIVE ORDER]**		P00000170239-P00000170242	James E. Hansen			
Expert Report	274-11	Expert Report of James E. Hansen, Exhibit W - Arrhenius, 1908, Worlds in the Making	1908	P00000170243-P00000170276	Svante Arrhenius, H. Borns			
Expert Report	274-12	Expert Report of James E. Hansen, Exhibit X - Callendar, 1938, The Artificial Production of Carbon Dioxide and its Influence on Temperature	1938	P00000170277-P00000170294	G. S. Callendar			
Expert Report	274-13	Expert Report of James E. Hansen, Exhibit Y - Callendar, 1949, Can Carbon Dioxide Influence Climate?	1949	P00000170295-P00000170299	G. S. Callendar			
Expert Report	274-14	Expert Report of James E. Hansen, Exhibit Z - Gilbert N. Plass, The Carbon Dioxide Theory of Climate Change	9-Aug-55	P00000170300-P00000170314	Gilbert N. Plass			

Expert Report	274-15	Expert Report of James E. Hansen, Exhibit AA- Roger Revelle and Hans Suess, Carbon Dioxide Exchange Between Atmosphere and Ocean and the Question of an Increase of Atmospheric CO2 during the Past Decades	4-Sep-56	P00000170315-P00000170324	Roger Revelle & Hans E. Suess			
Expert Report	274-20	Expert Report of James E. Hansen, Exhibit FF - Hansen et al, 1981, Climate Impact of Increasing Atmospheric Carbon Dioxide	28-Aug-81	P00000170325-P00000170334	James Hansen et al., Science Magazine			
Expert Report	274-22	Expert Report of James E. Hansen, Exhibit HH - EE David, 1982, Inventing the Future: Energy and the CO2 "Greenhouse" Effect	26-Oct-82	P00000170335-P00000170351	Dr. E. E. David, Jr., President, Exxon Research and Engineering Company			
Expert Report	274-24	Expert Report of James E. Hansen, Exhibit JJ - Congressional Record, 135 Cong. Rec. S4947	9-May-89	P00000170352-P00000170362	U.S. Congress			
		Supplemental Exhibits to Expert Report			James Hansen			
Expert Report		Supplemental Expert Report of Ove Hoegh-Guldberg, and attached exhibits	2-Aug-18	P00000160000-P00000160123	Ove Hoegh-Guldberg			
Expert Report	260-1 (filed conventionally)	Exhibit E - Reef lapses Picnic RED Macro horizontal	various, 2016	P00000160133	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit F - Reef lapses Big Vicki's Site 2	various, 2016	P00000160134	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit G - Reef lapses Loomis GH4 Site 2	various, 2016	P00000160135	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit H - Reef lapses Loomis GH4 Site 5	various, 2016	P00000160136	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit I - Reef lapses Loomis RED Site 01	various, 2016	P00000160137	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit J - Reef lapses Loomis RED Site 01b	various, 2016	P00000160138	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit K - Reef lapses Picnic Beach RED Site 03	various, 2016	P00000160139	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit L - Transect of RED Loomis Site 6	various, 2016	P00000160140	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit M - Transect of RED site	various, 2016	P00000160141	Jeff Orlowski			

Expert Report	260-1 (filed conventionally)	Exhibit N - Transect of Loomis Cove and Palfrey Island	various, 2016	P00000160142	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit O - Transect of Big Vicki's	various, 2016	P00000160143	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit P - Transect of Picnic Beach (RED site)	various, 2016	P00000160144	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit Q - Transect of Picnic Beach (RED site)	various, 2016	P00000160145	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit R - Repeats Healthy to Dead Coral Reef	various	P00000160146	Richard Vevers			
Expert Report	260-1 (filed conventionally)	Exhibit S - Repeats Dead Carysfort Reef	6-Aug-14	P00000160147	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit T - Sequences Rib Reef	12-May-16	P00000160148	Jeff Orlowski			
Expert Report	260-1 (filed conventionally)	Exhibit U - Coral Bleaching	various	P00000160149	various			
Expert Report	260-1 (filed conventionally)	Exhibit V - Rising Temperatures		P00000160150	NOAA			
Expert Report	260-1 (filed conventionally)	Exhibit W - Ocean Temperature Projections		P00000160151	NOAA			
Expert Report	260-1 (filed conventionally)	Exhibit X - Global Coral Bleaching	various	P00000160152	various			
Expert Report	260-1 (filed conventionally)	Exhibit Y - Pocillopora damicornis timelapse bleaching	various	P00000160153	Daniel Stoupin and Pete West			
Expert Report	260-1 (filed conventionally)	Exhibit Z - Acropora sp. timelapse bleaching	various	P00000160154	Daniel Stoupin and Pete West			

Expert Report	260-1 (filed conventionally)	Exhibit AA - Fluorescent Sunscreen during Coral Bleaching	various	P00000160155	various			
Expert Report	260-1 (filed conventionally)	Exhibit BB- List of Exhibits E-AA	various	P00000160124-P00000160132	various			
Expert Report	261-1	Expert Report of Mark Jacobson, and attached exhibits	6-Apr-18	P00000170400-P00000170441	Mark Jacobson			
Expert Report	261-1	Expert Report of Mark Jacobson, Exhibits E-H	6-Apr-18	P00000170442-P00000170914	Mark Jacobson			
Expert Report		Rebuttal Expert Report of Mark Jacobson, and attached exhibits	19-Sep-18	P00000143530-P00000143605	Mark Jacobson			
Expert Report		Rebuttal Expert Report of Akilah Jefferson, and attached exhibits **[PROTECTIVE ORDER]**	19-Sep-18	P00000143606-P00000143626	Akilah Jefferson			
Expert Report		Supplemental Expert Report of Susan E. Pacheco and Jerome A. Paulson, and attached exhibits	12-Sep-18	P00000143326-P00000143418	Susan E. Pacheco and Jerome A. Paulson			
Expert Report	262-1	Expert Report of Eric Rignot, and attached exhibits	11-Apr-18		Eric Rignot			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit E - Time-lapse video of the Sólheimajökull or “Sólheim Glacier” in Iceland	March 26, 2007; June 24, 2016		James Balog			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit F - Time-lapse video of the Mendenhall Glacier in Southeast Alaska	May 21, 2007; June 24, 2016		James Balog			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit G - Time-lapse video of the Columbia Glacier in Southcentral Alaska	May 12, 2007; May 25, 2016		James Balog			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit H - Time-lapse video of the Ilulissat/Jacobshavn Glacier in Greenland	June 7, 2007; September 30, 2014		James Balog			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit M - Repeat Photography - Runaway Glaciers in West Antarctica	various		NASA			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit N - Repeat Photography - Changes in Zachariae Isstrom Glacier	May 19 - October 1, 2015		NASA's Goddard Space Flight Center			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit P - Repeat Photography - GRACE Observations of Antarctic Ice Mass Changes	2002-2016		NASA's Goddard Space Flight Center			
Expert Report	262-1 (filed conventionally)	Expert Report of Eric Rignot, Exhibit Q - Repeat Photography - Before the Flood clip showing ice shelf melt in Greenland (Kangerlussuag)			Insurgent Docs (Fisher Stevens)			

Expert Report		Supplemental email to Eric Rignot Expert Report			Eric Rignot			
Expert Report	263-1	Supplemental Expert Report of G. Philip Robertson, and attached exhibits	13-Apr-18	P00000142561-P00000142630	G. Philip Robertson			
Expert Report		Rebuttal Expert Report of G. Philip Robertson, and attached exhibits	19-Sep-18	P00000143627-P00000143651	G. Philip Robertson			
Expert Report		Supplemental Expert Report of Steven W. Running, and attached exhibits	12-Sep-18	P00000143273-P00000143325	Steven W. Running			
Expert Report	264-1 (filed conventionally)	Expert Report of Steven W. Running, Exhibit F - Time-lapse video of a Whitebark Pine tree dying from pine-beetle infestation		P00000160200				
Expert Report	264-1 (filed conventionally)	Expert Report of Steven W. Running, Exhibit G - Time-lapse video of a group of lodgepole pine trees dying from pine-beetle infestation		P00000160201				
Expert Report	265-1	Expert Report of Catherine Smith, and attached exhibits	13-Apr-18	P00000143273-P00000143325	Catherine Smith			
Expert Report		Supplemental references to Catherine Smith Expert Report - Corrections and Additional Materials Considered (provided to Counsel for Defendants via email)	18-Sep-18		Catherine Smith			
Expert Report		Corrected Expert Report of James Gustave ("Gus") Speth, and attached exhibits	28-Sep-18	P00000145032-P00000145210	James Gustave ("Gus") Speth			
Expert Report	266-1	Expert Report of Joseph E. Stiglitz, and attached exhibits	13-Apr-18	P00000142705-P00000142897	Josepth E. Stiglitz			
Expert Report		Supplemental Expert Report of Kevin E. Trenberth, and attached exhibits	14-Sep-18	P00000143419-P00000143529	Kevin E. Trenberth			
		Additional Materials Considered by Kevin E. Trenberth (provided to Counsel for Defendants via email)	18-Sep-18		Kevin E. Trenberth			
Expert Report		Supplemental Expert Report of Lise Van Susteren, and attached exhibits	27-Sep-18	P00000143696-P00000143740	Lise Van Susteren			
Expert Report		Rebuttal Expert Report of Karrie P. Walters, and attached exhibits **[PROTECTIVE ORDER]**	19-Sep-18	P00000143652-P00000143675	Karrie P. Walters			
Expert Report		Supplemental Expert Report of Dr. Harold R. Wanless, and attached exhibits	11-Sep-18	P00000143170-P00000143272	Harold R. Wanless			
Expert Report	268-1	Expert Report of James H. Williams, and attached exhibits	13-Apr-18	P00000142898-P00000143169	James H. Williams			
Expert Report		Rebuttal Expert Report of James H. Williams, and attached exhibits	19-Sep-18	P00000143676-P00000143695	James H. Williams			
Expert Report		Supplemental Expert Report of Andrea Wulf, and attached exhibits	10-Oct-18	P00000145211-P00000145285	Andrea Wulf			
Expert Report		Community Stress, Psychosocial Hazards, and EPA Decision-Making in Communities Impacted by Chronic Technological Disasters	2011	P00000137140-P00000137148	Stephen R. Couch and Charlton J. Coles	https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2010.300039		
Expert Report		Angry, Scared, and Unsure: Mental Health Consequences of Contaminated Water in Flint, Michigan	2016	P00000137149-P00000137158	Courtey A. Cutherbertson et al.	https://www.ncbi.nlm.nih.gov/pubmed/27807700		
Expert Report		Behavioral Health Correlates of Exposure to Community Violence Among African-American Adolescents in Chicago	2016	P00000137160-P00000137168	Dexter R. Voisin et al.	https://www.sciencedirect.com/science/article/pii/S0190740916302559		

Expert Report		Global Climate Change and Children's Health: Technical Report	2015	P00000141939-P00000141957	Samantha Ahdoot, Susan E. Pacheco	http://pediatrics.aappublications.org/content/early/2015/10/21/peds.2015-3233		
Expert Report		Mental Health and Our Changing Climate: Impacts, Implications, and Guidance	2017	P00000141968-P00000142003	Susan Clayton et al.	https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf		
Expert Report		The Psychological Impacts of Global Climate Change	2011	P00000142011-P00000142022	Thomas J. Doherty, Susan Clayton	https://www.apa.org/pubs/journals/releases/amp-66-4-265.pdf		
Expert Report		Health Impacts of Wildfires	2012	P00000142023-P00000142044	Susan E. Finlay et al.	http://currents.plos.org/disasters/article/health-impacts-of-wildfires/		
Expert Report		Mental Health Effects of Hurricane Sandy Characteristics, Potential Aftermath, and Response	2012	P00000142045-P00000142046	Yuval Neria, James M. Shultz	https://jamanetwork.com/journals/jama/fullarticle/1392489		
Expert Report		Dangerous Safe Havens: Institutional Betrayal Exacerbates Sexual Trauma	2013	P00000142047-P00000142053	Carly P. Smith, Jennifer J. Freyd	https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.21778		
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Expert Report		When will Lake Mead go dry?	2008	P00000087616-P00000087625	Tim P. Barnett1 and David W. Pierce	https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2007WR006704		
Expert Report		Climate Change and Bark Beetles of the Western United States and Canada: Direct and Indirect Effects	2010	P00000088828-P00000088839	BarBara J. Bentz et al.	https://academic.oup.com/bioscience/article/60/8/602/305152		
Expert Report		Future dryness in the southwest US and the hydrology of the early 21st century drought	2010	P00000087558-P00000087563	Daniel R. Cayan et al.	http://www.pnas.org/content/pnas/107/50/21271.full.pdf		
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Expert Report		Large wildfire trends in the western United States, 1984–2011	2014	P00000087856-P00000087861	Philip E. Dennison et al.	https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2014GL059576		
Expert Report		Climate-induced variations in global wildfire danger from 1979 to 2013	2015	P00000088124-P00000088134	W. Matt Jolly et al.	https://www.nature.com/articles/ncomms8537.pdf		
Expert Report		Trends in Snow Cover and Related Quantities at Weather Stations in the Conterminous United States	2015	P00000088148-P00000088158	Noah Knowles	https://journals.ametsoc.org/doi/pdf/10.1175/JCLI-D-15-0051.1		
Expert Report		Impacts of climate change on August stream discharge in the Central-Rocky Mountains	2012	P00000087592-P00000087609	Jason C. Leppi et al.	https://link.springer.com/content/pdf/10.1007%2Fs10584-011-0235-1.pdf		
Expert Report		Camouflage mismatch in seasonal coat color due to decreased snow duration	2013	P00000088872-P00000088879	L. Scott Mills et al.	http://www.pnas.org/content/pnas/110/18/7360.full.pdf		
Expert Report		Dramatic declines in snowpack in the western US	2018	P00000146991-P00000146996	Philip W. Mote et al.	https://www.nature.com/articles/s41612-018-0012-1.pdf		

Expert Report		The Third Oregon Climate Assessment Report	2017	P00000088650-P00000088755	Oregon Climate Change Research Institute	http://www.occri.net/media/1042/ocar3_final_125_web.pdf		
Expert Report		Cross-scale drivers of natural disturbances prone to anthropogenic amplification: The dynamics of bark beetle eruptions	2008	P00000088914-P00000088930	Kenneth F. Raffa et al.	https://academic.oup.com/bioscience/article/58/6/501/235938		
Expert Report		Meager snows spell trouble ahead for salmon	2015	P00000088889-P00000088891	Robert F. Service	http://science.sciencemag.org/content/348/6232/268/tab-pdf		
Expert Report		Effects of drought on forests and rangelands in the United States: a comprehensive science synthesis	2016	P00000088206-P00000088507	James M. Vose et al., eds.	https://www.srs.fs.usda.gov/pubs/gtr/gtr_wo93b.pdf		
Expert Report		Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring	2016	P00000088902-P00000088913	Anthony LeRoy Westerling	http://rstb.royalsocietypublishing.org/content/royptb/371/1696/20150178.full.pdf		
Expert Report		Temperature as a potent driver of regional forest drought stress and tree mortality	2013	P00000087610-P00000087615	A. Park Williams et al.	https://www.nature.com/articles/nclimate1693.pdf		
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Expert Report		Global CO2 emissions from fossil-fuel burning, cement manufacture, and gas flaring, 1751-2011	2015	P00000145555-P00000145559	Tom Boden et al.	http://cdiac.ornl.gov/ftp/ndp030/global.1751_2011.ems		
Expert Report		Analysis & Projections, Table A19, Energy-related carbon dioxide emissions by end-use (2015-2050) (Reference Case and Reference Case with Clean Power Plan)	2017	P00000145953-P00000145953	U.S. EIA	https://www.eia.gov/analysis/projection-data.cfm#annualproj		
Expert Report		Review of solutions to global warming, air pollution, and energy security	2009	P00000146626-P00000146651	Mark Z. Jacobson			
Expert Report		Spreadsheet for 100% clean and renewable wind, water, and sunlight (WWS) all-sector energy roadmaps for the 50 United States	2015	P00000146271-P00000146271	Mark Z. Jacobson et al.	https://web.stanford.edu/group/efmh/jacobson/Articles/I/USStates.xlsx		
Expert Report		Spreadsheet for 100% clean and renewable wind, water, and sunlight (WWS) all-sector energy roadmaps for 139 countries of the world	2015	P00000146476-P00000146476	Mark Z. Jacobson et al.	https://web.stanford.edu/group/efmh/jacobson/Articles/I/AllCountries.xlsx		
Expert Report		The United States can keep the grid stable at low cost with 100% clean, renewable energy in all sectors despite inaccurate claims	2017	P00000146477-P00000146479	Mark Z. Jacobson et al.			
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Expert Report		The performance of a high solar fraction seasonal storage district heating system: Five years of operation. Energy Procedia 30: 856-865 (2012). 33	2012	P00000147674-P00000147683	Bruce Sibbitt et al.			
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Expert Report		List of Electric Technologies / Efficiency Measures to Replace 100% of Fossil Fuels Used for Energy Worldwide and Timelines for their Implementation	2017	P00000146676-P00000146680	Mark Z. Jacobson	http://web.stanford.edu/group/efmh/jacobson/Articles/I/ElectrificationTechnologies.pdf		
Expert Report		Transition timeline to 100% WWS	n.d.	P00000146683-P00000146683	Mark Z. Jacobson	http://web.stanford.edu/group/efmh/jacobson/Articles/I/CountryGraphs/TimelineWorld.png		
Expert Report		U.S. land areas required for a 100% U.S. transition		P00000146684-P00000146684	Mark Z. Jacobson	https://web.stanford.edu/group/efmh/jacobson/Articles/I/USLandAreasWWS.pptx		
Expert Report		Short-term effects of controlling fossil-fuel soot, biofuel soot and gases, and methane on climate, Arctic ice, and air pollution health	2010	P00000146652-P00000146675	Mark Z. Jacobson			
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Expert Report		UK's Carbon Footprint 1997 – 2015	2015	P00000145839-P00000145847	Department for Environment, Food & Rural Affairs	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/542558/Consumption_emissions_May16_Final.pdf.		
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Expert Report		Accounting for Greenhouse Gas Emissions Associated with the Supply of Fossil Fuels	2013	P00000145973-P00000145976	Peter Erickson and Michael Lazarus			
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Expert Report		Effects of different nitrogen fertilizers on emission of nitrous oxide from soil	1980	P00000145756-P00000145759	G. A. Breitenbeck et al.			
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Expert Report		Figure - Fossil Fuel CO2 Emissions	n.d.	P00000151209-P00000151213				
Expert Report		Cost of Carbon Capture: Can Young People Bear the Burden?	2018	P00000150274-P00000150276	James Hansen and Pushker Kharecha			
Expert Report		Contribution of Antarctica to past and future sea-level rise	2016	P00000151220-P00000151239	Robert M. DeConto and David Pollard			
Expert Report		Facies architecture of a falling sea-level strandplain, Doce River coast, Brazil	1991	P00000151240-P00000151264	J.M.L. Dominguez and H.R. Wanless			
Expert Report		Technical Mapping Advisory Council Annual Report.	2016	P00000151265-P00000151400	FEMA			
Expert Report		Millions projected to be at risk from sea-level rise in the continental United States	2016	P00000151401-P00000151410	Mathew E. Hauer et al.			
Expert Report		Strange bedfellows - A deep-water hermatypic coral reef superimposed on a drowned barrier island; Southern Pulley Ridge, SW Florida platform margin	2005	P00000151411-P00000151423	B.D. Jarrett et al.			
Expert Report		Evolving understanding of Antarctic ice-sheet physics and ambiguity in probabilistic sea-level projections	2017	P00000151424-P00000151440	Robert E. Kopp et al.			
Expert Report		Magnitude and timing of episodic sea-level rise during the last deglaciation	1996	P00000151441-P00000151444	Stanley D. Locker et al.			
Expert Report		High tide of the warm Pliocene: Implications of global sea level for Antarctic deglaciation	2012	P00000151445-P00000151448	Kenneth G. Miller et al.			
Expert Report		A new composite Holocene sea-level curve for the northern Gulf of Mexico	2008	P00000151449-P00000151461	K.T. Milliken et al.			
Expert Report		Tying Flood Insurance to Flood Risk for Low-Lying Structures in the Floodplain.	2015	P00000151462-P00000151548	National Research Council			
Expert Report		Submerged shoreline preservation and ravinement during rapid postglacial sea-level rise and subsequent "slowstand"	2016	P00000151549-P00000151559	Lauren Pretorius et al.			
Expert Report		Response of the Great Barrier Reef to sea-level and environmental changes over the past 30,000 years	2018	P00000151560-P00000151602	Jody M. Webster et al.			

Expert Report		Oceanic Forcing of Ice-Sheet Retreat: West Antarctica and More	2015		Richard B. Alley et al.			
Expert Report		Future Calculations: The first climate change believer	2016		Rudy M. Baum			
Expert Report		Bedmap2: improved ice bed, surface and thickness datasets for Antarctica	2013		P. Fretwell et al.			
Expert Report		Vulnerability of Southeast Greenland glaciers to warm Atlantic Water from Operation IceBridge and Ocean Melting Greenland data	2018		R. Millan et al.			
Expert Report		Ice motion of the Patagonian Icefields of South America: 1984–2014	2015		J. Mouginot and E. Rignot			
Expert Report		Sustained increase in ice discharge from the Amundsen Sea Embayment, West Antarctica, from 1873 to 2013	2014		J. Mouginot et al.			
Expert Report		Fast retreat of Zachariæ Isstrøm, northeast Greenland	2015		J. Mouginot et al.			
Expert Report		Changes in ice dynamics and mass balance of the Antarctic ice sheet	2006		Eric Rignot			
Expert Report		Ice-Shelf Melting Around Antarctica	2013		E. Rignot et al.			
Expert Report		Changes in the velocity structure of the Greenland ice sheet	2006		Eric Rignot and Pannir Kanagaratnam			
Expert Report		Rapid submarine melting of the calving faces of West Greenland glaciers	2010		Eric Rignot et al.			
Expert Report		Widespread, rapid grounding line retreat of Pine Island, Thwaites, Smith, and Kohler glaciers, West Antarctica, from 1992 to 2011	2014		E. Rignot et al.			
Expert Report		Acceleration of the contribution of the Greenland and Antarctic ice sheets to sea level rise	2011		E. Rignot et al.			
Expert Report		A reconciled estimate of ice-sheet mass balance	2012		Andrew Shepherd et al.			
Expert Report		Mass balance of the Antarctic ice sheet from 1992-2017	2018		The IMBIE team, Andrew Shepherd et al.			
Expert Report		Mass loss of Totten and Moscow University glaciers, East Antarctica, using regionally-optimized GRACE mascons	2018		Yara Mohajerani et al.			
Expert Report		Multi-decadal warming of Antarctic waters	2014		Sunke Schmidtko et al.			
Expert Report		Volume loss from Antarctic ice shelves is accelerating	2015		Fernando S. Paolo et al.			

DEFENDANTS' EXHIBIT LIST (October 12, 2018)

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Doc. Date	Document Description	Bates	Witness Type	Notes
7/20/2017	James Michael Kuperberg Deposition Transcript		Def. Agency	
	CV of James Michael Kuperberg		Def. Agency	Ex 1 to Kuperberg Depo
	The National Global Change Research Plan 2012 2021, The U.S. Global Change Research Program		Def. Agency	Ex 2 to Kuperberg Depo
9/1/2013	Preparing the Nation for Change: Building a Sustained National Climate Assessment Process, National Climate Assessment and Development Advisory Committee		Def. Agency	Ex 3 to Kuperberg Depo
2017	Review of the Draft Climate Science Special Report, The National Academies Press		Def. Agency	Ex 4 to Kuperberg Depo
2017	Accomplishments of the U.S. Global Change Research Program, The National Academies Press		Def. Agency	Ex 5 to Kuperberg Depo
	"America First A Budget Blueprint to Make America Great Again", Office of Management and Budget, Executive Office of the President of the United States		Def. Agency	Ex 6 to Kuperberg Depo
9/13/2016	Agenda for a meeting of the Advisory Committee for the Sustained National Climate Assessment		Def. Agency	Ex 7 to Kuperberg Depo
2016	The Impacts of Climate Change on Human Health in the United States, U.S. Global Research Program		Def. Agency	Ex 8 to Kuperberg Depo
4/20/2017	Minutes of a meeting of the Committee to Advise the USGCRP		Def. Agency	Ex 9 to Kuperberg Depo
7/21/2017	C. Mark Eakin Transcript		Def. Agency	
2/27/2017	Publication on Ocean Acidification, the Smithsonian Ocean Portal		Def. Agency	Ex 10 to Eakin Depo
	Coastal Services Center Public Trust Doctrine		Def. Agency	Ex 11 to Eakin Depo
12/14/2007	Coral Reefs Under Rapid Climate Change and Ocean Acidification, Science Magazine, Vol 318		Def. Agency	Ex 12 to Eakin Depo
7/3/2015	Contrasting futures for ocean and society from different anthropogenic CO2 emissions scenarios, Science Magazine, Vol 349		Def. Agency	Ex 13 to Eakin Depo
5/20/2013	Avoiding Coral Reef Functional Collapse Requires Local and Global Action, Current Biology 23, Elsevier		Def. Agency	Ex 14 to Eakin Depo
2016	"Satellite SST Based Coral Disease Outbreak Predictions for the Hawaiian Archipelago"		Def. Agency	Ex 15 to Eakin Depo
3/16/2017	Global warming and recurrent mass bleaching of corals, Nature, Vol 543		Def. Agency	Ex 16 to Eakin Depo
8/23/2018	Howard J. Herzog Vol 1 Deposition Transcript		Def. Expert	
7/20/2018	Deposition notice		Def. Expert	Ex 1 to Herzog Depo
8/13/2018	Howard J. Herzog expert report		Def. Expert	Ex 2 to Herzog Depo
5/27/2015	100% clean and renewable wind, water, and sunlight (WWS) all sector energy roadmaps for the 50 United States. Jacobson, Mark Z.		Def. Expert	Ex 4 to Herzog Depo
12/8/2015	Low cost solution to the grid reliability problem with 100% penetration of intermittent wind, water, and solar for all purposes. Jacobson, Mark Z., PNAS, Vol 112, No. 49		Def. Expert	Ex 5 to Herzog Depo
6/28/2017	100% Clean and Revewable Wind, Water, and Sunlight (WWS) All Sector Energy Roadmaps for 139 Countries of the World. Jacobson, Mark Z.		Def. Expert	Ex 6 to Herzog Depo
2/2/2018	Matching demand with supply at low cost in 139 countries among 20 world regions with 100% intermittent wind, water, and sunlight (WWS) for all purposes. Jacobson, Mark Z, Elsevier		Def. Expert	Ex 7 to Herzog Depo

2/24/2017	Evaluation of a proposal for reliable low cost grid power with 100% wind, water, and solar. Clack, Christopher, PNAS Early Edition.		Def. Expert	Ex 8 to Herzog Depo
5/8/2017	Supporting Information for the paper "Evaluation of a proposal for reliable low cost grid power with 100% wind, water, and solar" Clack, Christopher, PNAS, Vol. XXX, No. XX		Def. Expert	Ex 9 to Herzog Depo
3/23/2017	Burden of Proof: A comprehensive review of the feasibility of 100% renewable electricity systems. Heard, B.P., Elsevier		Def. Expert	Ex 10 to Herzog Depo
4/1/2018	Renewable Rap Battle: A scathing critque of mark Jacobson's 100% renewable grid proposal. Cembalest, Michael, Eye on the Market, J.P. Morgan Annual Energy Paper		Def. Expert	Ex 11 to Herzog Depo
5/16/2018	The feasibility of 100% renewable electricty systems: A response to critics, Diesendorf, Mark, Elsevier		Def. Expert	Ex 12 to Herzog Depo
5/11/2018	Response to "Burden of proof: A comprehensive review of the feasibility of 100% reneable electricity systems" Brown, T.W., Elsevier		Def. Expert	Ex 13 to Herzog Depo
6/28/2018	Mark Jacobson Declaration		Def. Expert	Ex 14 to Herzog Depo
	Letter: The United States can keep the grid stable at low cost with 100% clean, renewable energy in all sectors despite inaccurate claims, Jacobson, Mark. Z., PNAS Early Edition		Def. Expert	Ex 15 to Herzog Depo
11/12/2010	Scaling up carbon dioxide capture and storage: From megatons to gigatons, Herzog, Howard J., Elsevier		Def. Expert	Ex 16 to Herzog Depo
3/12/2015	Article: Pumping CO2 underground can help fight climate chance. Why is it stuck in second gear? Herzog, Howard J., The Conversation		Def. Expert	Ex 17 to Herzog Depo
3/12/2015	Online Version Article: Pumping CO2 underground can help fight climate chance. Why is it stuck in second gear? Herzog, Howard J., The Conversation		Def. Expert	Ex 18 to Herzog Depo
	MIT CSI Sponsors history of consortium membership chart		Def. Expert	Ex 19 to Herzog Depo
11/1/2017	Lazard's Levelized Cost of Energy Analysis: Ver. 11.0		Def. Expert	Ex 20 to Herzog Depo
	Placeholder for Herzog Exhibits			
8/30/2018	Arthur Partikian Deposition Transcript		Def. Expert	
7/20/2018	Notice of Taking Deposition		Def. Expert	Ex 1 to Partikian Depo
8/13/2018	Expert Report of Arthur Partikian		Def. Expert	Ex 2 to Partikian Depo
6/7/2018	Protective Order		Def. Expert	Ex 3 to Partikian Depo
	Placeholder for Partikian Exhibits			
	Jeffrey Sugar Deposition Transcript		Def. Expert	
	Notice of deposition		Def. Expert	Ex 1 to Sugar Depo
	Stipulated Protective Order		Def. Expert	Ex 2 to Sugar Depo
8/13/2018	Rebuttal of Plaintiffs' Expert Report in Juliana v USA		Def. Expert	Ex 3 to Sugar Depo
8/29/2018	Supplemental Expert Report plus 4 year list of trial/deposition testimony by Dr. Sugar		Def. Expert	Ex 4 to Sugar Depo
2018	American Psychiatric Association Article: Climate Change and Mental Health Connections		Def. Expert	Ex 5 to Sugar Depo
2008	Article from Academic Psychiatry Climate Change, a Call to Action for the Psychiatric Profession, Parsons, T.D. et al., Medicine Meets Virtual Reality		Def. Expert	Ex 6 to Sugar Depo
2008	Article: Objective Structured Clinical Interview Training using a Virtual Human Patient by T.D. Parsons, J. Sugar, et al.		Def. Expert	Ex 7 to Sugar Depo
2015	AAPL Practice Guideline for the Forensic Assessment, Volume 43 Number 2, 2015 Supplement		Def. Expert	Ex 8 to Sugar Depo
	Placeholder for Jeff Sugar second deposition transcript and exhibits		Def. Expert	
	Placeholder for Sugar Exhibits			

	David G. Victor Deposition Transcript		Def. Expert	
7/20/2018	Plaintiffs' Notice of Deposition, Dr. David Victor		Def. Expert	Ex 1 to Victor Depo
8/13/2018	Expert Report of David G. Victor		Def. Expert	Ex 2 to Victor Depo
2015	Screenshot from course material section of website re David G. Victor		Def. Expert	Ex 5 to Victor Depo
2/1/2018	Undiplomatic Action: A practical guide to the new politics and geopolitics of climate Change, Victor David G. & Jones, Bruce D.		Def. Expert	Ex 6 to Victor Depo
6/27/2017	Evaluation of a proposal for reliable low cost grid power with 100% wind, water, and solar, Clack, Christopher, PNAS, Vol 114, No. 26		Def. Expert	Ex 7 to Victor Depo
3/15/2018	Tsunamis of innovation are shaking the energy industry, Victor, David G., Brookings		Def. Expert	Ex 8 to Victor Depo
6/1/2017	Trump just pulled out of the Paris Agreement but the US has contributed more to climate change than any other country, Loria, Kevin		Def. Expert	Ex 9 to Victor Depo
11/1/2015	Federal Support for the Development, Production, and Use of Fuels and Energy Technologies, Congressional Budget Office		Def. Expert	Ex 10 to Victor Depo
	Climate Extremes and Global Health New Ways to Make Progress, Ramanathan Veerabhadran et al.		Def. Expert	Ex 11 to Victor Depo
6/1/2016	Cooperation and discord in global climate policy, Keohane, Robert O. & Victor, David G., Nature Climate Change, Vol 6		Def. Expert	Ex 12 to Victor Depo
	After the failure of top down mandates: The role of experimental governance in climate change policy, Keohane, Robert O. & Victor, David G.		Def. Expert	Ex 13 to Victor Depo
10/2/2014	Ditch the 2°C warming goal, Victor, David G, Nature Vol 514		Def. Expert	Ex 14 to Victor Depo
	"Effect of subsidies to fossil fuel companies on United States crude oil production"		Def. Expert	Ex 15 to Victor Depo
	"A Madisonian Approach to Climate Policy"		Def. Expert	Ex 16 to Victor Depo
6/1/2017	New York Times article: "The U.S. Is the Biggest Carbon Polluter in History. It Just Walked Away From the Paris Climate Deal."		Def. Expert	Ex 17 to Victor Depo
	Placeholder for Victor Exhibits			
9/13/2018	John P. Weyant Deposition Transcript		Def. Expert	
7/20/2018	Plaintiffs' Notice of Deposition Dr. John P. Weyant		Def. Expert	Ex 1 to Weyant Deposition
8/13/2018	Expert Report of Professor John P. Weyant		Def. Expert	Ex 3 to Weyant Deposition
7/12/2018	Letter: the letterhead of Department of Justice		Def. Expert	Ex 4 to Weyant Deposition
2017	Book: Chapter 4 entitled "Energy Supply and Use" from the National Climate Assessment of 2014		Def. Expert	Ex 5 to Weyant Deposition
2017	National Academies of Science report: "Valuing Climate Damages Updating Estimation of the Social Cost of Carbon Dioxide", Weyant, John		Def. Expert	Ex 6 to Weyant Deposition
	"Some Contributions of Integrated Assessment Models of Global Climate Change"		Def. Expert	Ex 7 to Weyant Deposition
	Excerpt from "Discounting and Intergenerational Equity"		Def. Expert	Ex 8 to Weyant Deposition
11/1/2016	Introduction from the United States Mid Century Strategy for Deep Decarbonization		Def. Expert	Ex 9 to Weyant Deposition
11/1/2015	Pathways to Deep Decarbonization in the United States, US 2050 Vol. 1 Technical Report, Executive Summary		Def. Expert	Ex 10 to Weyant Deposition
11/1/2015	Pathways to Deep Decarbonization in the United States, US 2050 Vol. 2 Policy Report, Executive Summary		Def. Expert	Ex 11 to Weyant Deposition
	Placeholder for Weyant Exhibits			
	Daniel Alan Sumner Deposition Transcript		Def. Expert	
8/13/2018	Expert Report of Professor Daniel A Sumner		Def. Expert	Ex 1 to Sumner Deposition
	Appendix A		Def. Expert	Ex 2 to Sumner Deposition
2/1/2013	Greenhouse Gas Mitigation Options and Costs for Agricultural Land and Animal Production within the United States		Def. Expert	Ex 4 to Sumner Deposition
7/1/2016	ICF International, Managing Agricultural Land for Greenhouse Gas Mitigation within the United States		Def. Expert	Ex 5 to Sumner Deposition

11/24/2011	Case study on potential agricultural responses to climate change in a California landscape		Def. Expert	Ex 6 to Sumner Deposition
8/15/2015	When does no-till yield more? A global meta-analysis. Pittelkow, Cameron M., Elsevier		Def. Expert	Ex 7 to Sumner Deposition
8/1/2009	Final Paper: Potential for Adaptation to Climate Change in an Agricultural Landscape in the Central Valley of California, Jackson, L.E., California Climage Change Center		Def. Expert	Ex 8 to Sumner Deposition
9/1/2007	A CBO Paper September 2007 The Potential for Carbon Sequestration in the United States		Def. Expert	Ex 9 to Sumner Deposition
1/1/2012	Greenhouse Gas Mitigation Potential of Agricultural Land Management in the United States A Synthesis of the Literature, Eagle, Alison J., Nicholas Institute for Environmental Policy Solutions, Duke University, 3d Ed.		Def. Expert	Ex 10 to Sumner Deposition
11/1/2016	GAO Report Renewable Fuel Standard Low Expected Production Volumes Make it Unlikely That Advanced Biofuels Can Meet Increasing Targets		Def. Expert	Ex 11 to Sumner Deposition
9/17/2003	Circular A 4, To the Heads of Executive Agencies and Establishments - Subject: Regulatory Analysis		Def. Expert	Ex 12 to Sumner Deposition
11/1/2016	Excerpt United States Mid Century Strategy for Deep Decarbonization		Def. Expert	Ex 13 to Sumner Deposition
2/29/2008	Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land Use Change, Searchinger, Timothy, Science Magazine, Vol 319		Def. Expert	Ex 14 to Sumner Deposition
	Placeholder for Sumner Exhibits			
9/10/2018	James Sweeny Deposition Transcript		Def. Expert	
	Plaintiff's Notice of Deposition Dr. James L. Sweeney		Def. Expert	Ex 1 to Sweeny Deposition
8/13/2018	Expert Report of Professor James L. Sweeney		Def. Expert	Ex 2 to Sweeny Deposition
7/10/1905	Standford Strategic Energy Alliance, Precourt Institute for Energy, Prospectus 2018		Def. Expert	Ex 6 to Sweeny Deposition
2/24/2017	Evaluation of a Proposal for Reliable Low Cost Grid Power with 100% Wind, Water, and Solar, Clack, Christopher, PNAS Early Edition		Def. Expert	Ex 7 to Sweeny Deposition
1/30/2005	Hoover Digest, An Energy Policy for the Twenty First Century, Sweeney, James L., No. 1		Def. Expert	Ex 8 to Sweeny Deposition
7/14/2008	Market Failure and the Structure of Externalities, Gillingham, Kenneth & Sweeney, James. Kerrypress Ltd		Def. Expert	Ex 9 to Sweeny Deposition
2006	Council on Foreign Relations, National Security Consequences of U.S. Oil Dependency, Independent Task Force Report No. 58		Def. Expert	Ex 10 to Sweeny Deposition
6/1/2017	Climate One, Trumping the Climate: Coming in Hot		Def. Expert	Ex 11 to Sweeny Deposition
	Development Outreach, Climate Change Low Carbon Economies Resilient Societies		Def. Expert	Ex 12 to Sweeny Deposition
	Placeholder for Sweeny Exhibits			
9/27/2018	Norman Klein Deposition Transcript		Def. Expert	
7/20/2018	Norman Klein Notice of Deposition		Def. Expert	Ex 1 of Klein Deposition
8/13/2018	Norman Klein Expert Report		Def. Expert	Ex 3 of Klein Deposition
8/28/2007	Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma, Full Report 2007		Def. Expert	Ex 6 of Klein Deposition
11/1/2001	Recommendations: Allergic Rhinitiz and its Impact on Asthma (ARIA) in collaboration with the World Health Organization		Def. Expert	Ex 7 of Klein Deposition
	Placeholder for Klein Exhibits			
8/24/2018	Frank Ackerman Deposition Transcript		Pls.' Expert	

4/13/2018	Frank Ackerman Expert Report		Pls.' Expert	Ex 1 to Ackerman Deposition
2/1/2010	Technical Support Documents: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866		Pls.' Expert	Ex 2 to Ackerman Deposition
8/1/2018	Technical Support Documents: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866		Pls.' Expert	Ex 3 to Ackerman Deposition
9/15/2011	The Social Cost of CO2 from the PAGE09 Mode, Hope, Chris. W.		Pls.' Expert	Ex 4 to Ackerman Deposition
11/1/2016	The Social Cost of Carbon Revisited, Pundyck, Rober S.		Pls.' Expert	Ex 5 to Ackerman Deposition
8/1/2016	Utility-Scale Solar 2015: An Empirical Analysis of Project Cost, Performance, and Pricing Tresnds in the United States, Bolinger, Mark, Lawarence Berkely National Laboratory		Pls.' Expert	Ex 6 to Ackerman Deposition
	Drawing		Pls.' Expert	Ex 7 to Ackerman Deposition
	Stern Review: The Economics of Climate Change		Pls.' Expert	Ex 8 to Ackerman Deposition
9/1/2007	A Review of the Stern Review on the Economics of Climate Change, Nordhaus, William D., Journal of Economic Literature		Pls.' Expert	Ex 9 to Ackerman Deposition
	Microeconomics, Pindyck, Robert S., 5th Ed.		Pls.' Expert	Ex 10 to Ackerman Deposition
1/11/1993	Report of the NOAA Panel on Contingent Valuation, Arrow, Kenneth		Pls.' Expert	Ex 11 to Ackerman Deposition
	The New Palgrave: A Dictionary of Economics, Vol. 4, Q-Z		Pls.' Expert	Ex 12 to Ackerman Deposition
	Worst-Case Economics: Extrememem Events in Climage and Finance, Ackerman, Frank		Pls.' Expert	Ex 13 to Ackerman Deposition
9/5/2018	Peter Erickson Deposition Transcript		Pls.' Expert	
4/12/2018	Expert Report of Peter A. Erickson		Pls.' Expert	Ex 1 to Erickson Deposition
3/1/2017	U.S. Energy-Related Carbon Dioxide Emissions, 2015		Pls.' Expert	Ex 2 to Erickson Deposition
2/6/2018	Annual Energy Outlook 2018 with Projections to 2050		Pls.' Expert	Ex 3 to Erickson Deposition
8/4/1977	Pub. L. No. 95-91, 91 Stat. 565		Pls.' Expert	Ex 4 to Erickson Deposition
	US-China trade deficit, U.S. Census Bureau		Pls.' Expert	Ex 5 to Erickson Depositon
1/2/2013	Building EORA: A Global Multi-Region Input-Output Database at High Country and Sector Resolution, Lenzen, Manfred, Economic Systems Research, Vol. 25, No. 1		Pls.' Expert	Ex 6 to Erickson Deposition
	Growth in emission transfers via international trade from 1990 to 2008		Pls.' Expert	Ex 7 to Erickson Deposition
	UK's Carbon Footprint 1997-2013, Department for Environment, Food, and Rural Affairs		Pls.' Expert	Ex 8 to Erickson Deposition
8/4/2007	Post-Kyoto greenhouse gas inventories: production versus consumption, Peters, Glen P. Climate Change		Pls.' Expert	Ex 9 to Erickson Deposition
3/15/2008	Methodological and Idealogical Options; From production-based to consumption-basec national emission inventories, Peters, Glen P.		Pls.' Expert	Ex 10 to Erickson Deposition

3/14/2008	Food-Miles and the Relative Climate Impacts of Food Choices in the United States, Weber, Christopher, Environ. Sci. Tecnol., Vol. 42, No. 10		Pls.' Expert	Ex 11 to Erickson Deposition
12/1/2015	United States Self-Review of Fossil Fuel Subsidies Submitted December 2015 to the G-20 Peer Reviewers		Pls.' Expert	Ex 12 to Erickson Deposition
7/1/2013	Impacts of delaying IDC deductibility (2014-2020)		Pls.' Expert	Ex 13 to Erickson Deposition
	Subsidy (www.investopedia.com/terms/s/subsidy.asp)		Pls.' Expert	Ex 14 to Erickson Deposition
8/1/2012	U.S. Energy Subsidies: Effects on Energy Markets and Carbon Dioxide Emissions, Allair, Maura		Pls.' Expert	Ex 15 to Erickson Deposition
8/1/2016	The Impact of Removing Tax Prefences for U.S. Oil and Gas Production, Metcalf, Gilbert E., Council on Foreign Relations		Pls.' Expert	Ex 16 to Erickson Deposition
2/1/2013	15 Ways to Rethink the Federal Budget, Greenstone, Michael, The Hamilton Project		Pls.' Expert	Ex 17 to Erickson Deposition
	Drawing		Pls.' Expert	Ex 18 to Erickson Deposition
8/25/2015	Assessing carbon lock-in, Erickson, Peter, IOPscience		Pls.' Expert	Ex 19 to Erickson Deposition
8/10/2018	Ove Hoegh-Guldberg Deposition Transcript		Pls.' Expert	
4/11/2018	Ove Hoegh-Guldberg Expert Report		Pls.' Expert	Ex 1 to Hoegh-Guldberg Deposition
	Drawing		Pls.' Expert	Ex 3 to Hoegh-Guldberg Deposition
8/15/2018	Steven Running Deposition Transcript		Pls.' Expert	
	Steven Running Expert Report		Pls.' Expert	Ex 1 to Running Deposition
10/12/2007	The Nobel Peace Prize for 2007		Pls.' Expert	Ex 2 to Running Deposition
12/1/2012	Statement about the 2007 Nobel Peace Prize		Pls.' Expert	Ex 3 to Running Deposition
	Attribution of Extremem Weather Events in the context of Climage Change, The National Academies Press		Pls.' Expert	Ex 4 to Running Deposition
8/7/2017	Seattle Chokes as Wildfire Smoth from Canada Blankets the Northwest, Blinder, Alan, NYT		Pls.' Expert	Ex 5 to Running Deposition
8/15/2018	Wildland Fire Poligy, Office of Wildland Fire, DOI		Pls.' Expert	Ex 6 to Running Deposition
3/14/2017	Human-started wildfires expand the fire niche across the United States, Balch, Jennifer, PNAS, Vol. 114, No. 11		Pls.' Expert	Ex 7 to Running Deposition
11/11/20016	U.S. federal fire and forest policy: emphasizing resilience in dry forests, Stephens, Scott L., Ecosphere, Vol. 7, Issue 11		Pls.' Expert	Ex 8 to Running Deposition
2018	Global land change from 1982 to 2016, Song, Xiao-Peng, Nature		Pls.' Expert	Ex 9 to Running Deposition
8/15/2018	Sea Ice and Snow Cover Extent, National Centers for Environmental Information		Pls.' Expert	Ex 10 to Running Deposition
12/2/2011	Searching for Information in 133 years of California Snowfall Observations, Christy, John R., American Meteorological Society		Pls.' Expert	Ex 11 to Running Deposition
	Placeholder for Wulf deposition transcript and exhibits		Pls.' Expert	
3/30/2018	Andrew Wulf Expert Report		Pls.' Expert	
	Placeholder for Jacobson deposition transcript and exhibits		Pls.' Expert	
4/6/2018	Mark Jacobson Expert Report		Pls.' Expert	
10/1/2018	James Hansen Deposition Transcript		Pls.' Expert	
4/13/2018	Expert Report of James E. Hansen		Pls.' Expert	Ex. 1 to Hansen Deposition

	Excerpt from "Carbon Dioxide Theory of Climatic Change" by Gilbert Plass		Pls.' Expert	Ex. 1B to Hansen Deposition
9/10/2015	First Amended Complaint, ECF No. 7		Pls.' Expert	Ex. 2 to Hansen Deposition
	Terrestrial and Inland Water Systems, Chapter 4		Pls.' Expert	Ex. 3 to Hansen Deposition
	Hansen Hand-Written Note		Pls.' Expert	Ex. 4 to Hansen Deposition
	Excel spreadsheet (Emissions percentages per year)		Pls.' Expert	Ex. 5 to Hansen Deposition
1/1/2017	NOAA Technical Report: Global and Regional Sea Level Rise Scenarios for the United States		Pls.' Expert	Ex. 6 to Hansen Deposition
	"Obama's Second Chance on the Predominant Moral Issue of this Century" article by Hansen		Pls.' Expert	Ex. 7 to Hansen Deposition
6/19/2014	"Too Little, Too Late? Oops?" article by Hansen		Pls.' Expert	Ex. 8 to Hansen Deposition
12/29/2015	"Wanning Workshop + Beijing Charts + Year-End Comments" article by Hansen		Pls.' Expert	Ex. 9 to Hansen Deposition
4/29/2014	"Young People's Day in Court: Part II" article by Hansen		Pls.' Expert	Ex. 10 to Hansen Deposition
4/13/2018	James H. Williams Expert Report		Pls.' Expert	
4/13/2018	James H. Williams Expert Report		Pls.' Expert	Ex. 1 to Williams Deposition
	Hand-drawn S curve		Pls.' Expert	Ex. 2 to Williams Deposition
1/6/2012	"The Technology Path to Deep Greenhouse Gas Emissions Cuts by 2050: The Pivotal Role o Electricity" article by Williams		Pls.' Expert	Ex. 3 to Williams Deposition
9/19/2018	Rebuttal Expert Report of James H. Williams, Ph.D.		Pls.' Expert	Ex. 4 to Williams Deposition
12/1/2017	"Measuring progress from nationally determined contributions to mid-century strategies' article, co-authored by Williams		Pls.' Expert	Ex. 5 to Williams Deposition
7/1/2018	"The electric economy | moving toward a low-carbon future" article by Williams		Pls.' Expert	Ex. 6 to Williams Deposition
6/1/2018	"The Deep Decarbonization Pathways Project (DDPP): insights and emerging issues" article, co-authored by Williams		Pls.' Expert	Ex. 7 to Williams Deposition
	Placeholder for Speth deposition transcript and exhibits		Pls.' Expert	
8/10/2018	James Gustave Speth Expert Report		Pls.' Expert	
9/28/2018	Eric Rignot Deposition Transcript		Pls.' Expert	
4/11/2018	Eric Rignot Expert Report		Pls.' Expert	Ex 1 to Rignot Deposition
	Eric Rignot updated CV and list of references		Pls.' Expert	Ex 2 to Rignot Deposition
	Observations: Cryosphere, Vaughn, David G. & Cosimo, Josefino C.		Pls.' Expert	Ex 4 to Rignot Deposition
5/12/2014	NASA-UCI Study Indicates Loss of West Antarctic Glaciers Appears Unstoppable, Release 14-131		Pls.' Expert	Ex 6 to Rignot Deposition
10/24/2016	Greenland is Melting, Kolbert, Elizabeth, The New Yorker		Pls.' Expert	Ex 7 to Rignot Deposition
7/23/2015	Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling and modern observations that 2C global warming could be dangerous, Hansen, James, Atmospheric Chemistry and Physics		Pls.' Expert	Ex 8 to Rignot Deposition
9/21/2018	G. Philip Robertson Deposition Transcript		Pls.' Expert	
7/30/2017	G. Philip Robertson Expert Report		Pls.' Expert	Ex 1 to Roberston Deposition
4/13/2018	G. Philip Robertson Expert Report		Pls.' Expert	Ex 2 to Roberston Deposition
7/7/1905	A Sustainable Agriculture?, Robertson, Philip G. , Daedalus, the Jounral of the American Academy of Arts & Sciences		Pls.' Expert	Ex 3 to Robertson Deposition

4/7/2016	Climate-smart soils, Paustian, Keith, Perspective, Vol 532		Pls.' Expert	Ex 5 to Robertson Deposition
	Soil System Management in Temperate Regions, Robertson, G. Philip & Grandy, A. Stuart		Pls.' Expert	Ex 6 to Robertson Deposition
11/1/2016	Grassland management impacts on soil carbon stocks: a new synthesis, Conant, Richard T.		Pls.' Expert	Ex 7 to Robertson Deposition
4/11/2015	Greenhouse gas mitigation potential of the world's grazing lands: Modeling soil carbon and nitrogen fluxes of mitigation practices, Henderson, Benjamin B., Elsevier		Pls.' Expert	Ex 8 to Robertson Deposition
	Estimating Soil C Sequestration Petential in US Agriculture Soils Using the IPCC Approach, Sperow, M.		Pls.' Expert	Ex 9 to Robertson Deposition
6/30/2017	Cellulosic giofuel contributions to a sustainable energy future: Choices and outcomes, Robertson, G. Philip		Pls.' Expert	Ex 10 to Robertson Deposition
8/1/2017	Major Uses of Land in the United States, Bigelow, Daniel P. & Borchers, Allison, USDA		Pls.' Expert	Ex 11 to Robertson Deposition
9/1/2007	The Potential for Carbon Sequestration in the United States, CBO		Pls.' Expert	Ex 12 to Robertson Deposition
10/31/2017	Natural Climate Solutions, Griscom, Bronson W., PNAS, Vol. 114, No. 44		Pls.' Expert	Ex 13 to Robertson Deposition
9/19/2018	Catherine Smith Deposition Transcript		Pls.' Expert	
4/13/2018	Catherine Smith Expert Report		Pls.' Expert	Ex 1 to Smith Deposition
	Children's Rights in the Midst of Marriage Equality: Amicus Brief in*Obergefell v Hodges* by Scholars of the Constitutional Rights of Children, Washington, Tanya, Whittier Journal of Child and Family Advocacy, Vol. 14		Pls.' Expert	Ex 2 to Smith Deposition
9/25/2018	Joseph E. Stiglitz Deposition Transcript		Pls.' Expert	
4/13/2018	Joseph E. Stiglitz Expert Report		Pls.' Expert	Ex 1 to Stiglitz Deposition
5/29/2017	Report of the High-Level Commission on Carbon Prices		Pls.' Expert	Ex 2 to Stiglitz Deposition
3/18/2016	For First Time, Majority in U.S. oppose Nuclear Energy, Riffkin, rebecca, Gallup		Pls.' Expert	Ex 3 to Stiglitz Deposition
	Assessing Transformation Pathways, Clarke, Leon		Pls.' Expert	Ex 4 to Stiglitz Deposition
2/21/1991	HR 1086 - To Amend the Internal Revenue Code of 1986 to reduce emissions of carbon dioxide by imposing a tax on certain fuels based on their carbon content, Rep. Stark		Pls.' Expert	Ex 5 to Stiglitz Deposition
5/26/2005	S 1151 - Climate Stewardship and Innovation Act of 2005, Sen. McCain		Pls.' Expert	Ex 6 to Stiglitz Deposition
6/9/1993	Clinton Backs off Plan for New Tax on Heat in Fuels, Rosebaum, David E., The New York Times		Pls.' Expert	Ex 7 to Stiglitz Deposition
7/16/2018	House Voting on anti-carbon-tax measure: Pass the Popcorn, Sobczyk, Nick, E & E News		Pls.' Expert	Ex 8 to Stiglitz Deposition
7/19/2018	House votes to disavow carbon tax, Cama, Timothy, The Hill		Pls.' Expert	Ex 9 to Stiglitz Deposition
10/3/2004	U.S. Firms Look Ahead to Emissions Cuts Overseas, Eilperin, Juliet, The Washington Post		Pls.' Expert	Ex 10 to Stiglitz Deposition
8/13/20009	Cap-and-Trade's Unlikely Critics: its Creators, Hilsenrath, Jon, U.S. News		Pls.' Expert	Ex 11 to Stiglitz Deposition
5/2/2016	Monopoly and the Rate of Extraction of Exhaustible Resources, Stiglitz, Joseph E.		Pls.' Expert	Ex 12 to Stiglitz Deposition
8/1/2014	U.S. Forest Resource Facts and Historical Trends, USDA		Pls.' Expert	Ex 13 to Stiglitz Deposition
	Factors Reducing US Carbon Dioxide Intensity		Pls.' Expert	Ex 14 to Stiglitz Deposition
7/10/2008	The value of technological advance in decarbonizing the U.S. economy, Richels, Richard, Elsevier		Pls.' Expert	Ex 15 to Stiglitz Deposition
6/1/2016	The Economics of Coal Leasing on Federal Land: Ensuring a Fair Return to Taxpayers, Executive Office of the President		Pls.' Expert	Ex 16 to Stiglitz Deposition
5/1/2015	IMF Working Paper: How Large Are Global Energy Subsidies?, Coady, David		Pls.' Expert	Ex 17 to Stiglitz Deposition

5/1/2018	State and Trends of Carbon Pricing 2018, World Bank Group		Pls.' Expert	Ex 18 to Stiglitz Deposition
9/18/2018	Kevin Trenebrth Deposition Transcript		Pls.' Expert	
4/11/2018	Kevin E. Trenberth Expert Report		Pls.' Expert	Ex 1 to Trenberth Deposition
	Climate Science Special Report, U.S. Global Change Research Program, Fourth National Climate Assessment, Vol. 1		Pls.' Expert	Ex 2 to Trenberth Deposition
11/21/2011	Declaration of Kevin E. Trenberth		Pls.' Expert	Ex 3 to Trenberth Deposition
	Climate Change 2007, Synthesis report		Pls.' Expert	Ex 4 to Trenberth Deposition
	Attribution of Extreme Weather Events in the Context of Climate Change, The National Academies of Sciences, Engineering, medicine		Pls.' Expert	Ex 5 to Trenberth Deposition
	Appendix C, Detection and Attribution Methodologies Overview, Knutson, T.		Pls.' Expert	Ex 6 to Trenberth Deposition
7/23/2015	Study predicts multi-meter seal level rise this cuentury, but not everyone agrees, Trenberth Kevin, The Conversation		Pls.' Expert	Ex 7 to Trenberth Deposition
	Climate System Modeling, Trenberth, Kevin E.		Pls.' Expert	Ex 8 to Trenberth Deposition
7/19/2017	Climate change will force today's kids to pay for costly carbon remove technologies, study says, Harvey, Chelsea, The Washington Post		Pls.' Expert	Ex 9 to Trenberth Deposition
	Effects of Changing Climate on Weather and Human Activities, Trenberth, Kevin E.		Pls.' Expert	Ex 10 to Trenberth Deposition
10/12/2009	Email: to Michael Mann, from Kevin Trenverth. Re: BBC U-turn on climate		Pls.' Expert	Ex 11 to Trenberth Deposition
	Useful Models, Marcus Caleb Cain		Pls.' Expert	Ex 12 to Trenberth Deposition
9/12/2018	Harold Wanless Deposition Transcript		Pls.' Expert	
4/4/2018	Harold R. Wanless Expert Report		Pls.' Expert	Ex 1 to Wanless Deposition
3/30/2011	Sea-Level Rise from the Late 19th to the Early 21st Century, Church, John A.		Pls.' Expert	Ex 2 to Wanless Deposition
1/22/2015	Probabilistic reanalysis of twentieth-century sea-level rise, Hay, Carling C., Nature, Vol. 517		Pls.' Expert	Ex 3 to Wanless Deposition
1/1/2017	Global and Regional Sea Level Rise Scenarios for the United States, NOAA		Pls.' Expert	Ex 4 to Wanless Deposition
10/1/2015	United Sea Level Rise Project, Southeast Florida		Pls.' Expert	Ex 5 to Wanless Deposition
	Climate Phenomena and their Relevance for Future Regional Climate Change, Christensen, Jens Hesselbjerg		Pls.' Expert	Ex 6 to Wanless Deposition
8/2/2018	Howard Frumkin Deposition		Pls.' Expert	
4/10/2018	Howard Frumkin Expert Report		Pls.' Expert	Ex 1 to Frumkin Deposition
12/23/2017	Pollution from Fossil-Fuel Combustion is the leading Environmental Threat to Globa Pediatric Health and Equity: Solutions Exist, Perera, Frederica, Internatioanl Journal of Environmental Research and Public Health		Pls.' Expert	Ex 2 to Frumkin Deposition
9/14/2018	Susan Pacheco Deposition Transcript		Pls.' Expert	
9/12/2018	Expert Report of Susan E. Pacheco and Jerome A. Paulson		Pls.' Expert	Ex 1 to Pacheco Deposition
1/29/2016	How Air Pollution Alters Brain Development: The Role of Neuroinflammation, Brockmeyer, Sam		Pls.' Expert	Ex 2 to Pacheco Deposition
	Dr. Pacheco's Document for Plaintiffs' Residences and Information		Pls.' Expert	Ex 3 to Pacheco Deposition

	Dr. Pacheco's Document Detailing Plaintiffs		Pls.' Expert	Ex 4 to Pacheco Deposition
10/1/2018	Lise Van Susteren Deposition Transcript		Pls.' Expert	
9/27/2018	Lise Van Susteren Supplemental Expert Report		Pls.' Expert	Ex 1 to Lise Van Susteren Deposition
	Ex C to Lise Van Susteren Expert Report		Pls.' Expert	Ex 2 to Lise Van Susteren Deposition
	Webster's Collegiate Dictionary: Definition of "Trauma."		Pls.' Expert	Ex 4 to Lise Van Susteren Deposition
4/13/2018	Lise Van Susteren Expert Report		Pls.' Expert	
	Placeholder for Walters deposition transcript and exhibits		Pls.' Expert	
	Placeholder for Jefferson deposition transcript and exhibits		Pls.' Expert	
8/20/2018	Aji P. Deposition Transcript		Plaintiff	
6/28/2018	Aji P. Declaration		Plaintiff	Ex 1 to Aji P. Deposition
8/20/2018	Alex L. Deposition Transcript		Plaintiff	
6/28/2018	Alex L. Declaration		Plaintiff	Ex 1 to Alex L. Deposition
2005	Risk Factors of Allergic Rhinitis: Genetic or Environmental?, Wang, De-Yun, Therapeutics and Clinical Risk Manamgent		Plaintiff	Ex 3 to Alex L. Deposition
8/20/2018	Avery M. Deposition Transcript		Plaintiff	
6/27/2018	Avery M. Declaration		Plaintiff	Ex 1 to Avery M. Deposition
8/21/2018	Hazel V. Deposition Transcript		Plaintiff	
6/27/2018	Hazel V. Declaration		Plaintiff	Ex 1 to Hazel V. Deposition
4/24/2017	"'See You In Court': Kids suing Trump Admin Over Climate Change Speak Out at March for Science"		Plaintiff	Ex 2 to Hazel V. Deposition
8/22/2018	Isaac V. Deposition Transcript		Plaintiff	
6/27/2018	Isaac V. Declaration		Plaintiff	Ex 1 to Isaac V. Declaration
8/21/2018	Jacob L. Deposition Transcript		Plaintiff	
6/27/2018	Jacob L. Declaration		Plaintiff	Ex 1 to Jacob L. Deposition
9/13/2018	Jayden F. Deposition Transcript		Plaintiff	
6/27/2018	Jayden F. Declaration		Plaintiff	Ex 2 to Jayden F. Deposition
9/7/2016	NOAA Climate Change Increased Chances of Record Rains in Louisiana by at least 40 percent Document		Plaintiff	Ex 3 to Jayden F. Deposition
5/17/2016	Annual Energy Outlook 2016 Early Release: Annotated Summary of Two Cases Document		Plaintiff	Ex 4 to Jayden F. Deposition
8/20/2018	Kelsey Juliana Deposition Transcript		Plaintiff	
8/20/2018	Kelsey Juliana Declaration		Plaintiff	Ex 1 to 8/20/2018 Kelsey Juliana Deposition
8/22/2018	Kelsey Juliana Deposition Transcript		Plaintiff	
8/22/2018	Miko V. Deposition Transcript		Plaintiff	
6/27/2018	Miko V. Declaration		Plaintiff	Ex 1 to Miko V. Deposition
9/19/2018	Nicholas V. Deposition Transcript		Plaintiff	

6/27/2018	Nicholas V. Declaration		Plaintiff	Ex 2 to Nicholas V. Deposition
9/29/2018	Sophie K. Deposition Transcript		Plaintiff	
6/27/2018	Sophie K. Declaration		Plaintiff	Ex 2 to Sophie K. Deposition
	United States of Climate Change, The Weather Channel		Plaintiff	Ex. 3 to Sophie K. Deposition
8/22/2018	Tia H. Deposition Transcript		Plaintiff	
6/27/2018	Tia H. Declaration		Plaintiff	Ex 1 to Tia H. Deposition
3/17/2017	Meet Tia Hatton, a Global Citizen of America Who is Suing Trump Over Climate Change		Plaintiff	Ex 2 to Tia H. Deposition
9/22/2018	Victoria B. Deposition Transcript		Plaintiff	
1/5/2016	Victoria B. Declaration		Plaintiff	Ex 2 to Victoria B. Deposition
6/27/2018	Victoria B. Declaration		Plaintiff	Ex 3 to Victoria B. Deposition
9/18/2018	Xiuhtezcatl Tonatiuh M. Deposition Transcript		Plaintiff	
6/27/2018	Xiuhtezcatl Tonatiuh M. Declaration		Plaintiff	Ex 1 to Xiuhtezcatl Tonatiuh M. Deposition
4/5/2018	Mountain snowpack shrinks to 66 percent of normal, feds sound drought alarm		Plaintiff	Ex 2 to Xiuhtezcatl Tonatiuh M. Deposition
8/21/2018	Zealand B. Deposition Transcript		Plaintiff	
6/27/2018	Zealand B. Declaration		Plaintiff	Ex 1 to Zealand B. Deposition
4/29/2018	News Reel: The kids suing Donald Trump are marching to the White House		Plaintiff	Ex 2 to Zealand B. Deposiiton
11/11/2016	Kids are taking the Feds and Possibley Trump to Court over Climate Change, Sutter, John D., CNN		Plaintiff	Ex 3 to Zealand B. Deposition
	Placeholder for Jaime B. Deposition Transcript & Exs.		Plaintiff	
	Placeholder for Journey Z. Deposition Transcript & Exs.		Plaintiff	
	Placeholder for Kiran O. Deposition Transcript & Exs.		Plaintiff	
	Placeholder for Levi D. Deposition Transcript & Exs.		Plaintiff	
	Placeholder for Nathan B. Deposition Transcript & Exs.		Plaintiff	
	Placeholder for Sahara V. Deposition Transcript & Exs.		Plaintiff	
1/27/2011	Record for Alex L. - receipt, Mignola Farms, Inc.	P00000121630 - P00000121630	Plaintiff	Confidential
2/3/2011	Record for Alex L. - receipt from (illegible) Rich Nurseries, Hillsboro, OR	P00000121631 - P00000121631	Plaintiff	Confidential
Various	Record for Alex L. - prescription profile, Walgreens; medical records request, Asthma and Allergy Center, P.C.; medical records; letter, Alice H. Chou, M.D.; test results, PeaceHealth Laboratories	P00000121632 - P00000121640	Plaintiff	Confidential
1/1/2008 - 8/13/2018	Record for Alex L. - Evergreen Family Medicine, Encounters and Procedures	P00000121641 - P00000121653	Plaintiff	Confidential
5/24/2007	Record for Alex L. - letter from Barnes & Associates, Inc. to Janet Fisher	P00000121654 - P00000121656	Plaintiff	Confidential
6/23/2015 - 7/30/2015	Record for Alex L. - emails re camping	P00000121657 - P00000121677	Plaintiff	Confidential

	Record for Alex L. - expenditures	P00000121678 - P00000121678	Plaintiff	Confidential
	Record for Alex L. - 2012 expenses	P00000121679 - P00000121679	Plaintiff	Confidential
3/12/2018	Record for Alex L. - Work order, Douglas Electric	P00000121680 - P00000121680	Plaintiff	Confidential
	Record for Alex L. - Project quote summary/contract, Pacific Ag Systems, Inc.	P00000121681 - P00000121681	Plaintiff	Confidential
3/1/2018	Record for Alex L. - handwritten receipt for sale of John Deere 5520N tractor to Robin Loznak	P00000121682 - P00000121682	Plaintiff	Confidential
2/27/2014	Record for Alex L. - receipt, Bush's nursery	P00000121683 - P00000121683	Plaintiff	Confidential
2/16/2015	Record for Alex L. - receipt, Bush's nursery	P00000121684 - P00000121684	Plaintiff	Confidential
2/22/2016	Record for Alex L. - receipt, Bush's nursery	P00000121685 - P00000121685	Plaintiff	Confidential
1/11/2012	Record for Alex L. - receipt, Mignola Farms, Inc.	P00000121686 - P00000121686	Plaintiff	Confidential
2/2/2011	Record for Alex L. - receipt, Bush's nursery	P00000121687 - P00000121687	Plaintiff	Confidential
2/2/2012	Record for Alex L. - receipt, Bush's nursery	P00000121688 - P00000121688	Plaintiff	Confidential
8/24/2017 - 8/28/2017	Record for Alex L. - text conversation re Coos Bay Wagon Road	P00000121689 - P00000121699	Plaintiff	Confidential
1/9/2018	Record for Alex L. - receipt, Bush's nursery	P00000121700 - P00000121700	Plaintiff	Confidential
2/3/2011	Record for Alex L. - receipt, Holcomb Bros Inc	P00000121701 - P00000121701	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121702 - P00000121702	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121703 - P00000121703	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121704 - P00000121704	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121705 - P00000121705	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121706 - P00000121706	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121707 - P00000121707	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121708 - P00000121708	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121709 - P00000121709	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121710 - P00000121710	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121711 - P00000121711	Plaintiff	Confidential

	Record for Alex L. - photograph	P00000121712 - P00000121712	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121713 - P00000121713	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121714 - P00000121714	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121715 - P00000121715	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121716 - P00000121716	Plaintiff	Confidential
	Record for Alex L. - photograph	P00000121717 - P00000121717	Plaintiff	Confidential
3/26/2018	Record for Alex L. - purchase order for John Deere equipment	P00000121718 - P00000121718	Plaintiff	Confidential
2/20/2018	Record for Alex L. - receipt, Matejcek's	P00000121719 - P00000121719	Plaintiff	Confidential
	Record for Alex L. - timber value calculations	P00000121720 - P00000121720	Plaintiff	Confidential
Various	Record for Alex L. - EasyFill Customer Statement Report; Columbia Health medical records	P00000122980 - P00000122997	Plaintiff	Confidential
1/1/2018 - 8/27/2018	Record for Alex L. - Evergreen Family Medicine, Encounters and Procedures	P00000121998 - P00000123001	Plaintiff	Confidential
9/15/2017	Record for Avery M.- KVAL article: Wildfire Smoke Back into Lane County Overnight	P00000119100 - P00000119111	Plaintiff	Confidential
9/4/2017	Record for Avery M. - Eugene School District, Air Quality and School Activities	P00000119112 - P00000119113	Plaintiff	Confidential
7/26/2017	Record for Avery M. - The Oregonian/Oregon Live Article: Algae alert issued for Odell Lake	P00000119114 - P00000119116	Plaintiff	Confidential
8/28/2017	Record for Avery M.- KVAL article: CDC: Smoke from wildfires can 'get into deep part of your lungs and even into your blood'	P00000119117 - P00000119127	Plaintiff	Confidential
9/4/2017	Record for Avery M.- The Register Guard article: Danger in the air	P00000119128 - P00000119130	Plaintiff	Confidential
12/21/2015	Record for Avery M.- National Park Service, How important is Whitebark Pine to grizzly bears?	P00000119131 - P00000119137	Plaintiff	Confidential
2/11/2015	Record for Avery M.- article from bendbulletin.com: Is Hoodoo done?	P00000119138 - P00000119141	Plaintiff	Confidential
5/11/2017	Record for Avery M.- UC San Diego NewsCenter article: Measuring the impact of a changing climate on threatened Yellowstone grizzly bears	P00000119142 - P00000119144	Plaintiff	Confidential
9/1/2017	Record for Avery M.- KMTR article: Mt. Pisgah closes trails due to fire danger	P00000119145 - P00000119149	Plaintiff	Confidential
3/11/2015	Record for Avery M.- USDA press release: Record low snowpack in Cascades, Sierra Nevada	P00000119150 - P00000119151	Plaintiff	Confidential
9/6/2017	Record for Avery M.- KVAL article: Sisters Folk Festival joins growing list of cancellations closures due to Oregon fires	P00000119152 - P00000119163	Plaintiff	Confidential
3/22/2018	Record for Avery M.- KVAL article: Tree pollen count: anything over 90 is high. The count Wednesday? 329	P00000119164 - P00000119170	Plaintiff	Confidential
9/10/2017	Record for Avery M.- The Register Guard article: Wildfire smoke breaks records	P00000119171 - P00000119173	Plaintiff	Confidential

9/5/2017	Record for Avery M.- Communication to families re LRAPA air quality	P00000119174 - P00000119174	Plaintiff	Confidential
9/5/2017	Record for Avery M.- Messages from the Village School re school closure	P00000119175 - P00000119175	Plaintiff	Confidential
9/15/2017	Record for Avery M.- Message from the Village School re indoor recess due to air quality	P00000119176 - P00000119176	Plaintiff	Confidential
Various	Record for Isaac V. - letters and spirometry reports, Michael V. Osborne, MD	P00000121740 - P00000121760	Plaintiff	Confidential
8/14/2018	Record for Isaac V. - Email from Health and Human Services PIO Wendy Gordon, Washington County, re Air Quality Today	P00000121761 - P00000121761	Plaintiff	Confidential
8/14/2018	Record for Isaac V. - Oregon DEQ, Current AQI (combined PM and O3)	P00000121762 - P00000121763	Plaintiff	Confidential
10/3/2017	Record for Isaac V. - Extremely high levels of PM2.5: steps to reduce your exposure	P00000121764 - P00000121765	Plaintiff	Confidential
8/15/2018	Record for Isaac V. - KOIN article: Thick wildfire smoke socks in Portland metro	P00000121766 - P00000121768	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122900 - P00000122900	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122901 - P00000122901	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122902 - P00000122902	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122903 - P00000122903	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122904 - P00000122904	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122905 - P00000122905	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122906 - P00000122906	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122907 - P00000122907	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122908 - P00000122908	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122909 - P00000122909	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122910 - P00000122910	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122911 - P00000122911	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122912 - P00000122912	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122913 - P00000122913	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122914 - P00000122914	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122915 - P00000122915	Plaintiff	Confidential

	Record for Jacob L. - photograph	P00000122916 - P00000122916	Plaintiff	Confidential
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	Record for Jacob L. - photograph	P00000122918 - P00000122918	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122919 - P00000122919	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122920 - P00000122920	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122921 - P00000122921	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122922 - P00000122922	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122923 - P00000122923	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122924 - P00000122924	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122925 - P00000122925	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122926 - P00000122926	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122927 - P00000122927	Plaintiff	Confidential
	Record for Jacob L. - photograph	P00000122928 - P00000122928	Plaintiff	Confidential
	Record for Jacob L. - aerial photograph	P00000122942 - P00000122942	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137100 - P00000137100	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137101 - P00000137101	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137102 - P00000137102	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137103 - P00000137103	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137104 - P00000137104	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137105 - P00000137105	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137106 - P00000137106	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137107 - P00000137107	Plaintiff	Confidential
9/27/2018	Record for Jayden F. - Mental Health Report, author Jenny M. Istre, Licensed Professional Counselor	P00000137108 - P00000137108	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137109 - P00000137109	Plaintiff	Confidential

	Record for Jayden F. - photograph	P00000137110 - P00000137110	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137111 - P00000137111	Plaintiff	Confidential
	Record for Jayden F. - photograph	P00000137112 - P00000137112	Plaintiff	Confidential
April 16 (no year)	Record for Journey Z. - Hawaii Now message and photograph	P00000137133 - P00000137133	Plaintiff	Confidential
4/4/2013	Record for Kelsey Juliana - DiagnosTechs lab test results	P00000122937 - P00000122940	Plaintiff	Confidential
5/29/2013	Record for Kelsey Juliana - Hirons Pharmacy Patient Counseling, Yodoxin	P00000122941 - P00000122941	Plaintiff	Confidential
8/27/2018	Record for Kiran O. - allergy test records	P00000137113 - P00000137120	Plaintiff	Confidential
October, 2014	Record for Kiran O. - Seattle Magazine article: How oil trains through downtown Seattle could put us at risk	P00000137121 - P00000137123	Plaintiff	Confidential
	Record for Levi D. - photograph	P00000137130 - P00000137130	Plaintiff	Confidential
	Record for Levi D. - photograph	P00000137131 - P00000137131	Plaintiff	Confidential
	Record for Levi D. - photograph	P00000137132 - P00000137132	Plaintiff	Confidential
8/14/2018	Record for Miko V. - Email from Health and Human Services PIO Wendy Gordon, Washington County, re Air Quality Today	P00000121725 - P00000121725	Plaintiff	Confidential
8/14/2018	Record for Miko V. - Oregon DEQ, Current AQI (combined PM and O3)	P00000121726 - P00000121727	Plaintiff	Confidential
10/3/2017	Record for Miko V. - Extremely high levels of PM2.5: steps to reduce your exposure	P00000121728 - P00000121729	Plaintiff	Confidential
8/15/2018	Record for Miko V. - KOIN article: Thick wildfire smoke socks in Portland metro	P00000121730 - P00000121732	Plaintiff	Confidential
11/11/2015	Record for Nathan B. - Word document: Climate change action is in the best interest of all industries	P00000121500 - P00000121501	Plaintiff	Confidential
2/1/2015	Record for Nathan B. - Word document: Climate change letter for meeting	P00000121502 - P00000121503	Plaintiff	Confidential
12/6/2014	Record for Nathan B. - Word document: Climate change overview	P00000121504 - P00000121505	Plaintiff	Confidential
9/15/2014	Record for Nathan B. - Word document: Climate disruption LTTE	P00000121506 - P00000121507	Plaintiff	Confidential
5/22/2015	Record for Nathan B. - Word document: Dear President Obama - letter to President Obama re. climate change, oil drilling	P00000121508 - P00000121509	Plaintiff	Confidential
3/22/2015	Record for Nathan B. - Word document: Dear Rep Wilson - letter to Rep. Wilson re. recent meeting at AYEA; warming weather in Juneau	P00000121510 - P00000121511	Plaintiff	Confidential
3/22/2015	Record for Nathan B. - Word document: Dear Rep Young - letter to Rep. Young re. sponsorship of HR 5314	P00000121512 - P00000121513	Plaintiff	Confidential
3/22/2015	Record for Nathan B. - Word document: Dear Sen Coghill - letter to Sen. Coghill re. recent meeting; warming weather in Juneau; renewable resources	P00000121514 - P00000121515	Plaintiff	Confidential
9/19/2014	Record for Nathan B. - Word document: Letter to Lisa Murkowski - letter re. climate change	P00000121516 - P00000121517	Plaintiff	Confidential

9/18/2014	Record for Nathan B. - Word document: Letter to Mark Begich - letter re. climate change, climate disruption	P00000121518 - P00000121519	Plaintiff	Confidential
9/17/2014	Record for Nathan B. - Word document: Letter to Scott Kawasaki - letter re. climate disruption	P00000121520 - P00000121521	Plaintiff	Confidential
10/31/2016	Record for Nathan B. - Word document: Letterofsupportforstandingrock - general letter of support for Standing Rock Sioux regarding Dakota Access Pipeline	P00000121522 - P00000121523	Plaintiff	Confidential
6/15/2018	Record for Nathan B. - Medical records, Tanana Valley Clinic	P00000121524 - P00000121607	Plaintiff	Confidential
8/16/2018	Record for Nicholas V. - Patient ledger, Mile High Allergy Asthma Sinus	P00000121610 - P00000121610	Plaintiff	Confidential
8/3/2018	Record for Nicholas V. - Medical records, Kids First Pediatrics	P00000121611 - P00000121611	Plaintiff	Confidential
8/8/2018	Record for Sahara V. - letter from Catherine Kordesch, MD re 2007 hospitalization for asthma	P00000137159 - P00000137159	Plaintiff	Confidential
10/5/2018	Record for Sophie K. - letter from Sara Taff, LPC, MA re. treatment for Generalized Anxiety Disorder	P00000141362 - P00000141362	Plaintiff	Confidential
10/1/2018	Record for Sophie K. - letter from Rosa Gomez De Jesus, MD, FAAP re. treatment for anxiety	P00000137170 - P00000137170	Plaintiff	Confidential
8/31/2016	Record for Tia H. - medical records, Praxis Medical Group	P00000121620 - P00000121627	Plaintiff	Confidential
8/3/2018	Record for Tia H. - Patient Chart Report, Praxis Medical Group	P00000122185 - P00000122224	Plaintiff	Confidential
8/17/2018	Record for Zealand B. - letter from Catherine Kordesch, MD re. discussion of possible allergies	P00000121775 - P00000121775	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121776 - P00000121776	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121777 - P00000121777	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121778 - P00000121778	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121779 - P00000121779	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121780 - P00000121780	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121781 - P00000121781	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121782 - P00000121782	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121783 - P00000121783	Plaintiff	Confidential
	Record for Zealand B. - photograph	P00000121784 - P00000121784	Plaintiff	Confidential
10/13/2017	Record for Zealand B. - NY Times article: In California, fires so fast hesitation proved lethal	P00000121785 - P00000121790	Plaintiff	Confidential
1/1/2010	2010 USDA Climate Change Science Plan	USDA0000001-USDA0000025	Def. Fact USDA	
5/1/2016	USDA Building Blocks for Climate Smart Agriculture and Forestry: Implementation Plan and Progress Report	USDA0000026-USDA0000149	Def. Fact USDA	

7/1/2016	Managing Agrucultural Land for Greenhouse Gas Mitigation within the United States	USDA0000150-USDA0000223	Def. Fact USDA	
9/1/2016	U.S. Agriculture and Forest Greenhouse Gas Inventory 1990 2013	USDA0000495-USDA0000646	Def. Fact USDA	
	Transportation Statistics Annual Report Chapter 7 Transportation Energy Use and Environmental Impacts	DOT0000768-DOT0000795	Def. Fact DOT	
12/1/2013	A Performance Based Approach to Addressing Greenhouse Gas Emissions through Transportation Planning	DOT0000796-DOT0000869	Def. Fact DOT	
2/29/2012	Alternative Fuel for Marine Application: Final Report	DOT0000870-DOT0000920	Def. Fact DOT	
	Climate Change and Transportation Infographic	DOT0000921-DOT0000922	Def. Fact DOT	
	FHWA Alternative Fuel Corridors Summary	DOT0000923-DOT0000924	Def. Fact DOT	
9/1/2003	Fuel Options for Reducing Greenhouse Gas Emissions from Motor Vehicles: Final Report	DOT0000925-DOT0001000	Def. Fact DOT	
10/1/2014	Highways in the Coastal Environment Assessing Extreme Events. Hydraulic Engineering Circular No. 25, Vol. 2, Publication No. FHWA-NHI-14-006	DOT0001001-DOT0001149	Def. Fact DOT	
6/1/2016	Highways in the River Environment Floodplains, Extreme Events, Risk, and Resilience. Hydraulic Engineering Circular No. 17, 2nd Ed., Publication No. FHWA-HIF-16-018	DOT0001150-DOT0001307	Def. Fact DOT	
3/1/2008	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase I	DOT0001308-DOT0001426	Def. Fact DOT	
6/1/2013	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase 2	DOT0001427-DOT0001569	Def. Fact DOT	
9/1/2012	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase 2, Appendix A-D	DOT0001570-DOT0001623	Def. Fact DOT	
9/1/2012	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase 2, Appendix E	DOT0001624-DOT0001665	Def. Fact DOT	
5/31/2012	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase 2, Temperature and Precipitation Projections for the Mobile Bay Region: Final Report	DOT0001666-DOT0001666	Def. Fact DOT	
9/1/2012	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase 2, Task 204: Assessing the Sensitivity of Transportation Assets to Climate Change in Mobile, Alabama	DOT0001667-DOT0001894	Def. Fact DOT	
	Impacts of Climate Change and Variability on Transportation Systems and Infrastructure Gulf Coast Study Phase 2, Task 2.4 Sensitivity Matrix Workbook	DOT0001895-DOT0002333	Def. Fact DOT	
	Longitudinal Study of the Performance Characteristics and Environmental Impacts of Renewable Diesel Fuels in Marine Engines	DOT0002334-DOT0002367	Def. Fact DOT	
7/1/2009	Moving Cooler An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions	DOT0002368-DOT0002384	Def. Fact DOT	
10/1/2017	Post Hurricane Sandy Transportation Resilience Study in NY, NJ, and CT	DOT0002385-DOT0002929	Def. Fact DOT	
5/10/2010	Regional Climate Change Effects Useful Information for Transportation Agencies	DOT0002930-DOT0003032	Def. Fact DOT	
	Screenshot of Alternative Fuel Corridors Program	DOT0003033-DOT0003035	Def. Fact DOT	

	Screenshot of ASCENT Aviation Sustainability Center - partially funded by FAA	DOT0003036-DOT0003037	Def. Fact DOT	
	Screenshot of FHWA website - Energy and Emissions Reduction Policy Analysis Tool	DOT0003038-DOT0003040	Def. Fact DOT	
	Screenshot of Transportation Engineering Approaches to Climate Resiliency (TEACR) Study	DOT0003041-DOT0003045	Def. Fact DOT	
	Screenshot of U.S. DOT Volpe Center Freight and Fuel Transportation Optimization Tool	DOT0003046-DOT0003049	Def. Fact DOT	
8/30/2013	Sugar-Based Renewable Diesel Testing Final Report	DOT0003050-DOT0003409	Def. Fact DOT	
7/1/2017	Synthesis of Approaches for Addressing Resilience in Project Development	DOT0003410-DOT0003633	Def. Fact DOT	
9/17/2007	Advances in CO2 capture technology—The U.S. Department of Energy's Carbon Sequestration Program, International Journal of Greenhouse Gas Control. Elsevier	DOE0000667-DOE0000678	Def. Fact DOE	
	Loan Programs Office Portfolio Performance Results: Annual CO2 Avoided and Gasoline Saved	DOE0000679-DOE0000679	Def. Fact DOE	
9/1/2016	Summit on Improving the Economics of America's Nuclear Power Plants, Energy Systems Strategic Assessment Institute	DOE0000680-DOE0000711	Def. Fact DOE	
9/1/2016	Economic and Market Challenges Facing the U.S. Nuclear Commercial Fleet, Energy Systems Strategic Assessment Institute	DOE0000712-DOE0000813	Def. Fact DOE	
9/1/2017	Economic and Market Challenges Facing the U.S. Nuclear Commercial Fleet - Cost and Revenue Study, Energy Systems, Strategies, Assessments, and Integration	DOE0000814-DOE0000876	Def. Fact DOE	
12/7/2015	COP21 Side Event "Nuclear Power: A Sustainable, Clean Power Source"	DOE0000877-DOE0000878	Def. Fact DOE	
5/24/2018	PRESS RELEASE ON THE NICE FUTURE INITIATIVE: Countries Launch a Nuclear Innovation Initiative under the Clean Energy Ministerial	DOE0000879-DOE0000882	Def. Fact DOE	
	Nuclear: What it Means in Ohio	DOE0000883-DOE0000883	Def. Fact DOE	
10/18/2016	Nuclear Power: What it means in Illinois, NPRE Illinois	DOE0000884-DOE0000895	Def. Fact DOE	
6/12/2018	Governors' Advisors' Energy Policy Institute, The National Governors Association Center fo Best Practices	DOE0000896-DOE0000898	Def. Fact DOE	
3/30/2017	Workshop on the Future of Nuclear Power: Agenda	DOE0000899-DOE0000902	Def. Fact DOE	
5/3/2015	Can Nuclear Power and Renewables be Friends?, Ingersoll, D.T.	DOE0000903-DOE0000911	Def. Fact DOE	
12/7/2014	9th Nuclear Plants Current Issues Sumposium: Moving Forward	DOE0000912-DOE0000923	Def. Fact DOE	
8/31/2018	The Impact of Renewable Portfolio Standards on U.S. Nuclear Electricity Generation, Nuclear Technology Research and Development	DOE0000924-DOE0000958	Def. Fact DOE	
8/31/2018	Market Penetration of Nuclear Power under Various Technology Climate Change Policy Scenarios, Nuclear Technology Research and Development	DOE0000959-DOE0001028	Def. Fact DOE	
9/16/2016	Nuclear Energy, Renewable Energy with Storage, and Climate Change Mitigation: Advanced Fuel Cycle Initiative	DOE0001029-DOE0001065	Def. Fact DOE	
9/30/2018	Economic Impact of Flexible Nuclear Operation Estimated with EDGAR Optimization Code, Stauff, N.E., Nuclear Science and Engineering Division, Argonne National Laboratory	DOE0001066-DOE0001078	Def. Fact DOE	

9/21/2016	MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES SUBJECT: Climate Change and National Security	DOE0001079-DOE0001086	Def. Fact DOE	
9/1/2016	United States Mid-Century Strategy for Deep Decarbonization	DOE0001087-DOE0001197	Def. Fact DOE	
	10 C.F.R. pt. 611	DOE0001198-DOE0001207	Def. Fact DOE	
4/15/2016	Benefits of the NETL Clean Coal and Carbon Management Program	DOE0001208-DOE0001368	Def. Fact DOE	
11/1/2016	Capital Cost Estimates for Utility Scale Electricity Generating Plants	DOE0001369-DOE0001509	Def. Fact DOE	
1/1/2013	Carbon Capture Technology Program Plan, Clean Coal Research Program	DOE0001510-DOE0001571	Def. Fact DOE	
8/1/2015	Carbon Dioxide Capture Handbook, DOE/NETL Carbon Capture Program	DOE0001572-DOE0001687	Def. Fact DOE	
4/1/2018	Direct Federal Financial Interventions and Subsidies in Energy in FY 2016	DOE0001688-DOE0001744	Def. Fact DOE	
	DOE Discretionary Funding History FY1977-2017, FY 2018-2023 (President's RY 2019 Budget)	DOE0001745-DOE0001745	Def. Fact DOE	
12/19/2007	Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492	DOE0001746-DOE0002056	Def. Fact DOE	
8/8/2005	Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594	DOE0002057-DOE0002607	Def. Fact DOE	
1/1/2018	Energy-Related Carbon Dioxide Emmisions by State, 2000-2015	DOE0002608-DOE0002637	Def. Fact DOE	
12/11/2017	Energy-related carbon dioxide emissions decreated in most states from 2005 to 2015	DOE0002638-DOE0002639	Def. Fact DOE	
	FE Budget FY08 - FY18	DOE0002640-DOE0002640	Def. Fact DOE	
11/16/2017	Growth in global energy-related carbon dioxide emissions expected to slow	DOE0002641-DOE0002643	Def. Fact DOE	
12/15/2016	10 C.F.R. pt. 609 - Loan Guarantees for Projects that Employ Innovative Technologies	DOE0002644-DOE0002658	Def. Fact DOE	
9/14/2017	International Energy Outlook 2017	DOE0002659-DOE0002734	Def. Fact DOE	
	Large Scale Demonstrations, NETL	DOE0002735-DOE0002737	Def. Fact DOE	
	Loan Programs Office, Investing in American Energy Brochure	DOE0002738-DOE0002741	Def. Fact DOE	
10/31/2017	Petra Notva is one of two carbon capture and sequestration power plants in the world	DOE0002742-DOE0002743	Def. Fact DOE	
1/1/2013	Gasification Systems Technology Program Plan, Clean Coal Research Program	DOE0000287-DOE0000344	Def. Fact DOE	
1/1/2013	Solid Oxide Fuel Cells Technology Program Plan, Clean Coal Research Program	DOE0000345-DOE0000414	Def. Fact DOE	
1/1/2013	Advanced Combustion Systems Techology Program Plan, Clean Coal Research Program	DOE0000415-DOE0000478	Def. Fact DOE	
12/1/2014	Carbon Storage Technology Program Plan, Clean Coal Research Program	DOE0000479-DOE0000548	Def. Fact DOE	

1/1/2013	Crosscutting Researc Technology Program Plan, Clean Coal Research Program	DOE0000549-DOE0000666	Def. Fact DOE	
	September 2018 Monthly Energy Review	DOE0002745-DOE0003014	Def. Fact DOE	
12/12/2013	Loan Guarantee Solicitation Announcement, Federal Loan Guarantees for Advanced Fossil Energy Projects. Solicitation Numer: DE-SOL-0006303. OMB Control Number: 1910-5134	DOE0003015-DOE0003060	Def. Fact DOE	
12/10/2014	Loan Guarantee Solicitation Announcement, Federal Loan Guarantees for Advanced Nuclear Energy Projects. Solicitation Numer: DE-SOL-0007791. OMB Control Number: 1910-5134	DOE0003061-DOE0003106	Def. Fact DOE	
7/3/2014	Loan Guarantee Solicitation Announcement, Federal Loan Guarantees for Renewable Energy Projects and Efficient Energy Projects. Solicitation Numer: DE-SOL-0007154. OMB Control Number: 1910-5134	DOE0003107-DOE0003154	Def. Fact DOE	
	Technology Roadmap, Carbon Capture and Storage. 2013 Ed., International Energy Agency	DOE0003155-DOE0003217	Def. Fact DOE	
	Total Carbon Dioxide Emissions from the Consumption of Energy Spreadsheet	DOE0003218-DOE0003218	Def. Fact DOE	
9/25/2018	U.S. Energy-Related Carbon Dioxide Emissions, 2017	DOE0003219-DOE0003232	Def. Fact DOE	
2/8/2018	U.S. energy-related CO2 emissions expected to rise slighted in 2018, remain flat in 2019	DOE0003233-DOE0003234	Def. Fact DOE	
9/5/2018	U.S. energy-related CO2 emissions fell slightly in 2017	DOE0003235-DOE0003237	Def. Fact DOE	
9/28/2018	World Carbon Dioxide Emissions by Region Spreadsheet	DOE0003238-DOE0003238	Def. Fact DOE	
9/28/2018	World Carbon Dioxide Emissions from Coal Use by Region Spreadsheet	DOE0003239-DOE0003239	Def. Fact DOE	
9/28/2018	World Carbon Dioxide Emissions from Liquids Use by Region Spreadsheet	DOE0003240-DOE0003240	Def. Fact DOE	
9/28/2018	World Carbon Dioxide Emissions from Natural Gas Use by Region Spreadsheet	DOE0003241-DOE0003241	Def. Fact DOE	
9/28/2018	World Tight Gas Shale Gas and Coalbed Methane Production by Region Spreadsheet	DOE0003242-DOE0003242	Def. Fact DOE	
2015	EERE 2016-2020 Strategic Plan	DOE0003243-DOE0003278	Def. Fact DOE	
2017	2016 Renewable Energy Data Book	DOE0003279-DOE0003410	Def. Fact DOE	
2018	2016 Renewable Energy Grid Integration Data Book	DOE0003411-DOE0003503	Def. Fact DOE	
2018	2018 Annual Technology Baseline	DOE0003504-DOE0003603	Def. Fact DOE	
2016	Revolution…Now - 2016 Update	DOE0003604-DOE0003633	Def. Fact DOE	
2018	Transportation Energy Data Book, Edition 36.2	DOE0003634-DOE0004033	Def. Fact DOE	
2012	2011 Buildings Energy Data Book	DOE0004034-DOE0004319	Def. Fact DOE	

2011	Biomass Energy Data Book, Edition 4	DOE0004320-DOE0004573	Def. Fact DOE	
2017	2016 Billion-Ton Report: Advancing Domestic Resources for a Thriving Bioeconomy	DOE0004574-DOE0005021	Def. Fact DOE	
2012	SunShot Vision Study	DOE0005022-DOE0005341	Def. Fact DOE	
2017	SunShot 2030 Goals	DOE0005342-DOE0005346	Def. Fact DOE	
2015	Wind Vision: A New Era for Wind Power in the United States	DOE0005347-DOE0005694	Def. Fact DOE	
2017	Wind Vision Detailed Roadmap Actions, 2017 Update	DOE0005695-DOE0005762	Def. Fact DOE	
2017	2016-2017 Stats Assessment and Update on the *Wind Vision* Roadmap: Findings from Topical Working Sessions, April 2016-March 2017	DOE0005763-DOE0005901	Def. Fact DOE	
2018	2017 Geothermal Technologies Office Annual Report	DOE0005902-DOE0005921	Def. Fact DOE	
2016	Hydropower Vision	DOE0005922-DOE0006328	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Advanced High Strength Steels Manufacturing	DOE0006329-DOE0006383	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Aluminum Manufacturing	DOE0006384-DOE0006433	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Carbon Fiber Reinforced Polymer Manufacturing	DOE0006434-DOE0006496	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Cement Manufacturing	DOE0006497-DOE0006570	Def. Fact DOE	
2015	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Chemical Manufacturing	DOE0006571-DOE0006716	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Food and Beverage Manufacturing	DOE0006717-DOE0006791	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Glass Manufacturing	DOE0006792-DOE0006861	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Glass Fiber Reinforced Polymer Manufacturing	DOE0006862-DOE0006925	Def. Fact DOE	
2015	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Iron and Steel Manufacturing	DOE0006926-DOE0007039	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Magnesium Manufacturing	DOE0007040-DOE0007083	Def. Fact DOE	
2007	Mining Industry Energy Bandwidth Study	DOE0007084-DOE0007130	Def. Fact DOE	
2015	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Petroleum Refining	DOE0007131-DOE0007230	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Plastics and Rubber Manufacturing	DOE0007231-DOE0007309	Def. Fact DOE	
2015	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Pulp and Paper Manufacturing	DOE0007310-DOE0007417	Def. Fact DOE	
2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Seawater Desalination Systems	DOE0007418-DOE0007553	Def. Fact DOE	

2017	Bandwidth Study on Energy Use and Potential Energy Saving Opportunities in U.S. Titanium Manufacturing	DOE0007554-DOE0007596	Def. Fact DOE	
2016	Solid-State Lighting R&D Plan	DOE0007597-DOE0007804	Def. Fact DOE	
2017	Solid-State Lighting 2017 R&D Plan: Suggested Research Topics	DOE0007805-DOE0007826	Def. Fact DOE	
2014	Research & Development Roadmap for Emerging HVAC Technologies	DOE0007827-DOE0007947	Def. Fact DOE	
2014	Research & Development Roadmap for Next-Generation Appliances	DOE0007948-DOE0008022	Def. Fact DOE	
2014	Research & Development Roadmap for Next-Generation Low Global Warming Potential Refrigerants	DOE0008023-DOE0008082	Def. Fact DOE	
2014	Research & Development Roadmap for Emerging Water Heating Technologies	DOE0008083-DOE0008146	Def. Fact DOE	
2014	Windows and Building Envelope Research and Development: Roadmap for Emerging Technologies	DOE0008147-DOE0008232	Def. Fact DOE	
2017	Report on Federal Government Energy Management, FY 2015	DOE0008233-DOE0008236	Def. Fact DOE	
2018	Energy Efficiency and Renewable Energy Resources for State and Local Leaders	DOE0008237-DOE0008242	Def. Fact DOE	
2016	Strategic Plan for a Thriving and Sustainable Bioeconomy	DOE0008243-DOE0008298	Def. Fact DOE	
2017	Fuel Cell Technologies Market Report 2016	DOE0008299-DOE0008361	Def. Fact DOE	
Retrieved from website 2018	Fuel Cell Technologies Office Accomplishments and Progress	DOE0008362-DOE0008370	Def. Fact DOE	
2018	US Drive Advanced Combustion and Emission Control Roadmap	DOE0008371-DOE0008426	Def. Fact DOE	
2017	US Drive Electrical and Electronics Technical Team Roadmap	DOE0008427-DOE0008467	Def. Fact DOE	
2017	US Drive Electrochemical Energy Storage Technical Team Roadmap	DOE0008468-DOE0008487	Def. Fact DOE	
2017	US Drive Fuel Cell Technical Team Roadmap	DOE0008488-DOE0008525	Def. Fact DOE	
2017	US Drive Fuel Pathway Integration Tech Team Roadmap	DOE0008526-DOE0008539	Def. Fact DOE	
2013	US Drive Grid Interaction Technical Team Roadmap	DOE0008540-DOE0008547	Def. Fact DOE	
2017	US Drive Codes and Standards Technical Team Roadmap	DOE0008548-DOE0008609	Def. Fact DOE	
2017	US Drive Hydrogen Delivery Technical Team Roadmap	DOE0008610-DOE0008647	Def. Fact DOE	
2017	US Drive Hydrogen Production Tech Team Roadmap	DOE0008648-DOE0008702	Def. Fact DOE	
2018	US Drive Integrated Systems Analysis Tech Team Roadmap	DOE0008703-DOE0008711	Def. Fact DOE	

2017	US Drive Materials Technical Team Roadmap	DOE0008712-DOE0008728	Def. Fact DOE	
2017	US Drive Hydrogen Storage Tech Team Roadmap	DOE0008729-DOE0008787	Def. Fact DOE	
2013	US Drive Vehicle Systems Analysis Technical Team Roadmap	DOE0008788-DOE0008796	Def. Fact DOE	
2006	21st Century Truck Partnership Roadmap and Technical White Papers	DOE0008797-DOE0008874	Def. Fact DOE	
2017	Vehicle Technologies and Fuel Cell Technologies Office Research and Development Programs: Prospective Benefits Assessment Report for FY 201	DOE0008875-DOE0008968	Def. Fact DOE	
2013	Revolution Now	DOE0008969-DOE0008982	Def. Fact DOE	
4/1/2015	Quadrennial Energy Review - First Installment		Def. Fact DOE	
1/1/2017	Quadrennial Energy Review - Second Installment		Def. Fact DOE	
2018	2018 Sustainable Energy in America Factbook, The Business Concil for Sustainable Energy	US0082721-US0082854	Def. Fact State	
4/1/2018	Climate Change, Analysis of Reported Federal Funding, US GAO	US0082855-US0082949	Def. Fact State	
	Appendix V: Climate Change Funding by Line Item as Reported by OMB, From Fiscal Years 1993-2017	US0082950-US0082953	Def. Fact State	
8/1/2013	Federal Climate Change Expenditures Report to Congress	US0082954-US0083001	Def. Fact State	
	2018 Sustainable Energy in America Factbook, Graphic	STATE00009321-STATE00009321	Def. Fact State	
10/2/2018	Live at State with Special Envoy for Climate Change Todd Stern on COP21 in Paris	STATE00009322-STATE00009330	Def. Fact State	
10/3/2018	U.S. National Statement at COP-23	STATE00009331-STATE00009332	Def. Fact State	
	2016 Second Biennial Report of the United States of America, Under the United Nations Framwork Convention on Climate Change	STATE00009333-STATE00009412	Def. Fact State	
2017	CEQ, Office of Federal Sustainability: Federal Government Scope 1 and 2 Greenhouse Gas Emissions, 2008-2017	CEQ0000001-CEQ0000006	Def. Fact CEQ	
2014	U.S. Climate Action Report 2014 (submitted to the UNFCCC)	CEQ0000007-CEQ0000316	Def. Fact CEQ	
10/1/2008	BLM Final EIS for Geothermal Leasing in the Western US	CEQ0000317-CEQ0002108	Def. Fact CEQ	
10/2/2018	BLM Geothermal Resources Leasing Programmatic EIS Index	CEQ0002109-CEQ0002109	Def. Fact CEQ	
10/2/2018	BLM Wind Energy Development Programmatic EIS Information Center Website	CEQ0002110-CEQ0002112	Def. Fact CEQ	
10/1/2012	BLM's Approved Resource Management Plan Amend./Record of Decision for Solar Energy Development in Six Southwestern States	CEQ0003491-CEQ0003687	Def. Fact CEQ	
10/2/2018	DOE's CO2 Capture and Sequestration Project website overview	CEQ0003688-CEQ0003690	Def. Fact CEQ	
7/24/2018	U.S. Energy Information Admin.'s Latest International Energy Outlook highlights analysis of China, India, and Africa	CEQ0003691-CEQ0003694	Def. Fact CEQ	
11/16/2017	U.S. Energy Information Admin.'s Growth in global energy-related carbon dioxide emissions expected to slow	CEQ0003695-CEQ0003697	Def. Fact CEQ	
2/8/2018	U.S. Energy Information Admin.'s U.S. energy-related CO2 emissions expected to rise slightly in 2018, remain flat in 2019	CEQ0003698-CEQ0003700	Def. Fact CEQ	

3/1/2010	2010 Congressional Budget Office, Federal Climate Change Programs: Funding History and Policy Issues	CEQ0003701-CEQ0003731	Def. Fact CEQ	
5/1/2011	Government Accountability Office, Report on Climate Related Funding	CEQ0003732-CEQ0003826	Def. Fact CEQ	
8/1/2013	2013 Federal Climate Change Expenditures Report to Congress	CEQ0003827-CEQ0003874	Def. Fact CEQ	
1/1/2017	2017 Federal Climate Change Expenditures Report to Congress for Fiscal Years 2013-2016	CEQ0003875-CEQ0003898	Def. Fact CEQ	
4/1/2018	2018 Govt Accountability Office, Report on Climate Change: Analysis of Reported Federal Funding	CEQ0003899-CEQ0003993	Def. Fact CEQ	
11/1/2015	Congressional Budget Office's 2015 Report: Federal Support for the Development, Production, and Use of Fuels and Energy Technologies	CEQ0003994-CEQ0004021	Def. Fact CEQ	
3/29/2017	Congressional Budget Office Testimony: Federal Support for Developing, Producing, and Using Fuels and Energy Technologies	CEQ0004022-CEQ0004040	Def. Fact CEQ	
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4/9/1992	Global Change Research: Global Warming and the Biosphere	US0020701-US0020774	Def. Congressional Hearing	Senate
5/5/1992	U.S. Global Change Research Program	US0004622-US0004824	Def. Congressional Hearing	House
5/6/1992	Global Climate Change	US0020775-US0021205	Def. Congressional Hearing	Senate
5/20/1992	Global Change Research, Global Warming, and the Oceans	US0021206-US0021275	Def. Congressional Hearing	Senate
5/26/1992	Global Climate Change and the Pacific Islands	US0021276-US0021673	Def. Congressional Hearing	Senate
9/18/1992	U.N. Framework Convention on Climate Change (Treaty Doc. 102-38)	US0021674-US0021810	Def. Congressional Hearing	Senate
3/1/1993	Global Climate Change: Adequacy of the National Action Plan	US0021811-US0021934	Def. Congressional Hearing	House
3/10/1993	Global Warming (Part 1)	US0004825-US0004970	Def. Congressional Hearing	House
3/30/1993	Science Concerning Global Climate Change	US0004971-US0005054	Def. Congressional Hearing	Senate
6/29/1993	National Action Plan for Reducing Greenhouse Gas Emissions, Part 1	US0005055-US0005159	Def. Congressional Hearing	Senate
7/29/1993	Global Warming (Part 2)	US0005160-US0005543	Def. Congressional Hearing	House
4/14/1994	Implementation of the Climate Change Action Plan	US0021935-US0022070	Def. Congressional Hearing	Senate
5/24/1994	Science Concerning Global Climate Change	US0022071-US0022222	Def. Congressional Hearing	Senate
10/6/1994	Global Warming (Part 3)	US0005544-US0005661	Def. Congressional Hearing	House
2/16/1995	Nominations of Shirley M. Jackson and Dan M. Berkovitz	US0022223-US0023121	Def. Congressional Hearing	Senate
9/17/1996	Global Climate Change	US0023122-US0023277	Def. Congressional Hearing	Senate
7/10/1997	Global Climate Change	US0023278-US0023557	Def. Congressional Hearing	Senate
7/21/1997	Conditions Regarding U.N. Framework Convention on Climate Change	US0005662-US0005993	Def. Congressional Hearing	Senate
11/13/1997	Many Ways Renewable Fuels Could Aid in Decreasing Greenhouse Gas Emissions and Increasing Energy Security	US0005994-US0006035	Def. Congressional Hearing	Senate
3/5/1998	Examining the Kyoto Treaty on Climate Change and Its Effect on the Agricultural Economy	US0023558-US0023723	Def. Congressional Hearing	Senate
4/16/1998	Expected Impact on Small Businesses and Farmers of the Kyoto Treaty on Global Climate Change	US0023724-US0023800	Def. Congressional Hearing	House
6/4/1998	Oversight Hearing on the Kyoto Protocol: The Undermining of American Prosperity	US0023801-US0024031	Def. Congressional Hearing	House
7/22/1998	Bill Richardson Nomination	US0006036-US0006208	Def. Congressional Hearing	Senate
7/29/1998	Kyoto Protocol: The Undermining of American Prosperity--The Science	US0024032-US0024147	Def. Congressional Hearing	House
3/24/1999	Credit for Early Reductions Act	US0006209-US0006341	Def. Congressional Hearing	Senate
3/25/1999	Economic Impacts of the Kyoto Protoco	US0024148-US0024242	Def. Congressional Hearing	Senate
4/29/1999	Effect of the Kyoto Protocol on American Small Business	US0024243-US0024434	Def. Congressional Hearing	House
5/20/1999	Global Climate Change	US0024435-US0024615	Def. Congressional Hearing	Senate
6/24/1999	BP Amoco-ARCO Merger	US0024616-US0024726	Def. Congressional Hearing	Senate
7/28/1999	Agency for International Development and U.S. Climate Change Policy	US0024727-US0024762	Def. Congressional Hearing	Senate
9/30/1999	Forest Resources for the Environment and the Economy Ac	US0024763-US0024808	Def. Congressional Hearing	Senate
3/30/2000	Energy and Climate Policy Act and the Climate Change Energy Policy Response Ac	US0024809-US0025010	Def. Congressional Hearing	Senate
5/4/2000	Carbon Cycle Research and Agriculture's Role in Reducing Climate Change	US0006342-US0006461	Def. Congressional Hearing	Senate
5/17/2000	Science Behind Global Warming	US0006462-US0006564	Def. Congressional Hearing	Senate

7/18/2000	Climate Change Impacts to the U.S.	US0006565-US0006625	Def. Congressional Hearing	Senate
9/21/2000	Solutions to Climate Change	US0006626-US0006700	Def. Congressional Hearing	Senate
9/28/2000	Climate Change: Status of the Kyoto Protocol After Three Years	US0006701-US0006740	Def. Congressional Hearing	Senate
3/21/2001	Clean Air Act Oversight Issues	US0025011-US0025574	Def. Congressional Hearing	Senate
3/29/2001	Biomass and Environmental Trading: Opportunities for Agriculture and Forestry	US0025575-US0025725	Def. Congressional Hearing	Senate
5/1/2001	Intergovernmental Panel on Climate Change (IPCC) Third Assessment Repor	US0006741-US0006831	Def. Congressional Hearing	Senate
5/23/2001	Carbon Sequestration: Measurements and Benefits	US0006832-US0006872	Def. Congressional Hearing	Senate
6/28/2001	Climate Change and Balanced Energy Policy Act	US0025726-US0025795	Def. Congressional Hearing	Senate
7/10/2001	Climate Change Technology and Policy Options	US0006873-US0007075	Def. Congressional Hearing	Senate
7/19/2001	National Energy Issues	US0025796-US0026143	Def. Congressional Hearing	Senate
7/26/2001	Clean Power Act	US0026144-US0026910	Def. Congressional Hearing	Senate
12/6/2001	Corporate Average Fuel Economy (CAFE) Reform	US0026911-US0027085	Def. Congressional Hearing	Senate
3/13/2002	Clean Air Act: Risks from Greenhouse Gas Emissions	US0027086-US0027298	Def. Congressional Hearing	Senate
7/11/2002	Global Climate Change and the U.S. Climate Action Repor	US0027299-US0027439	Def. Congressional Hearing	Senate
7/24/2002	Implementation of Environmental Treaties	US0007076-US0007448	Def. Congressional Hearing	Senate
1/8/2003	Climate Change--Greenhouse Gas Reductions and Trading Systen	US0007449-US0007556	Def. Congressional Hearing	Senate
5/7/2003	National Academy of Sciences' Review of the U.S. Climate Change Science Program Strategic Plan	US0007557-US0007598	Def. Congressional Hearing	Senate
6/6/2003	Soil Carbon Sequestration	US0007599-US0007651	Def. Congressional Hearing	Senate
7/8/2003	Climate Change Issues: Agricultural Sequestration of Carbon Dioxide	US0027440-US0027505	Def. Congressional Hearing	Senate
7/29/2003	Climate History and the Science Underlying Fate, Transport, and Health Effects of Mercury Emissions	US0027506-US0027833	Def. Congressional Hearing	Senate
10/1/2003	The Case for Climate Change Action	US0007652-US0007791	Def. Congressional Hearing	Senate
5/6/2004	The Impacts of Climate Change and States' Actions	US0027834-US0027914	Def. Congressional Hearing	Senate
2/10/2005	Energy Policy Act of 2005	US0027915-US0028515	Def. Congressional Hearing	House
7/20/2005	Review of the United States' Climate Policy, the $5 Billion Budget Request for Climate-Related Science and Technology in Fiscal Year 200	US0007792-US0007865	Def. Congressional Hearing	Senate
7/21/2005	Climate Change	US0007866-US0008100	Def. Congressional Hearing	Senate
9/28/2005	Role of Science in Environmental Policy Making	US0028516-US0028681	Def. Congressional Hearing	Senate
10/5/2005	Kyoto Protocol: Assessing the Status of Efforts To Reduce Greenhouse Gase	US0028682-US0028927	Def. Congressional Hearing	Senate
11/14/2005	U.S.-International Claimte Change Approach: A Clean Technology Solution	US0028928-US0029006	Def. Congressional Hearing	Senate
2/16/2006	National Oceanic and Atmospheric Administration (NOAA) Fiscal Year 2007 Budget Request	US0029007-US0029073	Def. Congressional Hearing	Senate
4/4/2006	Climate Change	US0008101-US0008175	Def. Congressional Hearing	Senate
4/5/2006	The Current and Future Role of Science in the Asia-Pacific Partnership	US0029074-US0029132	Def. Congressional Hearing	Senate
4/26/2006	Projected and Past Effects of Climate Change: A Focus on Marine and Terrestrial Systems	US0029133-US0029246	Def. Congressional Hearing	Senate
6/22/2006	Enhanced Energy Security Act of 2006	US0029247-US0029326	Def. Congressional Hearing	Senate
7/19/2006	Questions Surrounding the 'Hockey Stick' Temperature Studies: Implications for Climate Change Assessments	US0029327-US0030202	Def. Congressional Hearing	House
9/20/2006	Examining Approaches Embodied in the Asia Pacific Partnership	US0030203-US0030412	Def. Congressional Hearing	Senate
9/26/2006	International Polar Year	US0030413-US0030502	Def. Congressional Hearing	Senate
12/6/2006	Examining Climate Change and the Media	US0030503-US0030614	Def. Congressional Hearing	Senate
1/24/2007	EIA Analysis of Draft Climate Change Legislation	US0030615-US0030678	Def. Congressional Hearing	Senate
1/30/2007	Senators' Perspectives on Global Warming	US0030679-US0030841	Def. Congressional Hearing	Senate
1/30/2007	Allegations of Political Interference with the Work of Government Climate Change Scientists	US0030842-US0031987	Def. Congressional Hearing	House
2/7/2007	Global Warming and Wildlife	US0008176-US0008268	Def. Congressional Hearing	Senate

2/7/2007	Climate Change Research and Scientific Integrity	US0031988-US0032309	Def. Congressional Hearing	Senate
2/13/2007	U.S. Climate Action Partnership Report	US0032310-US0032401	Def. Congressional Hearing	Senate
2/13/2007	Economics of Climate Change	US0032402-US0032485	Def. Congressional Hearing	Senate
2/13/2007	Addressing Climate Change: Views from Private Sector Panels	US0032486-US0032613	Def. Congressional Hearing	House
2/27/2007	America's Energy Future: Bold Ideas, Practical Solutions	US0008269-US0008476	Def. Congressional Hearing	Senate
2/28/2007	Energy and Tax Policy	US0008477-US0008565	Def. Congressional Hearing	House
3/1/2007	State, Regional and Local Perspectives on Global Warming	US0032614-US0032764	Def. Congressional Hearing	Senate
3/6/2007	Carbon Capture and Sequestration: An Overview	US0032765-US0032949	Def. Congressional Hearing	House
3/7/2007	Climate Change: Are Greenhouse Gas Emissions from Human Activities Contributing to the Warming of the Planet?	US0032950-US0033086	Def. Congressional Hearing	House
3/14/2007	Climate Change and Energy Security: Perspectives from the Automobile Industry	US0033087-US0033169	Def. Congressional Hearing	House
3/15/2007	Climate Change: State and Local Perspectives	US0033170-US0033313	Def. Congressional Hearing	House
3/19/2007	Allegations of Political Interference with Government Climate Change Scienc	US0033314-US0033434	Def. Congressional Hearing	House
3/20/2007	Toward a Clean Energy Future: Energy Policy and Climate Change on Public Land	US0033435-US0033897	Def. Congressional Hearing	House
3/20/2007	Energy Innovation	US0033898-US0033979	Def. Congressional Hearing	Senate
3/20/2007	Climate Change: Perspectives of Utility CEOs	US0033980-US0034148	Def. Congressional Hearing	House
3/21/2007	Vice President Al Gore's Perspective on Global Warming	US0008566-US0008635	Def. Congressional Hearing	Senate
3/21/2007	Perspectives on Climate Change	US0034149-US0034303	Def. Congressional Hearing	House
3/22/2007	Future of Coal	US0034304-US0034377	Def. Congressional Hearing	Senate
3/26/2007	EU Emissions	US0034378-US0034443	Def. Congressional Hearing	Senate
3/27/2007	Climate Change: International Issues, Engaging Developing Countrie	US0034444-US0034500	Def. Congressional Hearing	House
3/28/2007	Reducing Government Building Operational Costs Through Innovation and Efficiency: Legislative Solutions	US0034501-US0034544	Def. Congressional Hearing	Senate
3/29/2007	Climate Change: Lessons Learned fom Existing Cap-and-Trade Programs	US0034545-US0034690	Def. Congressional Hearing	House
4/17/2007	Wildlife and Oceans in a Changing Climate	US0034691-US0034746	Def. Congressional Hearing	House
4/18/2007	Geopolitical Implications of Rising Oil Dependence and Global Warming	US0034747-US0034874	Def. Congressional Hearing	House
4/19/2007	Dangerous Exposure: The Impact of Global Warming on Private and Federal Insurance	US0034875-US0035050	Def. Congressional Hearing	Senate
4/24/2007	The Implications of the Supreme Court's Decision Regarding EPA's Authorities with Respect to Greenhouse Gases Under the Clean Air Act	US0035051-US0035266	Def. Congressional Hearing	Senate
4/26/2007	Dangerous Climate Change	US0035267-US0035440	Def. Congressional Hearing	House
4/26/2007	Clean Coal Technology	US0035441-US0035530	Def. Congressional Hearing	Senate
5/1/2007	Future of Fossil Fuels: Geological and Terrestrial Sequestration of Carbon Dioxid	US0035531-US0035740	Def. Congressional Hearing	House
5/3/2007	Economic Impacts of Global Warming: Part 1--Insurance	US0035741-US0035806	Def. Congressional Hearing	House
5/3/2007	Pending Corporate Average Fuel Economy (CAFE) Legislation	US0035807-US0035894	Def. Congressional Hearing	Senate
5/9/2007	Emerging Technologies and Practices for Reducing Greenhouse Gas Emission	US0035895-US0036082	Def. Congressional Hearing	Senate
5/9/2007	Economics of Dependence on Foreign Oil--Rising Gasoline Prices	US0036083-US0036169	Def. Congressional Hearing	House
5/9/2007	Climate Change: National Security Threats	US0036170-US0036303	Def. Congressional Hearing	Senate
5/10/2007	Effects of Climate Change and Ocean Acidification on Living Marine Organisms	US0036304-US0036352	Def. Congressional Hearing	Senate
5/11/2007	Administration Proposals on Climate Change and Energy Independence	US0036353-US0036457	Def. Congressional Hearing	House
5/15/2007	U.S. Re-Engagement in the Global Effort To Fight Climate Change	US0036458-US0036988	Def. Congressional Hearing	House
5/15/2007	Green Buildings: Benefits to Health, the Environment, and the Bottom Line	US0008636-US0008722	Def. Congressional Hearing	Senate
5/17/2007	H.R. 2635, the Carbon-Neutral Government Act of 2007	US0036989-US0037220	Def. Congressional Hearing	House
5/22/2007	Economic Impacts of Global Warming: Green Collar Jobs	US0037221-US0037324	Def. Congressional Hearing	House
5/22/2007	The Case for the California Waiver	US0037344-US0037382	Def. Congressional Hearing	Senate
5/22/2007	Current Energy Legislation	US0037325-US0037343	Def. Congressional Hearing	Senate
5/23/2007	Various Bills and Resolutions	US0037383-US0037441	Def. Congressional Hearing	House
5/23/2007	Montreal Protocol and Global Warming	US0008723-US0009024	Def. Congressional Hearing	House

5/24/2007	The Issue of Potential Impacts of Global Warming on Recreation and the Recreation Industry	US0037442-US0037585	Def. Congressional Hearing	Senate
5/24/2007	Public-Private Partnerships: State and User Perspectives	US0037586-US0037702	Def. Congressional Hearing	House
6/4/2007	Global Warming Mountaintop "Summit": Economic Impacts of New England	US0037703-US0037779	Def. Congressional Hearing	House
6/6/2007	Climate Change and Water Supply	US0037780-US0038040	Def. Congressional Hearing	Senate
6/7/2007	An Examination of the Views of Religious Organizations Regarding Global Warming	US0038041-US0038351	Def. Congressional Hearing	Senate
6/7/2007	Legislative Hearing on Discussion Draft Concerning Alternative Fuels, Infrastructure, and Vehicles	US0038352-US0038445	Def. Congressional Hearing	House
6/8/2007	Massachusetts v. U.S. EPA: Implications of the Supreme Court Decision	US0038446-US0038522	Def. Congressional Hearing	House
6/19/2007	Green Cities: Mayoral Initiatives To Reduce Global Warming Pollutio	US0038523-US0038589	Def. Congressional Hearing	House
6/21/2007	Overseas Private Investment Corporation Reauthorization Act of 2007	US0009025-US0009109	Def. Congressional Hearing	House
6/21/2007	Energy Efficiency Technologies and Programs	US0038590-US0038769	Def. Congressional Hearing	Senate
6/26/2007	Benefits of Intercity Passenger Rail	US0038770-US0039167	Def. Congressional Hearing	House
6/26/2007	Various Bills and Resolutions	US0039168-US0039392	Def. Congressional Hearing	House
6/28/2007	Examining Global Warming Issues in the Power Plant Sector	US0009110-US0009161	Def. Congressional Hearing	Senate
6/28/2007	Oversight of the Fiscal Year 2008 Budget for the National Oceanic and Atmospheric Administration	US0039481-US0039631	Def. Congressional Hearing	Senate
7/11/2007	Kyoto Protocol: An Update	US0039393-US0039480	Def. Congressional Hearing	House
7/11/2007	Full Committee Hearing on Small Small Businesses at the Forefront of the Green Revolution: What More Needs To Be Done To Keep Them Here?	US0039632-US0039696	Def. Congressional Hearing	House
7/12/2007	Plugging into Energy Independence with 150 MPG Vehicles	US0039697-US0039880	Def. Congressional Hearing	House
7/18/2007	Voluntary Carbon Offsets: Getting What You Pay For	US0039881-US0040098	Def. Congressional Hearing	House
7/24/2007	Economic and International Issues in Global Warming Policy	US0040099-US0040295	Def. Congressional Hearing	Senate
7/26/2007	Examining the Case for the California Waiver: An Update from EPA	US0040296-US0040510	Def. Congressional Hearing	Senate
7/31/2007	FEMA Preparedness in 2007 and Beyond	US0043769-US0043852	Def. Congressional Hearing	House
8/1/2007	Oversight of the U.S. Department of Commerce	US0009162-US0009213	Def. Congressional Hearing	Senate
8/14/2007	Green Jobs from Action on Global Warming	US0040511-US0040636	Def. Congressional Hearing	Senate
9/6/2007	The Future of Coal Under Carbon Cap and Trade	US0040637-US0040690	Def. Congressional Hearing	House
9/20/2007	Renewable Electricity Standards: Lighting the Way	US0040691-US0040746	Def. Congressional Hearing	House
9/24/2007	Climate Change on Wildfire Activity	US0040747-US0040816	Def. Congressional Hearing	Senate
9/25/2007	Green Jobs Created by Global Warming Initiatives	US0040817-US0040958	Def. Congressional Hearing	Senate
9/26/2007	An Examination of the Impacts of Global Warming on the Chesapeake Bay	US0040959-US0041189	Def. Congressional Hearing	Senate
10/10/2007	Business Opportunities in a Low-Carbon Energy Economy	US0041190-US0041507	Def. Congressional Hearing	House
10/11/2007	Great Basin Threats	US0041508-US0041622	Def. Congressional Hearing	Senate
10/18/2007	EPA Black Carbon and Global Warming	US0041623-US0041703	Def. Congressional Hearing	House
10/18/2007	Energy and Global Warming Solutions for Vulnerable Communities	US0041704-US0041952	Def. Congressional Hearing	House
10/23/2007	Examining the Human Health Impacts of Global Warming	US0041953-US0042114	Def. Congressional Hearing	Senate
10/24/2007	The Gas Is Greener: The Future of Biofuels	US0042115-US0042179	Def. Congressional Hearing	House
10/24/2007	Examine America's Climate Security Act of 2007	US0042180-US0042295	Def. Congressional Hearing	Senate
10/30/2007	Renewable Energy and the Global Environment	US0009214-US0009280	Def. Congressional Hearing	House
11/1/2007	Wildfires and the Climate Crisis	US0042296-US0042390	Def. Congressional Hearing	House
11/2/2007	Bright Lights in the Cities: Pathways to an Energy-Efficient Future	US0042391-US0042484	Def. Congressional Hearing	House
11/5/2007	Youth Leadership for Clean Energy and a Healthy Climate	US0042485-US0042522	Def. Congressional Hearing	House
11/7/2007	Oil Shock: Potential for Crisis	US0042523-US0042574	Def. Congressional Hearing	House
11/7/2007	Carbon Sequestration Technologies	US0009281-US0009375	Def. Congressional Hearing	Senate
11/8/2007	EPA Approval of New Power Plants: Failure to Address Global Warming Pollutant	US0042575-US0042779	Def. Congressional Hearing	House
11/8/2007	America's Climate Security Act of 2007, S. 2191	US0042780-US0043290	Def. Congressional Hearing	Senate
11/13/2007	International Climate Change Negotiations: Restoring U.S. Leadership	US0043291-US0043385	Def. Congressional Hearing	Senate

11/14/2007	A Time for Change: Improving the Federal Climate Change Research and Information Program	US0043386-US0043446	Def. Congressional Hearing	Senate
11/14/2007	State Leadership Towards a Low-Carbon Energy Future	US0009376-US0009489	Def. Congressional Hearing	House
12/11/2007	SECURE Water Act	US0043447-US0043552	Def. Congressional Hearing	Senate
12/19/2007	After Bali: The U.N. Conference and Its Impact on International Climate Change Policy	US0043553-US0043768	Def. Congressional Hearing	House
1/17/2008	On Thin Ice: The Future of the Polar Bear	US0043853-US0044150	Def. Congressional Hearing	House
1/17/2008	Administration Perspectives on United Nations Climate Change Conference in Bal	US0044151-US0044288	Def. Congressional Hearing	House
1/23/2008	Cap, Auction, and Trade: Auctions and Revenue Recycling Under Carbon Cap and Trade	US0044289-US0044509	Def. Congressional Hearing	House
1/24/2008	Oversight of EPA's Decision To Deny the California Waiver	US0044597-US0044760	Def. Congressional Hearing	Senate
1/24/2008	International Climate Change Negotiations: Bali and the Path Toward a Post-2012 Climate Treaty	US0044510-US0044596	Def. Congressional Hearing	Senate
1/30/2008	Examining Threats and Protections for the Polar Bear	US0044761-US0044824	Def. Congressional Hearing	Senate
1/30/2008	Learning from a Laureate: Science, Security and Sustainability	US0044825-US0045299	Def. Congressional Hearing	House
2/7/2008	Energy Markets Effects on Recently Passed RFS	US0009490-US0009586	Def. Congressional Hearing	Senate
2/14/2008	Fire and Rain: How the Destruction of Tropical Forests is Fueling Climate Change	US0045300-US0045370	Def. Congressional Hearing	House
2/14/2008	International Aspects of a Carbon Cap and Trade Program	US0009587-US0009695	Def. Congressional Hearing	Senate
2/26/2008	Food for Thought: Sustainability from Counter to Compos	US0045371-US0045437	Def. Congressional Hearing	House
2/27/2008	Climate Change and Vulnerable Societies: A Post-Bali Overview	US0045438-US0045526	Def. Congressional Hearing	House
2/28/2008	H.R. 3223, Keep Our Waterfronts Working Act of 2007; H.R. 5451, Coastal Zone Reauthorization Act of 2008; H.R. 5452, Coastal State Renewable Energy Promotion Act of 2008; and H.R. 5453, Coastal State Climate Change Planning Act of 2008	US0009696-US0009785	Def. Congressional Hearing	House
3/5/2008	Climate Change: Competitiveness Concerns and Prospects for Engaging Developing Countries	US0045527-US0045794	Def. Congressional Hearing	House
3/6/2008	Blowing in the Wind: Renewable Energy as the Answer to an Economy Adrif	US0045795-US0045902	Def. Congressional Hearing	House
3/12/2008	Nuclear Power in a Warming World: Solution or Illusion?	US0045903-US0046056	Def. Congressional Hearing	House
3/13/2008	Massachusetts v. U.S. EPA, Part II: Implications of the Supreme Court Decisior	US0046057-US0046217	Def. Congressional Hearing	House
3/19/2008	Climate Change Impacts and Responses in Island Communities	US0046218-US0046316	Def. Congressional Hearing	Senate
3/26/2008	Carbon Capture and Storage Technologies	US0009786-US0009855	Def. Congressional Hearing	Senate
4/1/2008	Drilling for Answers: Oil Company Profits, Runaway Prices and the Pursuit of Alternatives	US0046317-US0047057	Def. Congressional Hearing	House
4/2/2008	Oversight Hearing on the Listing Decision for the Polar Bear Under the Endangered Species Act	US0047058-US0047189	Def. Congressional Hearing	Senate
4/2/2008	From the Wright Brothers to the Right Solutions: Curbing Soaring Aviation Emission	US0047190-US0047415	Def. Congressional Hearing	House
4/3/2008	Hearing on Examining Strategies To Reduce Greenhouse Gas Emissions at U.S. Colleges and Universities	US0047416-US0047510	Def. Congressional Hearing	Senate
4/9/2008	Healthy Planet, Healthy People: Global Warming and Public Health	US0047511-US0047723	Def. Congressional Hearing	House
4/9/2008	Coal Gasification Technologies and the Need for Large Scale Projects	US0047724-US0047809	Def. Congressional Hearing	Senate
4/16/2008	Green Capital: Seeding Innovation and the Future Economy	US0047810-US0047921	Def. Congressional Hearing	House
4/22/2008	International Deforestation and Climate Change	US0047922-US0047985	Def. Congressional Hearing	Senate
4/24/2008	Pumping Up Prices: The Strategic Petroleum Reserve and Record Gas Prices	US0047986-US0048111	Def. Congressional Hearing	House
4/24/2008	Tax Aspects of a Cap-and-Trade Program	US0009856-US0009947	Def. Congressional Hearing	Senate
4/29/2008	Rising Tides, Rising Temperatures: Global Warming's Impacts on the Ocean	US0048112-US0048215	Def. Congressional Hearing	House
5/6/2008	Aviation and the Environment: Emissions	US0048216-US0048432	Def. Congressional Hearing	House
5/7/2008	Oversight Hearing on Science and Environmental Regulatory Decision	US0048433-US0048612	Def. Congressional Hearing	Senate
5/8/2008	Negawatts: The Role of Efficiency Policies in Climate Legislation	US0048613-US0048708	Def. Congressional Hearing	House

5/13/2008	Climate Change in Coastal Regions	US0009948-US0010009	Def. Congressional Hearing	Senate
5/14/2008	Building Green, Saving Green: Constructing Sustainable and Energy-Efficience Buildings	US0048709-US0048856	Def. Congressional Hearing	House
5/20/2008	Climate Change Legislation	US0010010-US0010110	Def. Congressional Hearing	Senate
5/21/2008	Creating Jobs with Climate Solutions: How Agriculture and Forestry Can Help Lower Costs in a Low-Carbon Economy	US0048857-US0049264	Def. Congressional Hearing	Senate
5/22/2008	Oversight of the Bush Administration's Energy Policy	US0049265-US0049331	Def. Congressional Hearing	House
5/27/2008	Effects of Climate Change on Marine and Coastal Ecosystems in Washington State	US0049332-US0049384	Def. Congressional Hearing	Senate
6/11/2008	The Future of Oil	US0049385-US0049601	Def. Congressional Hearing	House
6/18/2008	Planning Communities for a Changing Climate--Smart Growth, Public Demand and Private Opportunity	US0049602-US0049691	Def. Congressional Hearing	House
6/19/2008	Legislative Proposals To Reduce Greenhouse Gas Emissions: An Overview	US0049692-US0050179	Def. Congressional Hearing	House
6/24/2008	"Planning for a Changing Climate and Its Impacts on Wildlife and Oceans: State and Federal Efforts and Needs"; and H.R. 4455, Wildlife Without Borders Authorization Act	US0010111-US0010217	Def. Congressional Hearing	House
6/24/2008	Climate Change Impacts on the Transportation Sector	US0050180-US0050314	Def. Congressional Hearing	Senate
6/25/2008	National Security Implications of Global Climate Change	US0050315-US0050494	Def. Congressional Hearing	House
6/25/2008	Future Energy Needs	US0010218-US0010301	Def. Congressional Hearing	Senate
6/26/2008	$4 Gasoline and Fuel Economy: Auto Industry at a Crossroads	US0051014-US0051219	Def. Congressional Hearing	House
6/26/2008	Hearing on Climate Change: Costs of Inaction	US0050495-US0051013	Def. Congressional Hearing	House
7/10/2008	Global Warming Effects on Extreme Weather	US0051384-US0051620	Def. Congressional Hearing	House
7/10/2008	H.R. 6258, the Carbon Capture and Storage Early Deployment Act	US0051220-US0051383	Def. Congressional Hearing	House
7/17/2008	Climate Benefits of Improved Building Energy Efficiency	US0051621-US0051810	Def. Congressional Hearing	House
7/22/2008	An Update on the Science of Global Warming and Its Implications	US0051811-US0051900	Def. Congressional Hearing	Senate
7/23/2008	Immediate Relief from High Oil Prices: Deploying the Strategic Petroleum Reserves	US0051901-US0051956	Def. Congressional Hearing	House
7/23/2008	Oil Demand	US0010302-US0010395	Def. Congressional Hearing	Senate
7/24/2008	Carbon Sequestration: Risks, Opportunities, and Protection of Drinking Water	US0051957-US0052140	Def. Congressional Hearing	House
7/28/2008	The Economics of Global Warming: Shaping How U.S. Companies Are Doing Business	US0052141-US0052216	Def. Congressional Hearing	House
7/30/2008	What's Cooking with Gas: The Role of Natural Gas in Energy Independence and Global Warming Solutions	US0052217-US0052316	Def. Congressional Hearing	House
7/31/2008	Renewing America's Future: Energy Visions of Tomorrow, Today	US0052317-US0052411	Def. Congressional Hearing	House
9/10/2008	Investing in the Future: R&D Needs To Meet America's Energy and Climate Challenges	US0052412-US0052507	Def. Congressional Hearing	House
9/18/2008	Policy Options To Prevent Climate Change	US0052508-US0052663	Def. Congressional Hearing	House
9/18/2008	The Green Road to Economic Recovery	US0010396-US0010650	Def. Congressional Hearing	House
9/23/2008	Regulation of Greenhouse Gases Under the Clean Air Ac	US0052664-US0052925	Def. Congressional Hearing	Senate
9/25/2008	The Future of LIHEAP Funding: Will Families Get the Cold Shoulder This Winter	US0052926-US0053010	Def. Congressional Hearing	House
12/9/2008	Innovation, Jobs, and Energy Independence: Reinvigorating the Domestic Auto Industry	US0053011-US0053119	Def. Congressional Hearing	House
12/11/2008	Approaching Midnight: Oversight of the Bush Administration's Last Minute Rulemakings	US0053120-US0053254	Def. Congressional Hearing	House
1/15/2009	The U.S. Climate Action Partnership	US0053255-US0053578	Def. Congressional Hearing	House
1/15/2009	Reinvigorating the Economy Through Stimulus Legislation: Opportunities for Al	US0010651-US0010773	Def. Congressional Hearing	House
1/28/2009	Addressing Global Climate Change: The Road to Copenhagen	US0053579-US0053642	Def. Congressional Hearing	Senate
2/4/2009	Roadmap from Poznan to Copenhagen -- Preconditions for Success	US0053643-US0053731	Def. Congressional Hearing	House
2/10/2009	Renewable Electricity	US0010774-US0010899	Def. Congressional Hearing	Senate
2/12/2009	The Climate Crisis: National Security, Public Health, and Economic Threats	US0053732-US0053984	Def. Congressional Hearing	House

2/24/2009	Energy Efficiency: Complementary Policies for Climate Legislation	US0053985-US0054180	Def. Congressional Hearing	House
2/25/2009	Hearing on Scientific Objectives for Climate Change Legislatior	US0010900-US0010980	Def. Congressional Hearing	House
2/25/2009	Update on the Latest Global Warming Science	US0010981-US0011152	Def. Congressional Hearing	Senate
2/25/2009	Get Smart on the Smart Grid: How Technology Can Revolutionize Efficiency and Renewable Solutions	US0054181-US0054380	Def. Congressional Hearing	House
2/26/2009	Renewable Energy: Complementary Policies for Climate Legislatio	US0054381-US0054536	Def. Congressional Hearing	House
3/3/2009	Role of Federal Lands in Combating Climate Change	US0054537-US0054616	Def. Congressional Hearing	House
3/3/2009	Managing Our Ocean and Wildlife Resources in a Dynamic Environment: Priorities for the New Administration and the 111th Congress	US0054617-US0054726	Def. Congressional Hearing	House
3/4/2009	Preparing for Copenhagen: How Developing Countries are Fighting Climate Chang	US0011153-US0011322	Def. Congressional Hearing	House
3/5/2009	The Role of Offsets in Climate Legislation	US0054727-US0054860	Def. Congressional Hearing	House
3/10/2009	The Future of Coal Under Climate Legislatior	US0054861-US0055032	Def. Congressional Hearing	House
3/12/2009	Protecting Lower-Income Families While Fighting Global Warmin	US0055128-US0055283	Def. Congressional Hearing	House
3/12/2009	Consumer Protection Provisions in Climate Legislatior	US0055033-US0055127	Def. Congressional Hearing	House
3/12/2009	Climate Science: Empowering Our Response to Climate Change	US0055284-US0055352	Def. Congressional Hearing	Senate
3/18/2009	Competitiveness and Climate Policy: Avoiding Leakage of Jobs and Emission	US0055353-US0055554	Def. Congressional Hearing	House
3/19/2009	Constructing a Green Transportation Policy: Transit Modes and Infrastructur	US0055555-US0055685	Def. Congressional Hearing	House
3/24/2009	Hearing on Trade Aspects of Climate Change Legislatior	US0011323-US0011443	Def. Congressional Hearing	House
3/25/2009	Climate Change and the Arctic: New Frontiers of National Security	US0011444-US0011522	Def. Congressional Hearing	House
3/25/2009	Preparing for Climate Change: Adaptation Policies and Programs	US0055686-US0055946	Def. Congressional Hearing	House
3/26/2009	Addressing Price Volatility in Climate Change Legislatior	US0011523-US0011678	Def. Congressional Hearing	House
4/7/2009	Impacts of Climate Change on America's National Parks	US0055947-US0056033	Def. Congressional Hearing	House
4/21/2009	The American Clean Energy Security Act of 2009	US0056034-US0057297	Def. Congressional Hearing	House
4/22/2009	Global Climate Change: U.S. Leadership for a New Global Agreemen	US0057298-US0057383	Def. Congressional Hearing	Senate
4/29/2009	Full Committee Hearing on Climate Change Solutions for Small Businesses and Family Farmers	US0011679-US0011773	Def. Congressional Hearing	House
5/6/2009	Hearing To Review the Impact of the Indirect Land Use and Renewable Biomass Provisions in the Renewable Fuel Standard	US0057384-US0057787	Def. Congressional Hearing	House
5/7/2009	Auctioning Under Cap and Trade: Auctioning Under Cap and Trade: Design, Participation, and Distribution of Revenues	US0057788-US0057948	Def. Congressional Hearing	Senate
5/14/2009	Carbon Capture and Sequestration	US0011774-US0011852	Def. Congressional Hearing	Senate
5/19/2009	Business Opportunities and Climate Policy	US0057993-US0058129	Def. Congressional Hearing	Senate
5/19/2009	Pathways to a "Green" Global Economic Recovery	US0057949-US0057992	Def. Congressional Hearing	Senate
6/3/2009	Hearing To Review the Future of Our Nation's Forests	US0058130-US0058273	Def. Congressional Hearing	House
6/4/2009	Challenges and Opportunities for U.S.-China Cooperation on Climate Change	US0058274-US0058327	Def. Congressional Hearing	Senate
6/9/2009	Allowance Allocation Policies in Climate Legislation: Assisting Consumers, Investing in a Clean Energy Future, and Adapting to Climate Change	US0058328-US0058565	Def. Congressional Hearing	House
6/11/2009	Hearing To Review Pending Climate Legislatior	US0058566-US0058832	Def. Congressional Hearing	House
6/11/2009	The Fiscal Year 2010 Budget for the National Oceanic and Atmospheric Administration	US0058833-US0058914	Def. Congressional Hearing	Senate
6/16/2009	Climate Change Legislation: Tax Considerations	US0058915-US0058970	Def. Congressional Hearing	Senate
6/18/2009	Global Warming's Growing Concerns: Impacts on Agriculture and Forestr	US0011853-US0011972	Def. Congressional Hearing	House
6/23/2009	Impacts of Climate Change on the Chesapeake Bay	US0058971-US0059056	Def. Congressional Hearing	House
7/7/2009	Moving America Toward a Clean Energy Economy and Reducing Global Warming Pollution: Legislative Tools	US0059057-US0059363	Def. Congressional Hearing	Senate
7/8/2009	Climate Change Legislation: International Trade Consideration	US0059364-US0059404	Def. Congressional Hearing	Senate
7/8/2009	Industrial Competitiveness Under Climate Policies: Lessons from Europ	US0059405-US0059462	Def. Congressional Hearing	Senate
7/14/2009	Transportation's Role in Climate Change and Reducing Greenhouse Gase	US0059657-US0059818	Def. Congressional Hearing	Senate

7/14/2009	Economic Opportunities for Agriculture, Forestry Communities, and Others in Reducing Global Warming Pollutior	US0059463-US0059656	Def. Congressional Hearing	Senate
7/16/2009	Ensuring and Enhancing U.S. Competitiveness While Moving Toward a Clean Energy Economy	US0059819-US0060081	Def. Congressional Hearing	Senate
7/21/2009	Clean Energy Jobs, Climate-Related Policies and Economic Growth: State and Local Views	US0060133-US0060514	Def. Congressional Hearing	Senate
7/21/2009	Climate Change and Global Security: Challenges, Threats, and Diplomatic Opportunities	US0060082-US0060132	Def. Congressional Hearing	Senate
7/22/2009	The Role of Agriculture and Forestry in Global Warming Legislatio	US0060515-US0060814	Def. Congressional Hearing	Senate
7/23/2009	From L'Aquila to Copenhagen: Climate Change and Vulnurable Societies	US0011973-US0012086	Def. Congressional Hearing	House
7/28/2009	New Technologies: What's Around the Corner?	US0012087-US0012213	Def. Congressional Hearing	House
7/29/2009	Climate for Innovation: Technology and Intellectual Property in Global Climate Solutions	US0060815-US0060924	Def. Congressional Hearing	House
7/30/2009	Climate Change and National Security	US0060975-US0061118	Def. Congressional Hearing	Senate
7/30/2009	Climate Services: Solutions from Commerce to Communitie	US0060925-US0060974	Def. Congressional Hearing	Senate
8/4/2009	Climate Change Legislation: Allowance and Revenue Distributior	US0061119-US0061284	Def. Congressional Hearing	Senate
8/6/2009	Climate Change and Ensuring That America Leads the Clean Energy Transformatior	US0061285-US0061432	Def. Congressional Hearing	Senate
8/24/2009	Climate Change Impacts on National Parks in Colorado	US0061433-US0061498	Def. Congressional Hearing	Senate
9/9/2009	Global Warming Legislation: Carbon Markets and Producer Group	US0012214-US0012263	Def. Congressional Hearing	Senate
9/10/2009	Roadmap to Copenhagen: Driving to Success	US0061499-US0061584	Def. Congressional Hearing	House
9/24/2009	Solar Heats Up: Accelerating Widespread Deploymen	US0061585-US0061820	Def. Congressional Hearing	House
10/14/2009	Climate Change Legislatior	US0012264-US0012329	Def. Congressional Hearing	Senate
10/15/2009	Drought, Flooding and Refugees: Addressing the Impacts of Climate Change in the World's Most Vulnerable Nations	US0012330-US0012443	Def. Congressional Hearing	Senate
10/22/2009	Building U.S. Resilience to Global Warming Impacts	US0012444-US0012532	Def. Congressional Hearing	House
10/27/2009	Legislative Hearing on S. 1733, Clean Energy Jobs and American Power Ac	US0061821-US0061884	Def. Congressional Hearing	Senate
10/28/2009	Legislative Hearing on S. 1733, Clean Energy Jobs and American Power Ac	US0061885-US0063112	Def. Congressional Hearing	Senate
10/28/2009	Natural Gas	US0012533-US0012586	Def. Congressional Hearing	Senate
10/28/2009	Impacts of Climate Change to National Parks	US0012587-US0012732	Def. Congressional Hearing	Senate
10/29/2009	Legislative Hearing on S. 1733, Clean Energy Jobs and American Power Ac	US0063113-US0063903	Def. Congressional Hearing	Senate
10/29/2009	Fraudulent Letters Opposing Clean Energy Legislatior	US0063904-US0064272	Def. Congressional Hearing	House
11/4/2009	Copenhagen and Beyond: Is There a Successor to the Kyoto Protocol?	US0012733-US0012845	Def. Congressional Hearing	House
11/4/2009	The Future of Ocean Governance: Building our National Ocean Policy	US0064273-US0064378	Def. Congressional Hearing	Senate
11/5/2009	Geoengineering: Parts I, II, and II	US0064379-US0064768	Def. Congressional Hearing	House
11/10/2009	Climate Change Legislation: Considerations for Future Jobs	US0064769-US0065043	Def. Congressional Hearing	Senate
11/17/2009	International Aspects of Climate Change	US0012846-US0012915	Def. Congressional Hearing	Senate
11/18/2009	Climate Change on Federal Forests	US0012916-US0013001	Def. Congressional Hearing	Senate
12/2/2009	The Administration's View on the State of Climate Science	US0013002-US0013088	Def. Congressional Hearing	House
12/2/2009	Hearing To Review the Potential Economic Impacts of Climate Change on the Farm Sector	US0065044-US0065315	Def. Congressional Hearing	House
12/2/2009	Policy Options for Reducing Greenhouse Gas Emissions	US0065316-US0065440	Def. Congressional Hearing	Senate
12/3/2009	Hearing To Review the Costs and Benefits of Agriculture Offsets	US0013152-US0013254	Def. Congressional Hearing	House
12/10/2009	Grid-Scale Energy Storage	US0013089-US0013151	Def. Congressional Hearing	Senate
1/21/2010	Clean Energy Research and Development	US0065441-US0065776	Def. Congressional Hearing	Senate

2/9/2010	Hearing on the Nominations of Arthur Elkins To Be Inspector General of the EPA; Earl Gohl To Be Federal CoChair of the Appalachian Regional Commission; Sandford Blitz To Be Federal Co-Chairperson of the Northern Border Regional Commission; and Marilyn A. Brown, Barbara S. Haskew, Neil G. Mcbride, and William B. Sansom To Be Members of the Board of Directors of the Tennessee Valley Authority	US0065777-US0065860	Def. Congressional Hearing	Senate
3/10/2010	The Clean Energy Recovery: Creating Jobs, Building New Industries and Saving Money	US0065861-US0065980	Def. Congressional Hearing	House
3/16/2010	Clearing the Smoke: Understanding the Impacts of Black Carbon Pollution	US0013255-US0013322	Def. Congressional Hearing	House
3/16/2010	SECURE Water Act	US0065981-US0066113	Def. Congressional Hearing	Senate
4/14/2010	The Role of Coal in a New Energy Age	US0066114-US0066208	Def. Congressional Hearing	House
4/15/2010	Combating Climate Change in Africa	US0013323-US0013395	Def. Congressional Hearing	House
4/20/2010	Carbon Capture and Sequestration Legislation	US0066209-US0066391	Def. Congressional Hearing	Senate
5/6/2010	The Foundation of Climate Science	US0066392-US0066557	Def. Congressional Hearing	House
5/20/2010	Climate Science in the Political Arena	US0066558-US0066695	Def. Congressional Hearing	House
7/27/2010	Climate Change Finance: Providing Assistance for Vulnerable Countries	US0066696-US0066747	Def. Congressional Hearing	House
8/19/2010	The Changing Arctic: Implications for Federal Resources and Local Communities	US0066748-US0066878	Def. Congressional Hearing	Senate
9/22/2010	The Global Clean Energy Race	US0066879-US0067098	Def. Congressional Hearing	House
11/17/2010	A Rational Discussion of Climate Change: The Science, the Evidence, the Response	US0067099-US0067258	Def. Congressional Hearing	House
12/1/2010	Not Going Away: America's Energy Security, Jobs and Climate Challenge	US0067259-US0067926	Def. Congressional Hearing	House
2/9/2011	H.R. __, the Energy Tax Prevention Act of 2011	US0067927-US0068369	Def. Congressional Hearing	House
3/8/2011	Climate Science and EPA's Greenhouse Gas Regulations	US0068370-US0068681	Def. Congressional Hearing	House
3/31/2011	Climate Change: Examining the Processes Used to Create Science and Policy	US0068682-US0068840	Def. Congressional Hearing	House
4/6/2011	Assessing the Impact of Greenhouse Gas Regulations on Small Busines	US0068841-US0068931	Def. Congressional Hearing	House
4/13/2011	Fiscal Year 2012 NOAA Budget Request and Oversight	US0013396-US0013456	Def. Congressional Hearing	Senate
4/27/2011	Drought and Climate Change on Water Resources	US0068932-US0070012	Def. Congressional Hearing	Senate
5/11/2011	EPA Mining Policies: Assault on Appalachian Jobs--Part II	US0013457-US0013504	Def. Congressional Hearing	House
5/12/2011	Carbon Capture and Sequestration Legislation	US0070013-US0070079	Def. Congressional Hearing	Senate
5/25/2011	U.N. Climate Talks and Power Politics: It's Not About the Temperature	US0070080-US0070174	Def. Congressional Hearing	House
6/22/2011	Examining NOAA's Climate Service Proposal	US0070175-US0070243	Def. Congressional Hearing	House
3/27/2012	Oversight Hearing on EPA's Work with Other Federal Entities To Reduce Pollution and Improve Environmental Performance	US0070244-US0070378	Def. Congressional Hearing	Senate
4/19/2012	Sea Level Rise	US0070379-US0070461	Def. Congressional Hearing	Senate
6/19/2012	The American Energy Initiative, Part 20: A Focus on EPA's Greenhouse Gas Regulations	US0070462-US0070670	Def. Congressional Hearing	House
6/29/2012	The American Energy Initiative, Part 22: EPA Greenhouse Gas Regulation	US0070671-US0070732	Def. Congressional Hearing	House
7/10/2012	The American Energy Initiative, Part 23: A Focus on Alternative Fuels and Vehicles, Both the Challenges and the Opportunities	US0070733-US0070942	Def. Congressional Hearing	House
7/16/2012	The American Energy Initiative, Part 25: EPA's Proposed Greenhouse Gas New Source Performance Standards for Utilities and the Impact This Regulation Will Have on Jobs	US0070943-US0071029	Def. Congressional Hearing	House
8/1/2012	Update on the Latest Climate Change Science and Local Adaptation Measures	US0071030-US0071297	Def. Congressional Hearing	Senate
8/17/2012	Impacts of Climate Change on the Intermountain West	US0071298-US0071350	Def. Congressional Hearing	Senate
9/12/2012	The Nuclear Waste Administration Act	US0071351-US0071437	Def. Congressional Hearing	Senate
9/20/2012	The American Energy Initiative, Part 29: A Focus on H.R. 6172	US0071438-US0071566	Def. Congressional Hearing	House
4/25/2013	Policy Relevant Climate Issues in Context	US0071567-US0071771	Def. Congressional Hearing	House
5/9/2013	American Energy Security and Innovation: Grid Reliability Challenges in a Shifting Energy Resource Landscape	US0071772-US0071869	Def. Congressional Hearing	House

6/6/2013	H.R. 2231, Offshore Energy and Jobs Act Part 1 and 2	US0013505-US0013680	Def. Congressional Hearing	House
7/18/2013	Climate Change: It's Happening Now	US0071870-US0071968	Def. Congressional Hearing	Senate
7/18/2013	Examining the Obama Administration's Social Cost of Carbon Estimates	US0013681-US0013718	Def. Congressional Hearing	House
9/13/2013	Extreme Weather in Alaska: State and Federal Response to imminent Disasters in the Arctic	US0013719-US0014461	Def. Congressional Hearing	Senate
9/18/2013	The Obama Administration's Climate Change Policies and Activities	US0071969-US0072211	Def. Congressional Hearing	House
9/24/2013	Black Carbon - A Global Health Problem with Low-Cost Solutions	US0014462-US0014541	Def. Congressional Hearing	Senate
10/29/2013	EPA Power Plant Regulations: Is the Technology Ready?	US0072212-US0072415	Def. Congressional Hearing	House
12/11/2013	Oversight Hearing on Domestic Renewable Fuels	US0072416-US0072533	Def. Congressional Hearing	Senate
12/11/2013	A Factual Look at the Relationship Between Climate and Weathe	US0014542-US0015106	Def. Congressional Hearing	House
1/16/2014	Review of the President's Climate Action Plan	US0072534-US0073054	Def. Congressional Hearing	Senate
2/12/2014	Extreme Weather Events: The Costs of Not Being Prepared	US0073055-US0073489	Def. Congressional Hearing	Senate
2/25/2014	Natural Resource Adaptation: Protecting Ecosystems and Economies	US0073490-US0074043	Def. Congressional Hearing	Senate
3/6/2014	Benefits of and Challenges to Energy Access in the 21st Century: Fuel Supply and Energy Infrastructure	US0015107-US0015342	Def. Congressional Hearing	House
3/12/2014	Science of Capture and Storage: Understanding EPA's Carbon Rules	US0074044-US0074282	Def. Congressional Hearing	House
3/13/2014	Keystone XL and the National Interest Determination	US0074283-US0074361	Def. Congressional Hearing	Senate
4/16/2014	Successes and Challenges of Meeting Sustainability Goals in Hawaii and the Pacific	US0074362-US0074419	Def. Congressional Hearing	Senate
4/22/2014	Leading the Way: Adapting to South Florida's Changing Coastline	US0074420-US0074499	Def. Congressional Hearing	Senate
5/29/2014	Examining the U.N. Intergovernmental Panel on Climate Change Process	US0074500-US0074641	Def. Congressional Hearing	House
6/3/2014	Farming, Fishing, Forestry and Hunting in an Era of Changing Climate	US0074642-US0074912	Def. Congressional Hearing	Senate
6/18/2014	Climate Change: The Need To Act Now	US0074913-US0075220	Def. Congressional Hearing	Senate
6/25/2014	Increasing Carbon Soil Sequestration on Public Lands	US0075221-US0075301	Def. Congressional Hearing	House
7/16/2014	Legislative Hearing To Consider the Following Items: S. 571, Great Lakes Water Protection Act; S. 1153, Invasive Fish and Wildlife Prevention Act; S. 1175, Infrastructure Facilitation and Habitat Conservation Act of 2013; S. 1202, SAFE Act; S. 1232, Great Lakes Ecological and Economic Protection Act of 2013; H.R. 1300, To Amend the Fish and Wildlife Act of 1956 To Reauthorize the Volunteer Programs and Community Partnerships for the Benefit of National Wildlife Refuges, and for Other Purposes; S. 1381, Big Cats and Public Safety Protection Act; S. 1650, a Bill To Amend the Migratory Bird Treaty Act To Exempt Certain Alaska Native Articles from Prohibitions Against Sale of Items Containing Nonedible Migratory Bird Parts, and for Other Purposes; S. 2225, Smart Water Resource Management Conservation and Efficiency Act of 2014; S. 2530, a Bill To Amend Title 18, United States Code, To Prohibit the Importation or Exportation of Mussels of Certain Genus, and for Other Purposes; and S. 2560, United States Fish and Wildlife Service Resource Protection Act	US0075302-US0075453	Def. Congressional Hearing	Senate
7/22/2014	U.S. Security Implications of International Energy and Climate Policies and Issue	US0075454-US0075550	Def. Congressional Hearing	Senate
7/23/2014	Oversight Hearing: EPA's Proposed Carbon Pollution Standards for Existing Power Plants	US0075551-US0075659	Def. Congressional Hearing	Senate
7/29/2014	Examining the Threats Posed by Climate Change	US0075660-US0075794	Def. Congressional Hearing	Senate
7/30/2014	EPA's Carbon Plan: Failure by Design	US0075795-US0076102	Def. Congressional Hearing	House
9/17/2014	The Administration's Climate Plan: Failure by Design	US0076103-US0076230	Def. Congressional Hearing	House
12/2/2014	Legislative Hearing To Examine S. 2911, Super Pollutants Act of 2014	US0076231-US0076341	Def. Congressional Hearing	Senate
3/4/2015	Oversight Hearing: The President's Fiscal Year 2016 Budget Request for the U.S. Environmental Protection Agency	US0076342-US0076513	Def. Congressional Hearing	Senate
3/5/2015	U.S. Arctic Opportunities	US0015343-US0015563	Def. Congressional Hearing	Senate
3/17/2015	EPA's Proposed 111(d) Rule for Existing Power Plants: Legal and Cost Issues	US0076514-US0076717	Def. Congressional Hearing	House

4/15/2015	The President's U.N. Climate Pledge: Scientifically Justified or a New Tax on Americans?	US0076718-US0077063	Def. Congressional Hearing	House
5/13/2015	The Obama Administration's CEQ Recently Revised Draft Guidance for GHG Emissions and the Effects of Climate Change: Oversight Hearing	US0077064-US0077156	Def. Congressional Hearing	House
6/23/2015	The Impacts of EPA's Proposed Carbon Regulations on Energy Costs for American Businesses, Rural Communities and Families, and a Legislative Hearing on S. 132	US0077157-US0077344	Def. Congressional Hearing	Senate
7/8/2015	Road to Paris: Examining the President's International Climate Agenda and implications for Domestic Environmental Policy	US0077345-US0077615	Def. Congressional Hearing	Senate
7/8/2015	Examining DHS's Misplaced Focus on Climate Change	US0077616-US0077667	Def. Congressional Hearing	House
11/18/2015	Examining the International Climate Negotiations	US0077668-US0077912	Def. Congressional Hearing	Senate
12/1/2015	Pitfalls of Unilateral Negotiations at the Paris Climate Change Conference	US0077913-US0078091	Def. Congressional Hearing	House
12/8/2015	Data or Dogma? Promoting Open Inquiry in the Debate over the Magnitude of Human Impact on Earth's Climate	US0078092-US0078287	Def. Congressional Hearing	Senate
2/2/2016	Paris Climate Promise: A Bad Deal for America	US0078288-US0078491	Def. Congressional Hearing	House
4/13/2016	Examining the Role of Environmental Policies on Access to Energy and Economic Opportunity	US0078492-US0078572	Def. Congressional Hearing	Senate
6/9/2016	Implications of the Supreme Court Stay of the Clean Power Plan	US0078573-US0078673	Def. Congressional Hearing	Senate
9/8/2016	Asia's Growing Hunger for Energy: U.S. Policy and Supply Opportunities	US0078674-US0078728	Def. Congressional Hearing	House
9/14/2016	Affirming Congress' Constitutional Oversight Responsibilities: Subpoena Authority and Recourse for Failure to Comply with Lawfully Issued Subpoena	US0078729-US0079616	Def. Congressional Hearing	House
9/21/2016	The Impacts of the Obama CEQ's Final Guidance for GHG Emissions and the Effects of Climate Change	US0015564-US0015600	Def. Congressional Hearing	House
1/18/2017	Hearing on Nomination of Attorney General Scott Pruitt To Be Administrator of the U.S. Environmental Protection Agency	US0079617-US0080656	Def. Congressional Hearing	Senate
2/7/2017	Making EPA Great Again	US0080657-US0080861	Def. Congressional Hearing	House
3/22/2017	Hearing Entitled "H.R. 806, Ozone Standards Implementation Act of 2017"	US0080862-US0081080	Def. Congressional Hearing	House
3/29/2017	Climate Science: Assumptions, Policy Implications, and the Scientific Method	US0081081-US0081575	Def. Congressional Hearing	House
4/10/2017	Extreme Weather and Coastal Flooding: Extreme Weather and Coastal Flooding: What is Happening Now, What is the Future Risk, and What Can We Do About It?	US0081576-US0081636	Def. Congressional Hearing	Senate
9/13/2017	Expanding and Accelerating the Deployment and Use of Carbon Capture, Utilization, and Sequestration	US0081637-US0081792	Def. Congressional Hearing	Senate
9/13/2017	Building a 21st-Century Infrastructure for America: Economic Development Stakeholders' Perspectives	US0081793-US0082003	Def. Congressional Hearing	House
10/4/2017	Air Quality Impacts of Wildfires: Perspectives of Key Stakeholder	US0082004-US0082194	Def. Congressional Hearing	House
11/8/2017	Geoengineering: Innovation, Research, Technology	US0082195-US0082310	Def. Congressional Hearing	House
2/7/2018	The Impact of Federal Environmental Regulations and Policies on American Farming and Ranching Communities	US0082311-US0082568	Def. Congressional Hearing	Senate
5/16/2018	Using Technology To Address Climate Change	US0082569-US0082720	Def. Congressional Hearing	House

No. 18-_____

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

In re UNITED STATES OF AMERICA, et al.

UNITED STATES OF AMERICA, et al., Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON,
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, et al., Real Parties in Interest.

On Petition for a Writ of Mandamus to the United States District Court
for the District of Oregon (No. 6:15-cv-01517-AA)

**PETITION FOR A WRIT OF MANDAMUS AND
EMERGENCY MOTION UNDER CIRCUIT RULE 27-3**

JEFFREY BOSSERT CLARK
Assistant Attorney General
JEFFREY H. WOOD
ERIC GRANT
Deputy Assistant Attorneys General
ANDREW C. MERGEN
SOMMER H. ENGELS
ROBERT J. LUNDMAN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-0943
eric.grant@usdoj.gov

Counsel for Petitioners

CIRCUIT RULE 27-3 CERTIFICATE

Pursuant to Circuit Rule 27-3(a), I hereby certify that to avoid irreparable harm to Petitioners United States of America, et al. (the government), relief is needed in less than 21 days' time.

1. Regarding Circuit Rule 27-3(a)(1), the government notified the Clerk earlier today of its intention to file this mandamus petition and emergency motion. The government so notified counsel for Real Parties in Interest (Plaintiffs) on Sunday, November 4, 2018. The just-finalized petition and motion are being served simultaneously with filing both via the district court's CM/ECF system and via e-mail to the below-stated addresses.

2. Regarding Circuit Rule 27-3(a)(3)(i), counsel are as follows:

Counsel for the Government:

Eric Grant
(202) 514-0943
eric.grant@usdoj.gov

Andrew C. Mergen
(202) 514-2813
andy.mergen@usdoj.gov

Sommer H. Engels
(202) 353-7712
sommer.engels@usdoj.gov

Robert J. Lundman
(202) 514-2946
robert.lundman@usdoj.gov

Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044

Counsel for Plaintiffs:

Julia A. Olson
(415) 786-4825
JuliaAOlson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Philip L. Gregory
(650) 278-2957
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

Andrea K. Rodgers
(206) 696-2851
Andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

3. Regarding Circuit Rule 27-3(a)(3)(ii), the facts showing the existence and nature of the claimed emergency are set forth in detail below in in the Statement of the Case (pp. 3-10) and in Part III of the Argument (pp. 35-37). In brief, the government respectfully requests emergency relief in this matter because it faces a trial that Plaintiffs seek to commence as early as "the latter part of the week of November 12" (i.e., next week) and that is estimated to last approximately 50 trial days, or 10 full weeks.

4. Regarding Circuit Rule 27-3(a)(3)(iii), Plaintiffs' counsel were notified of this mandamus petition and emergency motion via an e-mail sent on Sunday, November 4. Plaintiffs' counsel are being served with the just-finalized petition and motion simultaneously with filing both via the district court's CM/ECF system and via e-mail to the above-stated addresses.

5. Regarding Circuit Rule 27-3(a)(4), the government is seeking relief from the district court in a motion filed earlier today, Monday, November 5.

s/ Eric Grant
Eric Grant

Counsel for Petitioners

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INTRODUCTION

After nearly 19 months of proceedings in this Court and in the Supreme Court — encompassing four mandamus petitions and two stay applications — the Supreme Court's November 2, 2018 order points to the appropriate roadmap for this action. That order makes clear that it is proper for Petitioners United States of America, et al. (the government) to seek a writ of mandamus from this Court directing dismissal of Plaintiffs' action, and the government accordingly files this petition. The order also makes clear that the government has satisfied the standard for certification of district court orders for interlocutory appeal under 28 U.S.C. § 1292(b). Therefore, the government is simultaneously moving the district court reconsider its decision declining to certify its orders denying the government's dispositive motions and to stay all proceedings pending resolution of that motion and this petition.

If the district court grants certification and stays all proceedings, as the Supreme Court has signaled that it should, it will obviate the need for this Court's intervention by way of mandamus. If, however, the district court declines to grant certification (despite the Supreme Court's clear guidance to the contrary), this Court would need to intervene to provide the pretrial appellate review contemplated by the Supreme Court. The government accordingly submits this petition asking this Court — in the event that the district court does not grant the government's request for certification and a stay — either (1) to grant a writ of mandamus ordering dismissal

of the action or (2) to grant a writ of mandamus directing the district court to certify its decisions on the government's dispositive motions for interlocutory appeal under § 1292(b); and, in any event, (3) to stay litigation in the district court pending resolution of this petition.

To be clear, the government hopes that this Court's intervention through extraordinary relief will not be necessary. The government is doing everything in its power to persuade the district court to follow the Supreme Court's guidance and to certify its decisions for interlocutory appeal. But if the district court declines to do so, this Court should intervene to provide the relief that the Supreme Court has expressly stated "may be available in" this Court — and that is plainly warranted given the fundamental defects in Plaintiffs' action. ECF No. 416, at 2.

STATEMENT OF JURISDICTION

This Court has authority to issue the requested relief pursuant to the All Writs Act, 28 U.S.C. § 1651(a), and Rule 21 of the Federal Rules of Appellate Procedure.

STATEMENT OF THE ISSUES

1. Whether this Court should issue a writ of mandamus directing the district court to dismiss this action.

2. Whether, in the alternative, this Court should issue a writ of mandamus directing the district court to certify its denials of the government's dispositive motion for interlocutory appeal pursuant to 28 U.S.C. § 1292(b).

3. Whether, in any event, this Court should immediately grant a stay of proceedings in the district court pending consideration of this petition.

STATEMENT OF THE CASE

Plaintiffs are a group of minor children and an organization representing them. They brought this action in August 2015 against President Obama (for whom President Trump was later substituted), the Executive Office of the President, three sub-components within that office, and eight Cabinet departments and agencies for allegedly violating their rights under the Constitution and a purported federal public trust which, they asserted, conferred on them a substantive right to certain climate conditions. *See generally* ECF No. 7 (operative complaint). Among other relief, Plaintiffs asked the district court to order the President and other officials and agencies named as defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." *Id.* at 94.

The government moved to dismiss Plaintiffs' claims on several grounds, including lack of standing, failure to state a cognizable constitutional claim, and failure to state a claim on a public trust theory. ECF No. 27. In November 2016, the district court denied that motion, ECF No. 83, and it later declined to certify its order for interlocutory appeal, ECF No. 172 (June 8, 2017). The court ruled that Plaintiffs had established Article III standing by alleging that they had been harmed

by the effects of climate change through increased droughts, wildfires, and flooding; and that the government's regulation of (and failure to further regulate) fossil fuels had caused Plaintiffs' injuries. The court further determined that it could redress those injuries by "order[ing] Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and, instead, move to swiftly phase out CO_2 emissions, as well as take such other action necessary to ensure that atmospheric CO_2 is no more concentrated than 350 ppm by 2100, including to develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." ECF No. 83, at 28 (quoting complaint); *see generally id.* at 18-28.

On the merits, the district court held that Plaintiffs had stated a claim under the Fifth Amendment's Due Process Clause and a federal public trust doctrine. *Id.* at 28-51. The court found in the Fifth Amendment's protection against the deprivation of "life, liberty, or property, without due process of law," a previously unrecognized fundamental right to a "climate system capable of sustaining human life," and the court determined that Plaintiffs had adequately alleged infringement of that fundamental right. ECF No. 83, at 32. The court also held that Plaintiffs had adequately stated a claim under a federal public trust doctrine, which it held imposes a judicially enforceable prohibition on the federal government against "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." *Id.* at 37 (quoting amicus brief in support of Plaintiffs).

Plaintiffs' claims under this public trust rationale, the court concluded, are also "properly categorized as substantive due process claims." *Id*. at 51.

The government petitioned this Court for a writ of mandamus to halt these deeply flawed proceedings. This Court stayed the litigation for seven-and-a-half months but ultimately denied the petition without prejudice. *In re United States*, 884 F.3d 830, 838 (9th Cir. 2018). Specifically, the Court "decline[d] to exercise [its] discretion to grant mandamus relief at [that] stage of the litigation." *Id.* at 838. The Court explained, however, that "[c]laims and remedies often are vastly narrowed as litigation proceeds," and that it had "no reason to assume this case will be any different." *Id*. The Court observed that the government could continue to "raise and litigate any legal objections [it may] have," *id.* at 837, and the Court added that the government remains free to "seek[] mandamus in the future," *id*. at 838.

Consistent with this Court's opinion, the government moved for judgment on the pleadings, ECF No. 195, arguing that Plaintiffs' claims should be dismissed in their entirety, and for summary judgment, ECF No. 207, arguing that the district court should enter judgment in favor of the government on all of Plaintiffs' claims. The government also moved for a protective order precluding all discovery. ECF No. 196. On June 29, 2018, the district court denied the government's motion for a protective order. ECF No. 300. On July 18, 2018, the district court held argument on the dispositive motions and took them under advisement.

While the two dispositive motions were still pending and after the district court had denied the government's motion for a protective order barring discovery, the government sought relief from both this Court and the Supreme Court. ECF No. 308-1; ECF No. 321-1. Both courts denied the requested relief without prejudice. This Court determined that "[a]bsent a specific discovery order, mandamus relief remains premature." *In re United States*, 895 F.3d 1101, 1105 (9th Cir. 2018). The Supreme Court denied the government's application "without prejudice" because it was "premature." ECF No. 330-1. The Court also stated that the "breadth of [Plaintiffs'] claims is striking, however, and the justiciability of those claims presents substantial grounds for difference of opinion." *Id*. It instructed the district court to "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." *Id*. The Supreme Court clearly referenced the standard for certification in 28 U.S.C. § 1292(b), which provides (emphasis added):

> When a district judge, in making in a civil action an order not otherwise appealable under this section, shall be of the opinion that such order involves a controlling question of law as to which there is *substantial ground for difference of opinion* and that an immediate appeal from the order may materially advance the ultimate termination of the litigation, he shall so state in writing in such order.

Despite the Supreme Court's expectation of a "prompt ruling" on the government's dispositive motions, ECF No. 330-1, the district court issued no ruling on those motions for more than two months after the Supreme Court's order, which

itself came more than two months after the motions were filed. With the trial date of October 29, 2018 just weeks away, the government on October 5 filed another stay request in the district court. The government informed the court that it planned to file a petition for a writ of mandamus (or, in the alternative, a petition for a writ of certiorari) in the Supreme Court, and it asked the district court to stay discovery and trial pending the Supreme Court's resolution of that petition. ECF No. 361. The court ultimately denied the request. ECF No. 374. On October 15 — roughly five months after the government's dispositive motions were filed and only two weeks before the start of the scheduled trial — the court issued an opinion largely denying the motions and declining to certify its ruling for interlocutory appeal. ECF No. 369.

The district court granted two narrow aspects of the government's motions. First, the court dismissed the President from the action, but only "without prejudice" and while warning that it "is not possible to know how developments to the record in the course of the litigation may change the analysis," such that the court could "not conclude with certainty that President Trump will never become essential to affording complete relief." *Id.* at 18-19. Second, the court granted summary judgment to the government on Plaintiffs' "freestanding claim under the Ninth Amendment," which the court held "not viable as a matter of law." *Id.* at 56.

The district court otherwise denied the government's motions. The court rejected the government's argument that Plaintiffs were required to assert only

challenges to specific agency actions under the APA, concluding that the "APA does not govern" claims seeking equitable relief for alleged constitutional violations based on "*aggregate action* by *multiple agencies*." *Id.* at 25. The court also rejected the government's argument that Plaintiffs had failed to establish standing at the summary-judgment stage, largely by reiterating its analysis from the motion-to-dismiss stage. *Id.* at 29-45. The court likewise reiterated its earlier holdings on the government's other central arguments. *Id.* at 25-27, 45-48, 54-55. The court addressed Plaintiffs' equal protection claim for the first time, allowing the claim to proceed because it "would be aided by further development of the factual record." *Id.* at 59.

The district court again declined to certify its order for interlocutory appeal under 28 U.S.C. § 1292(b), which authorizes certification where (among other requirements) an "order involves a controlling question of law as to which there is substantial ground for difference of opinion." *See* ECF No. 369, at 59-61. The court did not address the Supreme Court's express statement that "the justiciability of [Plaintiffs'] claims presents substantial grounds for difference of opinion." ECF No. 330-1.

With less than two weeks remaining before the scheduled 10-week trial, the government again sought relief from both this Court and the Supreme Court. ECF No. 390; ECF No. 391. On October 19, the Chief Justice ordered that "discovery

and trial in the [district court] are stayed pending . . . further order of the undersigned or of the Court." ECF No. 399. Consequently, the district court vacated "all trial dates and associated deadlines." ECF No. 404. In light of those developments, this Court on Friday, November 2 denied as moot the government's emergency motion for a stay of the trial. *In re United States*, No. 18-72776, ECF No. 5, at 2.

Later that same day, the Supreme Court again denied the government's application for relief "without prejudice," this time on the ground that "adequate relief may be available in the United States Court of Appeals for the Ninth Circuit." ECF No. 416, at 2. The Supreme Court explained:

> Although the Ninth Circuit has twice denied the Government's request for mandamus relief, it did so without prejudice. And the court's basis for denying relief rested, in large part, on the early stage of the litigation, the likelihood that plaintiffs' claims would narrow as the case progressed, and the possibility of attaining relief through ordinary dispositive motions. Those reasons are, to a large extent, no longer pertinent. The 50-day trial was scheduled to begin on October 29, 2018, and is being held in abeyance only because of the current administrative stay.

Id. at 3. The Supreme Court also vacated the Chief Justice's October 19 order temporarily staying discovery and trial in the district court. *Id.*

Still later that same day, Plaintiffs asked the district court for "an immediate status conference in order to set a date for the Pre-Trial Conference and the commencement of trial." ECF No. 405. Plaintiffs also made ten pretrial motion-related filings. ECF Nos. 406-415. As stated in a letter sent to the government on

November 3, Plaintiffs "will request that the Court hold the Pre-Trial Conference on November 8 or 9," and that trial commence as early as "the latter part of the week of November 12." Exhibit 2, at 3 (filed concurrently herewith).

Earlier today, the government filed a motion asking the district court to reconsider its denials of the government's requests to certify the court's orders for interlocutory appeal under 28 U.S.C. § 1292(b), and an accompanying request for a stay pending consideration of that motion and this petition. ECF Nos. 418-419.

ARGUMENT

I. If the district court declines to certify its orders for interlocutory appeal under 28 U.S.C. § 1292(b), this Court should issue a writ of mandamus directing the district court to dismiss this action.

A writ of mandamus is warranted when a party establishes that (1) the "right to issuance of the writ is clear and indisputable"; (2) the party has "no other adequate means to attain the relief" sought; and (3) "the writ is appropriate under the circumstances." *Cheney v. U.S. District Court*, 542 U.S. 367, 380-81 (2004) (internal quotation marks omitted). Mandamus is reserved for "exceptional circumstances amounting to a judicial usurpation of power," and to "confine" a lower court "to a lawful exercise of its prescribed jurisdiction." *Id.* at 380 (same); *accord* ECF No. 416, at 1.

Those are the circumstances of this case. Plaintiffs' position amounts to the remarkable assertion that permitting or encouraging the combustion of fossil fuels

violates the Due Process Clause of the Constitution and that a single district court in an action brought by a handful of Plaintiffs may decree the end of the carbon-based features of the United States' energy system, without regard to the statutory and regulatory framework that Congress enacted for the responsible agencies to address such issues with broad public input. Months ago, the Supreme Court flagged the "striking" breadth of those claims and the "substantial" doubts about their justiciability, reciting the standard for interlocutory certification and thereby indicating that appellate review is warranted before trial. ECF No. 330-1. Days ago, the Supreme Court further stated that "the 'striking' breadth of plaintiffs' claims 'presents substantial grounds for difference of opinion,'" this time expressly citing 28 U.S.C. § 1292(b). ECF No. 416, at 2.

In light of the Supreme Court's clear guidance, the government has sought reconsideration of the district court decision not to certify its orders denying the government's dispositive motions for interlocutory appeal under § 1292(b). The government is hopeful that the district court will grant that request, which would obviate the need for this Court to act on this petition. But if the district court again declines to certify its orders for interlocutory appeal (despite the Supreme Court's clear guidance that it should), mandamus from this Court will be warranted to ensure the pretrial appellate review contemplated by the Supreme Court.

The factors for mandamus are readily satisfied. Given the manifest absence of Article III jurisdiction and the egregious defects in Plaintiffs' claims, the government has established a "clear and indisputable" right to relief. *Cheney*, 542 U.S. at 381. The government has "no other adequate means" to "attain the relief" it seeks before an unjustified trial that would "threaten the separation of powers." *Id.* at 380-81. And issuance of "the writ is appropriate under the circumstances." *Id.* at 381. Indeed, as the Supreme Court noted in its November 2 order, the "traditional use of the writ . . . has been to confine" a lower court "to a lawful exercise of its prescribed jurisdiction." ECF No. 416, at 1 (quoting *Cheney*, 542 U.S. at 380). Mandamus is especially appropriate here, because it is the only way "to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." *Cheney*, 542 U.S. at 382.

The government recognizes that this Court has already denied mandamus petitions in this case several times. But as the Supreme Court explained, this Court's earlier "basis for denying relief rested, in large part, on the early stage of the litigation, the likelihood that plaintiffs' claims would narrow as the case progressed, and the possibility of attaining relief through ordinary dispositive motions." ECF No. 416, at 3. The Supreme Court expressly stated that "[t]hose reasons are, to a large extent, no longer pertinent," and that "adequate relief" for the government accordingly "may be available" in this Court. *Id.* at 2-3. In light of the Supreme

Court's order, the government respectfully requests that this Court consider this renewed request and grant the requested relief.

A. The government has a right to relief from the district court's refusal to dismiss this fundamentally misguided action.

The government's right to the dismissal of this action is clear and indisputable. Plaintiffs' implausible and far-reaching claims are procedurally and substantially defective in at least three independent ways.

1. The district court clearly and indisputably erred by exercising jurisdiction over the action.

Most fundamentally, the district court lacks jurisdiction over Plaintiffs' claims. The Supreme Court has reiterated that "no principle is more fundamental to the judiciary's proper role in our system of government than the constitutional limitation of federal-court jurisdiction to actual cases or controversies." *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 341 (2006) (internal quotation marks omitted). Enforcing this limitation accords with the "traditional use of the writ," i.e., to "confine" a lower court "to a lawful exercise of its prescribed jurisdiction." ECF No. 416, at 1 (quoting *Cheney*, 542 U.S. at 380). Plaintiffs' action fails to qualify as a case or controversy within the meaning of Article III for at least two reasons.

a. Plaintiffs lack Article III standing.

To demonstrate standing, Plaintiffs must prove that (1) they "have suffered an injury in fact," i.e., "an invasion of a legally protected interest which is (a) concrete

and particularized," and "(b) actual or imminent, not conjectural or hypothetical"; (2) the injury is "fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court"; and (3) it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992) (citations and internal quotation marks omitted; brackets in original). The purpose of these standing requirements is "to prevent the judicial process from being used to usurp the powers of the political branches." *Clapper v. Amnesty International USA*, 568 U.S. 398, 408 (2013). "In keeping with [that] purpose," a court's inquiry must be "especially rigorous when reaching the merits of the dispute would force [it] to decide whether an action taken by one of the other two branches of the Federal Government was unconstitutional." *Id.* (internal quotation marks omitted). All three standing requirements must be satisfied to invoke a court's jurisdiction. *Defenders of Wildlife*, 504 U.S. at 560-61. Plaintiffs here cannot satisfy *any* of the three standing requirements.

First, as to injury, Plaintiffs fail to satisfy the standing requirement because they assert "generalized grievance[s]," *id.* at 575, not the invasion of a "legally protected" interest that is "concrete and particularized," *id.* at 560; *accord, e.g., Lexmark International, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 125, 127 n.3 (2014). This Court has made clear that "standing to sue may not be

predicated upon an interest . . . which is held in common by all members of the public, because of the necessarily abstract nature of the injury all citizens share." *Schlesinger v. Reservists Committee to Stop the War*, 418 U.S. 208, 220 (1974).

Plaintiffs' asserted injuries are quintessential generalized grievances rather than challenges to the invasion of a distinct, legally protected interest. The asserted injuries arise from a diffuse, global phenomenon that affects every other person in their communities, in the United States, and throughout the world. Those injuries are "not focused any more on these [Plaintiffs] than [they are] on the remainder of the world's population," and so they are "too generalized to establish standing." *Center for Biological Diversity v. U.S. Department of Interior*, 563 F.3d 466, 478 (D.C. Cir. 2009).

Second, even if Plaintiffs adequately alleged judicially cognizable injuries, they cannot establish that those injuries were *caused* by the broad, undifferentiated aggregation of the largely unspecified government actions that they challenge, much less the particular and specifically identified actions that must be the focus of judicial review. *Defenders of Wildlife*, 504 U.S. at 560. Plaintiffs principally complain of the government's regulation (or lack thereof) of private parties not before the district court. Among their widely scattered objections, for example, Plaintiffs claim that the United States subsidizes the fossil-fuel industry. ECF No. 7, ¶¶ 171-178 (operative complaint). But when a plaintiff's alleged harms may have been caused

directly by the conduct of parties other than the defendants (and only indirectly by the defendants), it is "substantially more difficult to meet the minimum requirement" of Article III: "to establish that, in fact, the asserted injury was the consequence of the defendants' actions, or that prospective relief will remove the harm." *Warth v. Seldin*, 422 U.S. 490, 504-05 (1975); *accord Defenders of Wildlife*, 504 U.S. at 562.

Showing causation is especially difficult given the complex interaction of greenhouse gases in the global atmosphere. As the Supreme Court has explained, "emissions in New Jersey may contribute no more to flooding in New York than emissions in China." *American Electric Power Co. v. Connecticut*, 564 U.S. 410, 422 (2011). But even Plaintiffs' broad challenge does not suggest that the government can control "emissions in China." *Id.* The types of regulatory decisions referenced by Plaintiffs and the district court — such as permitting livestock grazing and setting "energy and efficiency standards," ECF No. 369, at 39 — are remarkably attenuated from the specific injuries alleged, such as "the magnitude of rainfall and the extent of flooding" near one Plaintiff's home or "the pattern of drought that led" another Plaintiff to relocate, *id.* at 41. In short, there is no "causal nexus" between the amorphously described decisions challenged by Plaintiffs and the specific harms alleged. *See Washington Environmental Council v. Bellon*, 732 F.3d 1131, 1143 (9th Cir. 2013) (finding no causation in similar case). To the contrary, there is "a natural disjunction between Plaintiffs' localized injuries and the greenhouse effect." *Id.*

Third, even if Plaintiffs could somehow establish cognizable injury-in-fact and causation, they could not establish that their asserted injuries likely could be *redressed* by an order of a federal court. *Defenders of Wildlife*, 504 U.S. at 560. Plaintiffs have not even begun to articulate a remedy within a federal court's authority to award that could move the needle on the complex phenomenon of global climate change, much less likely redress their alleged injuries. *See, e.g.*, *Simon v. Eastern Kentucky Welfare Rights Organization*, 426 U.S. 26, 40-46 (1976) (holding that plaintiffs challenging tax subsidies for hospitals serving indigent patients lacked standing where they could only speculate whether a change in policy would "result in [the plaintiffs] receiving the hospital services they desire").

The district court has repeatedly assumed that it has the authority to order the government to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." ECF No. 83, at 12-13, 26-27 (quoting ECF No. 7, at 94). In its most recent order, the court recites some of the "actions" that the government could take to redress Plaintiffs' asserted injuries. These include drastic measures like phasing out all greenhouse gas emissions "within several decades" or converting the Nation's entire electricity generation infrastructure to "100 percent clean, renewable wind, water, and sunlight" sources. ECF No. 369, at 43-44 (internal quotation marks and brackets omitted).

But neither Plaintiffs nor the court has cited any legal authority that would permit such an unprecedented usurpation of legislative and executive authority by an Article III court, essentially placing a single district court in Oregon — acting at the behest of a few individuals having one particular perspective on the complex issues involved — in charge of directing American energy and environmental policy. Nor have Plaintiffs or the district court grappled with the fact that reducing the carbon emissions arguably within the control of the government would likely still fail to redress their injuries because — as this Court has recognized — greenhouse gas emissions are a "global occurrence" that arise mostly outside the United States, thereby making it all the more speculative and uncertain that even Plaintiffs' unprecedented remedy would actually redress their asserted injuries. *Bellon*, 732 F.3d at 1147 (finding no redressability in similar case).

b. Federal courts may not entertain this action in any event.

Quite aside from these fatal flaws with respect to standing, this action simply is not one that a federal court may entertain consistent with the Constitution. The "judicial Power of the United States," U.S. Const. art. III, § 1, is "one to render dispositive judgments" in "cases and controversies" as defined by Article III. *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 218-19 (1995) (internal quotation marks omitted). That power can "come into play only in matters that were the traditional concern of the courts at Westminster" — "cases and controversies of the sort

traditionally amenable to, and resolved by, the judicial process." *Vermont Agency of Natural Resources v. United States ex rel. Stevens*, 529 U.S. 765, 774 (2000) (same). Thus, if "a dispute is not a proper case or controversy, the courts have no business deciding it." *DaimlerChrysler Corp.*, 547 U.S. at 341.

Plaintiffs' action is not a case or controversy cognizable under Article III. Plaintiffs ask the district court to review and assess the entirety of Congress's and the Executive Branch's programs and regulatory decisions relating to climate change and then to pass upon the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. *See, e.g.*, ECF No. 7, ¶¶ 277-310. No federal court has ever purported to invoke the "judicial Power" to perform such a sweeping policy review — and for good reason: the Constitution commits to Congress the power to enact comprehensive government-wide measures of the sort sought by Plaintiffs. And it commits to the President the power to oversee the Executive Branch in its administration of existing law and to draw on its expertise and formulate policy proposals for changing that law. Such functions are not the province of Article III courts. The district court's contrary assertion constitutes a "judicial usurpation of power." *Cheney*, 542 U.S. at 380.

Plaintiffs appeal to the district court's equitable powers as justifying the review they seek in this case. But a federal court's equitable powers are "subject to restrictions: the suit must be within the traditional scope of equity as historically

evolved in the English Court of Chancery." *Guaranty Trust Co. v. York*, 326 U.S. 99, 105 (1945). The relief requested by Plaintiffs is plainly not of the sort "traditionally accorded by courts of equity." *Grupo Mexicano de Desarrollo, S.A. v. Alliance Bond Fund, Inc.*, 527 U.S. 308, 319 (1999). "There simply are certain things that courts, in order to remain courts, cannot and should not do." *Missouri v. Jenkins*, 515 U.S. 70, 132 (1995) (Thomas, J., concurring). One of those things is "running Executive Branch agencies." *Id.* at 133. The same is surely true of running *all* of them. At bottom, this dispute over American energy and environmental policy "is not a proper case or controversy" or a proper suit in equity, and so "the courts have no business deciding it." *DaimlerChrysler Corp.*, 547 U.S. at 341.

2. The district court clearly and indisputably erred by allowing the claims to proceed outside the binding framework of the APA.

Plaintiffs' action is misconceived for another reason. Under the APA, a judicial challenge to an agency's regulatory measures must be targeted at specifically identified agency actions or alleged failures to act, and review must be based on the administrative record for those actions and in accordance with special statutory provisions for judicial review. The APA provides that a "person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702. The APA authorizes a reviewing court to "hold unlawful and set

aside agency action" that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or "contrary to constitutional right, power, privilege, or immunity," *id.* § 706(2)(A)-(B), and to "compel agency action unlawfully withheld or unreasonably delayed," *id.* § 706(1).

The APA thus provides a "comprehensive remedial scheme" for a "person 'adversely affected . . . ' by agency action" or alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. *Western Radio Services Co. v. U.S. Forest Service*, 578 F.3d 1116, 1122-23 (9th Cir. 2009) (citation omitted), *cert. denied*, 559 U.S. 1106 (2010); *see also Wilkie v. Robbins*, 551 U.S. 537, 551-54 (2007) (describing the APA as the remedial scheme for vindicating complaints against "unfavorable agency actions"); *Webster v. Doe*, 486 U.S. 592, 607 n.* (1988) (Scalia, J., dissenting) (explaining that the APA "is an umbrella statute governing judicial review of all federal agency action," and that "if review is not available under the APA it is not available at all").

Plaintiffs allege that a vast number of (mostly unspecified) "agency action[s]" and inactions spanning the last several decades are, in the words of the APA, "contrary to constitutional right." 5 U.S.C. §§ 702, 706(2)(B). As currently formulated, however, Plaintiffs' claims may not proceed under the APA, because the APA allows challenges only to "circumscribed, discrete" final agency action, not the "broad programmatic attack" on agency policies asserted by Plaintiffs here.

Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 62, 64 (2004) (*SUWA*); *accord Lujan v. National Wildlife Federation*, 497 U.S. 871, 891 (1990). Plaintiffs expressly cast their claims as a challenge to the "affirmative aggregate actions" of the defendant agencies, ECF No. 7, ¶ 5 — the antithesis of a challenge to specifically identified and "*discrete* agency action" as permitted by Congress under the APA. *SUWA*, 542 U.S. at 64.

Plaintiffs do not argue that their claims are proper under the APA. Rather, they argue that their claims need not comply with the APA because the Constitution itself provides a right of action. ECF No. 7, ¶ 13. But the Supreme Court has never suggested that the Constitution itself provides an across-the-board right of action for all constitutional claims. To the contrary, the Court recently concluded that the Supremacy Clause does *not* "confer a right of action," a decision that conflicts with the inherent cause of action for constitutional claims envisioned by Plaintiffs. *Armstrong v. Exceptional Child Center, Inc.*, 135 S. Ct. 1378, 1384 (2015).

The district court likewise failed to grapple with *Armstrong*. ECF No. 369, at 19-25. *Armstrong* recognized that federal courts have equitable authority in some circumstances "to enjoin unlawful executive action." 135 S. Ct. at 1385. But it emphasized that equitable power is "subject to express and implied statutory limitations." *Id.* Thus, "[w]here Congress has created a remedial scheme for the enforcement of a particular federal right," courts "have, in suits against federal

officers, refused to supplement that scheme with one created by the judiciary." *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 74 (1996). Here, even if the equitable authority of an Article III court could otherwise ever extend to an action remotely resembling the one pursued by Plaintiffs here, the APA provides "express . . . statutory limitations" that "foreclose," *Armstrong*, 135 S. Ct. at 1385 (internal quotation marks omitted), Plaintiffs' asserted constitutional claims against the broad and largely unspecified "aggregate actions" of the federal government as a whole, ECF No. 7, ¶ 129.

3. The district court clearly and indisputably erred by allowing the claims to proceed on the merits.

Finally, even if the district court could reach the merits of Plaintiffs' constitutional theories, it should not have allowed their claims to move forward, let alone to a ten-week trial. In declining to dismiss the case, the court concluded that Plaintiffs had stated two constitutional claims based on substantive due process: (1) a judicially enforceable fundamental right to "a climate system capable of sustaining human life," and (2) a federal public-trust doctrine to the same effect. ECF No. 369, at 48, 55. Both claims are baseless.

a. Substantive due process

As the Supreme Court has twice recognized, Plaintiffs' substantive due process claims are "striking" in breadth. ECF No. 330-1; ECF No. 416, at 2. The Supreme Court has repeatedly instructed courts considering novel due process

claims to "exercise the utmost care whenever . . . asked to break new ground in this field, lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences. *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997) (internal quotation marks omitted). More specifically, the Supreme Court has "regularly observed that the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, deeply rooted in this Nation's history and tradition." *Id.* at 720-21 (same). The district court's recognition here of a sweeping and "unenumerated fundamental right" to "a climate system capable of sustaining human life," ECF No. 83, at 31-32, squarely contradicts that directive. Such a right is entirely without basis in this Court's precedent or in the Nation's history and tradition.

The district court's recognition of a constitutional right to particular climate conditions, moreover, would wrest fundamental policy issues of energy development and environmental regulation affecting everyone in the country from "the arena of public debate and legislative action," and thrust them into the supervision of the federal courts. *Glucksberg*, 521 U.S. at 720. Indeed, the district court's decision here would vest a single district court — acting at the behest of 21 minors, a person purporting to act on behalf of future generations, and a single environmental organization advocating one particular perspective — with authority to oversee some of the most complex and high-stakes policy problems in

government. To understate considerably, Congress or an "expert agency is surely better equipped to do the job than individual district judges." *American Electric Power*, 564 U.S. at 428.

Remarkably, the district court rooted its recognition of a fundamental due process right to "a climate system capable of sustaining human life," ECF No. 83, at 32, in the Supreme Court's recognition of a fundamental right to same-sex marriage in *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015). There is no relationship, however, between a distinctly personal and circumscribed right to same-sex marriage and the alleged right to a climate system capable of sustaining human life that apparently would run indiscriminately to every individual in the United States. The right recognized by the district court has no relationship to any right as "fundamental as a matter of history and tradition" as the right to marry recognized in *Obergefell*. *Id.* at 2602. Nor was *Obergefell*'s recognition of that narrow right an invitation to abandon the cautious approach to recognizing new fundamental rights that is demanded by the Court's prior decisions. The district court's reliance on *Roe v. Wade*, 410 U.S. 113 (1973), and a decision by the Supreme Court of the Philippines provides no further support. *See* ECF No. 83, at 31-32. To the contrary, the court's invocation of such far-afield precedents underscores that the right it purported to recognize has no legal basis.

b. Public-trust doctrine

Plaintiffs' novel public-trust claim fares no better. The roots of a public-trust doctrine "trace to Roman civil law and its principles can be found in the English common law on public navigation and fishing rights over tidal lands and in the state laws of this country." *PPL Montana, LLC v. Montana*, 565 U.S. 576, 603 (2012). Where it applies, such a rationale generally is that "the sovereign owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." *National Audubon Society v. Superior Court*, 33 Cal. 3d 419, 434 (internal quotation marks omitted), *cert. denied*, 464 U.S. 977 (1983).

Plaintiffs attempt to invoke a federal public-trust doctrine to impose judicially enforceable, extra-statutory obligations on the government's regulation of the fossil-fuel industry and the alleged effects on the atmosphere. They fail, however, to identify a single decision applying public-trust notions in this sweeping and novel manner. Even if such a doctrine could ever dictate a sovereign's regulation of private parties, Plaintiffs' claim would be unavailing because a public-trust doctrine is purely a matter of *state* law and pertains only to a *state's* functions. *See PPL Montana*, 565 U.S. at 603 ("[T]he public trust doctrine remains a matter of state law."). Indeed, the D.C. Circuit concluded that a similar public-trust claim against federal officials was so insubstantial that it could not even provide a basis for federal jurisdiction. *See Alec L. ex rel. Loorz v. McCarthy*, 561 Fed. Appx. 7, 8 (per curiam),

cert. denied, 135 S. Ct. 774 (2014). As the D.C. Circuit explained, the Supreme Court has "categorically rejected any federal constitutional foundation for [the public trust] doctrine, without qualification or reservation." *Id.*

B. The government has no other adequate means to attain relief from the district court's refusal to terminate these fundamentally misguided and improper proceedings.

Mandamus is warranted to correct the district court's egregious errors because the government has "no other adequate means" to obtain relief from the district court's refusal to dismiss this litigation or to prevent the impending trial. *Cheney*, 542 U.S. at 380. The denial of a motion to dismiss is not among the "final decisions of the district courts" reviewable by a court of appeals under 28 U.S.C. § 1291. The district court has repeatedly rejected the government's requests to certify its decisions for interlocutory appeal. ECF No. 172; ECF No. 369, at 59-61. Indeed, the court refused to certify its decision for interlocutory appeal even after the Supreme Court expressly recognized the "substantial grounds for difference of opinion" about the justiciability of the claims, ECF No. 330-1 — a statement directly tracking the text of the statute authorizing certification for interlocutory appeal, 28 U.S.C. § 1292(b), but that the court did not even mention in its order denying the government's dispositive motions. In its most recent order, moreover, the Supreme Court underscored the fact that the district court "declined to certify its orders for interlocutory review under 28 U.S.C. § 1292(b)." ECF No. 416, at 2.

To be sure, the government might be able to raise some of the arguments asserted here after a 10-week liability-phase trial, after a finding that the federal government is liable for the harms of climate change, and after further proceedings to impose an unprecedented invasive remedy. But an appellate reversal at that point would hardly provide an "*adequate* means" of obtaining relief from the usurpation of power by the district court and from the resulting proceedings that themselves violate the separation of powers. *Cheney*, 542 U.S. at 380 (emphasis added); *see also, e.g., In re Kellogg Brown & Root, Inc.*, 756 F.3d 754, 761 (D.C. Cir. 2014) (granting mandamus where appeal after final judgment would not provide an "adequate" means of obtaining relief), *cert. denied*, 135 S. Ct. 1163 (2015); *In re Justices of Supreme Court of Puerto Rico*, 695 F.2d 17, 20-25 (1st Cir. 1982) (same); 16 Charles Alan Wright et al., *Federal Practice and Procedure* § 3932 (3d ed. 2005 & Supp. 2018) (citing similar cases).

The government, moreover, is not a private litigant seeking to evade the normal process of appellate review. The Executive Branch agencies and officials sued by Plaintiffs will "suffer a special institutional harm by being forced to remain" in this suit through a trial, finding of liability, and entry of a remedy. *In re Justices*, 695 F.2d at 20. As the Supreme Court explained in *Cheney*, "mandamus standards are broad enough to allow a court of appeals to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." 542

U.S. at 382; *see also id.* (recognizing the "paramount necessity of protecting the Executive Branch from vexatious litigation that might distract it from the energetic performance of its constitutional duties"). Here, requiring the government to participate in the fundamentally misguided trial envisioned by the district court would constitute a "judicial usurpation of power" warranting mandamus for at least two additional reasons. *Id.* at 380.

First, subjecting the government to trial on Plaintiffs' claims would violate the APA's reticulated scheme for agencies to make factual assessments and policy determinations through rulemaking with broad public participation and through agency adjudication, not though civil litigation directly in Article III courts. The APA sets forth a "comprehensive regulation of procedures" for agency decisionmaking. *Wong Yang Sung v. McGrath*, 339 U.S. 33, 36 (1950). "Time and again," the Supreme Court has explained that the APA establishes the exclusive procedural requirements for agency decisionmaking, and courts are not free to alter those requirements. *Perez v. Mortgage Bankers Ass'n*, 135 S. Ct. 1199, 1207 (2015). To require agencies to take official positions on factual assessments and questions of policy concerning the climate through the civil litigation process — and then, if liability is found, to participate in further judicial proceedings to impose on them an "enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," ECF No. 83, at 12-13, 26-27 (quoting ECF No. 7,

at 94) — would impermissibly conflict with the procedures prescribed by the APA and deprive other interested parties and the public of the opportunity mandated by Congress or agency procedures to provide input.*

Second, subjecting the government to trial on Plaintiffs' claims would violate the Constitution's separation of powers. Even before the enactment of the APA, the Supreme Court recognized that permitting an agency's "findings to be attacked or supported in court by new evidence would substitute the court for the administrative tribunal," *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 444 (1930), a step that would improperly allow the court to "usurp[] the agency's function," *Unemployment Compensation Commission v. Aragon*, 329 U.S. 143, 155 (1946). Moreover, "in cases where Congress has simply provided for review, without setting forth the standards to be used or the procedures to be followed," the Supreme Court has made clear that "consideration is to be confined to the administrative record and that no *de novo* proceeding may be held." *United States v. Carlo Bianchi & Co.*, 373 U.S. 709, 715 (1963).

Limiting judicial review of actions taken within the scope of the agency's authority as conferred by Congress in its organic statute in this manner reflects

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* For example, this action clearly implicates Congress's policy decisions in the Clean Air Act. Section 307 of that Act, 42 U.S.C. § 7607, contains a procedural scheme bearing on air quality-related rulemaking and adjudication that is even more highly reticulated than the APA default.

fundamental separation-of-powers principles. By seeking to leverage the civil litigation process to direct federal agencies' decisions outside the congressionally prescribed statutory frameworks that govern the official actions of the numerous agencies and officials that Plaintiffs have sued, Plaintiffs would run roughshod over those principles. Plaintiffs' proposed approach violates the vesting of the "legislative Power[]" in Congress to the extent it would require agencies to transgress the substantive and procedural constraints imposed on them by statute. U.S. Const. art. I, § 1. To the extent Plaintiffs seek a judicial decree directly requiring the government to develop and implement broad policies across the Executive Branch, they seek to violate the Constitution's vesting of "executive Power . . . in a President of the United States." *Id.* art. II, § 1, cl. 1. Granting mandamus relief is the only "adequate means" of preventing such intrusions. *Cheney*, 542 U.S. at 380.

C. Mandamus relief is appropriate under the circumstances.

Finally, and for the reasons discussed above, mandamus relief is "appropriate under the circumstances." *Cheney*, 542 U.S. at 381. As noted, mandamus was traditionally used "to confine [an inferior court] to a lawful exercise of its prescribed jurisdiction," and granting mandamus to dismiss this case based on the manifest absence of Article III jurisdiction and of any cognizable constitutional rights on the merits would be consistent with that use. *Id.* at 380; *see also, e.g., In re Roman*

Catholic Diocese of Albany, New York, Inc., 745 F.3d 30, 35-36 (2d Cir. 2014) (per curiam) (issuing writ of mandamus based on district court's failure to grant motion to dismiss for lack of jurisdiction); *Abelesz v. OTP Bank*, 692 F.3d 638, 651-52 (7th Cir. 2012) (same); *In re Justices*, 695 F.2d at 25 (same); Wright, *supra*, § 3933.1 (discussing other examples).

Mandamus is particularly appropriate here because dismissing the case is the only way "to prevent a lower court from interfering with a coequal branch's ability to discharge its constitutional responsibilities." *Cheney*, 542 U.S. at 382. As noted, the Supreme Court has indicated that appellate review before trial is appropriate by reciting language from the statute authorizing certification for interlocutory appeal and by expressly citing that statute. ECF No. 330-1; ECF No. 416, at 2. But the district court has declined to follow the Supreme Court's direction, leaving an extraordinary writ as the only means for appellate review before much of the Executive Branch is subjected to a trial on baseless claims that the district court has no authority to remedy. The "novelty of the District Court's" ruling, "combined with its potentially broad and destabilizing effects," underscores that granting such a writ is "appropriate under the circumstances." *In re Kellogg Brown & Root*, 756 F.3d at 763 (quoting *Cheney*, 542 U.S. at 381).

II. Alternatively, if the district court declines to certify its orders for interlocutory appeal under 28 U.S.C. § 1292(b), this Court should issue a writ of mandamus directing the district court to do so.

If the district court declines to certify its denials of the government's dispositive motions for interlocutory appeal under 28 U.S.C. § 1292(b), and if this Court does not issue a writ of mandamus directing the district court to dismiss this action, this Court should at least issue a writ directing the district court to certify its decisions for interlocutory appeal under § 1292(b) — as the Supreme Court has now made unmistakably clear that the district court should do. *See* ECF No. 416, at 2.

To be sure, certification for interlocutory appeal under § 1292(b) is an exercise of discretion for the district court. But as the Supreme Court has made clear, "a motion to [a court's] discretion is a motion, not to its inclination, but to its judgment; and its judgment is to be guided by sound legal principles." *Martin v. Franklin Capital Corp.*, 546 U.S. 132, 139 (2005) (Roberts, C.J.) (quoting *United States v. Burr*, 25 F. Cas. 30, 35 (No. 14,692d) (C.C. Va. 1807) (Marshall, C.J.)). As the Supreme Court explained, "limiting discretion according to legal standards helps promote the basic principle of justice that like cases should be decided alike." *Id.*; *cf. Fernandez-Roque v. Smith*, 671 F.2d 426, 431 (11th Cir. 1982) ("[T]his case presents the truly 'rare' situation in which it is appropriate for this court to require certification of a controlling issue of national significance.").

The Supreme Court has left little room for doubt that the district court's orders denying the government's dispositive motions meet the "legal standards" for certification under 28 U.S.C. § 1292(b). *Martin*, 546 U.S. at 139. As this Court has recognized in this very case, mandamus is available in "exceptional circumstances amounting to . . . a clear abuse of discretion." *In re United States*, 884 F.3d at 834 (quoting *Cheney*, 542 U.S. at 380). The district court's refusal to certify for interlocutory appeal such an extraordinary decision as the district court's here, after the Supreme Court has expressly indicated that the standard for certification is satisfied, would surely qualify as a "clear abuse of discretion" and an "exceptional" circumstance warranting mandamus. *Id.*

III. In any event, this Court should immediately grant a stay of proceedings in the district court pending consideration of this petition.

Finally, the government requests a stay of district court proceedings while this Court and, if necessary, the Supreme Court consider the government's pending request for mandamus relief. *See* All Writs Act, 28 U.S.C. § 1651(a) (authorizing courts to issue "all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law"); *cf.* 9th Cir. General Order 6.8a (motions panel "may also issue a stay or injunction pending further consideration of the application").

Whether to issue a stay is "an exercise of judicial discretion . . . to be guided by sound legal principles," *Nken v. Holder*, 556 U.S. 418, 433-34 (2009) (internal quotation marks omitted), based on the following four factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Id.* at 434 (citing *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987)). The first two factors are "the most critical." *Id.* The balance of equities and consideration of the public interest merge when the government is a party. *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1092 (9th Cir. 2014).

Parts I and II above demonstrate that the government has a strong likelihood of obtaining some form of mandamus relief from either this Court or from the Supreme Court. Indeed, the Supreme Court has expressly stated that "adequate relief may be available in" this Court, and, by denying the government's mandamus petition *without* prejudice, ECF No. 416, at 2-3, the Supreme Court has left open the possibility that it would grant mandamus in response to a future request by the government.

Sections I.B and I.C in particular (pp. 27-32) show that, absent a stay, the government will suffer irreparable injury. Specifically, the government will be forced to proceed with a 10-week liability trial that is fundamentally inconsistent with Article III and the separation of powers under the Constitution, as well as with

procedures Congress has prescribed in agencies' organic statutes and the APA for agencies to consider factual and legal issues concerning major policy and for the courts to review their determinations. Trial would force the government to address climate-change policy not in APA rulemakings and other agency actions authorized by statute, but rather in a single trial court in Oregon. These injuries caused by the trial itself could not be remedied on appeal.

The more tangible costs of these proceedings should also not be ignored. As of October 18, when the government filed its mandamus petition in the Supreme Court, the Department of Justice alone had already devoted more than 13,000 attorney and paralegal hours and spent millions of taxpayer dollars in expert fees, travel expenses, and other non-attorney fees defending against Plaintiffs' baseless claims. Exhibit 1, ¶¶ 2-3 (filed concurrently herewith). If the liability phase of trial proceeds as scheduled, the parties are expected to present up to 72 witnesses — 43 lay witnesses and 29 expert witnesses. *Id.*, ¶ 5. Expert testimony would be expected on a diverse range of topics — including the impacts of climate change on ocean chemistry, sea level, glaciers, terrestrial ecosystems, and human physical and emotional health, as well as the technical and economic feasibility of transitioning to renewable sources of energy and sequestering carbon from the atmosphere, to name just a few examples — described in more than 1100 pages worth of expert reports. *Id.* Plaintiffs' exhibit list includes documents dating back to the

Washington Administration. To conduct a trial of this staggering complexity, even under conservative estimates, attorneys and paralegals of the Department's Environmental and Natural Resources Division are likely to commit an additional 7300 hours and additional millions of taxpayer dollars between now and February 2019 to proceedings that should never occur. *Id.*, ¶¶ 6-7.

The government, of course, recognizes the need to devote resources to defend against plausible claims and, in the ordinary course, it does not seek extraordinary relief from this Court simply because it disagrees with a district court's resolution of a dispositive motion. But the claims in this case are extraordinary, and the district court's errors are numerous and profound. The costs that those errors would impose on the government, if the trial is permitted to proceed, would unavoidably "distract [the Department] from the energetic performance of its constitutional duties" in a manner that warrants this Court's intervention. *Cheney*, 542 U.S. at 382.

By contrast, Plaintiffs can make no credible claim that a relatively brief stay to decide the government's petition will cause them irreparable harm. Because Plaintiffs' alleged injuries stem from the cumulative effects of CO_2 emissions from every source in the world over decades, whatever additions to the global atmosphere that may somehow be attributed to the defendant agencies over the time it takes to resolve the government's pending petition are plainly *de minimis* in context and not a source of irreparable harm.

This Court rightly granted a stay of district court proceedings in order to consider the government's first mandamus petition in this case. *In re United States*, No. 17-71692, ECF No. 7 (July 25, 2017). And the Chief Justice granted an administrative stay for the Supreme Court to consider the government's most recent mandamus petition. Because the *Nken* factors strongly favor a stay — and because the Supreme Court plainly contemplated that this Court would address the government's request for "adequate relief" before trial, ECF No. 416, at 2 — a stay is appropriate here.

CONCLUSION

For the foregoing reasons, the Court should issue a writ of mandamus directing the district court to dismiss this action or, alternatively, to certify its denials of the government's dispositive motions for interlocutory appeal pursuant to 28 U.S.C. § 1292(b). Moreover, the Court should immediately grant an administrative stay of proceedings in the district court pending consideration of this petition.

Dated: November 5, 2018.

Respectfully submitted,

s/ Eric Grant

JEFFREY BOSSERT CLARK
Assistant Attorney General
JEFFREY H. WOOD
ERIC GRANT
Deputy Assistant Attorneys General
ANDREW C. MERGEN
SOMMER H. ENGELS
ROBERT J. LUNDMAN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice

Counsel for Petitioners

STATEMENT OF RELATED CASES

There are three related cases within the meaning of Circuit Rule 28-2.6, namely, the government's prior petitions for writs of mandamus: *In re United States*, 884 F.3d 830 (9th Cir. 2018) (No. 17-71692); *In re United States*, 895 F.3d 1102 (9th Cir. 2018) (No. 18-71928); and *In re United States* (denied as moot Nov. 2, 2018) (No. 18-72776).

Form 8. Certificate of Compliance Pursuant to 9th Circuit Rules 28.1-1(f), 29-2(c)(2) and (3), 32-1, 32-2 or 32-4 for Case Number 18-_____

Note: This form must be signed by the attorney or unrepresented litigant *and attached to the end of the brief.*

I certify that (*check appropriate option*):

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☐ This brief complies with the longer length limit authorized by court order dated [ ]
The brief's type size and type face comply with Fed. R. App. P. 32(a)(5) and (6). The brief is [ ] words or [ ] pages, excluding the portions exempted by Fed. R. App. P. 32(f), if applicable.

☒ This brief is accompanied by a motion for leave to file a longer brief pursuant to Ninth Circuit Rule 32-2 (a) and is [9,256] words or [ ] pages, excluding the portions exempted by Fed. R. App. P. 32 (f), if applicable. The brief's type size and type face comply with Fed. R .App. P. 32(a)(5) and (6).

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Signature of Attorney or Unrepresented Litigant [s/ Eric Grant] Date [Nov 5, 2018]

("s/" plus typed name is acceptable for electronically-filed documents)

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on November 5, 2018.

I further certify that on this date, a notice of filing of the foregoing (including a complete copy of the foregoing) will be filed in the district court in the underlying matter, and service in compliance with Federal Rule of Appellate Procedure 21(a)(1) will be accomplished through the district court's CM/ECF system. All counsel in this case are participants in that system. In addition, a courtesy copy of the foregoing has been provided via e-mail to the following counsel for Plaintiffs:

Julia A. Olson
JuliaAOlson@gmail.com
Wild Earth Advocates
1216 Lincoln Street
Eugene, Oregon 97401

Philip L. Gregory
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, California 94062

Daniel M. Galpern
Dan.Galpern@gmail.com
Law Offices of Daniel M. Galpern
1641 Oak Street
Eugene, Oregon 97401

Andrea K. Rodgers
Andrearodgers42@gmail.com
Law Offices of Andrea K. Rodgers
3026 NW Esplanade
Seattle, Washington 98117

s/ Eric Grant
Eric Grant

Counsel for Petitioners

JEFFREY BOSSERT CLARK
Assistant Attorney General
JEFFREY H. WOOD
Principal Deputy Assistant Attorney General
Environment & Natural Resources Division

LISA LYNNE RUSSELL, Chief
GUILLERMO A. MONTERO, Assistant Chief
SEAN C. DUFFY (NY Bar. No. 4103131)
MARISSA A. PIROPATO (MA Bar. No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
ERIKA NORMAN (CA Bar No. 268425)
Trial Attorneys
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*, Case No. 6:15-CV-01517-TC

Plaintiffs,

v.

Expedited Hearing Requested

UNITED STATES OF AMERICA, *et al.*,

Defendants.

DEFENDANTS' MOTION TO STAY LITIGATION

Defendants hereby move to stay litigation pending resolution of (1) a Motion to Reconsider Denial of Requests to Certify Orders for Interlocutory Review ("Motion to Reconsider"), also filed today in this Court, along with any related appellate proceedings, or, in

the alternative, (2) a Petition for a Writ of Mandamus, filed today in the United States Court of Appeals for the Ninth Circuit.[1] As set forth fully in the accompanying memorandum of law, a stay is warranted because Defendants are likely to succeed on their Motion to Reconsider or, in the alternative, their Petition for a Writ of Mandamus; Defendants will be irreparably harmed absent a stay; Plaintiffs will not be harmed by a stay; and the public interest will be well-served by a stay in order to facilitate the review by the Ninth Circuit that the Supreme Court contemplated. The United States seeks expedited consideration of this motion.

MEMORANDUM OF LAW IN SUPPORT OF MOTION TO STAY

This Court is familiar with the background and procedural history here, which is set out more fully in the accompanying Motion for Reconsideration. *See* Defs.' Mot. to Reconsider Denial of Reqs. to Cert. Orders for Interlocutory Rev. 4-8 ("Mot. to Reconsider"), ECF No. 418. Of particular relevance, on November 2, 2018, the Supreme Court denied a request for a stay without prejudice "because adequate relief may be available in the United States Court of Appeals for the Ninth Circuit." ECF No. 416 at 2. In doing so, the Supreme Court reiterated that Plaintiffs' claims satisfy the second factor in the interlocutory review standard because those claims present "substantial grounds for difference of opinion." *Id*. The Supreme Court also noted that the basis for the Ninth Circuit's prior denials of mandamus "are, to a large extent, no longer pertinent." *Id*. at 3. As the Supreme Court's order makes clear, the appropriate forum for consideration of the novel and threshold legal issues in this case is the Ninth Circuit, either through an interlocutory appeal certified under 28 U.S.C. § 1292(b) or through review on a mandamus petition. And as amplified in the Motion to Reconsider, each of the three factors for

[1] Pursuant to Local Rule 7-1(a), the parties conferred on this motion and the request for expedited review. Plaintiffs oppose this motion and the request for expedited review.

certification under 28 U.S.C. § 1292(b) is met here. And as explained in the Petition for a Writ of Mandamus, the factors for mandamus will be satisfied if this Court declines to certify its orders denying Defendants' dispositive motions for interlocutory appeal. Defendants are therefore likely to succeed on the merits of either their Motion to Reconsider or their Petition for a Writ of Mandamus.

As indicated by the Chief Justice's October 19 stay of proceedings in this case, the remaining three factors for granting a stay—*i.e.*, consideration of (1) irreparable injury to the applicant absent a stay; (2) substantial injury to the other parties; and (3) the public interest, *Nken v. Holder*, 556 U.S. 418, 433-34 (2009)—also weigh in favor of the requested relief. Without a stay, the United States and the public interest will be irreparably harmed because trial proceedings will move forward without allowing the opportunity for appellate review of the claims that the Supreme Court contemplated in its November 2 Order. Moreover, the very process of discovery and trial this Court contemplates are fundamentally contrary to the Administrative Procedure Act (APA), the separation of powers, and the equitable power of an Article III court. Plaintiffs' efforts to require the defendant agencies to develop and implement a comprehensive, government-wide energy policy outside of the congressionally prescribed statutory frameworks the defendant agencies and officials are required by law to follow run roughshod over fundamental constitutional principles. They violate both the vesting of "legislative Powers" in the Congress, U.S. CONST. art. I, § 1, and the vesting of "executive Power . . . . in a President of the United States." *Id.*, art. II, § 1, cl. 1. The APA limits judicial review to the administrative record of action taken within the scope of an agency's authority. 5 U.S.C. § 706. And as the Supreme Court recognized, even before enactment of the APA, permitting an agency's "findings to be attacked or supported in court by new evidence" as Plaintiffs seek to do

here, improperly "substitute[s] the court for the administrative tribunal." *Tagg Bros. & Moorhead v. United States*, 280 U.S. 420, 444 (1930). Absent a stay, the United States will be forced to participate in a fifty-day trial that trenches upon the APA's important limits, transgresses the separation of powers, and flouts the statutory procedures and standards that Congress has provided to address claims of the kind that Plaintiffs assert.

Meanwhile, Plaintiffs can make no credible claim that, after waiting decades to seek relief for alleged violations of the Due Process Clause, a relatively brief stay to allow the Ninth Circuit (and the Supreme Court, as may be necessary) to consider the claims will cause them irreparable harm. *Cf. Oakland Tribune, Inc. v. Chronicle Publ'g. Co.*, 762 F.2d 1374, 1377 (9th Cir. 1985) (plaintiff's "long delay before seeking a preliminary injunction implies a lack of urgency and irreparable harm"). Plaintiffs' alleged injuries stem from the cumulative effects of CO_2 emissions, hundreds of years in the making. *See* Expert Report of James E. Hansen at 7-9, ECF No. 274-1. As one of Plaintiffs' own experts recognizes, climate change "is not something that can be stopped in the near term." Decl. of Harold R. Wanless ¶ 18, ECF No. 275; *see also* Expert Report of Eric Rignot 2, ECF No. 262-1 ("It is not clear how much of this sea level rise can be avoided by slowing down climate warming or even cooling the planet again."). A brief stay, designed to allow the Ninth Circuit to consider whether this unprecedented and sweeping invocation of a court's equitable power is an appropriate means to address climate change, will not appreciably harm Plaintiffs.

Conclusion

For the foregoing reasons, this Court should stay proceedings pending (1) this Court's consideration of Defendants' Motion to Reconsider and related appellate proceedings, or, in the

alternative, (2) the Ninth Circuit's consideration of Defendants' Petition for a Writ of Mandamus.

Dated: November 5, 2018

Respectfully submitted,

JEFFREY BOSSERT CLARK
Assistant Attorney General
JEFFREY H. WOOD
Principal Deputy Assistant Attorney General
Environment & Natural Resources Division

/s/ Sean C. Duffy
LISA LYNNE RUSSELL
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
MARISSA PIROPATO (MA Bar No. 651630)
CLARE BORONOW (admitted to MD bar)
FRANK J. SINGER (CA Bar No. 227459)
ERIKA NORMAN (CA Bar No. 268425)

U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

TODD KIM
Assistant Attorney General
United States Department of Justice
Environment & Natural Resources Division

SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
150 M Street NE
Washington, DC 20002
Tel: (202) 305-0445
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al*.,

Plaintiffs,

v.

THE UNITED STATES OF AMERICA, *et al.*,

Defendants.

Case No. 6:15-cv-1517-AA

DEFENDANTS' MOTION TO DISMISS SECOND AMENDED COMPLAINT AND MOTION TO CERTIFY

MOTION

Defendants move to dismiss Plaintiffs' second amended complaint pursuant to Rules 12(b)(1) and 12(b)(6) of the Federal Rules of Civil Procedure, and the Ninth Circuit's mandate ordering this Court to dismiss the case. Should the Court issue an order denying the motion to dismiss, in the alternative, Defendants move this Court to certify that order for interlocutory appeal pursuant to 28 U.S.C. § 1292(b). The grounds for these motions are set forth in detail in the memorandum submitted herewith. These motions are supported by the accompanying memorandum and such further evidence and argument as might be offered to the Court before these motions are submitted for decision. Wherefore, Defendants request for the reasons set forth in their accompanying memorandum that the Court dismiss the second amended complaint with prejudice and enter judgment for Defendants.

In compliance with Local Rule 7-1, on June 22, 2023, the Parties conferred telephonically to resolve the dispute that informs this motion to dismiss and the request to certify any order denying the motion to dismiss for interlocutory appeal. Plaintiffs indicated that they oppose both the motion to dismiss and the request to certify for interlocutory appeal.[1]

[1] On June 14, 2023, Defendants moved, pursuant to Fed. Civ. P. 6(b)(1), to enlarge time to respond to the second amended complaint. *See* Defs.' Mot. to Enlarge Time, ECF No. 545. As explained in the motion to enlarge time, during the parties' conferral on that motion, Plaintiffs indicated that they do not oppose expedited consideration, but they do oppose an enlargement of time to respond to the Second Amended Complaint unless the response is in the form of an answer. ECF No. 545 ¶¶ 1-2. In a June 21, 2023 minute order, the Court granted the motion for an extension of time, but indicated that the extension is for "Time to Answer," and that the "Answer is due by 7/24/2023." ECF No. 546. The minute order is thus ambiguous insofar as it appears to grant an extension to file an answer but does not address any other type of response to the complaint, such as a motion under Fed. R. Civ. P. 12. Given the uncertainty, Defendants are filing this motion to dismiss today to comply with the time limits in Fed. R. Civ. P. 15(a)(3).

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MEMORANDUM OF LAW IN SUPPORT OF DEFENDANTS' MOTION TO DISMISS SECOND AMENDED COMPLAINT

INTRODUCTION

Plaintiffs have failed to bring a justiciable case. Recognizing this, the Court of Appeals for the Ninth Circuit mandated dismissal of this action for lack of standing because Plaintiffs cannot show that their claims are redressable by an Article III court. *Juliana v. United States*, 947 F.3d 1159, 1175 (9th Cir. 2020), *reh'g en banc denied*, 986 F.3d 1295 (Mem.) (9th Cir. 2021). Because the now-operative complaint is not different in any relevant sense from the complaint that the Ninth Circuit examined and rejected in 2020, this Court should comply with the Ninth Circuit mandate and dismiss the operative complaint under Federal Rule of Civil Procedure 12(b)(1) for lack of subject matter jurisdiction.

The Court should also dismiss the second amended complaint ("SAC") for three additional reasons. *First*, Plaintiffs have not alleged a redressable claim under Article III. *Second*, this action should be dismissed because it is not a case or controversy that a federal court may entertain consistent with the Constitution and the scope of its equitable jurisdiction. *Third*, because the Constitution provides no fundamental right to a "stable climate system," and no federal "public trust" doctrine applies, the claims based on alleged constitutional violations and an alleged public trust fail on the merits and should be dismissed under Rule 12(b)(6). *See* SAC ¶¶ 277-310.

For these reasons, the Court should dismiss the amended complaint under Rules 12(b)(1) and 12(b)(6). If the Court denies this motion to dismiss the second amended complaint,

Defendants ask in the alternative, under 28 U.S.C. § 1292(b), that the Court certify for interlocutory appeal its order denying the motion to dismiss.[2]

BACKGROUND

A. The First Amended Complaint and Prior District Court Proceedings

Plaintiffs brought this action in August 2015 against the United States, President Obama, the Executive Office of the President, the heads of three sub-components within that office, and eight Cabinet departments and agencies, alleging that Defendants violated their rights under the Constitution and a purported federal public trust doctrine. Compl. for Decl. & Inj. Relief, ECF No. 1; *see also* First Am. Compl. for Decl. & Inj. Relief ("FAC"), ECF No. 7. They sought an order enjoining Defendants from further violations of the alleged constitutional and public trust rights underlying each of their claims, as well as an order directing Defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." FAC at 94 (Prayer for Relief ¶ 7). Plaintiffs also sought several forms of declaratory relief under the Declaratory Judgment Act, 28 U.S.C. § 2201. *See id.* ¶ 14. Specifically, Plaintiffs sought a judgment declaring:

- "that Defendants have violated and are violating Plaintiffs' fundamental constitutional rights to life, liberty, and property by substantially causing or contributing to a dangerous concentration of CO_2 in the atmosphere, and . . . dangerously interfer[ing] with a stable climate system . . .";
- "Defendants' public trust violations . . ."; and
- "the Energy Policy Act, Section 201, to be unconstitutional on its face."

Id. at 94 (Prayer for Relief ¶¶ 1, 5, 3). Plaintiffs also sought injunctive relief, where they requested that the Court:

[2] Defendants will separately move under 28 U.S.C. § 1292(b) for an order certifying for interlocutory appeal this Court's order granting Plaintiffs' motion for leave to amend their complaint, June 1, 2023 Op. & Order, ECF No 540 ("Rule 15 Order").

- "Enjoin Defendants from further violations of the Constitution underlying each claim for relief"; and
- "Order Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 so as to stabilize the climate system."

Id. (Prayer for Relief ¶¶ 2, 6, 7). In addition to this declaratory and injunctive relief, the Complaint asked the Court to "[g]rant such other and further relief as the Court deems just and proper." *Id.* at 95 (Prayer for Relief ¶ 9).

The government moved to dismiss the Complaint under Fed. R. Civ. P. 12(b)(1) and 12(b)(6) for lack of standing, failure to state a cognizable constitutional claim, and failure to state a claim on a public trust theory. Fed. Defs.' Mot. to Dismiss, ECF No. 27. The Court denied that motion in November 2016, and largely denied the United States' motion for judgment on the pleadings (ECF No. 195) and motion for summary judgment (ECF No. 207) in October 2018. *See* Nov. 10, 2016 Op. & Order ("MTD Order"), ECF No. 83; Oct. 15, 2018 Op. & Order ("MJP & MSJ Order"), ECF No. 369. The government requested certification for interlocutory review by the Ninth Circuit of each of these dispositive motions, which the Court also denied. ECF No. 172; MJP & MSJ Order at 59-61.

Following that, the United States petitioned the Supreme Court for a writ of mandamus and stay of proceedings. ECF No. 390-1; ECF No. 391-1. The full Court denied the petition on November 2, 2018, but on grounds that "adequate relief may be available in the United States Court of Appeals for the Ninth Circuit." Nov. 2, 2018 Order 2, ECF No. 416. And while the Court recognized that the Ninth Circuit had denied the United States' petitions for writ of mandamus twice in the past, it explained that the Ninth Circuit had done so without prejudice, and for reasons that were, "to a large extent, no longer pertinent." *Id.* at 3. Finally, the Court noted that "the 'striking' breadth of plaintiffs' claims 'presents substantial grounds for difference

of opinion,'" while also citing the standard for interlocutory appeal under 28 U.S.C. § 1292(b). *Id.* at 2 (citation omitted).

The United States then moved this Court to reconsider its denial of the requests to certify its orders for interlocutory appeal. Defs.' Mot. to Reconsider, ECF No. 418. In response, the Court certified the case for interlocutory appeal pursuant to 28 U.S.C. § 1292(b) and stayed proceedings pending a decision by the Ninth Circuit. Nov. 21, 2018 Order, ECF Nos. 444, 445. The government then sought permission to appeal, which the Ninth Circuit granted. Filed Order, *Juliana v. United States*, No. 18-36082 (9th Cir. Dec. 26, 2018), Dkt. No. 1.

B. The Ninth Circuit Decision

On January 17, 2020, the Ninth Circuit issued a decision reversing this Court's certified orders and remanding the case to this Court with instructions to dismiss for lack of Article III standing. *Juliana*, 947 F.3d at 1175. The Ninth Circuit held that Plaintiffs had adequately pleaded injury-in-fact and traceability, but not redressability. Because a "plaintiff must demonstrate standing separately for each form of relief sought," *Friends of the Earth, Inc. v. Laidlaw Env't Servs. (TOC), Inc.*, 528 U.S. 167, 185 (2000), the Ninth Circuit analyzed the redressability of Plaintiffs' requests for both declaratory and injunctive relief. As to each, the Ninth Circuit determined whether the relief sought was "both (1) substantially likely to redress their injuries; and (2) within the district court's power to award." *Juliana*, 947 F.3d at 1170.

Beginning with Plaintiffs' request for a declaration that the government is violating the Constitution, the Ninth Circuit concluded that Plaintiffs failed the first prong of the redressability test because a declaratory judgment, without more, was not "substantially likely to mitigate [Plaintiffs'] asserted concrete injuries." *Id*. ("[P]sychic satisfaction is not an acceptable Article III remedy because it does not redress a cognizable Article III injury") (quoting *Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 107 (1998)).

With regard to Plaintiffs' requests for injunctive relief, the Ninth Circuit concluded that Plaintiffs failed at least the second prong of the redressability test, if not both prongs. It first observed that the crux of that relief would require the government not only to cease permitting, authorizing, or subsidizing fossil fuel use, but also to prepare a plan, subject to judicial approval, to draw down harmful emissions. *Id.* at 1170. Even with the broad scope of the requested injunction, however, the Ninth Circuit remained "skeptical" that Plaintiffs had satisfied the first prong of the redressability test because they had not shown that the injunctive relief they seek is "substantially likely to redress their injuries." *Id.* at 1171. The Ninth Circuit explained that an order enjoining the challenged government activities would not suffice to stop catastrophic climate change or ameliorate Plaintiffs' injuries. *Id.* at 1170. And, even to the extent Plaintiffs insisted their "injuries would be to some extent ameliorated" by the injunction they requested, the Ninth Circuit explained that Plaintiffs could not rely on the Supreme Court's relaxed redressability standard in *Massachusetts v. EPA*, 549 U.S. 497, 525-26 (2007), because they do not assert a procedural right. *Id.* at 1171; *see also Wash. Env't Council v. Bellon*, 732 F.3d 1131, 1144-45 (9th Cir. 2013).

Turning to the second prong of the redressability test, the Ninth Circuit found that Plaintiffs could not show that the injunctive relief they sought is within the power of an Article III court to grant. *Juliana*, 947 F.3d at 1171. The Court explained that "any effective plan would necessarily require a host of complex policy decisions entrusted . . . to the wisdom and discretion of the executive and legislative branches," *id.*, decisions "which must be made by the People's 'elected representatives.'" *Id*. at 1172 (quoting *Collins v. City of Harker Heights*, 503 U.S. 115, 128-29 (1992)); *see also id.* at 1170 (noting that the injunction Plaintiffs sought would "enjoin the Executive from exercising discretionary authority expressly granted by Congress" and would

"enjoin Congress from exercising power expressly granted by the Constitution over public lands").[3]

The Ninth Circuit reversed this Court's orders on the dispositive motions and remanded the case to this Court "with instructions to dismiss for lack of Article III standing." *Id.* at 1175. Following denial of Plaintiffs' request for en banc rehearing of the panel's decision, *Juliana v. United States*, 986 F.3d 1295 (Mem.) (9th Cir. 2021), the Ninth Circuit issued the mandate on March 5, 2021, effectuating its January 17, 2020 decision. ECF No. 461.

C. The Motion for Leave to File a Second Amended Complaint

On March 9, 2021, Plaintiffs moved this Court for leave to file a second amended complaint. Pls.' Mot. for Leave to Amend, ECF No. 462. In their motion, Plaintiffs sought an order granting leave to amend "well in advance of their deadline to petition the U.S. Supreme Court for a writ of certiorari, due on July 12, 2021." *Id.* at 1. Plaintiffs explained that they "contest the Ninth Circuit's standing analysis on redressability and its ruling on Article III equitable authority and reserve their rights to petition the Supreme Court for a writ of certiorari to review and reverse that decision." *Id.* at 12 n.7.

Rather than seek Supreme Court review of the Ninth Circuit decision, however, Plaintiffs let their deadline to petition for certiorari pass on July 12, 2021. They instead pressed their arguments in this Court, relying heavily on the Supreme Court's March 8, 2021 decision in

[3] Because it held that Plaintiffs lack standing, the Court of Appeals did not reach the merits of Plaintiffs' claims, i.e., whether the claims asserting a fundamental right to a "stable climate system" or violations of a purported federal public trust doctrine stated a claim for which relief could be granted. It confirmed, however, that "[r]easonable jurists can disagree about whether the asserted constitutional right exists." *Juliana*, 947 F.3d at 1169 (citing *Clean Air Council v. United States*, 362 F. Supp. 3d 237, 250-53 (E.D. Pa. 2019) (finding no constitutional right similar to the one Plaintiffs assert here)). And it noted the Supreme Court's observation "that the 'striking' breadth of plaintiffs' . . . claims 'presents substantial grounds for difference of opinion.'" *Id.* at 1169-70 (internal citation omitted).

Uzuegbunam v. Preczewski, 141 S. Ct. 792 (2021). The Supreme Court in that case allowed plaintiffs asserting a First Amendment claim under 42 U.S.C. § 1983 to establish the redressability element of standing based on a claim for nominal damages for past injury, although the claims based on future injury were moot because the defendant had ceased to enforce the policies that the plaintiffs challenged. Pls.' Reply in Supp. of Mot. for Leave to Amend, ("Pls.' Rule 15 Reply") 8-11, ECF No. 469. The Supreme Court held in that context that "a request for nominal damages satisfies the redressability element of standing where a plaintiff's claim is based on a completed violation of a legal right." *Uzuegbunam*, 141 S. Ct. at 802.

Defendants opposed the motion for leave to amend on the grounds that the Ninth Circuit mandate required this Court to dismiss the case, and that the proposed amendment would be futile because it cannot cure the jurisdictional defects that require dismissal. Defs.' Resp. in Opp'n to Mot. for Leave to Amend, ECF No. 468. Responding to Plaintiffs' reliance on *Uzuegbunam*, Defendants explained among other things that the case turned on the award of nominal damages, which Plaintiffs do not seek here.

This Court nonetheless granted Plaintiffs' motion for leave on June 1, 2023. Rule 15 Order, ECF No. 540. In that opinion, the Court overlooked the Ninth Circuit's conclusion that Plaintiffs' requested declaratory relief failed under the first prong of the redressability test. *Compare* Rule 15 Order at 12-13 (concluding that the Ninth Circuit "did not decide whether plaintiffs' requested declaratory relief failed or satisfied the redressability requirement for standing") *with Juliana*, 947 F.3d at 1170 (holding that Plaintiffs failed the first prong of the redressability test because a declaratory judgment, without more, was not "substantially likely to mitigate [Plaintiffs'] asserted concrete injuries"). The Court next revisited whether relief under

the Declaratory Judgment Act could satisfy redressability, and concluded that it could, despite the Ninth Circuit's holding to the contrary in this case. *Compare* Rule 15 Order at 13, 16-17 (concluding that "a declaration that federal defendants' energy policies violate plaintiffs' constitutional rights would itself be significant relief") *with Juliana*, 947 F.3d at 1170-71 (reaching the opposite conclusion, *viz*., that Plaintiffs' requested relief under the Declaratory Judgment Act did not satisfy the redressability requirement). Finally, the Court relied on *Uzuegbunam* for the proposition that standing may be satisfied even when "relief is nominal or trivial," Rule 15 Order at 16, again, contrary to the Ninth Circuit's decision and reasoning. *See Juliana*, 947 F.3d at 1170-71.[4]

D. The Second Amended Complaint

On June 8, Plaintiffs served their second amended complaint, which seeks declaratory relief nearly identical to the declaratory relief sought in the first amended complaint. *Compare* FAC at 94 (Prayer for Relief ¶¶ 1,3,5) (seeking declaration that Defendants have violated Plaintiffs' constitutional rights (¶ 1) and public trust doctrine (¶ 5), and that the Energy Policy Act is unconstitutional on its face (¶ 3)) *with* SAC at 143 (Prayer for Relief ¶¶ 1, 2, 3) (same). And the second amended complaint makes only minor changes to the scope of injunctive relief sought—rather than seeking an injunction *directing* the government to "implement [a] . . . remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2," FAC at 94 (Prayer for Relief ¶ 7), it seeks an injunction "*restraining* Defendants from carrying out

[4] In reexamining the Ninth Circuit's redressability decision, this Court also invoked various Supreme Court cases that pre-date the Ninth Circuit's decision in this case. *See* Rule 15 Order at 15-17 (citing *Franklin v. Massachusetts*, 505 U.S. 788 (1992); *Utah v. Evans*, 536 U.S. 452 (2002); *Duke Power Co. v. Carolina Env't Study Grp., Inc*., 438 U.S. 59, 81 (1978); *Powell v. McCormack*, 395 U.S. 486, 499 (1969)).

policies, practices, and affirmative actions" that allegedly harm Plaintiffs. SAC at 143 (Prayer for Relief ¶ 4) (emphasis added).

STANDARD OF REVIEW

"The district courts of the United States are courts of limited jurisdiction, defined (within constitutional bounds) by federal statute." *Badgerow v. Walters*, 142 S. Ct. 1310, 1315 (2022). "It is to be presumed that a cause lies outside this limited jurisdiction, and the burden of establishing the contrary rests upon the party asserting jurisdiction." *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377 (1994) (cleaned up). A court reviews a motion to dismiss a complaint for lack of Article III standing under Fed. R. Civ. P. 12(b)(1). *Naruto v. Slater*, 888 F.3d 418, 425 n.7 (9th Cir. 2018) (quoting *Maya v. Centex Corp.*, 658 F.3d 1060, 1067 (9th Cir. 2011)). Where the jurisdictional attack is facial, the court determines whether the allegations contained in the complaint are sufficient on their face to invoke federal jurisdiction, accepting all material allegations in the complaint as true and construing them in favor of the party asserting jurisdiction. *See Warth v. Seldin*, 422 U.S. 490, 501 (1975). Once a party has moved to dismiss for lack of subject matter jurisdiction under Rule 12(b)(1), the party invoking federal jurisdiction bears the burden of establishing the elements of standing. *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 561 (1992); *Meland v. Weber*, 2 F.4th 838, 843 (9th Cir. 2021). "[A] party must establish an Article III case or controversy before [a court can] exert subject matter jurisdiction." *Matter of E. Coast Foods, Inc.*, 66 F.4th 1214, 1218 (9th Cir. 2023).

A court may also dismiss a complaint pursuant to Fed. R. Civ. P. 12(b)(6) for failure to state a claim upon which relief can be granted. In evaluating the sufficiency of a complaint's factual allegations, the court must accept as true all well-pleaded material facts alleged in the complaint and construe them in the light most favorable to the non-moving party. *See Daniels-*

Hall v. Nat'l Educ. Ass'n, 629 F.3d 992, 998 (9th Cir. 2010). However, a court need not accept as true any legal conclusion set forth in a pleading. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). A complaint must set forth facts supporting a *plausible*, not merely *possible*, claim for relief. *Bell Atl. Corp. v. Twombly,* 550 U.S. 544, 555 (2007).

ARGUMENT

I. The Rule of Mandate Requires Dismissal of the Second Amended Complaint.

"Under the 'rule of mandate,' a lower court is unquestionably obligated to 'execute the terms of a mandate.'" *S.F. Herring Ass'n v. Dep't of the Interior*, 946 F. 3d 564, 574 (9th Cir. 2019) (citation omitted). The "mandate rule . . . serves an interest in preserving the hierarchical structure of the court system," *United States v. Thrasher*, 483 F.3d 977, 982 (9th Cir. 2007), "and thus constitutes a basic feature of the rule of law in an appellate scheme." *S.F. Herring Ass'n*, 946 F.3d at 574. When the scope of the remand is clear, the role of a district court is limited. *Hall v. City of Los Angeles*, 697 F.3d 1059, 1067 (9th Cir. 2012); *Mendez-Gutierrez v. Gonzalez*, 444 F.3d 1168, 1172 (9th Cir. 2006). A district court cannot vary or examine the mandate of an appellate court "for any other purpose than execution," *In re Sanford Fork & Tool Co.*, 160 U.S. 247, 255 (1895), nor "refuse to dismiss a case when the mandate required it." *United States v. Cote*, 51 F.3d 178, 181 (9th Cir. 1995).

The task of a district court in applying the rule of mandate is to "distinguish matters that have been decided on appeal . . . from matters that have not." *United States v. Kellington*, 217 F.3d 1084, 1093 (9th Cir. 2000). "The rule of mandate requires that, on remand, the lower court's actions must be consistent with both the letter and the spirit of the higher court's decision." *Ischay v. Barnhart*, 383 F. Supp. 2d 1199, 1214 (C.D. Cal. 2005) (emphasis in

original) (citing *Quern v. Jordan*, 440 U.S. 332, 347 n.18 (1979)). "Violation of the rule of mandate is a jurisdictional error." *Hall*, 697 F.3d at 1067.

Here, the mandate is clear. The Ninth Circuit held that neither the declaratory relief nor the injunctive relief sought in the first amended complaint—and which Plaintiffs again seek in the second amended complaint—satisfies the redressability requirement. On that basis, the Ninth Circuit reversed the certified orders and remanded to this Court "with instructions to dismiss for lack of Article III standing." *Juliana*, 947 F.3d at 1175. The instructions to dismiss the case are unambiguous and leave no room for perpetuating a lawsuit based on the second amended complaint, which is nearly identical to the first amended complaint. This Court should accordingly dismiss the second amended complaint rather than reexamine whether a declaratory judgment could satisfy redressability, as that issue was expressly disposed of on appeal. *United States v. Washington*, 172 F.3d 1116, 1118 (9th Cir. 1999) (holding that "[t]he mandate is controlling as to all matters within its compass" and that district courts on remand may examine only those issues "not expressly or impliedly disposed of on appeal") (cleaned up).

II. Plaintiffs Lack Standing Because Their Claims are Not Redressable.

Even assuming the Ninth Circuit's mandate were not controlling as to redressability, this Court should dismiss Plaintiffs' second amended complaint on that basis.[5] "To have standing under Article III, a plaintiff must have (1) a concrete and particularized injury that (2) is caused

[5] Plaintiffs also contend that Section 201 of the Energy Policy Act and the Department of Energy's 2011 order authorizing the export of liquified natural gas from the Jordan Cove LNG Terminal in Coos Bay, Oregon are unconstitutional. SAC ¶¶ 193, 288 and p. 143, ¶ 3 (Prayer for Relief). As with all of Plaintiffs' claims, a favorable decision specific to the Energy Policy Act would not meaningfully redress Plaintiffs' asserted climate injuries. In any event, this claim is beyond this Court's jurisdiction because exclusive jurisdiction to review export authorizations like this one is vested in the courts of appeals. 15 U.S.C. § 717r(b); *Consol. Gas Supply Corp. v. FERC*, 611 F.2d 951, 957 (4th Cir. 1979).

by the challenged conduct and (3) is likely redressable by a favorable judicial decision." *Juliana*, 947 F.3d at 1168. With respect to the third element—redressability—"plaintiffs must show that the relief they seek is both (1) substantially likely to redress their injuries; and (2) within the district court's power to award." *Id.* at 1170 (citing *M.S. v. Brown*, 902 F.3d 1076, 1083 (9th Cir. 2018)). "[A] plaintiff must demonstrate standing for each claim he seeks to press and for each form of relief that is sought." *Town of Chester v. Laroe Estates, Inc.*, 581 U.S. 433, 439 (2017) (cleaned up).[6]

A. Plaintiffs do not have standing to seek injunctive relief.

Even if the rule of mandate did not apply, the Ninth Circuit's opinion controls as a matter of precedent. The second amended complaint should be dismissed for the same reasons that the Ninth Circuit held the first amended complaint should be dismissed. The second amended complaint seeks an "injunction restraining Defendants from carrying out policies, practices, and affirmative actions that render the national energy system unconstitutional in a manner that harms Plaintiffs." SAC at 143 (Prayer for Relief ¶ 4). But the Ninth Circuit has already held, and Plaintiffs' experts have conceded, that "an order simply enjoining [the challenged] activities will not, according to their own experts' opinions, suffice to stop catastrophic climate change or even ameliorate" Plaintiffs' injuries. *Id*. Plaintiffs, therefore, cannot satisfy the first prong of the redressability inquiry for injunctive relief because they cannot show that the relief sought is "substantially likely to redress their injuries." *Id.* at 1171.

[6] Defendants recognize that the Ninth Circuit concluded that the first amended complaint adequately pleaded the first two prongs of Article III standing. *Juliana*, 947 F.3d at 1168-69. Defendants respectfully reserve their right in potential higher court review to raise their opposition to the Ninth Circuit's ruling on the injury-in-fact and traceability prongs of standing.

Even if Plaintiffs could establish that injunctive relief would ameliorate their alleged injuries, the injunction they seek in the second amended complaint is unavailable because it would enjoin the Executive Branch from exercising discretionary authority granted to it by statute, and would enjoin Congress from exercising power expressly granted to it by the Constitution. *Id.* (citing the Property Clause, U.S. CONST. art. IV, § 3, cl. 2). Plaintiffs seek an injunction "restraining Defendants from carrying out policies, practices, and affirmative actions" that allegedly harm them. SAC at 143 (Prayer for Relief ¶ 4). As the Ninth Circuit has explained, such an injunction would "necessarily require a host of complex policy decisions entrusted . . . to the wisdom and discretion of the executive and legislative branches," *Juliana*, 947 F.3d at 1171, decisions "which must be made by the People's 'elected representatives.'" *Id.* at 1172 (quoting *Collins*, 503 U.S. at 128-29). The policy decisions that Plaintiffs aim to nullify, prevent, or curtail are within the province of the political branches. *Id.* at 1173. The requested injunction therefore lies beyond a district court's power to award. *Id.*

B. Plaintiffs do not have standing to seek declaratory relief.

The declaratory relief sought in the second amended complaint—which is nearly identical to the declaratory relief sought in the first amended complaint—also fails the redressability analysis. The Ninth Circuit concluded that a declaration that the government is violating the Constitution would not likely remediate Plaintiffs' injuries. *Id.* at 1170. The Ninth Circuit found that while a declaration may be "likely to benefit the plaintiffs psychologically, [it] is unlikely by itself to remediate their alleged injuries absent further court action." *Id.* at 1170; *see also Clean Air Council*, 362 F. Supp. 3d at 246, 249 ("I cannot adequately redress Plaintiffs' injuries. . . . [Declaratory] relief will not redress the injuries Plaintiffs have already suffered."). And because the declaration Plaintiffs sought could not address Plaintiffs' injuries without

impermissibly embroiling a federal court in ongoing oversight of the elected branches, all that would be left is "psychic satisfaction," which "is not an acceptable Article III remedy because it does not redress a cognizable Article III injury." *Steel Co.*, 523 U.S. at 107. Thus, the Ninth Circuit concluded that Plaintiffs lack Article III standing to bring a claim solely for declaratory relief.

The second amended complaint fares no better. The declaration Plaintiffs now seek is not materially different from the declaration they sought in their first amended complaint, and the Ninth Circuit has already concluded that such relief fails the test for redressability. And the declaration they seek also suffers from the same basic redressability flaw that sinks their request for an injunction—Plaintiffs cannot establish that "the specific relief they seek is within the power of an Article III court." *Juliana*, 947 F.3d at 1171. Their second amended complaint seeks a declaration concluding that "the national energy system" is unconstitutional, SAC at 143, ¶¶ 3-4; that sort of unbounded declaration, which would functionally declare unconstitutional unspecified laws, regulations, and policies, is not within the power of a federal court to award.

Plaintiffs predict that a declaratory judgment is "likely to stop" the government conduct they complain of, because the government would change the "policies and practices" Plaintiffs object to. SAC ¶¶ 95-A, 95-B. Even assuming this were true, a declaratory judgment still would not adequately redress Plaintiffs' climate injuries for the same reason the Ninth Circuit was "skeptical" that even the broad injunction sought in the first amended complaint would be "substantially likely to redress [Plaintiffs'] injuries." *Juliana*, 947 F.3d at 1170-71. As the Ninth Circuit noted, Plaintiffs' own experts conceded that "reducing the global consequences of climate change demands much more than cessation of the government's promotion of fossil fuels. Rather, these experts opine that such a result calls for no less than a fundamental

transformation of this country's energy system, if not that of the industrialized world." *Id*. A declaratory judgment plainly would not accomplish this end. And even to the extent a declaratory judgment could have the effect of slowing or reducing global greenhouse-gas emissions, the Ninth Circuit explained that such an effect would not establish redressability in the context of Plaintiffs' claims here. *See id*. at 1171 (explaining that the relaxed redressability standard Plaintiffs sought to invoke is unavailable to them because they assert substantive claims rather than procedural rights claims) (citing *Massachusetts v. EPA*, 549 U.S. 497, 525-26 (2007)).

Turning to the second prong of the redressability analysis, Plaintiffs also cannot show that the declaratory relief they seek is "within the power of an Article III court." *Juliana*, 947 F.3d at 1171; *see also M.S.*, 902 F.3d at 1083. As the Ninth Circuit explained, "it is beyond the power of an Article III court to order, design, supervise, or implement" the programmatic remedies Plaintiffs seek in this lawsuit, *Juliana*, 947 F.3d at 1171, and labeling the requested relief as a declaratory judgment instead of an injunction does not bring that same remedy within an Article III court's power. *See California v. Texas*, 141 S. Ct. 2104, 2115-16 (2021). Plaintiffs' ultimate goal in seeking a declaratory judgment impermissibly remains broad judicial assessment and oversight of the Executive Branch unmoored from any discrete agency action or specific relief that would be within a court's power to award. To the extent Plaintiffs locate redressability in the persuasive effect of a broad declaration that would identify no substantive action violative of their rights, that sort of advisory opinion does not fall within an Article III court's power for the same reason.

In sum, the Ninth Circuit considered whether declaratory relief satisfied the redressability requirement and concluded, correctly and definitively, that such relief does not satisfy Article III

in this case. *Juliana*, 947 F.3d at 1170. Because the declaratory relief sought in the second amended complaint is nearly identical to the declaratory relief sought in the first amended complaint, it fares no better and Plaintiffs' second amended complaint must be dismissed.

The Supreme Court's opinion in *Uzuegbunam* does not support a different result. That opinion was issued in March 2021, after the Ninth Circuit panel decided the present case in January 2020, *see Juliana*, 947 F.3d 1159 (2020), and after the full Circuit denied rehearing en banc in February 2021. *Juliana*, 986 F.3d 1295 (Mem.) (2021). *Uzuegbunam* has no bearing on, and certainly did not abrogate, the Ninth Circuit's decision in this case. *Uzuegbunam* involved nominal damages, not declaratory judgments. *See* 141 S. Ct. at 802. Nominal damages are retrospective remedies that can redress "a completed violation of a legal right." *Id.* Declaratory judgments, in contrast, operate prospectively to address a defendant's future conduct. *See MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 126-127 (2007). Nothing in *Uzuegbunam* even remotely suggests that the Supreme Court intended to overrule its long-standing precedent on standing to seek prospective remedies such as declaratory judgments.

Following *Uzuegbunam*, the Supreme Court has continued to recognize that declaratory relief is not enough to establish redressability unless a declaration will have some immediate, real-world effect that addresses concrete harm. *See California v. Texas*, 141 S. Ct. at 2115-16 (dismissing for lack of redressability where plaintiffs sought a declaratory judgment stating that the statutory provision they attacked is unconstitutional); *Haaland* v. *Brackeen*, No. 21-376, 2023 WL 4002951, at *18 (June 15, 2023) (same). Because neither the injunctive nor the declaratory relief they seek will redress Plaintiffs' alleged injuries, the claims in the second amended complaint are not redressable and the Court should dismiss the claims for lack of Article III standing.

III. Plaintiffs' Action is Not a Case or Controversy Cognizable Under Article III.

Aside from Plaintiffs' lack of standing, this action should be dismissed because it simply is not one that a federal court may entertain consistent with the Constitution. "Sometimes, . . . the law is that the judicial department has no business entertaining the claim of unlawfulness—because the question is entrusted to one of the political branches or involves no judicially enforceable rights." *Vieth v. Jubelirer*, 541 U.S. 267, 277 (2004) (plurality opinion). In such a case the claim is said to . . . be nonjusticiable—outside the courts' competence and therefore beyond the courts' jurisdiction." *Rucho v. Common Cause*, 139 S. Ct. 2484, 2494 (2019) (quoting *Baker v. Carr*, 369 U.S. 186, 217 (1962)).

The "judicial Power of the United States," U.S. CONST. art. III, § 1, is "one to render dispositive judgments" in "cases and controversies" as defined by Article III. *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 218-19 (1995) (citation omitted). That power can "come into play only in matters that were the traditional concern of the courts at Westminster" and only in "cases and controversies of the sort traditionally amenable to, and resolved by, the judicial process." *Vt. Agency of Nat. Res. v. United States ex rel. Stevens*, 529 U.S. 765, 774 (2000) (citations omitted). "If a dispute is not a proper case or controversy, the courts have no business deciding it." *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 341 (2006).

Plaintiffs' suit is not a case or controversy cognizable under Article III. Plaintiffs ask the Court to review and assess the entirety of Congress's and the Executive Branch's programs and regulatory decisions relating to climate change and then to pass on the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate. SAC ¶¶ 277-310. No federal court, nor the courts at Westminster, has ever purported to use the "judicial Power" to perform such a sweeping policy review—and for good reason: the Constitution

entrusts to Congress, not the Judiciary, the power to enact through legislation comprehensive government-wide measures of the sort sought by Plaintiffs. And it commits to the President the power to oversee departments and agencies in the Executive Branch in their administration of the broad range of laws committed to their implementation and to draw on their expertise to formulate policy proposals for changing those laws or their implementation across the Executive Branch. These functions are not the province of Article III courts. The "Constitution's central mechanism of separation of powers depends largely upon common understanding of what activities are appropriate to legislatures, to executives, and to courts." *Defs. of Wildlife*, 504 U.S. at 559-60. The aggregated collection of undifferentiated "policies, practices, and . . . actions" that Plaintiffs seek to prevent or impose through their lawsuit challenging the entirety of the federal government's energy policy as implemented by eight separate departments and the Executive Office of the President, SAC at 143 (Prayer for Relief ¶ 4), are matters appropriately entrusted to the legislature and the executive, not the courts.

Nor is the review that Plaintiffs seek within the Court's equitable powers. A federal court's equitable powers are "subject to restrictions: the suit must be within the traditional scope of equity as historically evolved in the English Court of Chancery." *Guaranty Trust Co. v. York*, 326 U.S. 99, 105 (1945). The relief requested by Plaintiffs is plainly not of the sort "traditionally accorded by courts of equity." *Grupo Mexicano de Desarrollo, S.A. v. All. Bond Fund, Inc.*, 527 U.S. 308, 319 (1999). At bottom, this dispute over American energy and environmental policy "is not a proper case or controversy," either at law or in equity, and so "the courts have no business deciding it." *Cuno*, 547 U.S. at 341.

"The province of the court is, solely, to decide on the rights of individuals, not to enquire how the executive, or executive officers, perform duties in which they have a discretion."

Marbury v. Madison, 5 U.S. (1 Cranch) 137, 170 (1803). If a dispute—even one alleging a constitutional violation—is not a proper case or controversy, the federal courts may not decide it. A court's inquiry into its own jurisdiction must be "especially rigorous when reaching the merits of the dispute would force [it] to decide whether an action taken by one of the other two branches of the Federal Government was unconstitutional." *Clapper v. Amnesty Int'l USA*, 568 U.S. 398, 408 (2013) (citation omitted).

Because this action is categorically not a case or controversy within the meaning of Article III, and far beyond the equitable authority of a court to entertain, the Court lacks jurisdiction to entertain it.

IV. Plaintiffs' Claims Fail on the Merits.

Because Plaintiffs' action fails at the jurisdictional threshold, the Ninth Circuit never reached—and this Court need not reach—the merits of the claims. Defendants recognize that this Court previously denied the government's motion to dismiss the first amended complaint, motion for judgment on the pleadings, and motion for summary judgment. ECF Nos. 83, 369. However, the Ninth Circuit has reversed this Court's prior orders. *Juliana*, 947 F.3d at 1175. Plaintiffs' second amended complaint, which supersedes the first amended complaint, *Pacific Bell Tel. Co. v. linkLine Communications, Inc.*, 555 U.S. 438, 456 n.4 (2009), asserts the same claims that were brought in the first amended complaint, which this Court addressed in orders that the Ninth Circuit reversed. Defendants thus renew their objection that Plaintiffs' claims fail on the merits and should be dismissed pursuant to Fed. R. Civ. P. 12(b)(6).

A. There is no constitutional right to a stable climate system.

The Supreme Court has repeatedly instructed courts considering novel due process claims to "'exercise the utmost care whenever . . . asked to break new ground in this field,'… lest the

liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences. *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997) (cleaned up). More specifically, the Supreme Court has "regularly observed that the Due Process Clause specially protects those fundamental rights and liberties which are, objectively, 'deeply rooted in this Nation's history and tradition.'" *Id.* at 720-21 (cleaned up). Plaintiffs' request that this Court recognize an implied fundamental right to a stable climate system, SAC ¶ 304, contradicts that directive, because such a purported right is without basis in the Nation's history or tradition.

The proposed right to a "stable climate system" is nothing like any fundamental right ever recognized by the Supreme Court. The state of the climate is a public and generalized issue, and so interests in the climate are unlike the particularized personal liberty or personal privacy interests of individuals the Supreme Court has previously recognized as being protected by fundamental rights. *See, e.g.*, *Guertin v. Michigan*, 912 F.3d 907, 921-22 (6th Cir. 2019) (The "Constitution does not guarantee a right to live in a contaminant-free, healthy environment."); *Nat'l Sea Clammers Ass'n v. City of New York*, 616 F.2d 1222,1237-38 (3d Cir. 1980) (finding it "established in this circuit and elsewhere that there is no constitutional right to a pollution-free environment"), *vacated on other grounds sub nom. Middlesex Cnty. Sewerage Auth. v. Nat'l Sea Clammers Ass'n*, 453 U.S. 1 (1981); *Ely v. Velde*, 451 F.2d 1130, 1139 (4th Cir. 1971) (observing that arguments "in support of a constitutional protection for the environment" have not "been accorded judicial sanction"); *cf. Lake v. City of Southgate*, No. 16-10251, 2017 WL 767879, at *4 (E.D. Mich. Feb. 28, 2017) ("[W]henever federal courts have faced assertions of fundamental rights to a 'healthful environment' or to freedom from harmful contaminants, they have invariably rejected those claims."). Plaintiffs' First Claim for Relief must be dismissed.

B. Plaintiffs fail to allege a cognizable state-created danger claim.

The First Claim for Relief must also be dismissed because the Constitution does not impose an affirmative duty to protect individuals, and Plaintiffs have failed to allege a cognizable claim under the "state-created danger" exception to that rule.

As a general matter:

> [The Due Process Clause] is phrased as a limitation on the State's power to act, not as a guarantee of certain minimal levels of safety and security. It forbids the State itself to deprive individuals of life, liberty, or property without "due process of law," but its language cannot fairly be extended to impose an affirmative obligation on the State to ensure that those interests do not come to harm through other means.

DeShaney v. Winnebago Cnty. Dep't of Social Servs., 489 U.S. 189, 194-95 (1989). Thus, the Due Process Clause imposes no duty on the government to protect persons from harm inflicted by third parties that would violate due process if inflicted by the government. *Id.* at 196; *accord Patel v. Kent School Dist.*, 648 F.3d 965, 971 (9th Cir. 2011).

The Ninth Circuit recognizes two narrow exceptions to the no-duty-to-protect rule articulated in *DeShaney*: (1) the "special-relationship" exception, which applies to individuals involuntarily placed in state custody; and (2) the state-created danger exception. *Murguia v. Langdon*, 61 F.4th 1096, 1106 (9th Cir. 2023).[7] Under the second exception, "a state actor can be held liable for failing to protect a person's interest in his personal security or bodily integrity when the state actor affirmatively and with deliberate indifference placed that person in danger." *Pauluk v. Savage*, 836 F.3d 1117, 1122 (9th Cir. 2016). The exception has "limited applicability," and the Ninth Circuit has not often approved its application. *Kennedy v. City of*

[7] The Ninth Circuit has rejected the argument that there is a third exception that "a state actor commits a § 1983 deprivation when he fails to perform an act he is legally required to do." *Murguia*, 61 F.4th at 1107.

Ridgefield, 440 F.3d 1091 (Mem.), 1095 (9th Cir. 2006) (Tallman, J., dissenting from denial of rehearing en banc).

Plaintiffs contend that the government's "deliberate actions" and "deliberate indifference" with regard to the dangers of climate change amount to a due process violation under the state-created danger exception. SAC ¶¶ 280-85. But applying the exception to the circumstances of this case would cause the exception to swallow the rule. "Every instance" in which the Ninth Circuit has "permitted a state-created danger theory to proceed has [also] involved an act by a government official that created an obvious, immediate, and particularized danger to a specific person known to that official." *Pauluk*, 836 F.3d at 1129-30 (Murguia, J., concurring in part and dissenting in part) (internal quotation marks omitted); *see also id.* at 1130 (collecting cases). None of those elements is present here.

First, Plaintiffs have identified no harms to their "personal security or bodily integrity" of the kind and immediacy that qualify for the state-created danger exception. Under Ninth Circuit precedent, viable harms include rape, *e.g., L.W. v. Grubbs*, 974 F.2d 119, 120 (9th Cir. 1992); *Wood v. Ostrander*, 879 F.2d 583, 586, 590 (9th Cir. 1989); other physical assault, *e.g., Hernandez v. City of San Jose*, 897 F.3d 1125, 1129-30 (9th Cir. 2018); *Bracken v. Okura*, 869 F.3d 771, 779-80 (9th Cir. 2017); and death directly caused by a government action, *e.g., Maxwell v. Cnty. of San Diego*, 708 F.3d 1075, 1082-83 (9th Cir. 2013); *Munger v. City of Glasgow Police Dep't*, 227 F.3d 1082, 1084-85 (9th Cir. 2000). But here, Plaintiffs allege that general degradation of the global climate has harmed their "dignity, including their capacity to provide for their basic human needs, safely raise families, practice their religious and spiritual beliefs, [and] maintain their bodily integrity" and has prevented them from "lead[ing] lives with access to

clean air, water, shelter, and food." SAC ¶ 283. Those types of harm are unlike the immediate, direct, physical, and personal harms at issue in the above-cited cases.

Second, Plaintiffs identify no specific government actions—much less government *actors*—that put them in such danger. Instead, Plaintiffs contend that a number of (mostly unspecified) agency actions and inactions spanning the last several decades have exposed them to harm. This allegation of slowly-recognized, long-incubating, and generalized harm by itself conclusively distinguishes their claim from all other state-created-danger cases recognized by the Ninth Circuit. *See, e.g.*, *Penilla v. City of Huntington Park*, 115 F.3d 707, 710 (9th Cir. 1997) (recognizing a due process violation where officers "took affirmative actions that significantly increased the risk facing [the victim]: they cancelled the 911 call to the paramedics; they dragged [him] from his porch, where he was in public view, into an empty house; they then locked the door and left him there alone . . . *after* they had examined him and found him to be in serious medical need") (emphasis in original); *Wood*, 879 F.2d at 588 (same where officer arrested driver, impounded his car, and left his female passenger by the side of the road at night in a high-crime area).

Third, Plaintiffs do not allege that government actions endangered *Plaintiffs* in particular. *Kennedy v. City of Ridgefield*, 439 F.3d 1055, 1067 (9th Cir. 2006). The "duty to protect arises where a police officer takes affirmative steps that increase the risk of danger *to an individual*." *Munger*, 227 F.3d at 1089 (emphasis added); *see also Martinez v. California*, 444 U.S. 277, 284-85 (1980) (refusing to find state officers liable where officers were not aware that the victim "as distinguished from the public at large, faced any special danger"). As explained above, Plaintiffs' asserted injuries arise from a diffuse, global phenomenon that affects every other person in their communities, in the United States, and throughout the world.

For all these reasons, there is no basis for finding a violation of Plaintiffs' due process right under the state-created danger doctrine, and Plaintiffs' corresponding claim must be dismissed.

C. No federal public trust doctrine creates a right to a stable climate system.

Plaintiffs' Fourth Claim for Relief, asserting public trust claims, should be dismissed for two independent reasons. First, any public trust doctrine is a creature of *state* law that applies narrowly and exclusively to particular types of state-owned property not at issue here. That doctrine has no application to federal property, the use and management of which is entrusted exclusively to Congress. U.S. CONST. art. IV, § 3, cl. 2 ("The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."). Consequently, there is no basis for Plaintiffs' public trust claim against the federal government under *federal* law. Second, the "climate system" or atmosphere is not within any conceivable federal public trust.

1. No public trust doctrine binds the federal government.

Plaintiffs rely on an asserted public trust doctrine for the proposition that the federal government must "take affirmative steps to protect" "our country's life-sustaining climate system," which they assert the government holds in trust for their benefit. SAC ¶ 308. But because any public trust doctrine is a matter of state law only, public trust claims may not be asserted against the federal government under federal law.

The concept of a public trust is derived from English common law. *District of Columbia v. Air Florida, Inc.*, 750 F.2d 1077, 1081-82 (D.C. Cir. 1984). Where the concept has been invoked, it generally declares that "the sovereign owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." *Nat'l Audubon*

Soc'y v. Superior Ct., 658 P.2d 709, 718 (Cal. 1983) (internal quotation marks and citation omitted).

Plaintiffs claim that the public trust is "secured by the Ninth Amendment and embodied in the reserved powers doctrines of the Tenth Amendment and the Vesting, Nobility, and Posterity Clauses of the Constitution." SAC ¶ 308. But the Supreme Court has without exception treated public trust doctrine as a matter of state law with no basis in the United States Constitution. *See, e.g., PPL Montana, LLC v. Montana*, 565 U.S. 576, 603-04 (2012); *Idaho v. Coeur d'Alene Tribe*, 521 U.S. 261, 283-85 (1997); *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 475 (1988); *Appleby v. City of New York*, 271 U.S. 364, 394 (1926); *Long Sault Dev. Co. v. Call*, 242 U.S. 272, 278-79 (1916); *Shively v. Bowlby*, 152 U.S. 1, 57-58 (1894); *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 452-53 (1892).

In *PPL Montana* the Supreme Court made clear that "the public trust doctrine remains a matter of state law," and that its "contours . . . do not depend upon the Constitution." 565 U.S. at 603-04. The Court explained that the public trust doctrine, as a creature of state law, was "subject . . . to the federal power to regulate vessels and navigation under the Commerce Clause and admiralty power." *Id.* at 604. In this Court's prior order denying Defendants' motions for judgment on the pleadings and for summary judgment, it attempted to distinguish *PPL Montana* on the basis that the Supreme Court did not address "the viability of federal public trust claims with respect to federally-owned trust assets." MTD Order at 44. But *PPL Montana* made clear that a public trust doctrine would never apply to the federal government, 565 U.S. at 603-04, and different factual assertions would not change that result.

Consistent with the discussion above, the D.C. Circuit rejected the same theory advanced by Plaintiffs here in *Alec L. ex rel. Loorz v. McCarthy*, 561 F. App'x 7 (D.C. Cir. 2014)—a

purported public trust action brought on behalf of a different group of children. There, the plaintiffs asserted that the federal government had abdicated a public trust duty to protect the atmosphere from irreparable harm. *Alec L. v. Jackson*, 863 F. Supp. 2d 11, 12 (D.D.C. 2012), *aff'd sub nom. Alec L. ex rel. Loorz v. McCarthy*, 561 F. App'x 7 (D.C. Cir. 2014). In a detailed opinion, the district court dismissed the case, holding that "the central premise upon which Plaintiffs rely to invoke the Court's jurisdiction is misplaced," because public trust claims do not present a federal question. *Id.* at 15 (citing *PPL Montana*, 565 U.S. at 603-04). The D.C. Circuit affirmed in an unpublished, per curiam opinion explaining that *PPL Montana* "repeatedly referred to 'the' public trust doctrine"—that is, "the *state* public trust doctrine"—and "directly and categorically rejected any federal constitutional foundation for that doctrine, without qualification or reservation." 561 F. App'x at 8.

The holdings in the foregoing cases are consistent with—and indeed compelled by—the Property Clause of the Constitution, which provides that "Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States[.]" U.S. CONST. art. IV, § 3, cl. 2. In *Kleppe v. New Mexico*, the Supreme Court held that "[t]he power over the public land thus entrusted to Congress is without limitations." 426 U.S. 529, 539 (1976) (cleaned up); *see also Alabama v. Texas*, 347 U.S. 272, 273 (1954). Because the Constitution makes Congress's power over federal property plenary, that power is not subject to, or in any way constrained by, any common law public trust doctrine.[8]

[8] In its earlier order on the motions to dismiss the first amended complaint, this Court rejected the United States' reliance on *Kleppe v. New Mexico*. MTD Order 47-48. While conceding that Congress's "power over public lands" is "without limitations[,]" this Court emphasized that "the furthest reaches of the power granted by the Property Clause have not yet been definitively resolved[.]" *Id.* (second alteration in original) (quoting *Kleppe*, 426 U.S. at 539). This Court

2. Any public trust doctrine would not apply to the "climate system" or the atmosphere.

Independently, any asserted public trust doctrine does not help Plaintiffs here. Public trust cases have historically involved state ownership of specific types of natural resources, usually limited to submerged and submersible lands, tidelands, and waterways. *See, e.g.*, *PPL Montana*, 565 U.S. at 603-04 (riverbeds); *Stop the Beach Renourishment, Inc. v. Fla. Dep't of Env't Protection*, 560 U.S. 702, 707-08 (2010) (submerged lands); *Phillips Petroleum Co.*, 484 U.S. at 476-77 (tidelands); *Summa Corp. v. California ex rel. State Lands Comm'n*, 466 U.S. 198, 204-05 (1984) (tidelands); *United States v. Mission Rock Co.,* 189 U.S. 391, 406-07 (1903) (tidelands); *Ill. Cent. R.R.*, 146 U.S. at 452-60 (submerged lands).

Plaintiffs would inappropriately extend the public trust doctrine well beyond its historical mooring. Plaintiffs seek to hold the government responsible for maintaining "climate system, which encompasses our atmosphere, waters, oceans, and biosphere." SAC ¶ 308. Specifically, they contend that the federal government has "alienated substantial portions of the atmosphere" and that agencies have "failed in their duty of care as trustees to manage the atmosphere." SAC ¶ 309. Although state courts have sometimes expanded the state-law doctrine to protect additional uses of waters within a state's jurisdiction—e.g., for recreation, aesthetic enjoyment, and preservation of flora and fauna, *see Air Florida*, 750 F.2d at 1083 (collecting cases)—the climate system or atmosphere is unlike any resource previously deemed subject to a public trust. It

concluded on that basis that *Kleppe* did not necessarily foreclose the Plaintiffs' public trust claims. *Id.* But as the Tenth Circuit has explained, the uncertainty to which the *Kleppe* Court was referring "appears to concern not power over federal land but power over property outside federal land." *United States v. Bd. of Cty. Comm'rs of Cnty. of Otero*, 843 F.3d 1208, 1212-13 (10th Cir. 2016). And in finding a lack of redressability for Plaintiffs' requested injunctive relief, the Ninth Circuit in this case recognized that Plaintiffs would contravene the Property Clause insofar as they would be seeking "to enjoin Congress from exercising power expressly granted by the Constitution over public lands." *Juliana*, 947 F.3d at 1170.

cannot be owned and, due to its ephemeral nature, cannot remain within the jurisdiction of any single government. No court has held that the climate system or atmosphere is protected by a public trust doctrine. Indeed, the concept has been widely rejected.[9]

Although their operative complaint confirms that Plaintiffs seek to hold the federal government responsible for alleged mismanagement of the entire "climate system"—and not any particular tidelands, waters, or oceans—in its opinion and order denying the motions to dismiss the first amended complaint, this Court held that Plaintiffs had stated a viable claim because they "alleged violations of the public trust doctrine in connection with the territorial sea." MTD Order 40. But while Plaintiffs may allege that the territorial seas were harmed by the government's alleged failure to protect the climate system, in their second amended complaint, they contend that the atmosphere is burdened by a federal trust. SAC ¶ 310. That the federal agency action and inaction challenged by Plaintiffs might indirectly affect the territorial seas does not mean that Plaintiffs have identified a protected trust. For all these reasons, the Court should dismiss Plaintiffs' Fourth Claim for Relief.

[9] *See, e.g.*, *Clean Air Council*, 362 F. Supp. 3d at 254 ("I decline to arrogate to the Courts the authority to direct national environmental policy. Accordingly, I will grant Defendants' Motion and dismiss Plaintiffs' public trust claim . . . ."); *Sanders-Reed ex rel. Sanders-Reed v. Martinez*, 350 P.3d 1221, 1225 (N.M. Ct. App. 2015) ("Plaintiffs have cited no cases—and we have found none—where another jurisdiction's appellate court has concluded that common law public trust principles independently apply to management of the atmosphere."); *Filippone ex rel. Filippone v. Iowa Dep't of Nat. Res.*, No. 12-0444, 2013 WL 988627, at *3 (Iowa Ct. App. Mar. 13, 2013) (holding that the defendant "does not have a duty under the public trust doctrine to restrict greenhouse gases to protect the atmosphere"); *Aronow v. Minnesota*, No. A12-0585, 2012 WL 4476642, at *3 (Minn. Ct. App. Oct. 1, 2012) (explaining that "no Minnesota appellate court has held that the public-trust doctrine applies to the atmosphere"); *cf. Chernaik v. Brown*, No. 16-11-09273, 2015 WL 12591229, at *7 (Or. Cir. Ct. May 11, 2015) ("This Court, based on its understanding of the history of the public trust doctrine in Oregon, cannot conclude that the atmosphere is a 'resource' to which the public trust doctrine is applicable."), *aff'd in relevant part*, 295 Or. App. 584, 598 (2019); *aff'd*, 367 Or. 143 (2000).

D. Plaintiffs are not a discrete minority and have no equal protection claim.

None of the government actions that Plaintiffs complain of classify or affect youth or posterity any differently than they affect other persons. For this reason, Plaintiffs' Equal Protection Clause claim must fail. But even if the challenged government actions classify or affect youth and posterity differently, those actions are reviewed under the rational basis test because youth and posterity are not suspect classifications that are subject to heightened scrutiny, as this Court previously recognized. MJP & MSJ Order at 57-59. Moreover, the challenged actions survive rational basis review because Plaintiffs have not alleged, and cannot allege, that there is no reasonably conceivable state of facts that could provide a rational basis for the Defendants' actions.

"The general rule is that legislation is presumed to be valid and will be sustained if the classification drawn by the statute is rationally related to a legitimate state interest." *City of Cleburne v. Cleburne Living Ctr.*, 473 U.S. 432, 440 (1985). The "Constitution presumes that even improvident decisions will eventually be rectified by … democratic processes." *Id.* This general rule gives way only when a statute burdens a fundamental right protected by the Constitution or uses a suspect classification such as race, alienage, or national origin. Such laws are subject to strict scrutiny and will be sustained only if they are suitably tailored to a compelling state interest. *Id.*

Because Plaintiffs' desire to live free of climate change is not a fundamental right under the Constitution, *see* ECF No. 27-1 at 21-22, for the Court to apply heightened scrutiny to the challenged actions, Plaintiffs must show that they are a suspect class in need of extraordinary protection. But the Supreme Court has declined to treat classifications based on age as suspect and has thus declined to apply heightened scrutiny to government actions that classify by age. In *Massachusetts Board of Retirement v. Murgia*, the Supreme Court explained that "a suspect class

is one 'saddled with such disabilities, or subjected to such a history of purposeful unequal treatment, or relegated to such a position of political powerlessness as to command extraordinary protection from the majoritarian political process.'" 427 U.S. 307, 313 (1976) (citation omitted). The Court stated that a suspect class is a "discrete and insular group," which the elderly are not because old age "marks a stage that each of us will reach if we live out our normal life span." *Id.* at 313-14 (citing *United States v. Carolene Prods. Co.*, 304 U.S. 144, 152-53 n.4 (1938)).

The young, though they "have historically been denied full rights of adulthood while shouldering such burdens of citizenship as military service," have not been "saddled with such disabilities, or subjected to such a history of purposeful unequal treatment, or relegated to such a position of political powerlessness, as to justify searching judicial scrutiny." *Gabree v. King*, 614 F.2d 1, 2 (1st Cir. 1980) (quoting *Murgia*, 427 U.S. at 313) (internal quotation marks and citations omitted); *see also Cunningham v. Beavers*, 858 F.2d 269, 273 (5th Cir. 1988) ("No cases have ever held, and we decline to hold, that children are a suspect class."). Courts accordingly apply rational basis review to classifications based on youth or infancy. *See, e.g., United States v. Flores-Villar*, 536 F.3d 990, 998 (9th Cir. 2008) ("Rational basis review applies to the claim of age-based discrimination because age is not a suspect class."), *aff'd*, 564 U.S. 210 (2011), *and abrogated on other grounds by Sessions v. Morales-Santana*, 582 U.S. 47 (2017); *Douglas v. Hugh A. Stallings, M.D., Inc.*, 870 F.2d 1242, 1245-46 (7th Cir. 1989) ("[P]laintiffs can point this Court to no case which has recognized . . . minors . . . as a suspect classification."); *Jaffee v. Soc'y of N.Y. Hosp.*, No. 96-cv-3623-LAP, 1999 WL 246747, at *3 (S.D.N.Y. Apr. 27, 1999); *Price v. Cohen*, 715 F.2d 87, 93 (3d Cir. 1983).

"Because age is not a suspect classification," *Nunez by Nunez v. City of San Diego*, 114 F.3d 935, 944 (9th Cir. 1997), the actions Plaintiffs challenge are subject only to rational basis

review, which affords those actions a strong presumption of validity. *See FCC v. Beach Commc'ns, Inc.*, 508 U.S. 307, 314 (1993). Under this standard, a court must uphold government action "if there is any reasonably conceivable state of facts that could provide a rational basis" for them. *Id.* at 313. Plaintiffs attacking the rationality of legislative acts bear the burden "to negative every conceivable basis which might support [them]." *Id.* at 315 (quoting *Lehnhausen v. Lake Shore Auto Parts Co.*, 410 U.S. 356, 364 (1973)). But the second amended complaint does not allege facts from which this Court could plausibly conclude that the challenged federal policies and actions lack a rational basis. Instead, Plaintiffs' Equal Protection claim relies entirely on the establishment of a non-existent fundamental right, together with the uniformly rejected proposition that youth are "separate suspect classes in need of extraordinary protection." SAC ¶ 294. Because Plaintiffs have not alleged that the challenged government actions lack a rational basis (and because any attempt to do so would be futile), Plaintiffs' Second Claim for Relief should be dismissed for failure to state a claim.

E. The Ninth Amendment guarantees no substantive rights.

Plaintiffs invoke the Ninth Amendment in alleging that Defendants have infringed their unenumerated right to a stable climate system in violation of the Ninth Amendment. SAC ¶¶ 302-06. This Court correctly ruled that Plaintiffs' Ninth Amendment claim in the first amended complaint "is not viable as a matter of law" under the Ninth Circuit's controlling precedent. MJP & MSJ Order at 56 (citing *Strandberg v. City of Helena*, 791 F.2d 744, 748 (9th Cir. 1986)). This remains the case despite Plaintiffs' attempt to replead a Ninth Amendment claim in the second amended complaint, and that claim should be dismissed.

"The [N]inth [A]mendment has never been recognized as independently securing any constitutional right." *Strandberg*, 791 F.2d at 748. Instead, it is a "rule of construction" that does

not give rise to individual rights. *United States v. Bifield*, 702 F.2d 342, 349 (2d Cir. 1983); *see Gibson v. Matthews*, 926 F.2d 532, 537 (6th Cir. 1991) (dismissing claim on the ground that "the [N]inth [A]mendment does not confer substantive rights in addition to those conferred by other portions of our governing law"); *DeLeon v. Little*, 981 F. Supp. 728, 734 (D. Conn. 1997) (holding that "'the Ninth Amendment does not guarantee any constitutional right'") (cleaned up); *Mann v. Meachem*, 929 F. Supp. 622, 634 (N.D.N.Y. 1996) ("The Ninth Amendment is recognized as a rule of construction and does not protect any specific right.").

V. Plaintiffs Were Required to Bring this Action Under the Administrative Procedure Act but Concededly Did Not.

The Ninth Circuit found that "[w]hatever the merits of the plaintiffs' claims, they may proceed independently of the review procedures mandated by the [Administrative Procedure Act ("APA")]." *Juliana*, 947 F.3d at 1167-68. In so doing the Ninth Circuit allowed Plaintiffs to bypass the "comprehensive remedial scheme" that the APA provides for a "person suffering legal wrong because of agency action" of the various agencies they have sued or by an agency's alleged failure to act with respect to regulatory requirements and standards, permitting, and other administrative measures. *Id.* at 1167-68; 5 U.S.C. § 702. Defendants disagree with the Ninth Circuit's determination on this point but concede that the Ninth Circuit's decision governs, and respectfully preserve their arguments on the applicability of the APA for potential further review.

VI. If the Court Denies Defendants' Motion to Dismiss, it Should Certify its Order for Interlocutory Appeal.

The standard for certification for interlocutory appeal under 28 U.S.C. § 1292(b) requires that a court decide a "controlling question of law." This motion to dismiss raises several controlling questions of law, including whether (1) dismissal is required by the mandate rule; (2) Plaintiffs have satisfied their burden of showing Article III standing; (3) this suit is a proper case or controversy within a court's traditional equitable powers to entertain, and not foreclosed by

separation-of-powers doctrine; (4) Plaintiffs are required to bring their constitutional challenges to regulatory agency action or inaction under the APA; (5) there is a substantive due process right to a stable climate system; (6) there is a cognizable public trust claim against the federal government; and (7) Plaintiffs have a viable equal protection claim even though they are not a suspect class. The sufficiency of Plaintiffs' allegations under Rule 12 is purely a question of law. A successful appeal as to any of the first four issues, relating to justiciability, would inevitably dispose of the entire case, and they are therefore controlling. And a successful appeal of the remaining three issues, relating to the merits of Plaintiffs' claims, would similarly dispose of the entire case.

The second requirement for certification under 28 U.S.C. § 1292(b) is that the controlling question (or questions) of law decided by the court must present "substantial grounds for difference of opinion." The Supreme Court's earlier orders in this case leave no doubt that this requirement is satisfied, both as to justiciability and the merits of Plaintiffs' claims. The Supreme Court's July 30, 2018 Order stated that "the justiciability of [Plaintiffs'] claims presents substantial grounds for difference of opinion." ECF No. 330-1. And the Court's November 2, 2018 Order quoted the standard in 28 U.S.C. § 1292(b) and then, in the next sentence, stated that "the 'striking' breadth of plaintiffs' claims 'presents substantial grounds for difference of opinion.'" ECF No. 416 at 2 (quoting ECF No. 330-1). (That observation applies to equally to the second amended complaint, which is no different than the first amended complaint.) The November 2, 2018 Order also noted that the Ninth Circuit's prior denial of the United States' petitions for mandamus rested in large part on reasons that are "no longer pertinent." *Id.* at 3. The Supreme Court, in short, has clearly indicated that the issues in this case are appropriate for immediate consideration by the Ninth Circuit.

Finally, an "immediate appeal from" this Court's orders granting leave to amend (Rule 15 Order) and any order denying this motion to dismiss will "materially advance the ultimate termination of the litigation," because a favorable disposition of the government's motions would end the case. A successful interlocutory appeal would avoid a potentially lengthy trial and additional litigation that is protracted, expensive, and disruptive.

This Court granted a motion to certify most of the same issues for interlocutory appeal with respect to the first amended complaint, and the Ninth Circuit allowed for an appeal. *A fortiori*, certification is warranted if this Court denies the motion to dismiss the second amended complaint because, we respectfully submit, the Court should never have granted leave to file that complaint in light of the Ninth Circuit's mandate directing dismissal.

This Court thus should certify any order denying this motion to dismiss.

CONCLUSION

For all of the foregoing reasons, Plaintiffs' claims should be dismissed with prejudice in their entirety for lack of Article III jurisdiction under Rule 12(b)(1). Alternatively, Plaintiffs' claims should be dismissed with prejudice in their entirety for failure to state a claim under Rule 12(b)(6). If the Court declines to dismiss any of the claims, Defendants respectfully request that the Court certify its order denying this motion to dismiss.

Dated: June 22, 2023

TODD KIM
Assistant Attorney General
United States Department of Justice
Environment & Natural Resources Division

/s/ Sean C. Duffy
SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section

150 M Street NE
Washington, DC 20002
Tel: (202) 305-0445
Fax: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

TODD KIM
Assistant Attorney General
United States Department of Justice
Environment & Natural Resources Division

SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
150 M Street NE
Washington, DC 20002
Tel: (202) 305-0445
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al*.,

Plaintiffs,

v.

THE UNITED STATES OF AMERICA, *et al.*,

Defendants.

Case No. 6:15-cv-1517-AA

MOTION TO STAY LITIGATION

MOTION

Defendants hereby move to stay litigation pending resolution of their (1) Motion to Dismiss the Second Amended Complaint, (2) Motion to Certify under 28 U.S.C. § 1292(b) for interlocutory appeal any order from this Court denying the motion to dismiss (ECF No. 547), and (3) Motion to Certify under 28 U.S.C. § 1292(b) for interlocutory appeal (ECF No. 551) this Court's order granting Plaintiffs' motion for leave to file their amended complaint (ECF No. 540).[1]

This motion is supported by this notice of motion, the accompanying memorandum of law, and such evidence and argument that may be offered before the motion is submitted to the Court.

MEMORANDUM OF LAW IN SUPPORT OF MOTION TO STAY

INTRODUCTION

Given (1) the Ninth Circuit's 2020 mandate for dismissal of this action, (2) Defendants' pending motion to dismiss and motions to certify for interlocutory appeal, (3) this Court's and the Ninth Circuit's 2018 holdings that the dispositive issues raised in this case qualify for interlocutory appeal, and (4) the U.S. Supreme Court's repeated prior observations that the same issues raised in Defendants' now-pending motion to dismiss qualify for interlocutory appeal, proceedings in this suit should be stayed until this Court resolves Defendants' motion to dismiss and, if necessary, Defendants' motion to certify a denial of that motion for interlocutory appeal and Defendants' motion to certify this Court's order granting Plaintiffs leave to amend their complaint.

[1] In compliance with Local Rule 7-1, on July 6, 2023, the parties conferred telephonically and Plaintiffs indicated that they oppose this motion to stay litigation.

The stay sought in this motion would further judicial economy by allowing resolution of threshold dispositive issues raised in response to Plaintiffs' second amended complaint without the cost and burden of additional discovery or other pre-trial preparations, and by potentially obviating near-term appellate proceedings. This stay is also appropriate to honor the full breadth of this Court's and the Ninth Circuit's rulings that all dispositive issues were certified in 2018 for interlocutory appeal, including those that the Ninth Circuit's 2020 ruling did not need to reach after mandating dismissal on standing grounds.

RELEVANT BACKGROUND

This Court is familiar with the background and procedural history, which are set out more fully in Defendants' Motion to Dismiss Second Amended Complaint and Motion to Certify, ECF No. 547. The Ninth Circuit mandated dismissal of this suit in 2020, and the United States, consistent with that mandate, has again moved to dismiss this case in its entirety for lack of jurisdiction. *Id.* Defendants have also moved to dismiss this suit on other grounds that the Ninth Circuit's 2020 order did not reach, but which the Supreme Court observed—and both the Ninth Circuit and this Court held—qualified for interlocutory appeal. *See* July 30, 2018 Supreme Court Order, ECF No. 330-1 (observing that "[t]he breadth of [plaintiffs'] claims is striking," and citing the interlocutory appeal standard that "the justiciability of those claims presents substantial grounds for difference of opinion"); Nov. 2, 2018 Supreme Court Order 2, ECF No. 405-1 (reiterating the Court's July 30, 2018 order noting that the "'striking' breadth of plaintiffs' claims 'presents substantial grounds for difference of opinion'"); Nov. 8, 2018 Ninth Circuit Order, ECF No. 432-1 (staying trial pending consideration of petition for writ of mandamus and ordering district court to promptly resolve Defendants' motion to reconsider denial of request to certify orders for interlocutory appeal); Nov. 21, 2018 Order Certifying Case for Interlocutory

Appeal ("Nov. 21, 2018 Order") 6, ECF No. 444 (certifying "this case" for interlocutory appeal and staying "this case . . . pending a decision by the Ninth Circuit Court of Appeals"); *Juliana v. United States*, 949 F.3d 1125, 1126 (Mem.) (9th Cir. 2018) (granting permission to appeal this case pursuant to 28 U.S.C. § 1292(b)).

Accordingly, Defendants have moved this Court to certify under 28 U.S.C. § 1292(b) any order this Court may issue denying the motion to dismiss. Defs.' Mot. to Dismiss 32-34, ECF No. 547. In addition, Defendants have today filed a separate motion under 28 U.S.C. § 1292(b) (ECF No. 551) requesting that the Court certify for interlocutory appeal the order granting Plaintiffs leave to file their second amended complaint, ECF No. 540.

ARGUMENT

"[T]he power to stay proceedings is incidental to the power inherent in every court to control the disposition of the causes on its docket with economy of time and effort for itself, for counsel, and for litigants." *Landis v. N. Am. Co.*, 299 U.S. 248, 254 (1936); *see also CMAX, Inc. v. Hall*, 300 F.2d 265, 268 (9th Cir. 1962). Even if this case had no prior history, principles of judicial economy, as well as common law and administrative law doctrines, would call for the Court to exercise its inherent powers to stay the action pending resolution of threshold dispositive motions. The propriety of a stay is particularly apparent, however, in light of the case's history, including the Ninth Circuit's 2020 mandate for dismissal of this action, this Court's and the Ninth Circuit's 2018 holdings that the jurisdictional and substantive issues raised in Defendants' pending motion to dismiss qualify for interlocutory appeal, and the Supreme Court's repeated observations that the issues raised in Defendants' pending motion to dismiss qualify for interlocutory appeal. A stay of proceedings while the Court considers Defendants' Motions would honor these earlier rulings, and further judicial economy and the convenience of

the parties by allowing the parties to avoid wasting resources on further discovery, additional merits briefing, trial preparations, and, potentially, near-term appellate proceedings.

I. The Ninth Circuit's Holding on Redressability and Its Resulting Mandate Still Control and Warrant a Stay While Defendants' Motion to Dismiss Is Adjudicated.

The Ninth Circuit mandated dismissal of this lawsuit in 2020 after concluding that Plaintiffs' claims are not redressable. *Juliana v. United States*, 947 F.3d 1159, 1170 (9th Cir. 2020), *denying reh'g en banc*, 986 F.3d 1295 (Mem.) (9th Cir. 2021). That mandate remains, as explained in Defendants' motion to dismiss. At minimum, the grounds for dismissal are strong enough to warrant a stay while the Court considers them.

A stay is particularly warranted because the Ninth Circuit's 2020 ruling was a product of a complex and prolonged vetting of the susceptibility of this case for interlocutory appeal. *See In re United States*, 884 F.3d 830, 837 (9th Cir. 2018); *In re United States*, 139 S. Ct. 452, 453 (Mem.) (2018); Nov. 21, 2018 Order 5-6, ECF No. 444; *Juliana*, 949 F.3d at 1126 (Mem.). The culmination of that extensive work was a mandate of dismissal. *Juliana*, 947 F.3d at 1175. And, significantly, this Court entered a stay while the Ninth Circuit considered that interlocutory appeal. Nov. 21, 2018 Order 6, ECF No. 444. A stay similarly should be entered now to allow for the focused and expedited consideration of the applicability of the Ninth Circuit's mandate without the added burden and cost of additional discovery or other pre-trial activities.

II. The Prior Certifications for Interlocutory Appeal of the Legal Issues Reasserted in Defendants' Pending Motion to Dismiss Warrant a Stay.

Even putting the mandate aside, the motion to dismiss identifies a broad range of deficiencies in Plaintiffs' second amended complaint, each of which has previously been found to satisfy the standard for interlocutory appellate review. Because the lack of redressability alone was sufficient for the Ninth Circuit to mandate dismissal of the first amended complaint in 2020, the Ninth Circuit did not address other issues certified for interlocutory appeal, including

whether: (1) this suit is a proper case or controversy within a court's traditional equitable powers to entertain, and not foreclosed by the separation-of-powers doctrine; (2) there is a substantive due process right to a stable climate system; (3) there is a cognizable public trust claim against the federal government; and (4) Plaintiffs have a viable equal protection claim even though they are not members of a suspect class.

Those broader issues remain controlling questions of law as to which this Court, the Ninth Circuit, and the Supreme Court have determined there is substantial ground for difference of opinion. *See* Nov. 21, 2018 Order 5-6, ECF No. 444; *Juliana*, 949 F.3d at 1126 (Mem.); *In re United States*, 884 F.3d at 837; *In re United States*, 139 S. Ct. 453 (Mem.). And it was because of those determinations that this Court and the Ninth Circuit held that both the jurisdictional and substantive legal issues presented in Defendants' earlier dispositive motions met the requirements for interlocutory appeal. Nov. 21, 2018 Order 6, ECF No. 444; *Juliana*, 949 F.3d at 1126 (Mem.). Those claims have not changed in Plaintiffs' second amended complaint and, thus, the deficiencies in those claims continue to satisfy the standard for interlocutory appeal under 28 U.S.C. § 1292(b). *Compare* Defs.' Mot. to Dismiss 11-19, ECF No. 547 (lack of Article III standing), *with* Defs.' Mot. to Dismiss 7-19, ECF No. 27-1 (same), *and* Defs.' Mot. for Summ. J. 6-24, ECF No. 207 (same); *compare* Defs.' Mot. to Dismiss 19-32, ECF No. 547 (failure to state a claim upon which relief may be granted), *with* Defs.' Mot. to Dismiss 19-29, ECF No. 27-1 (same), *and* Defs.' Mot. for Summ. J. 24-30 (same).

Again, the stay sought here furthers judicial economy by prioritizing the expedited and efficient resolution of controlling legal issues that this Court and the Ninth Circuit have independently deemed qualified for interlocutory appeal under 28 U.S.C. § 1292(b). And again, a stay here is appropriate now as just when this Court last stayed proceedings, Nov. 21, 2018

Order, ECF No. 444, indeed, more so given the Ninth Circuit's mandate. A stay would also limit the possibility that appellate proceedings will be necessary in the near term while the Court considers Defendants' other pending motions.

CONCLUSION

For all of the foregoing reasons, this Court should grant the United States' motion to stay proceedings pending resolution of Defendants' motion to dismiss, the motion to certify the Court's order granting Plaintiffs leave to file a second amended complaint, and the motion to certify any order denying the motion to dismiss.

Dated: July 7, 2023

TODD KIM
Assistant Attorney General
United States Department of Justice
Environment & Natural Resources Division

/s/ Sean C. Duffy
SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
150 M Street NE
Washington, DC 20002
Tel: (202) 305-0445
Fax: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

TODD KIM
Assistant Attorney General
Environment & Natural Resources Division

GUILLERMO A. MONTERO
Assistant Section Chief
SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
150 M Street NE
Washington, DC 20002
(202) 305-0445
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA, *et al.*,

Defendants.

Case No. 6:15-cv-01517-AA

DEFENDANTS' MOTION FOR A STAY PENDING A PETITION FOR A WRIT OF MANDAMUS

MOTION

The Court should stay proceedings in this case pending Defendants' forthcoming petition for a writ of mandamus. The Ninth Circuit ordered this Court to dismiss this case: "[W]e reverse the certified orders of the district court and remand with instructions to dismiss for lack of Article III standing." *Juliana v. United States*, 947 F.3d 1159, 1175 (9th Cir. 2020). The Ninth Circuit's opinion in this case forecloses the theory that a declaratory judgment, standing alone, can redress Plaintiffs' alleged injuries, as required to show Article III standing. *Id*. at 1170. The Court's December 29, 2023, Order therefore violates the rule of mandate. *Creech v. Tewalt*, 84 F.4th 777, 787 (9th Cir. 2023) ("[D]istrict courts must implement both the letter and the spirit of the mandate, taking into account the appellate court's opinion and the circumstances it embraces." (citation and internal quotation marks omitted)). And even if the Court's order does not violate the mandate, the Supreme Court's observation still pertains: "the justiciability of [these Plaintiffs'] claims presents substantial grounds for difference of opinion." July 30, 2018, Supreme Court Order, ECF No. 330-1.

Because this Court denied Defendants' motion to certify its orders for interlocutory appeal, the government will seek a writ of mandamus from the Ninth Circuit to enforce its mandate and direct the Court to dismiss this case in its entirety. If granted, the government's petition will end this case, and any public resources spent on further litigation while the petition is pending would be wasted. The government therefore respectfully requests the Court to enter a stay of all proceedings in this Court pending resolution of the mandamus petition, as the Ninth Circuit did

when considering the government's prior mandamus petition in this case.[1] *See United States v. U.S. Dist. Court for Dist. of Or.*, 884 F.3d 830, 838 (9th Cir. 2018).

RELEVANT BACKGROUND

This Court is familiar with the background and procedural history, which are set out more fully in Defendants' Motion to Dismiss Second Amended Complaint and Motion to Certify, ECF No. 547. The Ninth Circuit mandated dismissal of this suit in 2020, and the United States, consistent with that mandate, moved to dismiss this case in its entirety for lack of jurisdiction. *Id*. The Court granted that motion in part and denied it in part on December 29, 2023. The Court acknowledged that the Ninth Circuit held in its 2020 opinion that the limits of Article III prohibit the Court from awarding the injunctive relief Plaintiffs seek and dismissed that portion of the Second Amended Complaint. ECF No. 565 at 28. But the Court also ruled that it could issue a declaratory judgment and—in conflict with the Ninth Circuit's opinion—that the availability of such a judgment satisfied the redressability prong of the Article III standing inquiry. *Id*. at 34. The Court also denied Defendants' motion to certify its ruling for interlocutory appeal without explanation. *Id*. at 49. The Court denied that request even though the Supreme Court observed, and the Ninth Circuit has held, that orders allowing the case to continue met the standard for certification under 28 U.S.C. § 1292(b)—even before the Ninth Circuit mandated dismissal. *See* July 30, 2018 Supreme Court Order, ECF No. 330-1; Nov. 2, 2018 Supreme Court Order 2, ECF No. 405-1 (reiterating the Court's July 30, 2018 order noting that the "'striking' breadth of plaintiffs' claims 'presents substantial grounds for difference of opinion'"); Nov. 8, 2018 Ninth

[1] Although Fed. R. App. P. 8(a)(1) does not expressly refer to a stay pending review of a petition for a writ of mandamus under Fed. R. App. P. 21, Defendants nevertheless believe it appropriate to ask this Court for a stay before asking the court of appeals to enter a stay pending disposition of the government's mandamus petition.

Circuit Order, ECF No. 432-1 (staying trial pending consideration of petition for writ of mandamus and ordering district court to promptly resolve Defendants' motion to reconsider denial of request to certify orders for interlocutory appeal); *Juliana v. United States*, 949 F.3d 1125, 1126 (9th Cir. 2018) (granting permission to appeal this case pursuant to 28 U.S.C. § 1292(b)).

ARGUMENT

Whether to issue a stay is "an exercise of judicial discretion . . . to be guided by sound legal principles," *Nken v. Holder*, 556 U.S. 418, 433–34 (2009) (internal citations omitted), based on the following factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987); *see Leiva-Perez v. Holder*, 640 F.3d 962, 970 (9th Cir. 2011). Each of these factors weighs in favor of a stay of the litigation pending resolution of a petition for a writ of mandamus.

First, there is a substantial likelihood that the Ninth Circuit will grant the petition. The Ninth Circuit's mandate directed this Court to "to dismiss [this case] for lack of Article III standing." The central question is whether that mandate allowed this Court to reexamine Plaintiffs' standing on the basis of a Second Amended Complaint nearly identical to the First Amended Complaint that did not "updat[e] facts," "add[] new claims for relief," or "challeng[e] conduct" of different defendants. ECF No. 462 at 2, 9. This Court held that the mandate did not expressly preclude granting leave to amend. But Plaintiffs' Second Amended Complaint invited this Court to reconsider the question of redressability, an issue that is clearly encompassed in the Ninth Circuit's direction to dismiss the case "for lack of Article III standing." 947 F.3d at 1175. The Court of Appeals has already held that Plaintiffs' injuries are not redressable by an Article

III court. *Id*. at 1173. The Court's refusal to dismiss Plaintiffs' Second Amended Complaint in its entirety therefore violates the rule of mandate. *See Creech*, 84 F.4th at 787 ("[D]istrict courts must implement both the letter and the spirit of the mandate." (citation and internal quotation marks omitted)).

Even if its mandate is not dispositive, the Ninth Circuit's opinion is. The Court of Appeals held not only that the Constitution prohibits Article III courts from awarding injunctive relief to design, supervise, or implement Plaintiffs' proposed remedial plan, due to the complex policy decisions involved in the government's response to climate change, 947 F.3d at 1171, but also that a declaratory judgment cannot "by itself" redress Plaintiffs' injuries, *id*. at 1170. This Court acknowledged the former holding, ECF No. 565 at 28, but its Opinion is irreconcilable with the latter. *See* ECF No. 565 at 31 ("A declaration that defendants are violating plaintiffs' constitutional rights may be enough to bring about relief by changed conduct."); *contra* 947 F.3d at 1175 (holding that Plaintiffs lack standing even though the Ninth Circuit "[did] not dispute" that the requested relief "could well goad the political branches into action").

In its December 29 opinion, the Court suggested that the Supreme Court's decision in *Uzuegbunam v. Preczewski*, 141 S. Ct. 792 (2021), undermines the Ninth Circuit's holding because in that case the Supreme Court suggested that declaratory relief may sometimes be sufficient to redress a plaintiff's injuries. But *Uzuegbunam* concerned a plaintiff that elected to seek nominal damages, rather than litigating actual damages, in a case concerning a wholly past harm. *Id*. at 798. It did not address a situation like this, which concerns prospective harms and in which the Court would be constitutionally prohibited both from entering the declaration that Plaintiffs seek or from enforcing any declaration that it might issue. *See Juliana*, 947 F.3d at 1173 ("[I]n the end, any plan is only as good as the court's power to enforce it."). Nor does the

Court's suggestion that it would somehow "supervise" the government's compliance with a declaration change the redressability analysis because the Ninth Circuit has already held that Article III does not permit the Court to "supervise . . . the plaintiffs' requested remedial plan." *Id.* at 1171.

In short, the Ninth Circuit's opinion, no less than its mandate, requires that this case be dismissed for lack of standing. The Court of Appeals is therefore likely to grant a writ of mandamus "to confine [this Court] to a lawful exercise of its prescribed jurisdiction." *Cheney v. U.S. Dist. Court for D.C.*, 542 U.S. 367, 380–81 (2004) (quoting *Roche v. Evaporated Milk Assn.*, 319 U.S. 21, 26 (1943)). Although mandamus is an "extraordinary remedy," *Will v. United States*, 389 U.S. 90, 95 (1967), it is the appropriate means for an appellate court to enforce its mandate, *id.* at 96. And the Court's denial of certification for its orders for interlocutory appeal renders mandamus the only form of relief available. *See Balintulo v. Daimler AG*, 727 F.3d 174, 186 (2d Cir. 2013) ("If a district court refuses certification . . . then a party may petition for a writ of mandamus.").

Second, the government will be prejudiced if this case is allowed to proceed while its mandamus petition is pending. Notably, the Justice Department had already devoted more than 13,000 attorney and paralegal hours to this litigation as of October 17, 2018—twelve days before this case was first scheduled to go to trial—in addition to spending millions of taxpayer dollars on expert fees, travel expenses, and other non-attorney fees. *See* ECF No. 391-1 at 42-43. The number of hours expended on this litigation by Department of Justice attorneys and paralegals now stands at over 21,000, despite the Ninth Circuit's order mandating dismissal of the litigation in 2020. *See* Exhibit 1, Decl. of Guillermo A. Montero ¶ 3.

As the Ninth Circuit has explained, "litigants who have proceeded to judgment in higher courts"—like the government in this case—"'should not be required to go through that entire process again to obtain execution of the judgment.'" *Vizcaino v. U.S. Dist. Ct. for W. Dist. of Wash.*, 173 F.3d 713, 719 (9th Cir. 1999). Having already prevailed on appeal, the government will be irreparably harmed if it is forced to expend substantial public resources litigating a case that the Ninth Circuit has ruled is beyond the courts' power to resolve. Although the Court has disagreed that the Ninth Circuit's mandate and judgment control the outcome of this case, ECF No. 565 at 20–21, there is—at the very least—a substantial basis for the government's position. Even if this Court does not believe dismissal is appropriate, at minimum the case should be stayed until the Ninth Circuit is given the opportunity to clarify the scope of its mandate.

Further, there is no justification for subjecting the government to unlawful discovery before threshold jurisdictional issues are resolved. *See In re United States*, 583 U.S. 29, 31–32 (2017). As the government has previously explained, requiring agencies to take positions on substantive policy issues through discovery would contravene the procedural requirements imposed by the Administrative Procedure Act for agency decisionmaking, and directing agency officials to provide an assessment of substantive policy questions and potential responses would violate the separation of powers, in particular by invading the President's exclusive constitutional authority to "require the Opinion . . . of the principal Officer in each of the executive Departments, upon any Subject relating to the Duties of their respective Offices." U.S. CONST. art. II, § 2, cl. 1; *see* ECF No. 215.

Third, in contrast to the inevitable harm to the government, a stay during the pendency of the mandamus petition will not appreciably harm Plaintiffs. Nothing has changed since this case was filed that would now require the Court to proceed urgently toward trial. And there is no

reason that the Ninth Circuit could not decide this matter quickly. Pausing a few more months to verify that the Court has jurisdiction will not materially lengthen the course of this litigation or deprive Plaintiffs of any redress.

Fourth, the public interest strongly favors a stay. The government does not dispute that climate change poses a serious threat, nor that addressing climate change requires the active involvement of the federal government. *See generally* Exec. Order 14,008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619 (Jan. 27, 2021). But observance of constitutional requirements—and constitutional boundaries—is also a paramount value in a democratic republic. And fidelity to the Constitution requires that the courts, no less than the executive branch, comply with the limits on their authority. *Clapper v. Amnesty Int'l USA*, 568 U.S. 398, 408 (2013) (observing that the Article III standing requirement serves "to prevent the judicial process from being used to usurp the powers of the political branches"); *cf. Hawaii v. Trump*, 859 F.3d. 741, 768 (9th Cir. 2017) (affirming that the President's powers, however broad, "may not transgress constitutional limitations" (internal quotation marks and citation omitted)), *vacated as moot sub nom. Trump v. Hawaii*, 138 S. Ct. 377 (2017). Allowing for the orderly—and authoritative—resolution of this Court's constitutional jurisdiction, before going forward with a far-reaching and unprecedented trial, serves those values.

CONCLUSION

For the foregoing reasons, the Court should stay all further proceedings in this Court pending resolution of the government's petition for a writ of mandamus.

Dated: January 18, 2024

Respectfully submitted,

TODD KIM
Assistant Attorney General
Environment & Natural Resources Division

/s/ Sean C. Duffy
GUILLERMO A. MONTERO
SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
U.S. Department of Justice
Environment & Natural Resources Division
Natural Resources Section
601 D Street NW
Washington, DC 20004
Telephone: (202) 305-0445
Facsimile: (202) 305-0506
sean.c.duffy@usdoj.gov

Attorneys for Defendants

No. 24-____

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

In re UNITED STATES OF AMERICA, et al.

UNITED STATES OF AMERICA, et al.,
Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON,
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, et al.
Real Parties in Interest.

On Petition for a Writ of Mandamus to the United States District Court
for the District of Oregon (No. 6:15-cv-1517)

PETITION FOR A WRIT OF MANDAMUS AND OPPOSED MOTION FOR A STAY OF PROCEEDINGS

TODD KIM
Assistant Attorney General
ROBERT J. LUNDMAN
SEAN C. DUFFY
FRANK J. SINGER
CHRISTOPHER ANDERSON
DANIEL HALAINEN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-4081
daniel.j.halainen@usdoj.gov

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INTRODUCTION

The climate crisis is an urgent problem, and the Executive Branch is taking a wide range of steps to address it, across many agencies and in many different forms. *See generally* Exec. Order 14,008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619 (Jan. 27, 2021).[1] In this long-running case, however, Plaintiffs—a group of young people and a putative representative of future generations—seek sweeping relief from the Judicial Branch, not the political Branches, that would install the district court in a supervisory role over the federal government's response to climate change in its entirety. In a prior appeal, this Court held that Plaintiffs lack standing to sue because the unprecedented remedies they seek are beyond the judiciary's power. *Juliana v. United States*, 947 F.3d 1159, 1170-73 (9th Cir. 2020). Plaintiffs may challenge discrete government actions (or inaction), but their demand for changes to the government's overall response to climate change "must be made to the political branches or to the electorate at large" rather than in district court. *Id.* at 1175.

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[1] *See also, e.g.*, Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818; Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021); *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, 88 Fed. Reg. 1196 (Jan. 9, 2023); *Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review*, 86 Fed. Reg. 63110 (Nov. 15, 2021).

The Court thus concluded that the federal judiciary lacks jurisdiction over Plaintiffs' claims and directed the closure of the case by "remand[ing] this case to the district court with instructions to dismiss for lack of Article III standing." *Id.* Three years later, the district court decided that the case was not yet over and permitted Plaintiffs to file an amended complaint that purports to create Article III jurisdiction on the same flawed theory this Court rejected. The district court then largely denied the government's motion to dismiss the amended complaint. And although the court previously certified an immediate appeal from its denial of dispositive motions—leading to this Court's earlier mandate to dismiss—the district court refused to certify either its order permitting amendment or its order on the motion to dismiss, without explanation. The case is now headed to trial.

The Court should issue a writ of mandamus directing the district court to dismiss this case for lack of jurisdiction without leave to amend. The district court refused to recognize the limits of Article III jurisdiction and evaded the Court's mandate of dismissal. Indeed, citing this Court's decision, the district court acknowledged that "[s]ome may balk at [its] approach as errant or unmeasured." ECF No. 565 at 7 (attached as Exhibit 1) (citing *Juliana*, 947 F.3d at 1174). But this Court did not just "balk" at the district court's approach: the Court issued a mandate directing the district court to dismiss the case and an opinion holding that the district court lacked jurisdiction to manage the federal government's overall

response to the complex and multifaceted issue of climate change. The district court reasoned that the Court's decision did not foreclose an "innovative" experiment in declaratory relief of the district court's devising. But this Court held that the district court lacks Article III jurisdiction to award even declaratory relief as a remedy for Plaintiffs' claims, and the district court's attempted innovation was simply the application of a different label to the injunctive relief this Court already foreclosed.

The Court should hold that the district court violated the rule of mandate by granting leave to file the amended complaint. In the alternative, the Court should order the district court to dismiss the case without leave to amend either for lack of Article III standing or for failure to state claims for relief. The Court should also issue an administrative stay and then order a stay of proceedings pending this Court's consideration of this petition. Plaintiffs oppose a stay and mandamus.

STATEMENT OF JURISDICTION

This Court has authority to issue a writ of mandamus pursuant to 28 U.S.C. § 1651 and Rule 21 of the Federal Rules of Appellate Procedure.

STATEMENT OF THE ISSUES

1. Whether this Court should exercise its authority under the All Writs Act, 28 U.S.C. § 1651, to enforce its mandate and order the district court to dismiss this

action without leave to amend for lack of jurisdiction or, in the alternative, for failure to state a claim upon which relief can be granted.

2. Whether this Court should issue a stay of proceedings in district court pending resolution of this petition.

STATEMENT OF THE CASE

Plaintiffs brought this action more than eight years ago against President Obama and various components of the Executive Branch for allegedly violating their claimed constitutional right to a livable climate, which they asserted arises from the Fifth and Ninth Amendments of the Constitution, and a putative public-trust doctrine. *See generally* ECF Nos. 1, 7. In the years that followed, the parties vigorously contested these claims, resulting in more than 500 docket entries in district court and multiple mandamus and other actions in this Court and the Supreme Court. This Court directed that the litigation end in 2020, but the district court revived the case and said it will hold a trial.

1. Plaintiffs sued in August 2015 and filed a first amended complaint the following month. ECF Nos. 1, 7. That complaint asserted four claims for relief, alleging that the government's response to climate change violated Plaintiffs' Fifth Amendment rights to due process and equal protection, their unenumerated Ninth Amendment rights, and a putative federal public-trust doctrine. ECF No. 7 ¶¶ 277-310. Plaintiffs sought broad equitable relief, including asking the district court to

order the President and various components of the Executive Branch to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2." *Id.* at 94. The government responded with a motion to dismiss in November 2015, principally arguing that Plaintiffs lacked Article III standing and that they failed to state claims for relief. ECF No. 27.

The district court denied the government's motion to dismiss in November 2016. ECF No. 83. The court concluded that Plaintiffs adequately established Article III standing by alleging injuries from climate change and that the government's regulation of fossil fuels had contributed to those injuries. *Id.* at 25-26. The court reasoned that these injuries were judicially redressable because the court could order declaratory and injunctive relief requiring the government to cease "permitting, authorizing, and subsidizing fossil fuels," "move to swiftly phase out CO_2 emissions," "develop a national plan to restore Earth's energy balance, and implement that national plan so as to stabilize the climate system." *Id.* at 26-28 (quoting ECF No. 7 ¶ 12).

On the merits, the district court held that Plaintiffs had stated a claim that the government violated Plaintiffs' substantive due process right to a "climate system capable of sustaining life." *Id.* at 28-36. The court further held that Plaintiffs had stated a claim under a public-trust doctrine that, according to the court, imposes a

prohibition on "depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens." *Id.* at 102 (quoting amicus brief in support of Plaintiffs). Plaintiffs' claims under this public-trust rationale, the court concluded, are also "properly categorized as substantive due process claims." *Id.* at 116.

The district court declined to certify for interlocutory appeal under 28 U.S.C. § 1292(b) the order denying the motion to dismiss. ECF No. 172 at 4.

2. In June 2017, the government petitioned this Court for a writ of mandamus directing the district court to grant the government's motion to dismiss. The Court denied the petition without prejudice, underscoring the "very early stage" of the litigation. *In re United States*, 884 F.3d 830, 837-38 (9th Cir. 2018). The Court explained, however, that "[c]laims and remedies often are vastly narrowed as litigation proceeds," and that the Court had "no reason to assume this case will be any different." *Id*. The Court observed that the government could continue to "raise and litigate [its] legal objections" and "seek[] mandamus in the future." *Id*.

In May 2018, the government filed new dispositive motions in district court. It moved for judgment on the pleadings, arguing that Plaintiffs' claims should be dismissed in their entirety. ECF No. 195. That same day, the government filed for a protective order barring all discovery or, at a minimum, a stay of all discovery

pending resolution of its motion for judgment on the pleadings and its forthcoming motion for summary judgment. ECF No. 196. The government then moved for summary judgment, arguing that Plaintiffs lacked standing; failed to comply with the Administrative Procedure Act ("APA"), 5 U.S.C. § 702; and failed to state claims as a matter of law. ECF No. 207.

Meanwhile, Plaintiffs and the district court proceeded toward trial. Plaintiffs served extensive discovery, and the magistrate judge issued (and the district court summarily affirmed) an order denying a protective order or stay. ECF No. 212, 300. The district court expressed its intent to proceed with trial expeditiously. ECF No. 243 at 16:2-4 (Aiken, J.) ("[A]s we have talked about in this case before, we are not delaying trial at this point. We are moving forward."). The court indicated its expectation that the trial would last for approximately ten weeks. ECF No. 191 at 7:22-8:7 (Coffin, M.J.) (estimating "five weeks per side in essence").

In July 2018, with trial approaching and the government's dispositive motions still pending, the government petitioned this Court and, later, the Supreme Court for orders directing dismissal of the case or, in the alternative, a stay. Both courts denied the requested relief without prejudice as premature. *United States v. U.S. Dist. Ct.*, 139 S. Ct. 1 (2018) (mem.); *In re United States*, 895 F.3d 1101, 1105 (9th Cir. 2018). But the Supreme Court observed that the "breadth of [Plaintiffs'] claims" was "striking" and that "the justiciability of those claims

present[ed] substantial grounds for difference of opinion." 139 S. Ct. at 1. The Supreme Court indicated that the district court should "take these concerns into account in assessing the burdens of discovery and trial, as well as the desirability of a prompt ruling on the Government's pending dispositive motions." *Id.*

3. By the middle of October 2018, with trial only two weeks away, the district court had not yet resolved the government's dispositive motions. *See* ECF No. 352. Having exhausted all avenues for obtaining relief in district court, the government once again petitioned this Court for a writ of mandamus on October 12, 2018. *See In re United States*, No. 18-72776 (9th Cir.).

Three days later, on October 15, 2018, the district court issued an opinion largely denying the government's dispositive motions. ECF No. 369 at 1-62. The district court dismissed the President from the action "without prejudice," leaving open the possibility that the President could be joined later as needed, and granted summary judgment to the government on Plaintiffs' Ninth Amendment claim. *Id.* at 18, 56. The court otherwise denied the dispositive motions. It rejected the government's argument that Plaintiffs had to assert their claims under the APA and that Plaintiffs had failed to establish standing at the summary-judgment stage. *Id.* at 25, 29-45. The court reiterated its earlier holdings on the government's merits arguments. *Id.* at 25-29, 45-49. Addressing Plaintiffs' equal-protection claim for the first time, the court permitted the claim to proceed for "further development of

the factual record." *Id.* at 58-59. The court once again declined to certify its order for interlocutory appeal. *Id.* at 59-61.

The government again sought emergency relief from both this Court and the Supreme Court. The Supreme Court denied the government's stay application without prejudice because "adequate relief may be available in the United States Court of Appeals for the Ninth Circuit." *In re United States*, 139 S. Ct. 452, 453 (2018) (mem.). The Supreme Court highlighted its earlier observations about the breadth of Plaintiffs' claims, recounted the standard for interlocutory appeal, and noted that this Court's earlier denials of mandamus were premised on reasons that were largely "no longer pertinent." *Id.* This Court, in turn, issued an order in one of the mandamus proceedings that "invited the district court to revisit certification, noting the Supreme Court's justiciability concerns." *Juliana*, 947 F.3d at 1166.

The district court then certified its orders denying the government's dispositive motions, ECF No. 444 at 1-6, and stayed the proceedings, ECF No. 445, 453. The government then petitioned this Court for permission to appeal, and the Court accepted the appeal in December 2018. *Juliana v. United States*, 949 F.3d 1125, 1126 (9th Cir. 2018) (mem.).

4. In January 2020, this Court issued a published decision holding that Plaintiffs lacked Article III standing, reversing the certified orders, and remanding

to the district court with express instructions to dismiss. *Juliana*, 947 F.3d at 1175 (attached as Exhibit 4).

Beginning with Plaintiffs' request for a "declaration that the government is violating the Constitution," the Court concluded that "that relief alone is not substantially likely to mitigate [Plaintiffs'] asserted concrete injuries." *Id.* at 1170. The Court thus held that Plaintiffs' request for declaratory relief failed for lack of redressability, as the Court had just explained: "To establish Article III redressability, [Plaintiffs] must show that the relief they seek is . . . substantially likely to redress their injuries." *Id.*

Plaintiffs also requested an injunction requiring the government "to cease permitting, authorizing, and subsidizing fossil fuel use" and "to prepare a plan subject to judicial approval to draw down harmful emissions." *Id.* The Court was "skeptical" that the injunction Plaintiffs sought was substantially likely to address their injuries because, according to Plaintiffs' own experts, an injunction would not "suffice to stop catastrophic climate change or even ameliorate their injuries." *Id.* Setting aside these concerns, the Court ultimately held that Plaintiffs lacked standing because they could not "establish[] that the specific relief they seek is within the power of an Article III court." *Id.* at 1171. Plaintiffs sought "the adoption of a comprehensive scheme to decrease fossil fuel emissions and combat climate change," but it was "beyond the power of an Article III court to order,

design, supervise, or implement the [P]laintiffs' requested remedial plan." *Id.* Plaintiffs' own experts "ma[d]e plain" that "any effective plan would necessarily require a host of complex policy decisions entrusted, for better or worse, to the wisdom and discretion of the executive and legislative branches." *Id.* As the Court explained, "some questions—even those existential in nature—are the province of the political branches." *Id.* at 1173.

Because Plaintiffs could not establish redressability, the Court reversed and remanded to the district court "with instructions to dismiss for lack of Article III standing." *Id.* at 1175. Judge Staton dissented. *Id.* at 1175-91 (Staton, J., dissenting).

The Court denied Plaintiffs' petition for rehearing en banc in February 2021. *Juliana v. United States*, 986 F.3d 1295 (9th Cir. 2021) (mem.). Plaintiffs moved to stay the mandate pending a petition for a writ of certiorari in the Supreme Court but ultimately they did not file a petition and withdrew the motion to stay the mandate. The Court issued its mandate in March 2021 and remanded the case to the district court for dismissal. Ct. App. No. 18-36082, ECF No. 204 ("The judgment of this Court, entered January 17, 2020, takes effect this date.").

5. Back in district court, Plaintiffs asked permission to start the litigation over again from the beginning. Four days after this Court issued its mandate, which effectuated the Court's judgment "remand[ing] this case to the district court with

instructions to dismiss for lack of Article III standing," 947 F.3d at 1175, Plaintiffs filed a motion seeking leave to amend their complaint for a second time. ECF No. 462. Plaintiffs did not seek to "updat[e] facts," "add[] new claims for relief," or "challeng[e] conduct" of different defendants; rather, Plaintiffs sought to amend their allegations with respect to remedies in order to "cure any deficiency regarding Article III standing." *Id.* at 2, 9. Plaintiffs argued that adjustments to the first amended complaint would place their new pleading outside the scope of this Court's mandate. *Id.* at 13-19; *see also* ECF No. 462-3 at 2-5, 13-14 (summarizing amendments). The government opposed, explaining that granting leave to amend would violate this Court's mandate and that Plaintiffs' proposed amendment would be futile. ECF No. 468 at 7-17.

Two years passed without further action from the district court on Plaintiffs' motion for leave to amend. During that time, the government took significant steps to address climate change—through presidential actions, legislation, and regulatory policies implemented by agencies across the government (*see, e.g.*, p. 1 & n.1)—beyond the record of actions taken when Plaintiffs filed this suit in 2015 and when the district court set this case for trial in 2018.

In June 2023, the district court granted Plaintiffs leave to file a second amended complaint. ECF No. 540 (attached as Exhibit 3). The district court concluded that this Court's mandate did not preclude amendment and that

Plaintiffs' amended complaint cured any Article III defect. Plaintiffs then filed a second amended complaint reiterating their claims and requests for declaratory and injunctive relief. ECF No. 542 (attached as Exhibit 2). Plaintiffs moved the district court to set a pretrial conference, requesting "a scheduling order setting trial in this matter to commence on an expedited basis, no later than Spring 2024." ECF No. 543 at 3. The government moved to dismiss the second amended complaint, to stay the litigation, and to certify both the order granting leave to amend and any order denying the motion to dismiss for interlocutory appeal. ECF Nos. 547, 551, 552. In December 2023, while these motions were pending, Plaintiffs served requests for admission on the Environmental Protection Agency (EPA).

6. On December 29, 2023, the district court largely denied the government's motion to dismiss and denied the government's requests for a stay and for certification. Exhibit 1 at 2, 48-49.

The district court first rejected the government's argument that this Court's mandate required dismissal. *Id.* at 18-21. Turning to standing, the district court favorably considered Plaintiffs' request for an injunction and explained why injunctive relief could suffice to support Article III jurisdiction. *Id.* at 23-28. But the district court observed that the injunction Plaintiffs seek in their second amended complaint "still treads on ground" over which this Court "cautioned" the district court "not to step." *Id.* at 28. Although not outright concluding that this

Court's decision barred injunctive relief, the district court held that an injunction seeking to "prod a negotiated change of behavior" was not "necessary" or "perhaps premature" at "this point in the case." *Id.* The court thus purported to dismiss the complaint insofar as it seeks injunctive relief. *Id.* at 28, 49.

In contrast, the district court held that Plaintiffs had adequately alleged Article III standing to pursue a declaratory judgment. *Id.* at 28-34. The district court concluded that declaring a violation of Plaintiffs' constitutional rights and of the public-trust doctrine "may be enough to bring about relief by changed conduct." *Id.* at 31. A declaratory judgment, the court explained, would emerge from a bifurcated trial, split into a liability phase and a remedy phase. *Id.* at 33. During the liability phase, the court would hear evidence on the government's alleged violations and then "specify legal obligations." *Id.* During the remedy phase, the court would supervise the government's adoption of policies that would satisfy these "legal obligations" and keep the case "under [the court's] ongoing jurisdiction so that the parties can challenge aspects of the remedy implementation." *Id.* The court invoked special masters as one "model of supervision" and favorably discussed consent decrees as a solution to what it termed "long-lasting government violations." *Id.*

The court then addressed the merits of Plaintiffs' four claims. The court first held that Plaintiffs stated a cognizable substantive due-process claim under the

Fifth Amendment by asserting a supposed fundamental right to a climate system that can sustain human life, subject to strict scrutiny. *Id.* at 40-41. The government argued that Plaintiffs' due process claim improperly challenged alleged government inaction (i.e., failing to prevent harm from third parties), but the court held that an exception to this general rule applied because Plaintiffs alleged that the government knowingly helped create the harms of climate change. *Id.* at 44. The court also concluded that Plaintiffs stated a cognizable claim that the government violated its duty to protect a life-sustaining climate system as a public trust, rejecting the argument that public-trust claims are creatures of state law and may not be asserted against the federal government. *Id.* at 46-48.

The district court dismissed Plaintiffs' two remaining claims that the government had violated the Ninth Amendment and the equal-protection clause. *Id.* at 44-46. Lastly, the district court denied without explanation the government's request to certify for interlocutory review its order denying the motion to dismiss and its prior order granting leave to amend. *Id.* at 48-49. The court also denied the government's motion to stay the litigation and granted plaintiffs' request for a pretrial conference. *Id.* at 49. The government then moved for a stay pending the filing of this petition. ECF No. 571.

The court held a status conference on January 19, 2024, to discuss next steps in the litigation, including "setting a trial date." Exhibit 5 at 3:24. Plaintiffs

asserted that the "heart of the case is the same," notwithstanding "some new allegations in the complaint." *Id.* at 13:16-18. On the other hand, Plaintiffs contended that "a lot of updating needs to be done" through additional discovery and proposed that the parties supplement their expert reports by April 30. *Id.* at 8:18-20, 13:23. Plaintiffs also requested that the Court set trial for December 2. *Id.* at 5:8-10. Plaintiffs anticipated that presentation of their affirmative case would require approximately 20 days, which would require four weeks without accounting for the government's case. *Id.* at 9:7-11. The district court deferred issuing a scheduling order until after the government files an answer to the second amended complaint, which is due on February 27, 2024. ECF No. 573.

STANDARD OF REVIEW

"[A] writ of mandamus is an extraordinary remedy, to be reserved for extraordinary situations." *Gulfstream Aerospace Corp. v. Mayacamas Corp.*, 485 U.S. 271, 289 (1988). Mandamus is traditionally used "to confine the court against which mandamus is sought to a lawful exercise of its prescribed jurisdiction." *Cheney v. U.S. Dist. Ct.*, 542 U.S. 367, 381 (2004) (brackets and internal quotation marks omitted). Mandamus relief may appropriately be granted to correct not only errors fitting the "technical definition of jurisdiction," but also errors that "amount to a judicial usurpation of power" or a "clear abuse of discretion." *Id.* For example,

mandamus has been used "to restrain a lower court when its actions would threaten the separation of powers." *Id.*

This Court generally considers a petition for a writ of mandamus by applying five "*Bauman* factors": (1) whether the petitioner has another "adequate way to obtain the relief sought," (2) whether the petitioner "will suffer damage or prejudice that cannot be corrected on appeal," (3) whether "the district court clearly erred as a matter of law," (4) whether the error "is often repeated or shows the district court's persistent disregard for the federal rules," and (5) whether "there are new and important issues at stake." *In re U.S. Dep't of Educ.*, 25 F.4th 692, 697-98 (9th Cir. 2022) (citing *Bauman v. U.S. Dist. Ct.*, 557 F.2d 650, 654-55 (9th Cir. 1977)).[2] Not every *Bauman* factor is relevant in every case, and the writ may issue even if some of the factors point in different directions. *Christensen v. U.S. Dist. Ct.*, 844 F.2d 694, 697 (9th Cir. 1988). But "satisfaction of the third factor, that the district court made a clear error of law, is almost always a necessary predicate for the granting of the writ." *In re U.S. Dep't of Educ.*, 25 F.4th at 698.

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[2] The Supreme Court has identified "three conditions [that] must be satisfied" before a court may issue the writ: (1) the petitioner must have "no other adequate means to attain the [desired] relief," (2) the petitioner's right to relief must be "clear and indisputable," and (3) the court must be satisfied that mandamus relief is "appropriate under the circumstances." *Cheney*, 542 U.S. at 380-81. These requirements overlap substantially with this Court's *Bauman* factors and are satisfied here for the same reasons.

When "a lower court obstructs the mandate of an appellate court, mandamus is the appropriate remedy." *Vizcaino v. U.S. Dist. Ct.*, 173 F.3d 713, 719 (9th Cir. 1999). Thus, "*Bauman* does not apply when mandamus is sought on the ground that the district court failed to follow the appellate court's mandate." *Id.*; *see also Pit River Tribe v. U.S. Forest Serv.*, 615 F.3d 1069, 1079 (9th Cir. 2010).

REASONS FOR GRANTING THE WRIT

I. The Court should order the district court to dismiss this case.

A writ of mandamus directing the district court to dismiss this case without leave to amend is the only adequate means for the government to obtain relief from the district court's clear and repeated failures to acknowledge its jurisdictional limits and this Court's express instruction. An extraordinary remedy is necessary to address the district court's extraordinary decisions.[3]

A. The district court violated this Court's mandate.

1. The mandate required dismissal.

This Court expressly ordered the district court to dismiss this case: "[W]e reverse the certified orders of the district court and remand with instructions to dismiss for lack of Article III standing." *Juliana*, 947 F.3d at 1175. The district

[3] In the alternative, the Court should issue a writ directing the district court to certify its orders granting leave to amend and denying dismissal for interlocutory appeal under 28 U.S.C. § 1292(b). The Court may also "invite[] the district court to revisit certification." *Juliana*, 947 F.3d at 1166.

court thus violated the mandate rule by permitting Plaintiffs to proceed on the second amended complaint after this Court held that the federal courts lack Article III jurisdiction in this matter.

"The rule of mandate requires a lower court to act on the mandate of an appellate court, without variance or examination, only execution." *United States v. Garcia-Beltran*, 443 F.3d 1126, 1130 (9th Cir. 2006); *see also In re Sanford Fork & Tool Co.*, 160 U.S. 247, 255 (1895) (lower court "cannot vary [the mandate] or examine it for any other purpose than execution"); *Rogers v. Consol. Rock Prods. Co.*, 114 F.2d 108, 111 (9th Cir. 1940) ("After a decision by this court, the only step that the District Court could take was to obey the mandate of this tribunal." (internal quotation marks omitted)). The district court is "unquestionably obligated" to execute the terms of the mandate. *S.F. Herring Ass'n v. Dep't of the Interior*, 946 F.3d 564, 574 (9th Cir. 2019). The mandate is thus "controlling as to all matters within its compass." *Firth v. United States*, 554 F.2d 990, 993 (9th Cir. 1977).

The rule of mandate is "similar to, but broader than, the law of the case doctrine." *United States v. Cote*, 51 F.3d 178, 181 (9th Cir. 1995). Although "both doctrines serve an interest in consistency, finality, and efficiency, the mandate rule also serves an interest in preserving the hierarchical structure of the court system." *United States v. Thrasher*, 483 F.3d 977, 982 (9th Cir. 2007). Where "the scope of

the remand is clear," the district court's power is "limited" by the scope of the Court's remand. *Hall v. City of Los Angeles*, 697 F.3d 1059, 1067 (9th Cir. 2012). The mandate rule thus "constitutes a basic feature of the rule of law in an appellate scheme," *S.F. Herring Ass'n*, 946 F.3d at 574, and "[v]iolation of the rule of mandate is a jurisdictional error," *Hall*, 697 F.3d at 1067.

Here, this Court instructed the district court "to dismiss for lack of Article III standing" after concluding that redressing Plaintiffs' asserted injuries is "beyond [the Court's] constitutional power." *Juliana*, 947 F.3d at 1165, 1175. The district court's task on remand was clear: dismiss the case. The Court did not contemplate further proceedings in its decision. The Court did not leave room for the district court to parse its holding or further examine questions of Article III standing. Notably, the Court did not remand for "proceedings consistent with this opinion," the customary formulation in cases where the district court is not barred from taking steps beyond execution of the mandate. *See, e.g.*, *Brown v. Duringer Law Grp. PLC*, 86 F.4th 1251, 1255 (9th Cir. 2023); *Hall v. Smosh Dot Com, Inc.*, 72 F.4th 983, 991 (9th Cir. 2023); *All. for Wild Rockies v. Petrick*, 68 F.4th 475, 498 (9th Cir. 2023). The Court left no room for the district court to perpetuate this suit; the Court simply ordered dismissal.

The precise scope of the Court's mandate follows from the conclusive nature of the Court's decision. In the then-operative complaint, Plaintiffs sought a

declaration that the government violated their constitutional rights and the public-trust doctrine and that the Energy Policy Act is unconstitutional. ECF No. 7 at 94. They also sought an injunction ordering the government to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 so as to stabilize the climate system and protect the vital resources on which Plaintiffs now and in the future will depend." *Id.* The Court considered Plaintiffs' claims and these requests for relief in full, including "remedial declaratory *and* injunctive relief." *Juliana*, 947 F.3d at 1159 (emphasis added). And the Court concluded that "it is beyond the power of an Article III court to order, design, supervise, or implement" Plaintiffs' remedial plan for the "adoption of a comprehensive scheme to decrease fossil fuel emissions and combat climate change." *Id.* at 1171-72. The relief Plaintiffs seek for their sweeping claims is therefore not "within the power of an Article III court." *Id.* at 1171. Any remedy that would "require the judiciary to pass judgment on the sufficiency of the government's response" to a court order on Plaintiffs' claims "necessarily would entail a broad range of policymaking" that is the province of the political Branches. *Id.* Federal courts simply lack the power to "supervise[] or enforce[]" a declaratory or injunctive remedy addressing Plaintiffs' claims. *Id.* No further proceedings in district court could alter these fundamental limits of Article III jurisdiction.

Because this Court conclusively resolved the jurisdictional issue, the district court's only task was to execute the mandate. But rather than dismissing the case, the district court permitted Plaintiffs to file an amended complaint that was nearly identical to the complaint this Court already considered. Plaintiffs did not "updat[e] facts," "add[] new claims for relief," or "challeng[e] conduct" of different defendants. ECF 462 at 2, 9. Instead, they reformulated their request to seek materially indistinguishable relief: a declaration that the United States' national energy system violated their constitutional rights and the public trust doctrine and that the Energy Policy Act is unconstitutional; and an "appropriate injunction restraining [the government] from carrying out policies, practices, and affirmative actions that render the national energy system unconstitutional in a manner that harms Plaintiffs." Exhibit 2 at 143. As Plaintiffs explained in their motion for leave to amend, the sole intent of their new pleading was to provide the district court with a basis for finding Article III standing and "finally move to a full evidentiary proceeding in the liability phase." ECF No. 462 at 2.

Plaintiffs argued that the second amended complaint would "amend[] their allegations to demonstrate that declaratory judgment alone would be substantially likely to provide partial redress," ECF No. 462 at 9, but this Court squarely held—in clear, unambiguous language—that a declaratory judgment cannot provide redress. Plaintiffs' motion for leave to amend (and the second amended complaint

they proposed) exclusively raised issues within the "compass" of this Court's mandate, *Firth*, 554 F.2d at 993, because a declaration "is unlikely by itself to remediate their alleged injuries absent further court action," *Juliana*, 947 F.3d at 1170.

The Court should issue a writ of mandamus to correct the district court's error. *See Vizcaino*, 173 F.3d at 719. Permitting the district court's apparent "disregard of appellate mandates would severely jeopardize the supervisory role of the courts of appeals within the federal judicial system." *Id.* (internal quotation marks omitted). And "litigants who have proceeded to judgment in higher courts"—like the government here—"should not be required to go through that entire process again to obtain execution of the judgment." *Id.* (internal quotation marks omitted).

2. The mandate foreclosed amendment.

The district court offered two principal reasons for disregarding this Court's mandate and permitting Plaintiffs to proceed on the second amended complaint. *See* Exhibit 1 at 18-21; Exhibit 3 at 9-11. First, the district court reasoned that the Court's mandate did not expressly preclude amendment as a formal matter. Second, the district court concluded that Plaintiffs' amendment included allegations related to "intervening recent precedent" that this Court had not considered. Exhibit 1 at 20. The district court clearly erred on both fronts.

a. The district court correctly noted that the rule of mandate "leaves to the district court any issue not expressly or impliedly disposed of on appeal," *Firth*, 554 F.2d at 993, and that a district court may permit additional pleadings on remand absent a mandate to the contrary, *see S.F. Herring Ass'n*, 946 F.3d at 574. But the district court clearly erred in concluding that this Court's mandate permitted further amendment, where this Court held that the relief Plaintiffs seek is beyond the judicial power. The district court reasoned that the Court's mandate did not "expressly state that plaintiffs could not amend to replead their case," Exhibit 3 at 11, but even if instructing "dismiss[al] for lack of Article III standing" was not clear enough, determining the scope of the mandate is not a formalist exercise requiring specific words to be uttered. The district court must "distinguish matters that have been decided on appeal . . . from matters that have not." *United States v. Kellington*, 217 F.3d 1084, 1093 (9th Cir. 2000).

Indeed, what matters when applying the rule of mandate is the "spirit of the mandate, taking into account the appellate court's opinion and the circumstances it embraces." *Creech v. Tewalt*, 84 F.4th 777, 787 (9th Cir. 2023) (internal quotation marks omitted); *see also, e.g.*, *Quern v. Jordan*, 440 U.S. 332, 347 n.18 (1979) (examining whether post-mandate conduct of lower court was consistent "with either the spirit or the express terms of [the Court's] decision"); *United States v. Paul*, 561 F.3d 970, 973 (9th Cir. 2009) (concluding a district court violated "both

the spirit and express instructions of [the Court's] mandate"); *Kellington*, 217 F.3d at 1092-93 (explaining that a district court may deviate from the mandate only if doing so is "not counter to the spirit of the circuit court's decision").

Here, as explained above (pp. 20-22), this Court conclusively decided the question of Article III redressability on appeal and did not countenance further proceedings on remand. The "spirit of the mandate" thus did not permit Plaintiffs' filing of the second amended complaint. The district court appeared to recognize that the mandate foreclosed Plaintiffs' attempt to reform their request for injunctive relief, explaining that the injunction described in the second amended complaint "still treads on ground" over which this Court "cautioned" the district court "not to step." Exhibit 1 at 28. Yet the district court held that Plaintiffs' efforts to rehabilitate their request for declaratory relief fell beyond the scope of the mandate because those issues were "not decided by [this Court] in the interlocutory appeal." Exhibit 3 at 11; *see also id.* at 12-13 (asserting that the Court "did not decide whether Plaintiffs' requested declaratory relief failed or satisfied the redressability requirement for standing").

The district court flatly mischaracterized this Court's opinion, which expressly considered Plaintiffs' request for declaratory relief in holding that the federal courts lack the power to redress Plaintiffs' injuries. *Juliana*, 947 F.3d at 1170. "To establish Article III redressability," the Court explained, Plaintiffs "must

show that the relief they seek" is "substantially likely to redress their injuries." *Id.* But Plaintiffs' requested "declaration that the government is violating the Constitution . . . alone is not substantially likely to mitigate [Plaintiffs'] asserted concrete injuries." *Id.* This Court was clear that Plaintiffs' requested declaratory judgment is not sufficient to establish standing.

The second amended complaint seeks declaratory relief indistinguishable from the declaratory relief sought in the first amended complaint. *Compare* ECF No. 7 at 94 (Prayer for Relief ¶¶ 1, 3, 5) (seeking a declaration that the government has violated Plaintiffs' constitutional rights (¶ 1) and the public-trust doctrine (¶ 5), and that the Energy Policy Act is unconstitutional (¶ 3)), *with* Exhibit 2 at 143 (Prayer for Relief ¶¶ 1, 2, 3) (same). The district court cited purportedly new "factual allegations directly linking how a declaratory judgment alone will redress plaintiffs' individual ongoing injuries," Exhibit 3 at 13, but the cited allegations about redressability are conclusory assertions that "a declaratory judgment to resolve this actual constitutional case and controversy" will "significantly increase the likelihood that [Plaintiffs] would obtain relief to safeguard [their] life, liberty, property, and equal protection of the law" because the government "will correct the unconstitutional policies and practices of the national energy system" and the "worsening of [Plaintiffs'] injuries at the hands of [the] government will end." Exhibit 2 ¶ 19-A.c; *see also id.* ¶¶ 22-A.c, 30-A.c, 34-A.c, 39-A.c, 43-A.c, 46-A.c,

49-A.c, 52-A.c, 56-A.c, 59-A.c, 62-A.c, 64-A.c, 67-A.c, 70-A.c, 72-A.c, 76-A.c, 80-A.c, 85-A.c, 88-A.c, 90-A.c (all same). There is no reasonable argument that the Court would have reached a different decision if the earlier complaint had recited these conclusory allegations, as the Court's analysis was based on the nature of the relief sought rather than a parsing of the complaint. The mandate thus controls.

Beyond these new allegations, the district court purported to differentiate the declaratory relief sought in Plaintiffs' second amended complaint by laying out how it would perform an "innovative judicial role" during the remedy phase of the trial. Exhibit 1 at 33. As explained further below (pp. 35-37), the district court's "declaratory judgment" would involve ongoing judicial oversight of the government's creation and implementation of a plan to address climate change. But this Court already held that those exact same functions—when previously presented under the label of an injunctive remedy—fall outside the judicial power. *Juliana*, 947 F.3d at 1170. Accordingly, the district court's plan does not establish redressability for the same reasons explained in this Court's earlier decision. But for purposes of the mandate rule, the most salient problem is that the justiciability of Plaintiffs' renewed request for declaratory relief falls within the "compass" of this Court's mandate. *Firth*, 554 F.2d at 993. This Court is not required to expressly prohibit district courts from revisiting issues that fall within the spirit of

its mandate, and this Court already held that a request for declaratory relief cannot establish that Plaintiffs' claims are redressable. That holding did not rest on how Plaintiffs worded their allegations.

b. The district court also cited a purported intervening change in the law affecting Article III standing to seek declaratory relief. Although there are exceptions to the mandate rule for "an intervening change in controlling authority," *In re Molasky*, 843 F.3d 1179, 1184 n.5 (9th Cir. 2016), there has been no intervening change in the law of standing to seek declaratory relief.

The district court rested its assertion of intervening authority primarily on the Supreme Court's decision in *Uzuegbunam v. Preczewski*, 141 S. Ct. 792 (2021), which the district court characterized as "recent authority affirming that partial declaratory relief satisfies redressability for purposes of Article III standing." Exhibit 3 at 14. That characterization is incorrect. *Uzuegbunam*, a case about nominal damages, has nothing to say about this Court's analysis of judicial power in *Juliana*, and the holding of *Uzuegbunam* does not address declaratory judgments or equitable relief generally. In *Uzuegbunam*, the Supreme Court addressed whether nominal damages would provide First Amendment plaintiffs redress for wholly past injuries. 141 S. Ct. at 800-01. In its discussion of nominal damages, the Supreme Court referenced their "declaratory function." *Id.* at 798. But *Uzuegbunam* remained a damages case, and the Supreme Court did not purport

to work any change in the law with respect to declaratory judgments, much less abrogate this Court's decision in *Juliana*. *Id.* at 797-800.

* * *

At bottom, this Court ordered dismissal because Plaintiffs' claims are not redressable, and Plaintiffs' second amended complaint falls within the scope of that order. This Court's binding decision in this case is more than a minor obstacle that Plaintiffs can bypass with a few added lines in their complaint asserting that declaratory relief will afford redress. Because the district court violated the mandate and refused to certify an immediate appeal, a writ of mandamus is the only means to ensure that the district court complies with this Court's holding that Plaintiffs' claims are beyond the judicial power to redress.

3. This Court may recall and modify its mandate.

This Court may also properly construe this petition for a writ of mandamus as a motion to recall and modify the mandate in the earlier appeal. A writ of mandamus is the typical means for a court of appeals to "compel an inferior court to follow an appellate mandate." *Vizcaino*, 173 F.3d at 719. But the courts of appeals also "are recognized to have an inherent power to recall their mandates." *Calderon v. Thompson*, 523 U.S. 538, 549 (1998). This power "is one of last resort" to be exercised "only in extraordinary circumstances" and "held in reserve against grave, unforeseen contingencies." *Id.*; *see also, e.g.*, *United States v. King*,

419 F.3d 1035, 1035-36 (9th Cir. 2005) (order). Because the district court's disregard of this Court's jurisdictional ruling presents extraordinary circumstances, the Court may construe this petition for a writ of mandamus as a request to recall and modify the Court's mandate to make clear that this Court's decision foreclosed Plaintiffs' efforts to reopen this litigation with amended pleadings.

B. Plaintiffs lack Article III standing.

The writ of mandamus should issue for the additional reason that, beyond violating this Court's mandate, the district court's holding that Plaintiffs have Article III standing is irreconcilable with this Court's earlier decision and longstanding precedent from both this Court and the Supreme Court. To demonstrate standing, a plaintiff must show "(1) a concrete and particularized injury that (2) is caused by the challenged conduct and (3) is likely redressable by a favorable judicial decision." *Juliana*, 947 F.3d at 1168. In the previous appeal, this Court held that Plaintiffs failed to establish redressability because the request for declaratory relief was (1) "not substantially likely to mitigate the plaintiffs' asserted concrete injuries" and (2) the injunctive relief Plaintiffs sought was not otherwise "within the power of an Article III court." *Id.* at 1171.

The district court correctly recognized that this Court's decision was binding as to Plaintiffs' request for injunctive relief, noting that the injunction set forth in the second amended complaint "still treads on ground" covered by this Court's

decision. Exhibit 1 at 28. But the district court held that Plaintiffs' renewed request for declaratory relief cured the jurisdictional defects in the first amended complaint. Specifically, the second amended complaint seeks a declaration that the United States' national energy system and the Energy Policy Act violate Plaintiffs' due process rights to a stable climate system and that the national energy system violates an asserted public-trust doctrine. Exhibit 2 at 143. Setting aside that this declaration would not be meaningfully distinct from the declaration sought in the first amended complaint, as explained above (pp. 26-28), Plaintiffs' requested declaration cannot satisfy either prong of redressability. 947 F.3d at 1170-73.[4]

1. Under the binding precedent of this Court's earlier decision, a declaratory judgment alone is unlikely to meaningfully address the complex phenomenon of global climate change, much less redress Plaintiffs' alleged injuries, and the district court clearly erred in holding otherwise. As this Court put it: "a declaration that the government is violating the Constitution" is "not substantially likely to mitigate [Plaintiffs'] asserted concrete injuries." *Juliana*, 947 F.3d at 1170. A "declaration, although undoubtedly likely to benefit the plaintiffs psychologically, is unlikely by itself to remediate their alleged injuries absent further court action." *Id.*

[4] In the government's view, Plaintiffs also have not satisfied Article III's injury-in-fact and causation requirements. The government recognizes that this Court's earlier decision forecloses those contentions at this stage, *see Juliana*, 947 F.3d at 1168-69, but it preserves those arguments in the event of further review.

Where a plaintiff seeks relief under the Declaratory Judgment Act, 28 U.S.C. § 2201, redressability normally rests on the potential for the sort of "further court action" this Court described. *Juliana*, 947 F.3d at 1170. That is because an Article III dispute must "be real and substantial and admit of specific relief through a decree of a conclusive character, as distinguished from an opinion advising what the law would be upon a hypothetical state of facts." *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 126-27 (2007) (internal quotation marks omitted). Permitting courts to declare the lawfulness of government actions in the abstract "would threaten to grant unelected judges a general authority to conduct oversight of decisions of the elected branches of Government." *California v. Texas*, 141 S. Ct. 2104, 2116 (2021). "What saves proper declaratory judgments from a redressability problem . . . is that they have preclusive effect on a traditional lawsuit that is imminent." *Haaland v. Brackeen*, 599 U.S. 255, 293 (2023) (internal quotation omitted); *see, e.g.*, *San Diego Cnty. Credit Union v. Citizens Equity First Credit Union*, 65 F.4th 1012 (9th Cir. 2023) (use of declaratory judgment in subsequent trademark dispute).

Yet here, the declaration Plaintiffs seek would not have preclusive effect on any imminent lawsuit or in itself compel the government to take any action, nor could a declaration of rights serve as the basis for a future action for relief from any conduct declared unlawful, as both this Court and the district court already

have held that Plaintiffs may not obtain injunctive relief. *Juliana*, 947 F.3d at 1173; Exhibit 1 at 28; *see also M.S. v. Brown*, 902 F.3d 1076, 1083 (9th Cir. 2018) ("[T]here is no redressability if a federal court lacks the power to issue such relief."). Moreover, a declaratory judgment would be limited to the handful of Plaintiffs in this case. A declaratory judgment would have no preclusive or other effect with respect to the hundreds of millions of other people in the country. It thus is manifest, both under Article III and equitable principles that govern both declaratory and injunctive relief, that a court could not order the sort of sweeping government-wide relief calling for a restructuring of the Nation's energy system at the behest of a small group of litigants. *See* 5 U.S.C. § 702.

All that remains is a request for a declaration that the government is violating these particular Plaintiffs' rights in the abstract, unmoored from any particular action or dispute and not properly enforceable through the judicial process. *Cf. California*, 141 S. Ct. at 2116 ("[T]hat is the very kind of relief that cannot alone supply jurisdiction otherwise absent."). These circumstances distinguish this case from the authorities on which the district court relied. *See, e.g.*, *Uzuegbunam*, 141 S. Ct. at 802 (action for nominal damages for a particular First Amendment violation); *Utah v. Evans*, 536 U.S. 452, 463 (2002) (action seeking both injunctive and declaratory relief); *Franklin v. Massachusetts*, 505

U.S. 788, 803 (1992) (action seeking a declaration as to particular government action, directed at the responsible agency official).

The district court nonetheless concluded that Plaintiffs' requested declaration would satisfy Article III redressability because a "declaration that defendants are violating plaintiffs' constitutional rights may be enough to bring about relief by changed conduct." Exhibit 1 at 31. But this Court has already held that the possibility that relief in this case might "goad" the government to take additional action is insufficient to establish redressability. *Juliana*, 947 F.3d at 1175; *see Brackeen*, 599 U.S. at 294 ("'[R]edressability requires that the court be able to afford relief *through the exercise of its power*, not through the persuasive or even awe-inspiring effect of [its] opinion.' . . . Otherwise, redressability would be satisfied whenever a decision might persuade actors who are not before a court—contrary to Article III's strict prohibition on 'issuing advisory opinions.'" (citations omitted)). And that is especially so because, again, any declaratory judgment would be limited to the handful of Plaintiffs here. Indeed, this Court held that even an injunction against the government would be unlikely to afford Plaintiffs redress, given the nature and scope of climate change, *Juliana*, 947 F.3d at 1170-71, and in addition to Article III obstacles, principles governing equitable relief would foreclose any such sweeping, nationwide injunction against numerous federal agencies based on the claims of a set of individuals.

2. The district court also erred in concluding that the court could afford redress through a form of relief—supervising the government's energy policies writ large—that is not "within the power of an Article III court." *Juliana*, 947 F.3d at 1171. It is "beyond the power of an Article III court to order, design, supervise, or implement the plaintiffs' requested remedial plan." *Id.* at 1172-73. Yet in explaining why the courts can afford "declaratory" relief in this matter, the district court outlined a plan to assume precisely the kind of supervisory role that this Court already held to be impermissible.

The district court stated that the trial it foresees will be bifurcated into liability and remedy phases. Exhibit 1 at 33. During the liability phase, the court would undertake to identify "the constitutional benchmark" and "defin[e] plaintiffs' basic rights and defendant's consequent obligations." *Id.* The court would then issue a declaratory judgment "specif[ying] legal obligations." *Id.* During the subsequent remedy phase, the district court would play an "innovative" role that would involve "supervis[ing] the parties in crafting a plan" that would contain "measures that [the government] decide[s] are appropriate to bring the agencies into constitutional compliance," *id.*, without respect to the limits on the authority Congress has vested in them or the public processes these agencies are required to follow. The court will then exercise "ongoing jurisdiction" to assess the government's compliance over an uncertain and undefined scope and period of

time—apparently until "policies and practices of the national energy system" meet the court's unspecified standard for sufficiency—akin to supervising a consent decree, and perhaps with the aid of a special master. *Id.*

The district court suggested that exercising these supervisory powers after awarding a declaratory judgment cures the Article III problem. *Id.* To the contrary, the court's assumption of such a role would greatly exacerbate that problem. And the district court's self-described "innovation" is simply to segue from a declaratory judgment *into* an injunction. An order prescribing conduct and compelling compliance on penalty of sanction is plainly injunctive, regardless of what label the district court applies, *see, e.g.*, *Turtle Island Restoration Network v. U.S. Dep't of Com.*, 672 F.3d 1160, 1165 (9th Cir. 2012), and the powers that the district court describes—supervising government defendants, directing particular policies and practices, enforcing compliance, exercising jurisdiction indefinitely—are inherently injunctive. Any judicial action to require compliance with the legal "obligations" specified in a declaratory judgment with respect to Plaintiffs here would plainly be "beyond the power of an Article III court to order." *Juliana*, 947 F.3d at 1172-73.

In any event, this Court already rejected the exact same argument from Plaintiffs that "the district court need not itself make policy decisions, because if their general request for a remedial plan is granted, the political branches can

decide what policies will best 'phase out fossil fuel emissions and draw down excess atmospheric CO_2.'" *Juliana*, 947 F.3d at 1172. Even if the district court left these supposed details of such a sweeping plan to the government to work out, this Court explained, Plaintiffs' remedy "would subsequently require the judiciary to pass judgment on the sufficiency of the government's response," which "would entail a broad range of policymaking" involving both the Executive Branch and Congress. *Id.* at 1171. The Court recognized that "the political branches might conclude . . . that economic or defense considerations called for continuation of the very programs challenged in this suit, or a less robust approach," and that the federal courts cannot substitute their judgments on these complex issues. *Id.* at 1172. Further, "given the complexity and long-lasting nature of global climate change, the court would be required to supervise the government's compliance with any suggested plan for many decades." *Id.* at 1172. Those functions exceed the judicial power.

Thus, the district court clearly erred in finding redressability through a plan that would appoint the court as the superintendent of the Executive Branch's climate policy for an indefinite term, a judicial assumption of the powers of the President in excess of the powers conferred by Article III. To reach this conclusion, the Court need not (and should not) "discount the gravity of th[e] asserted environmental effects" or the "greater risks of harm" from "continuing

greenhouse gas emissions," but simply recognize that the Court "may act only where [it is] granted power to do so by the Constitution." *Wash. Env't Council v. Bellon*, 732 F.3d 1131, 1142 (9th Cir. 2013). The Constitution allocates the government's comprehensive policy response to climate change to the political branches, which have taken a wide range of steps to address the urgent crisis of climate change even as this litigation unfolded (p. 1 & n.1).

C. Plaintiffs fail to state claims upon which relief can be granted.

In the alternative, the Court should issue a writ of mandamus ordering dismissal because Plaintiffs' second amended complaint clearly fails to state a claim upon which relief can be granted. Fed. R. Civ. P. 12(b)(6). Absent mandamus review, the district court would proceed to trial on novel constitutional and public-trust claims of significant national importance that the Supreme Court has noted are "striking" in their "breadth." *United States v. U.S. Dist. Ct.*, 139 S. Ct. at 1; *see also In re United States*, 139 S. Ct. at 453. Because Plaintiffs' claims lack a foundation in federal law, the extraordinary remedy of mandamus is warranted to correct the district court's legal error before the court holds a trial on public policy that should take place in a congressional committee room and not a federal courthouse. *Cf. Cheney*, 542 U.S. at 381 (mandamus is appropriate to correct errors that "amount to a judicial usurpation of power").

The government presented these arguments in its earlier interlocutory appeal in this case, but the Court had no occasion to address the merits once it ordered dismissal for lack of jurisdiction. Now that the district court has reasserted jurisdiction, Plaintiffs' novel constitutional and public-trust claims once again warrant this Court's immediate review. But the district court summarily declined to certify an interlocutory appeal, notwithstanding its earlier certification of orders addressing the same issues. Exhibit 1 at 49. Thus, even if Plaintiffs had standing—and they do not—the Court should exercise its mandamus powers to order dismissal for failure to state a claim. *See Juliana*, 947 F.3d at 1166.

1. Plaintiffs fail to state a due process claim.

Plaintiffs claim that the government has violated a due process right to a "stable climate system," which they locate in the Fifth Amendment's guarantee of rights to life, liberty, and property. Exhibit 2 at ¶¶ 277-89. This claim fails as a matter of law for two independent reasons.

a. The Supreme Court has instructed courts to exercise great care when asked to recognize a new right under the Due Process Clause. *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997). No court has recognized a substantive due process right to a stable climate system under the Fifth Amendment.

To the contrary, federal courts have declined to recognize a constitutional right to a healthful environment in other contexts. *See, e.g.*, *Guertin v. Michigan*,

912 F.3d 907, 921-22 (6th Cir. 2019) (noting that the "Constitution does not guarantee a right to live in a contaminant-free, healthy environment"); *Nat'l Sea Clammers Ass'n v. City of New York*, 616 F.2d 1222, 1237-38 (3d Cir. 1980) (finding it "established in this circuit and elsewhere that there is no constitutional right to a pollution-free environment"), *vacated on other grounds sub nom. Middlesex Cnty. Sewerage Auth. v. Nat'l Sea Clammers Ass'n*, 453 U.S. 1 (1981); *Ely v. Velde*, 451 F.2d 1130, 1139 (4th Cir. 1971) (noting that arguments "in support of a constitutional protection for the environment" have not "been accorded judicial sanction"); *Clean Air Council v. United States*, 362 F. Supp. 3d 237, 250-53 (E.D. Pa. 2019) (collecting cases).

The district court erred in concluding that the Fifth Amendment guarantees an individual and personal "right to a climate system that can sustain human life." Exhibit 1 at 39. The court observed that history and tradition do not set the "outer bounds" of the judicial inquiry, *id.*, but the court did not identify an alternative basis for recognizing a new right under the Constitution beyond the court's understanding that the "right to life" includes "the right to be free from knowing government destruction of the[] ability to breathe, to drink, or to live." *Id.* at 40. The only authority the district court cited on Plaintiffs' asserted right is a dissenting opinion from a state court. *Id.* (citing *Aji P. v. State*, 497 P.3d 350, 351 (Wash. 2021) (Gonzalez, C.J., dissenting)).

b. The district court also erred in recognizing a due process right to particular climate conditions because the Fifth Amendment's Due Process Clause does not impose on the government an affirmative duty to protect or guarantee particular levels of safety and security. *See DeShaney v. Winnebago Cnty. Dep't of Soc. Servs.*, 489 U.S. 189, 194-95 (1989). The Court recognizes two exceptions to this general no-duty rule: "(1) when a 'special relationship' exists between the plaintiff and the state (the special-relationship exception); and (2) when the state affirmatively places the plaintiff in danger by acting with 'deliberate indifference' to a 'known or obvious danger' (the state-created danger exception)." *Patel v. Kent Sch. Dist.*, 648 F.3d 965, 971 (9th Cir. 2011) (citations omitted) (addressing the Due Process Clause of the Fourteenth Amendment). Plaintiffs rely on the state-created danger exception, which holds that "a state actor can be held liable for failing to protect a person's interest in his personal security or bodily integrity when the state actor affirmatively and with deliberate indifference placed that person in danger." *Pauluk v. Savage*, 836 F.3d 1117, 1122 (9th Cir. 2016).

The district court clearly erred in concluding that Plaintiffs adequately pleaded a claim of state-created danger. Exhibit 1 at 41-44. Plaintiffs broadly allege that the government "plac[ed] Plaintiffs in a position of climate danger" and "continued to act with deliberate indifference to the known danger [the government] helped create and enhance." Exhibit 2 ¶ 285; *see also id.* ¶¶ 280-84.

But this Court has recognized state-created dangers only where a government official created "an obvious, immediate, and 'particularized danger' to a specific person known to that official." *Pauluk*, 836 F.3d at 1129-30 (Murguia, J., concurring in part and dissenting in part); *see also id.* at 1130 (collecting cases). Here, Plaintiffs instead allege broad and generalized harms from the degradation of the global climate system, not immediate and particularized dangers, and Plaintiffs do not identify a specific government actor that knowingly placed them in such a danger. *Id*. Rather, the second amended complaint focuses on largely unspecified government actions taken by multiple agencies over a course of decades, far afield from the individual decisions that this Court has found to constitute state-created danger. *See id.* Further, Plaintiffs' allegations concern actions that the government has taken with respect to the public at large rather than Plaintiffs in particular. *See* Exhibit 2 ¶¶ 279-89. Finding a state-created danger in these circumstances would result in an exception that swallows the no-duty rule.

2. Plaintiffs fail to state a public-trust claim.

Plaintiffs claim that the government also violated an asserted public-trust doctrine. That doctrine originated in English common law, *see District of Columbia v. Air Fla., Inc.*, 750 F.2d 1077, 1081-82 (D.C. Cir. 1984), and it provides that the "sovereign owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people," *Nat'l*

Audubon Soc'y v. Superior Ct., 658 P.2d 709, 718 (Cal. 1983) (internal quotation and citation omitted). Plaintiffs allege that the federal government holds in trust the Nation's "atmosphere, waters, oceans, and biosphere" and violated its duty to protect the "overarching public trust resource" of the Nation's "life-sustaining climate system." Exhibit 2 ¶ 308; *see also id.* ¶¶ 309-10. This claim fails as a matter of law for two independent reasons.

a. There is no federal public-trust doctrine. The doctrine has been recognized in certain circumstances as a matter of state law, with no basis in the U.S. Constitution. *See, e.g.*, *PPL Mont., LLC v. Montana*, 565 U.S. 576, 603-04 (2012) ("[T]he public trust doctrine remains a matter of state law" and its "contours . . . do not depend upon the Constitution[.]"); *Idaho v. Couer d'Alene Tribe*, 521 U.S. 261, 283-85 (1997); *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 475 (1988).[5] This Court has recognized as much, *see United States v. 32.42 Acres of Land*, 683 F.3d 1030, 1038 (9th Cir. 2012), and the D.C. Circuit rejected a claim on the same theory advanced by Plaintiffs, litigated by some of the same attorneys litigating

[5] The district court concluded that the Supreme Court's statements about the relationship between the public-trust doctrine and the Constitution were dicta and did not foreclose the recognition of a federal public trust. ECF No. 83 at 43-45. But even assuming that analysis is correct, this Court does not "treat considered dicta from the Supreme Court lightly" and will "accord it appropriate deference." *United States v. Montero-Camargo*, 208 F.3d 1122, 1134 n.17 (9th Cir. 2000).

this case. *Alec L. v. McCarthy*, 561 F. App'x 7 (D.C. Cir. June 5, 2014) (mem.) (per curiam).

Indeed, a federal public-trust doctrine constraining the federal government's power over public lands would be inconsistent with the Constitution's Property Clause. U.S. Const. art. IV, § 3, cl. 2 ("Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States[.]"); *see also Kleppe v. New Mexico*, 426 U.S. 529, 539 (1976) (holding that "[t]he power over the public land thus entrusted to Congress is without limitations"). Plaintiffs purport to locate a federal public-trust doctrine in the Ninth and Tenth Amendments. Exhibit 2 ¶ 308. But the Ninth Amendment "has never been recognized as independently securing any constitutional right," *Strandberg v. City of Helena*, 791 F.2d 744, 748 (9th Cir. 1986), and the Tenth Amendment only reserves to the states those powers not expressly granted to Congress, *New York v. United States*, 505 U.S. 144, 156-57 (1992).

b. Plaintiffs also cannot state a claim for a public-trust duty to protect a "life-sustaining climate system" broadly encompassing the "atmosphere, waters, oceans, and biosphere." Exhibit 2 ¶ 308. Public-trust cases generally involve state ownership of particular, identifiable natural resources, typically submerged and submersible lands, tidelands, and waterways. *See, e.g.*, *PPL Montana*, 565 U.S.

576, 603-04 (riverbeds); *Stop the Beach Renourishment, Inc. v. Fla. Dep't of Env't Prot.*, 560 U.S. 702, 707-08 (2010) (submerged lands); *Phillips Petroleum Co.*, 484 U.S. at 476-77 (tidelands); *Summa Corp. v. California ex rel. State Lands Comm'n*, 466 U.S. 198, 205-06 (1984) (tidelands); *United States v. Mission Rock Co.*, 189 U.S. 391, 406-07 (1903) (tidelands); *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 453-60 (1892) (submerged lands). State courts have sometimes expanded state public-trust doctrines further, but Plaintiffs do not assert claims under state law. And in any event, a climate system is not susceptible to ownership as a public trust subject to the jurisdiction of any particular government. Plaintiffs nevertheless seek to hold the federal government responsible for maintaining the global climate system as a public trust. Exhibit 2 ¶ 308.

The district court erred in concluding that Plaintiffs adequately alleged a violation of public-trust duties with respect to the climate system. ECF No. 83 at 40; Exhibit 1 at 47. The district court notably declined to consider Plaintiffs' claims as they were pleaded, instead concluding that Plaintiffs had stated a claim for "violations of the public trust doctrine in connection with the territorial sea." Exhibit 1 at 47 (citing ECF No. 83 at 40-42). In limiting its analysis to the territorial sea—and declining to address whether the atmosphere is a public-trust asset, *see, e.g.*, ECF No. 83 at 40 n.10—the district court failed to address Plaintiffs' actual claim: that the global climate system is burdened by a federal

public trust. At a minimum, the district court clearly erred in failing to dismiss this claim insofar as it asserts a trust over resources beyond the territorial sea.[6]

D. Mandamus is warranted.

The extraordinary remedy of mandamus is warranted here. Mandamus generally is governed by the five *Bauman* factors (p. 17-18), but the Court may issue the writ to enforce its own mandate without consideration of these factors. *Vizcaino*, 173 F.3d at 719 ("*Bauman* does not apply when mandamus is sought on the ground that the district court failed to follow the appellate court's mandate."). In any event, all five factors are present here and support granting the writ.

1. The government does not have another "adequate way to obtain the relief sought." *In re U.S. Dep't of Educ.*, 25 F.4th at 698. Earlier in this litigation, the government petitioned both this Court and the Supreme Court for relief as the district court denied the government's dispositive motions, declined to certify interlocutory appeal, and moved quickly toward a trial expected to last a number of weeks. *See* Exhibit 5 at 9:7-11. These petitions were denied as either premature—

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[6] The district court also erred in declining to dismiss this case for Plaintiffs' failure to bring their cause of action under the APA, which channels challenges to agency actions into a carefully organized framework, 5 U.S.C. § 706, and does not permit a court to conduct a "broad programmatic" review of agency policy. *Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 62, 64 (2004). This Court in the earlier appeal concluded that Plaintiffs' claims "may proceed independently of the review procedures mandated by the APA." *Juliana*, 947 F.3d at 1159. The government recognizes that this Court's decision binds a future panel, but preserves that argument in the event of further review.

in light of dispositive-motion practice in district court or other avenues for relief from discovery and trial—or moot. *See United States v. U.S. Dist. Ct.*, 139 S. Ct. at 1; *In re United States*, 139 S. Ct. at 453; *In re United States*, 895 F.3d 1101 (9th Cir. 2018); *In re United States*, 884 F.3d 830 (9th Cir. 2018). Eventually, after the government exhausted all avenues for relief in district court, this Court "invited the district court to revisit certification, noting the Supreme Court's justiciability concerns," and the district court "reluctantly certified" an appeal and stayed its proceedings. *Juliana*, F.3d at 1166.

Following this Court's decision finding no Article III jurisdiction, the district court granted leave to amend and returned the case to its earlier posture. The government once again moved to dismiss the (now second) amended complaint, sought a stay of litigation, and asked the district court to certify both its order that granted leave to amend and any order that denied the motion to dismiss. ECF No. 547, 551, 552. The district court largely denied the government's requests—without explaining its decision not to certify an interlocutory appeal—and held a status conference to discuss setting a trial date. Exhibit 3; ECF No. 572. Short of mandamus, there is no realistic means of obtaining relief from the trial the district court is intent on holding. During the previous rounds of litigation, the government moved for judgment on the pleadings and summary judgment after the court denied its motion to dismiss, but these further dispositive motions were also

denied. There is no reason to think the court will handle further dispositive motions any differently; the record establishes that further efforts at seeking relief in district court will be futile.

2. The government "will suffer damage or prejudice that cannot be corrected on appeal." *In re U.S. Dep't of Educ.*, 25 F.4th at 698. Absent mandamus relief, the government will be required to comply with additional discovery requests and proceed to trial on Plaintiffs' sweeping claims. The Justice Department has already devoted more than 21,000 attorney and paralegal hours to this litigation and spent millions of taxpayer dollars on expert fees, travel expenses, and other non-attorney fees. *See* Declaration of Guillermo A. Montero ¶¶ 2-3, filed in *In re United States*, No. 18A410 (U.S. Oct. 18, 2018) (attached as Exhibit 6); Supplemental Declaration of Guillermo A. Montero, ECF No. 571-1 ¶ 3 (attached as Exhibit 7). If trial had commenced in October 2018, the parties expected to present up to 72 witnesses, including 29 expert witnesses, testifying to a diverse range of topics described in more than 1,100 pages of expert reports. Exhibit 6 ¶ 5. To conduct a ten-week trial of that complexity, the government expected to commit an additional 7,300 hours of professional time and millions of additional taxpayer dollars. *Id.* ¶¶ 6-7.

The government must expend resources to defend litigation in the normal course and does not seek extraordinary relief from the appellate courts simply

because it disagrees with a district court's resolution of dispositive motions. But this case presents the extraordinary circumstance where a court plans to hold a multi-week trial on issues of significant public import that will require enormous expenditures of government time and resources—all in a case where this Court already has held that the district court lacks jurisdiction because even at the end of such a trial, there would be no workable remedy that could be ordered or enforced. Those harms cannot be corrected on appeal from a final judgment. And more fundamentally, the court would hold a trial at the behest of a handful of Plaintiffs on issue of broad public importance and governmental actions, contemplating presentation of legal and factual positions in a court rather than through the agency process Congress had mandated in order to provide for broad public participation and consideration of varying perspectives.

3. The district court "clearly erred as a matter of law." *In re U.S. Dep't of Educ.*, 25 F.4th at 698. As explained at length above (pp. 19-38), the district court clearly erred both by violating this Court's mandate and by holding that Plaintiffs had adequately pleaded Article III standing on grounds this Court had already rejected. A district court clearly errs when this Court "has already directly addressed the question at issue" and reached a different conclusion. *Id.* Separately, the district court clearly erred by denying the government's motion to dismiss Plaintiffs' due process and public-trust claims (pp. 38-46).

4. The district court's error "is often repeated or shows the district court's persistent disregard for the federal rules." *In re U.S. Dep't of Educ.*, 25 F.4th at 698. The district court has wrongly held on multiple occasions that Plaintiffs have Article III standing, most recently after this Court expressly held that Plaintiffs do not have standing. ECF Nos. 83, 369; Exhibits 1, 3. The district court certified its earlier orders for interlocutory review only after the Supreme Court and this Court urged that result. Yet after this Court ordered dismissal, the district court put the case back on track for trial, the exact same place the case was when this Court took up the interlocutory appeal—as if this Court had never ruled.

In declining to dismiss the second amended complaint, the district court at times seemed to acknowledge that its decision to proceed with trial was inconsistent with this Court's decision. "*Some* may balk at the [c]ourt's approach as errant or unmeasured," the district court wrote, citing a passage of *this Court's* opinion explaining that not every problem can be resolved by the federal judiciary. Exhibit 1 at 7 (emphasis added). But "future generations may look back to this hour and say that the judiciary failed to measure up at all," the district court explained, in an apparent criticism of this Court's decision. *Id.* The district court's actions and words suggest that it is set on advancing its expansive view of the judiciary's role regardless of this Court's mandate and the limits of Article III.

5. There are "new and important issues at stake." *In re U.S. Dep't of Educ.*, 25 F.4th at 698. Plaintiffs allege sweeping claims raising novel constitutional theories and seeking unprecedented relief from agencies across the Executive Branch. As the Supreme Court has observed, Plaintiffs' claims are "striking" in their "breadth." *United States v. U.S. Dist. Ct.*, 139 S. Ct. at 1. Both the district court and this Court previously concluded that these claims present "a controlling question of law" for which there was a "substantial ground for difference of opinion." 28 U.S.C. § 1292(b); *see also Juliana*, 947 F.3d at 1165-66. Moreover, climate change is unquestionably an "important issue," as is Plaintiffs' request that the district court superintend the government's response to climate change over decades. If Plaintiffs were to prevail, the district court envisions an "innovative" remedy phase involving indefinite, continuing jurisdiction over the federal government's entire suite of actions in response to an enormously important and complex problem affecting the entire world. Exhibit 1 at 33-34.

II. The Court should stay proceedings in district court pending resolution of this petition.

The government also asks this Court to invoke its authority under the All Writs Act, 28 U.S.C. § 1651, to order a stay of all proceedings in the district court while the Court considers this petition. *See also* 9th Cir. General Order 6.8(a) (motions panel "may also issue a stay or injunction pending further consideration

of the application").[7] A stay is "an exercise of judicial discretion . . . to be guided by sound legal principles," *Nken v. Holder*, 556 U.S. 418, 433-34 (2009) (internal quotation marks omitted), that have been distilled into four factors: (1) the applicant's likely success on the merits; (2) irreparable injury to the applicant absent a stay; (3) substantial injury to the other parties; and (4) the public interest. *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987). Each of these factors favors a stay.

For the reasons explained above (pp. 19-46), the government has a strong likelihood of success in obtaining a writ of mandamus. And absent a stay, the government will suffer irreparable injury in the form of intrusive discovery and a trial conducted by a district court without jurisdiction. As explained above (pp. 48-50), although the burdens of discovery and trial ordinarily do not warrant mandamus relief, this case presents extraordinary circumstances that will result in harm to the government that other litigants would not suffer in the normal course.

Foremost, this Court already has concluded that Plaintiffs lack standing to bring this case and the district court lacks jurisdiction to entertain these claims against the government. The district court plans to hold a lengthy trial premised on its intention to supervise the Executive Branch's entire climate policy through the

[7] The government has asked the district court for a stay pending resolution of this petition, although that is not an express prerequisite to filing a petition for a writ of mandamus under Federal Rule of Appellate Procedure 21. *Cf.* Fed. R. App. P. 8(a)(1).

judicial process. Such a trial would nullify this Court's decision in the interlocutory appeal, deprive the United States of the benefit of the judgment it secured in that appeal, and harm the government by subjecting numerous agencies and their officials to the compulsory process of a district court operating outside the confines of its jurisdiction as defined by this Court. *See Cheney*, 542 U.S. at 380.

On the other side of the ledger, a stay of proceedings during the pendency of this petition is not likely to appreciably injure the other parties. This case has been pending since 2015, and the time required to resolve this petition pales in comparison to the two years that elapsed between Plaintiffs' motion for leave to amend their complaint and the district court's decision granting leave to amend.

Lastly, the public interest favors a stay. Absent relief, the Executive Branch and its agencies will be subject to discovery and required to divert substantial resources away from their essential function of "faithfully execut[ing]" the law. U.S. Const. art. II, § 3. The unprecedented scope and nature of the claims set for trial will inevitably harm the government in its "energetic performance of its constitutional duties." *Cheney*, 542 U.S. at 382.

Given the district court's determination to move forward with discovery and a trial, the government respectfully requests an administrative stay while the Court considers the government's stay request and an expedited ruling on the request for

a stay. *See* Order, *United States v. U.S. Dist. Ct.*, No. 18-73014 (9th Cir. Nov. 8, 2018).

CONCLUSION

For the foregoing reasons, the petition should be granted, and the district court should be directed to dismiss the case without leave to amend. This Court also should grant a stay of all proceedings in the district court while it considers this petition and grant an administrative stay pending resolution of the request for a stay.

Respectfully submitted,

/s/ *Daniel Halainen*
TODD KIM
Assistant Attorney General
ROBERT J. LUNDMAN
SEAN C. DUFFY
FRANK J. SINGER
CHRISTOPHER ANDERSON
DANIEL HALAINEN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-4081
daniel.j.halainen@usdoj.gov

February 2, 2024
DJ 90-1-4-14528

STATEMENT OF RELATED CASES

There are five related cases within the meaning of Circuit Rule 28-2.6:

- *In re United States*, 884 F.3d 830 (9th Cir. 2018) (No. 17-71692) (mandamus petition seeking relief from denial of motion to dismiss first amended complaint, denied without prejudice on March 7, 2018).

- *In re United States*, 895 F.3d 1101 (9th Cir. 2018) (No. 18-71928) (mandamus petition seeking relief from earlier proceedings, denied without prejudice on July 20, 2018).

- *In re United States*, No. 18-72776 (mandamus petition seeking relief from earlier proceedings, denied as moot November 2, 2018).

- *In re United States*, No. 18-73014 (mandamus petition seeking relief from earlier proceedings, denied as moot on December 26, 2018).

- *Juliana v. United States*, 947 F.3d 1159 (9th Cir. 2020) (No. 18-36082) (interlocutory appeal from orders related to dismissal, judgment on the pleadings, and summary judgment; case remanded with instructions to dismiss).

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate ACMS system on February 2, 2024.

I further certify that a notice of the filing of the foregoing (including a complete copy of the foregoing) will be filed in underlying proceeding in the United States District Court for the District of Oregon in compliance with Federal Rule of Appellate Procedure 21, and that all parties to the proceeding will be served with that notice through the district court's CM/ECF system. In addition, a courtesy copy of the foregoing has been provided via e-mail to the following counsel for Plaintiffs:

Julia A. Olson
Our Children's Trust
1216 Lincoln Street
Eugene, OR 97401
(415) 786-4825
julia@ourchildrenstrust.org

Philip L. Gregory
Gregory Law Group
1250 Godetia Drive
Redwood City, CA 94062
(650) 278-2957
pgregory@gregorylawgroup.com

Andrea K. Rodgers
Our Children's Trust
3026 NW Esplanade
Seattle, WA 98117
(206) 696-2851
andrea@ourchildrenstrust.org

/s/ *Daniel Halainen*
Daniel Halainen

Counsel for Petitioners

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

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- ○ complies with the length limit designated by court order dated _____.
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Signature /s/ Daniel Halainen **Date** February 2, 2024
*(use "*s/[typed name]*" to sign electronically-filed documents)*

No. 24-____

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

In re UNITED STATES OF AMERICA, et al.

UNITED STATES OF AMERICA, et al.,
Petitioners,

v.

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON,
Respondent,

and

KELSEY CASCADIA ROSE JULIANA, et al.
Real Parties in Interest.

On Petition for a Writ of Mandamus to the United States District Court
for the District of Oregon (No. 6:15-cv-1517)

EXHIBITS TO PETITION FOR A WRIT OF MANDAMUS AND MOTION FOR A STAY OF PROCEEDINGS

TODD KIM
Assistant Attorney General
ROBERT J. LUNDMAN
SEAN C. DUFFY
FRANK J. SINGER
CHRISTOPHER ANDERSON
DANIEL HALAINEN
Attorneys
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7415
Washington, D.C. 20044
(202) 514-4081
daniel.j.halainen@usdoj.gov

INDEX OF EXHIBITS

1. District court's opinion and order denying in part motion to dismiss and denying motions to certify and to stay, ECF No. 565 (Dec. 29, 2023)

2. Plaintiffs' second amended complaint, ECF No. 542 (June 8, 2023)

3. District court's opinion and order granting leave to amend, ECF No. 540 (June 1, 2023)

4. Ninth Circuit decision, No. 18-36082 (Jan. 17, 2020)

5. Reporter's transcript of January 19, 2024, status conference, to be docketed at ECF No. 572 (Jan. 22, 2024)

6. Declaration of Guillermo A. Montero, filed in *In re United States*, No. 18A410 (U.S. Oct. 18, 2018)

7. Supplemental Declaration of Guillermo A. Montero, ECF No. 571-1 (Jan. 18, 2024)

Exhibit 1

District court's opinion and order denying in part motion to dismiss and denying motions to certify and to stay, ECF No. 565 (Dec. 29, 2023)

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*,

Plaintiffs,

v.

THE UNITED STATES OF AMERICA, *et al.*,

Defendants.

Civ. No. 6:15-cv-01517-AA

OPINION AND ORDER

AIKEN, District Judge:

In 2015, twenty-one plaintiffs—a group of young people, including "future generations"—brought this civil rights action against the federal government, alleging injury from the devastation of climate change and contending that the Constitution guarantees the right to a stable climate system that can sustain human life. Through the years of litigating this case, plaintiffs maintain that their

government, by subsidizing fossil fuel extraction and consumption, is responsible for destroying the climate system on which all life, liberty, and property depends, violating plaintiffs' fundamental rights under the Due Process Clause of the Constitution and the historical public trust doctrine. On June 1, 2023, the Court granted plaintiffs' motion to file a second amended complaint.

Now before the Court is defendants' motion to dismiss the second amended complaint. ECF No. 547. For the reasons explained, the Court DENIES defendants' motion to dismiss, ECF No. 547; DENIES defendants' motion for an order certifying its prior order, ECF No. 540, for interlocutory appeal, ECF No. 551; and DENIES defendants' motion to stay litigation, ECF No. 552. The Court GRANTS plaintiffs' motion to set a pretrial conference, ECF No. 543.

INTRODUCTION

The parties do not disagree that the climate crisis threatens our ability to survive on planet Earth. This catastrophe is *the* great emergency of our time and compels urgent action.[1] As this lawsuit demonstrates, young people—too young to vote and effect change through the political process—are exercising the institutional procedure available to plead with their government to change course. While facts

[1] *See* David Wallace-Wells, The Uninhabitable Earth: Life After Warming (2019); Andrew Freedman & Jason Samenow, *Humidity and Heat Extremes Are on the Verge of Exceeding Limits of Human Survivability, Study Finds*, Washington Post (May 8, 2020) (reporting study warning that highly populated regions of the world will be rendered uninhabitable sooner than previously thought for parts of the year); Nafeez Ahmed, *New Report Suggests 'High Likelihood of Human Civilization Coming to an End' Starting in 2050*, VICE (June 3, 2019).

remain to be proved, lawsuits like this highlight young people's despair with the drawn-out pace of the unhurried, inchmeal, bureaucratic response to our most dire emergency. Top elected officials have declared that the climate emergency spells out "code red for humanity."[2] Burning fossil fuels changes the climate more than any other human activity.[3] The government does not deny that it has promoted fossil fuel combustion through subsidies; tax exemptions; permits for fossil fuel development projects; leases on federal lands and offshore areas; permits for imports and exports; and permits for energy facilities.[4] Despite many climate change suits around the country, in 2023, the United States witnessed record-breaking levels of oil and gas production.[5] And recent calculations conservatively estimate that the United States

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[2] President Joseph Biden, Remarks on "Actions to Tackle the Climate Crisis" at Brayton Point Power Station, Somerset, Massachusetts (July 20, 2022), https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/07/20/remarks-by-president-biden-on-actions-to-tackle-the-climate-crisis/ [https://perma.cc/LU2U-CTFM].

[3] Environmental Protection Agency, Sec. Environmental Topics, Climate Change, *Causes of Climate Change*, (last updated April 25, 2023), https://www.epa.gov/climatechange-science/causes-climate-change [https://perma.cc/UGU4-B6EF].

[4] *Juliana v. United States*, 947 F.3d 1159, 1167 (9th Cir. 2020) ("The government affirmatively promotes fossil fuel use in a host of ways, including beneficial tax provisions, permits for imports and exports, subsidies for domestic and overseas projects, and leases for fuel extraction on federal land.").

[5] *Energy Poverty Prevention and Accountability Act of 2023: Hearing on H.R.6474 and H.R.6481 before the H. Nat. Resources Subcomm. on Energy and Min. Resources, 118th Cong.* (statement of J. Mijin Cha, Assistant Professor, Univ. of Cal.) (citing Oliver Milman, "*US Oil and Gas Production Set to Break Record in 2023 despite UN Climate Goals*," The Guardian, November 27, 2023, sec. Environment, https://www.theguardian.com/environment/2023/nov/27/us-oil-gas-record-fossil-fuels-cop28-united-nations [https://perma.cc/VJ4C-KZGH]).

provides the oil and gas industry $20,000,000,000.00 annually in an array of subsidies.[6]

Defendants maintain that, because tackling the climate crisis is complex, and no single remedy may *entirely* redress plaintiffs' harms caused by climate change, the judiciary is constrained by the Constitution from offering any redress at all. *See* defs.' mot. to dismiss ("Mot.") at 11-13. Defendants contend that the issue of climate change is political in its nature, and that redress of plaintiffs' alleged injuries must be sought from Congress. *Id*. at 28. That unnecessarily narrow view overlooks one clear and constitutional path to shielding future generations from impacts of the onslaught of environmental disaster: that it is the responsibility of the judiciary to declare the law that the government may not deprive the People of their Constitutional guarantee of the God-given right to life. U.S. CONST. art III; U.S. CONST. amend. V; *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 170 (1803).

Plaintiffs' allegations are that collective resolve at every level and in every branch of government is critical to reducing fossil fuel emissions and vital to combating climate change. That curbing climate change requires an all-hands-on-deck approach does not oust the Court from its province or discharge it of its duty under the Constitution to say what the law is. *Marbury* 5 U.S. at 170.[7] Combatting

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[6] *Id.* (Statement of J. Mijin Cha) (citing Environmental and Energy Study Institute, Fact Sheet, *"Proposals to Reduce Fossil Fuel Subsidies (2021),"* (July 23, 2021) https://www.eesi.org/papers/view/fact-sheet-proposals-to-reduce-fossil-fuel-subsidies-2021 [https://perma.cc/SD8B-7P6B].

[7] *See also* Edith M. Lederer, *UN Chief: World Must Prevent Runaway Climate Change by 2020*, Associated Press News (Sept. 10, 2018) (describing massive

climate change may require all to act in accord, but that does not mean that the courts must "throw up [our] hands" in defeat. *See Juliana v. United States*, 947 F.3d 1159, 1175 (9th Cir. 2020) (Staton, J., dissenting).

The legislative and executive branches of government wield constitutional powers entrusted to those branches by the People through the democratic process. *See* U.S. CONST. art. I and art. II. So too, as part of a coequal branch of government, the Court cannot shrink from its role to decide on the rights of the individuals duly presenting their case and controversy. *Marbury*, 5 U.S. at 170. Indeed, courts at home and abroad are capably grappling with climate change lawsuits seeking redress against both government and private actors on a range of legal theories, many novel.[8] In Montana, Judge Kathy Seeley presided over the first climate change trial in the United States, piercing through expert testimony and scientific evidence to provide factual findings and conclusions of law, ruling that the state's failure to consider climate change when approving fossil fuel projects was unconstitutional. *See Held v. Montana*, Findings of Fact, Conclusions of Law, and Order, Civil Action CDV-2020-307 (Mont. First Jud. D. Ct. Lewis and Clark County, Aug. 14, 2023).

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decarbonization effort necessary to avoid climate "tipping points."), https://apnews.com/article/floods-united-nations-antonio-guterres-us-news-climate-71ab1abf44c14605bf2dda29d6b5ebcc [https://perma.cc/84E6-D24C].

[8] The Sabin Center for Climate Change Law of Columbia University has assembled for public access the "Climate Change Litigation Database" containing summaries and court dockets for climate change lawsuits brought in the United States and abroad. *Climate Change Litigation Databases,* Colum. L. Sch.: Sabin Ctr. For Climate Change L., https://climatecasechart.com/ [https://perma.cc/B89Z-YN4M].

The judiciary is capable and duty-bound to provide redress for the irreparable harm government fossil fuel promotion has caused. Legal scholar and professor Mary Christina Wood contends that the all-encompassing breadth of ongoing "irreparable harm" sets the climate emergency apart from any other crisis, in terms of the human interests at stake.[9] As Professor Wood eloquently states: "Because no crisis is as ominous, imminent, and far reaching, the climate emergency must be considered *sui generis*," that is, "in a class of its own."[10] The legal approach must "rise to the emergency rather than repeat a failed past paradigm."[11] In the context of Australian youth's challenge to government approval of a coal mine, Justice Bromberg wrote that failure to curb climate change is "what might fairly be described as the greatest inter-generational injustice ever inflicted by one generation of humans upon the next."[12]

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[9] Mary C. Wood, *"On the Eve of Destruction": Courts Confronting the Climate Emergency*, 97 Ind. L.J. 239, 249 (2022) (hereinafter "Wood, *Eve of Destruction*").

[10] *Id.*

[11] *Id.*

[12] *Sharma v. Minister for the Env't* [2021] FCA 560 1, 90 (27 May 2021) (Austl.). The court stated:

> "It is difficult to characterise in a single phrase the devastation that the plausible evidence presented in this proceeding forecasts for the Children. As Australian adults know their country, Australia will be lost and the World as we know it gone as well. The physical environment will be harsher, far more extreme and devastatingly brutal when angry. As for the human experience—quality of life, opportunities to partake in nature's treasures, the capacity to grow and prosper—all will be greatly diminished. Lives will be cut short. Trauma will be far more common and good health harder to hold and maintain. None of this will be the fault of nature itself. It will largely be inflicted by the inaction of this generation of adults, in what might fairly be described as the greatest

Some may balk at the Court's approach as errant or unmeasured,[13] but more likely than not, future generations may look back to this hour and say that the judiciary failed to measure up at all. In any case over which trial courts have jurisdiction, where the plaintiffs have stated a legal claim, it is the proper and peculiar province of the courts to impartially find facts, faithfully interpret and apply the law, and render reasoned judgment.[14] Such is the case here.

BACKGROUND

I. Plaintiffs' Lawsuit

In 2015, plaintiffs filed this civil rights lawsuit that journalists later coined "The Biggest Case on the Planet."[15] At the start of this case, the twenty-one plaintiffs were between the ages of eight and nineteen. They brought suit along with "future generations" through their guardian, Dr. James Hansen. Plaintiffs named as

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> inter-generational injustice ever inflicted by one generation of humans upon the next."

Id.

[13] *Juliana v. United States*, 947 F.3d 1159, 1174 (9th Cir. 2020) ("Not every problem posing a threat—even a clear and present danger—to the American Experiment can be solved by federal judges. As Judge Cardozo once aptly warned, a judicial commission does not confer the power of 'a knight errant, roaming at will in pursuit of his own ideal of beauty or of goodness'; rather, we are bound 'to exercise a discretion informed by tradition, methodized by analogy, disciplined by system.'") (quoting Benjamin N. Cardozo, The Nature of the Judicial Process 141 (1921)).

[14] *See* The Federalist No. 78 (Alexander Hamilton).

[15] Laura Parker, *"Biggest Case on the Planet" Pits Kids v. Climate Change*, Nat'l Geographic (Nov. 9, 2018), https://www.nationalgeographic.com/science/article/kids-sue-us-government-climate-change [https://perma.cc/2J7J-74C2].

defendants all federal agencies that plaintiffs alleged were responsible for the U.S. energy policy, including the Department of Agriculture, Department of Transportation, Environmental Protection Agency, Department of Interior, the State Department, Council on Environmental Quality, Department of Defense, and Department of Commerce. Compl., ECF No. 1; First Am. Compl. ("FAC"), ECF No. 7.

Plaintiffs compiled an abundance of factual evidence to support their claim that the government has known about the dangers posed by fossil fuel production, and, despite that knowledge, chose to promote production and consumption of coal, oil, and gas at increasing levels over decades. The record is extensive. The evidence, as the Ninth Circuit stated, "leaves little basis for denying that climate change is occurring at an increasingly rapid pace . . . and stems from fossil fuel combustion." *Juliana*, 947 F.3d at 1166.

From the beginning, plaintiffs alleged that, as early as the year 1899, scientists understood that CO_2 concentration in the atmosphere caused heat retention, global heating, and climate change. FAC ¶ 131. Plaintiffs stated that for over fifty years, the United States of America has known that CO_2 pollution from burning fossil fuels was causing global warming and dangerous climate change, and that continuing to burn fossil fuels would destabilize the climate system on which present and future generations of our nation depend for survival. *Id.* ¶¶ 132-35. Recounting over a dozen signpost junctures, plaintiffs provide letters, memoranda, and reports to the political branches from scientific experts and government agencies cautioning about the

danger of carbon pollution and warning that a lack of action would be felt for decades. *Id.* ¶¶ 136-50.

Defendants moved to dismiss the complaint under Federal Rule of Civil Procedure 12(b)(1) and 12(b)(6) for lack of standing; failure to state a cognizable constitutional claim; and failure to state a claim on a public trust theory. ECF No. 27. The Court denied that motion in November 2016. *See* Nov. 10, 2016 Op. & Order, ECF No. 83. Defendants also moved for judgment on the pleadings and summary judgment. ECF Nos. 195, 207. For the most part, the Court denied those motions.

When the Court denied defendants' motions to certify its dispositive orders for interlocutory appeal, defendants petitioned the Supreme Court for a writ of mandamus, ECF No. 390-1, and to stay proceedings, ECF No. 391-1, both which were denied. Defendants asked the district court to reconsider certifying its orders for interlocutory appeal, and, that time, the Ninth Circuit invited the district court to do so. *See* Nov. 21, 2018 Order, ECF Nos. 444, 445. Defendants then sought permission to appeal, which the Ninth Circuit granted. Filed Ord., *Juliana v. United States*, No. 18-36082 (9th Cir. Dec. 26, 2018).

On January 17, 2020, a divided panel of the Ninth Circuit issued a decision reversing the district court's certified orders and remanding the case with instructions to dismiss for lack of Article III standing. *Juliana*, 947 F.3d at 1175. Writing for the majority, Judge Hurwitz, joined by Judge Murguia, began with the basics: "To have standing under Article III, a plaintiff must have (1) a concrete and

particularized injury that (2) is caused by . . . challenged conduct and (3) is likely redressable by a favorable judicial decision." *Id.* at 1168.

Agreeing with the district court, Judge Hurwitz found that "[a]t least some plaintiffs" had claimed "particularized injuries," since climate change threatened to harm certain plaintiffs in "concrete and personal" ways if left unchecked. *Id.* The appellate court described the dire circumstances faced by one plaintiff who had had to evacuate his coastal home because of climate change. *Id.* And some plaintiffs had also established causation because there was "at least a genuine factual dispute as to whether" U.S. climate policy was a "substantial factor" in exacerbating plaintiffs' climate change-related injuries. *Id.* at 1169. Thus, plaintiffs' standing turned on redressability: "whether the plaintiffs' claimed injuries [were] redressable by an Article III court." *Id.*

Plaintiffs claimed defendants had violated their constitutional right to a climate system capable of sustaining life, and to redress that violation, sought injunctive relief, including an order directing defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 to stabilize the climate system." FAC at 94 ¶¶ 2, 6, 7.

"Reluctantly," the panel found such relief "beyond [the district court's] constitutional power." *Juliana*, 947 F.3d at 1165. To establish redressability, the appellate court explained, plaintiffs must have identified relief that was both "(1) substantially likely to redress their injuries" and "(2) within the district court's power to award." *Id.* at 1170. On the first prong, the panel found that plaintiffs' own experts

had stated that only a comprehensive, government-led plan to reduce U.S. greenhouse gas emissions could mitigate "the global consequences of climate change" and thereby bring plaintiffs' total redress. *Id.* Turning to the second prong, the panel found that supervising such a plan "would necessarily require" judges to make "a host of complex policy decisions." *Id.* at 1171.

Plaintiffs told the appellate court that even partial relief would suffice to redress their injuries, and that the district court "need not itself make policy decisions," because if plaintiffs' request for a remedial plan were granted, the political branches "could decide what policies" would be best to "draw down excess atmospheric CO_2." *Id.* at 1172. But the panel determined that, "even under such a scenario," the district court would need to pass judgment on the sufficiency of the government's response to the order. In the Ninth Circuit's view, a district court could not engage in passing judgment on the sufficiency of the government's response to a court order, because it "necessarily would entail a broad range of policymaking." *Id.*

The panel continued: "[A] constitutional directive or legal standard[ ] must guide the court's exercise of equitable power," and, on the other hand, "limited and precise" legal rules simply could not resolve the range of policy-related questions plaintiffs' claims raised. *Id.* at 1173. The appellate court determined that no remedy subject to limited and precise definition could redress plaintiffs' injuries and therefore issuing such relief was not within the district court's power. *Id.*

Judge Josephine L. Staton dissented. "Plaintiffs bring suit," she lamented, "to enforce the most basic structural principle embedded in our system of ordered liberty:

that the Constitution does not condone the Nation's willful destruction." *Id*. at 1175. In Judge Staton's view, the district court had the power to award plaintiffs' relief unless plaintiffs' claims ran afoul of the political question doctrine. *See id*. at 1184-85. Since plaintiffs' claims did not pose political questions, she continued, they should have proceeded. *Id*. at 1185-86. "[O]ur history is no stranger to widespread, programmatic changes . . . ushered in by the judiciary[]," Judge Staton concluded, and the "slow churn" of institutional-reform litigation "should not dissuade us here." *Id*. at 1188-89. At end of the day, the narrower understanding prevailed: that Article III courts cannot order injunctive relief unless constrained by more "limited and precise" legal standards, discernable in the Constitution, and that plaintiffs must make their case to the political branches. *Id*. at 1175. The Ninth Circuit "reverse[d] the certified orders of the district court and remand[ed]" the case "with instructions to dismiss for lack of Article III standing." *Id*.

Plaintiffs moved to file an amended complaint, removing from their prayer for relief the injunction that the Ninth Circuit had found objectionable. ECF No. 462. The Court granted it because (1) the Ninth Circuit did not foreclose the possibility of amendment when it mandated dismissal; (2) plaintiffs had notified the Court of a Supreme Court case providing a new and more expansive interpretation of declaratory judgments; and (3) plaintiffs' proposed complaint narrowed the scope of the injunctive relief it had initially requested. *See Juliana v. United States*, No. 6:15-CV-01517-AA, 2023 WL 3750334 (D. Or. June 1, 2023).

II. Plaintiffs File a Second Amended Complaint

In plaintiffs' second amended complaint, they maintain earlier factual allegations, contending that defendants implemented no recommendation provided to them via scientific reports warning of catastrophic climate change. Second Am. Compl. ("SAC") ¶ 153. Plaintiffs contend that, if defendants had not disregarded the evidence, "CO_2 emissions today would be reduced by 35% from 1987 levels." *Id.* Instead, since 1991, plaintiffs state that defendants have allowed CO_2 emissions from fossil fuel combustion to increase. *Id.* Plaintiffs provide tables setting forth data from government sources showing that fossil fuel production, fossil fuel energy consumption, and fossil fuel emissions have climbed substantially since 1965, and that by 2011, fossil fuel combustion in the U.S. accounted for 94% of CO_2 emissions. *Id.* ¶¶ 155-58. By 2012, data plaintiffs provide shows that the U.S. was the largest producer of natural gas, and the second largest producer of coal and energy production. *Id.* ¶ 160. By 2014, according to the United States Energy Information Administration, the U.S. had become the largest producer of total petroleum in the world. *Id.* ¶ 161.

Plaintiffs assert that defendants knew the harmful effect of their actions would significantly endanger many, like plaintiffs, with damage persisting for millennia. *Id.* ¶¶ 1, 161. Despite that knowledge, plaintiffs allege defendants continued their policies and practices of promoting the exploitation of fossil fuels and that defendants acted with deliberate indifference to the peril they knowingly created. *Id.*

Plaintiffs' inventory cataloguing the regulatory permits, export permits, and approvals for leasing, drilling, and mining on public lands is substantial. The

accounting of exploitation for fossil fuel extraction, coal tracts, and oil and gas leases is staggering. *Id.* ¶¶ 164-70. Plaintiffs comprehensively inventory the affirmative governmental promotion of fossil fuel combustion over decades. *Id.* ¶¶ 171-78.

Plaintiffs also include allegations drawing from scientific evidence documenting the tangible impacts of climate change. Evidence describes rising sea levels, severe droughts, hurricanes, wildfires, extreme heat, flash flooding, unprecedented ocean acidification, and rapid depletion of sea ice. *Id.* ¶¶ 213-41. Such events alter our air quality, water availability, water quality, crop yields, animal agriculture, and housing security. *Id.* Plaintiffs' allegations about what the future holds if climate change is unabated are harrowing. *Id.* ¶¶ 242-55.

As the legal basis for their claims, plaintiffs maintain that defendants have violated the Due Process Clause and Equal Protection Clause of the Fifth Amendment; the "unenumerated rights preserved for the people by the Ninth Amendment"; and the public trust doctrine. FAC at 84, 88, 91, 92; SAC at 133, 137, 140, 141 (bringing same claims for relief).

Plaintiffs seek declaratory relief under the Declaratory Judgment Act, 28 U.S.C. § 2201. SAC ¶ 14. Requested relief includes a declaration that the United States national energy system that creates the harmful conditions described above has violated and continues to violate the Fifth Amendment of the U.S. Constitution and plaintiffs' constitutional rights to substantive due process and equal protection of the law. *Id.* at 143 ¶ 1. Further, plaintiffs seek a declaration that defendants violated public trust rights and a declaration that the Energy Policy Act, Section 201

is unconstitutional. *Id.* at 143 ¶¶ 2-3.[16] Plaintiffs request injunctive relief only if necessary and "as appropriate." *Id.* at 143 ¶ 4.

III. The Government Files a Motion to Dismiss

Defendants move to dismiss under Federal Rule of Civil Procedure 12(b)(1) and 12(b)(6), asserting that plaintiffs lack standing; that plaintiffs cannot bring claims in the absence of a statutory right of action; that plaintiffs ask the Court to exercise authority that exceeds the scope of its power under Article III of the Constitution; and that all of plaintiffs' claims fail on the merits. Defendants also assert that, if the Court denies their motion, it should again certify its decision for interlocutory appeal.

LEGAL STANDARDS

I. Motion to Dismiss – FEDERAL RULE OF CIVIL PROCEDURE 12(b)(1)

A court reviews a motion to dismiss a complaint for lack of Article III standing under Rule 12(b)(1). *Naruto v. Slater*, 888 F.3d 418, 425 n.7 (9th Cir. 2018) (quoting *Maya v. Centex Corp.*, 658 F.3d 1060, 1067 (9th Cir. 2011)). If the jurisdictional attack is facial, courts determine whether the allegations contained in the complaint are sufficient on their face to invoke federal jurisdiction, accepting all material allegations in the complaint as true and construing them in favor of the party asserting jurisdiction. *See Warth v. Seldin*, 422 U.S. 490, 501 (1975). Once a party has moved to dismiss for lack of subject matter jurisdiction under Rule 12(b)(1), the

[16] As noted earlier, plaintiffs had initially sought injunctive relief, including an order directing defendants to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO_2 to stabilize the climate system." FAC at 94 ¶¶ 2, 6, 7.

party invoking federal jurisdiction bears the burden of establishing the elements of standing. *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 561 (1992). "[A] party must establish an Article III case or controversy before [a court can] exert subject matter jurisdiction." *Matter of E. Coast Foods, Inc.*, 66 F.4th 1214, 1218 (9th Cir. 2023). To satisfy the "irreducible constitutional minimum" of Article III standing, a plaintiff must establish (1) an injury in fact (2) that is fairly traceable to the challenged conduct and show that a court can provide (3) a remedy likely to redress that injury. *Spokeo, Inc. v. Robins*, 578 U.S. 330, 338 (2016).

II. Motion to Dismiss – FEDERAL RULE OF CIVIL PROCEDURE 12(b)(6)

To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to state a "claim to relief that is plausible on its face." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555, 570 (2007). A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged. *Id.* at 556. The plausibility standard is not akin to a "probability requirement," but it asks for more than a sheer possibility that a defendant has acted unlawfully. *Id.* The tenet that a court must accept as true all allegations contained in a complaint is inapplicable to legal conclusions. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). Threadbare recitals of the elements of a cause of action, supported by mere conclusory statements, do not suffice. *Id.* (citing *Twombly*, 550 U.S. at 555). "Where the well-pleaded facts do not permit the court to infer more than the mere possibility of misconduct, the complaint

has alleged—but it has not show[n]—that the pleader is entitled to relief." *Iqbal*, 556 U.S. at 679 (quoting FED. R. CIV. P. 8(a)(2)).

DISCUSSION

Over the eight years litigating this case, plaintiffs have presented evidence spanning over 50 years describing defendants' contribution to climate change through both inaction and affirmative promotion of fossil fuel use. The Court recalls plaintiffs' evidence included a letter by a top aide to President Nixon's domestic policy adviser emphasizing the effect of rising sea levels in 1969: "Goodbye New York. Goodbye Washington, for that matter."[17] In 1986, a Senate subcommittee observed that "there is a very real possibility that man—through ignorance or indifference, or both—is irreversibly altering the ability of our atmosphere to perform basic life support functions for the planet."[18] Those are but two documents out of hundreds highlighting the lengthy nature of government knowledge of the dangers of fossil fuel combustion. By and large, defendants have not disputed the factual premises of plaintiffs' claims. *Juliana,* 947 F.3d at 1167 (so stating). However, plaintiffs have not legally established that evidence. In reviewing defendants' motion to dismiss, the Court notes that, though it has held evidentiary hearings and painstakingly reviewed

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17 Memorandum from Daniel P. Moynihan, Assistant to the President for Domestic Pol'y, to John Ehrlichman, Assistant to the President for Domestic Affs. (Sept. 17, 1969), [https://perma.cc/G92P-AKLJ].

18 *Ozone Depletion, the Greenhouse Effect, and Climate Change: Hearing Before the Subcomm. on Env't Pollution of the Comm. on Env't & Pub. Works*, 99th Cong. 2 (1986) (opening statement of Sen. John H. Chafee, Chairman, Subcomm. on Env't Pollution).

thousands of pages of declarations and exhibits, today, its task is solely to decide whether plaintiffs have standing to bring suit and state a claim upon which relief may be granted. FED. R. CIV. P. 12(b)(1), (6).

As an initial matter, defendants assert that the Court must consider whether the rule of mandate, as a jurisdictional rule, requires the Court to dismiss the second amended complaint. Mot. at 10. Next, defendants maintain that plaintiffs have failed to bring a justiciable case and that the Court must dismiss plaintiffs' claims under Rule 12(b)(1) for lack of subject matter jurisdiction. *Id.* at 10-16. Finally, defendants urge the Court to find that plaintiffs' claims fail on the merits and that plaintiffs should have brought this action under the Administrative Procedure Act ("APA") but failed to do so. *Id.* at 32.

I. Mandate of the Court of Appeals for the Ninth Circuit

Defendants state that the Ninth Circuit was clear when it remanded the case to the Court with instructions to dismiss. *Id.* at 11. Defendants argue that, when the scope of the remand is clear, a district court cannot vary or examine the mandate of an appellate court "for any other purpose than execution." *Id.* at 10 (citing *In re Sanford Fork & Tool Co.*, 160 U.S. 247, 255 (1895)). Defendants contend that, rather than examine whether plaintiffs' amended pleadings establish redressability to satisfy the requirement of standing, the Court should reconsider the Ninth Circuit's mandate and dismiss the second amended complaint. *Id.* at 11. Because it is jurisdictional error to contravene a rule of mandate, the Court duly reconsiders the mandate of the Ninth Circuit and does not take the matter lightly.

"A district court that has received the mandate of an appellate court cannot vary or examine that mandate for any purpose other than executing it." *Hall v. City of Los Angeles*, 697 F.3d 1059, 1067 (9th Cir. 2012). "Violation of the rule of mandate is a jurisdictional error." *Id.* at 1067. "But while the mandate of an appellate court forecloses the lower court from reconsidering matters determined in the appellate court, it leaves to the district court any issue not expressly or impliedly disposed of on appeal." *S.F. Herring Ass'n v. Dep't of the Interior*, 946 F.3d 564, 574 (9th Cir. 2019) (quoting *Nguyen v. United States*, 792 F.2d 1500, 1502 (9th Cir. 1986)). In determining which matters fall within the compass of a mandate, "[d]istrict courts must implement both the letter and the spirit of the mandate, taking into account the appellate court's opinion and the circumstances it embraces." *Vizcaino v. U.S. Dist. Ct. for W. Dist. of Wash.*, 173 F.3d 713, 719 (9th Cir. 1999) (as amended) (quoting *Delgrosso v. Spang & Co.*, 903 F.2d 234, 240 (3d Cir. 1990)).

"Absent a mandate which explicitly directs to the contrary, a district court upon remand can permit the plaintiff to file additional pleadings . . . " *S.F. Herring,* 946 F.3d at 574 (quoting *Nguyen*, 792 F.2d at 1502); *see also Sierra Club v. Penfold*, 857 F.2d 1307, 1312 (9th Cir. 1988). When the mandate in the prior appeal does not expressly address the possibility of amendment and does not indicate a clear intent to deny amendment seeking to raise new issues not decided, that mandate does not purport "to shut the courthouse doors." *S.F. Herring,* 946 F.3d at 574.

In *S.F. Herring,* the Ninth Circuit discussed its mandate in a prior appeal, which vacated the district court's order entering summary judgment in the

defendants' favor and directed the district court to dismiss the complaint. *See S.F. Herring Ass'n v. U.S. Dep't of Interior*, 683 F. App'x 579, 581 (9th Cir. 2017) (vacating judgment and remanding case with instructions to dismiss for lack of subject matter jurisdiction). On remand, the district court allowed the plaintiff to file a second amended complaint. In the later appeal, the Ninth Circuit determined that the district court correctly found that the earlier mandate to dismiss did not prevent the plaintiff from seeking leave to re-plead. *S.F. Herring*, 946 F.3d at 574. The appellate court reasoned that in instructing the district court to dismiss, the mandate was silent on whether dismissal should be with or without leave to amend, and the mandate therefore did not preclude the district court from allowing plaintiff to file amended pleadings. *Id*. at 572-574.

When this Court granted plaintiffs' motion for leave to amend, it "consider[ed] plaintiffs' new factual allegations under the Declaratory Judgment Act and plaintiffs' amended request for relief, in light of intervening recent precedent, to be a new issue that, while discussed, was not decided by the Ninth Circuit in the interlocutory appeal." *Juliana v. United States*, No. 6:15-CV-01517-AA, 2023 WL 3750334, at *5 (D. Or. June 1, 2023). The Court once again finds that the Ninth Circuit's mandate did not address whether amendment, if permitted, would cure the deficiency it identified in plaintiffs' complaint.

The Ninth Circuit also did not instruct the Court to dismiss without leave to amend. Accordingly, its mandate to dismiss did not foreclose that opportunity, and the Court, on reconsideration, finds that in permitting plaintiffs to proceed with their

second amended complaint, the rule of mandate is not contravened. *S.F. Herring*, 946 F.3d at 574; *see also Creech v. Tewalt*, 84 F.4th 777, 783 (9th Cir. 2023) (where appellate court remanded and stated that plaintiff should have leave to amend, district court did not violate rule of mandate by dismissing *without* leave to amend, because appellate court did not expressly foreclose that option).

II. Standing

The Ninth Circuit determined that plaintiffs had established an injury in fact, traceable to defendants—the first two elements of constitutional standing. *Juliana* 947 F.3d at 1168-70. For completeness in its standing analysis, this Court adopts the Ninth Circuit's determination. Defendants reserve the right to "oppose" the Ninth Circuit's ruling. Mot. at 12.

Defendants contend that plaintiffs have not satisfied the third element of standing, because they failed to demonstrate that their injuries are "redressable" and that they are entitled to injunctive or declaratory relief. Defendants maintain that plaintiffs' requested relief fails, because plaintiffs cannot show that the relief they seek is (1) substantially likely to redress their injuries or (2) within the Court's power to award. *Id*. at 4-5, 12; *see also Spokeo,* 578 U.S. at 338.

A plaintiff must support each element of the standing test "with the manner and degree of evidence required at the successive stages of the litigation." *Lujan*, 504 U.S. at 561 (1992). Accordingly, at the motion-to-dismiss stage, "general allegations" suffice to establish standing because those allegations are presumed to "embrace those specific facts that are necessary to support the claim." *Id*. A plaintiff need not

show a favorable decision is "certain" to redress his injury but must show a substantial likelihood it will do so. *Washington Env't Council v. Bellon*, 732 F.3d 1131, 1146 (9th Cir. 2013). The injury need not be completely redressable; it is sufficient that the injury be partially redressed. *Meese v. Keene*, 481 U.S. 465, 476 (1987) ("enjoining the application of the words political propaganda to the films would at least partially redress the reputational injury of which appellee complains.").

As for plaintiffs' request for declaratory relief, the Ninth Circuit determined that a declaration would be "unlikely by itself to remediate [plaintiffs'] alleged injuries." *Juliana* 947 F.3d at 1170. For injunctive relief, the Ninth Circuit was "skeptical," but assumed without deciding that plaintiffs might be able to show that their injuries could be redressed by an order in their favor. *Id.* at 1171. That said, the appellate court based its ruling on the second redressability prong, stating that an injunction was "beyond the power of an Article III court to order, design, supervise, or implement." *Id.* Plaintiffs' second amended complaint scales down the requested injunctive relief, seeking "an injunction restraining [d]efendants from carrying out policies, practices, and affirmative actions that render the national energy system unconstitutional in a manner that harms [p]laintiffs," and only "if deemed necessary, just and proper." SAC at 143 ¶ 4.

Accordingly, for plaintiffs' claim for both injunctive relief and declaratory relief, the Court will evaluate whether each form of relief is (1) substantially likely to redress their injuries and (2) within the Court's power to award. *Spokeo,* 578 U.S. at 338.

A. Injunctive Relief

1. Substantial Likelihood of Redress

Defendants assert that an order enjoining defendants' fossil fuel activities will not stop catastrophic climate change or even partially ameliorate plaintiffs' injuries, and therefore, any such injunction is not substantially likely to redress plaintiffs' injuries and satisfy standing. Mot. at 12.

Whether a court order will halt *all* climate change by restraining defendants from carrying out fossil fuel activities is the wrong inquiry for at least two reasons. First, redressability does not require certainty, it requires only a substantial likelihood that the Court could provide meaningful relief. *Spokeo,* 578 U.S. at 338. Second, the possibility that some other individual or entity might cause the same injury does not defeat standing—the question is whether the injury *caused by the defendant* can be redressed.

Defendants have not disputed plaintiffs' factual allegations that they produce a quarter of all emissions on Earth. *Juliana*, 947 F.3d at 169. Based on plaintiffs' alleged facts, an order to defendants to refrain from certain fossil fuel activities which are causing plaintiffs' injuries would redress those injuries. On the spectrum of likely to unlikely, a favorable court order is much closer to likely, *i.e.,* substantially likely, to redress plaintiffs' harm.

"Substantially likely" is a *legal* characterization, not an evidence based, scientific number. Quantifying a threshold datapoint at which plaintiffs' harm would be remedied would involve rigorous, disciplined fact-finding, and inevitably would

raise a host of questions: What part of plaintiffs' injuries stem from causes beyond defendants' control? Even if emissions increase elsewhere, will the extent of plaintiffs' injuries be less if they obtain the relief they seek in this lawsuit? When would we reach this "point of no return" that plaintiffs' evidence describes, and do defendants have it within their power to avert reaching it, even without cooperation from third parties? All these questions are inextricably bound up in an evidentiary inquiry, and none of them can be answered at the motion-to-dismiss stage. At this junction, the Court finds that plaintiffs have shown that a favorable decision from this Court would be substantially likely to redress plaintiffs' injuries. Defendants' motion to dismiss is denied as to this issue.

2. The Court's Power to Provide Redress

Defendants assert that the Ninth Circuit determined that the injunction plaintiffs sought in their first amended complaint would "necessarily require a host of complex policy decisions entrusted . . . to the wisdom and discretion of the executive and legislative branches," *Juliana*, 947 F.3d at 1171, decisions "which must be made by the People's elected representatives." *Id*. at 1172. Defendants maintain that, even with amendment, plaintiffs' requested injunctive relief is unavailable, because it would "enjoin the executive branch from exercising discretionary authority" granted to it by statute, and would enjoin Congress from exercising power expressly granted to it by the Constitution. Mot. at 13 (citing the Property Clause, U.S. CONST. art. IV, § 3, cl. 2). In defendants' view, the requested injunction remains beyond a district court's power to award. *Id*.

While crafting and implementing injunctions in cases involving longstanding agency shortcomings may require rigorous, adversarial fact-finding to penetrate questions of science, there is nothing exceptional about a federal court issuing injunctions against federal agencies. *See e.g.*, *Nw. Env't Def. Ctr. v. United States Army Corps of Engineers*, No. 3:18-CV-00437-HZ, 2021 WL 3924046 (D. Or. Sept. 1, 2021) (injunction requiring U.S. Army Corps of Engineers to implement drawdown, spill, and specific fish management actions at its facilities; establishing an expert panel to craft implementation plans; and requiring status reports from agency).

Other federal district courts have similarly ordered agency action, and appellate courts have affirmed that granting this type of injunctive relief falls within the "broad equitable powers" of district courts. *Cobell VI*, 240 F.3d 1081, 1108 (D.C. Cir. 2001); *Gautreaux v. Romney*, 457 F.2d 124, 132 (7th Cir. 1972). Courts may also issue injunctions even when "ordering what is in effect nationwide relief." *Bresgal v. Brock*, 843 F.2d 1163, 1171 (9th Cir. 1987).

Without any explicit statutory command to the contrary, no court has held that these powers *categorically* fail on separation-of-powers grounds. *See* Samuel Buckberry Joyce, *Climate Injunctions: The Power of Courts to Award Structural Relief Against Federal Agencies*, 42 Stan. Env'tl. L.J. 241, 268-281, May 2023 (compiling cases featuring structural injunctions against the federal government).

Familiar instances of large-scale institutional litigation in modern American history include cases that ordered busing to desegregate schools;[19] the treaty rights cases that assured a fair share of fish for American Indian treaty fishers;[20] cases instituting prison condition reform;[21] and cases relating to land use and low-income housing.[22] Legal scholars have cited those cases and explained that injunctions in those cases "aimed to break down, scrutinize, and reform institutional dynamics and practices that caused the government to repeatedly violate fundamental rights of citizens to bring about enduring constitutional and civil rights compliance."[23]

In their first amended complaint, plaintiffs' requested remedy was an injunction requiring the government not only to "cease permitting, authorizing, and subsidizing" fossil fuel use, but also to "prepare a remedial plan subject to judicial approval to draw down harmful emissions." *Juliana*, 947 F.3d at 1170.

When it determined that plaintiffs' requested relief was beyond the power of an Article III court to order, the Ninth Circuit did not offer any explicit guidance on

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19 *See, e.g.*, *Brown v. Bd. of Educ. of Topeka*, 347 U.S. 483 (1954); *Swann v. Charlotte- Mecklenburg Bd. of Educ.*, 402 U.S. 1 (1971); *Milliken v. Bradley*, 418 U.S. 717 (1974); *Green v. Cnty. Sch. Bd. of New Kent Cnty.*, 391 U.S. 430 (1968).

20 *See, e.g.*, *United States v. Washington*, 520 F.2d 676 (9th Cir. 1975); *Washington v. Washington State Com. Passenger Fishing Vessel Ass'n*, 443 U.S. 658 (1979).

21 *See, e.g.*, *Brown v. Plata*, 563 U.S. 493 (2011); *Hudson v. McMillian*, 503 U.S. 1 (1992); *Hutto v. Finney*, 437 U.S. 678 (1978).

22 *See Hills v. Gautreaux*, 425 U.S. 284, 298 (1976).

23 Wood, *Eve of Destruction*, at 262.

how to distinguish other structural injunction cases, where the district court has power to order specific, injunctive relief, from this case, where the relief necessary to redress plaintiffs' injuries is held to be too broad.

Plaintiffs have scaled back the specific directives they at first sought in the injunction in their first amended complaint. At this point in the litigation, where the facts alleged are accepted as true, the Court can only identify one distinction between the injunction plaintiffs' request and the injunctions issued in the structural reform cases described above. In other reform cases, those plaintiffs' obtained injunctions against a single agency for a discreet violation of law. In this case, plaintiffs seek relief on constitutional grounds and historical trust principles against a host of governmental defendants.

The Court appreciates that, under existing precedent, an injunction of the scope plaintiffs first requested, and the "scaled down" request plaintiffs make now, against every named defendant in this suit, would be more expansive than any case of which the Court is aware.

On the other hand, requiring plaintiffs to bring piecemeal statutory actions against individual agencies perpetuates a status quo unlikely to bring about the all-out course correction necessary to avoid the impending crisis. Requiring plaintiffs to file individual suits premised on discreet agency shortcomings may be a viable path to achieving protections for the environment. However, a court order directing the agencies to work together, outside their silos to oversee resolution of a complex,

multiagency problem may prove especially constructive where a practical solution has eluded the entire government for decades.

Such an order has not proven to be necessary—and is perhaps premature—at this point in the case. Plaintiffs' amended request for injunction, though narrower, still treads on ground over which Ninth Circuit cautioned the Court not to step. If the reform plaintiffs seek is to prod a negotiated change of behavior, it is unnecessary to seek injunctive relief at this point to do so. Defendants' motion to dismiss plaintiffs' claim for injunctive relief is granted.

B. Declaratory Relief

Plaintiffs' second amended complaint seeks a declaration that "the national energy system" violates the Constitution and the public trust doctrine. SAC at 143, ¶¶ 1-3. Defendants contend that plaintiffs' claim for declaratory relief must be dismissed, asserting that the declaration is not materially distinct from the declaration plaintiffs sought in their first amended complaint. And defendants argue that plaintiffs cannot satisfy the two prongs for redressability, because an "unbounded declaration" alone will not redress plaintiffs' injuries, and declaring an "energy system" unconstitutional would "functionally declare unconstitutional unspecified laws, regulations, and policies," and such a declaration is therefore not within the power of a federal court. Mot. at 14.

1. Substantial Likelihood of Redress

Under the Declaratory Judgment Act, 28 U.S.C. §§ 2201, *et seq.*, courts can grant declaratory relief in the first instance and later consider if further relief is

warranted. "In a case of actual controversy within its jurisdiction, [ ] any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such." 28 U.S.C. § 2201. "Further necessary or proper relief based on a declaratory judgment or decree may be granted, after reasonable notice and hearing, against any adverse party whose rights have been determined by such judgment." 28 U.S.C. § 2202.

The Supreme Court has long recognized that declaratory judgment actions can provide redressability, even where relief obtained is a declaratory judgment alone. *See generally Franklin v. Massachusetts*, 505 U.S. 788, 803 (1992) *and Utah v. Evans*, 536 U.S. 452 (2002). In *Franklin* and *Evans*, states objected to the technique used by the Census Bureau to count people and those states sued government officials.

In *Franklin v. Massachusetts*, the Supreme Court stated that "[f]or purposes of establishing standing," it did not need to decide whether injunctive relief was appropriate where "the injury alleged is likely to be redressed by declaratory relief," and the court could "assume it is substantially likely that the President and other executive and congressional officials would abide by an authoritative interpretation of the census statute and constitutional provision by the District Court." 505 U.S. at 803. In *Utah v. Evans*, the Supreme Court referenced *Franklin*, explaining that, in terms of its "standing" precedent, declaratory relief affects a change in legal status, and the practical consequence of that change would "amount to a significant increase

in the likelihood that the plaintiff would obtain relief that directly redresses the injury suffered." 536 U.S. 452 (2002).

Other cases recognize the role of declaratory relief in resolving Constitutional cases. *See, e.g.*, *Evers v. Dwyer*, 358 U.S. 202, 202-04 (1958) (ongoing governmental enforcement of segregation laws created actual controversy for declaratory judgment); *Powell v. McCormack*, 395 U.S. 486, 499 (1969) ("A court may grant declaratory relief even though it chooses not to issue an injunction or mandamus.").

Finally, the Supreme Court held that, for the purpose of Article III standing, nominal damages—a form of declaratory relief—provide the necessary redress for a completed violation of a legal right, even where the underlying unlawful conduct had ceased. *Uzuegbunam*, 592 U.S. 279, ---, 141 S. Ct. 792, 802. *Uzuegbunam* illustrates that when a plaintiff shows a completed violation of a legal right, as plaintiffs have shown here, standing survives, even when relief is nominal, trivial, or partial. As Justice Thomas stated, in the context of nominal damages, "True, a single dollar often cannot provide full redress, but the ability to effectuate a partial remedy satisfies the redressability requirement. 592 U.S. at --- ,141 S. Ct. at 801 (quoting *Church of Scientology of Cal. v. United States*, 506 U.S. 9, 13 (1992).

To satisfy redressability under Article III, plaintiffs need not allege that a declaration alone would solve their every ill. To plead a justiciable case, a court need only evaluate "whether the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgment."

MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 127 (2007) (quoting *Md. Cas. Co. v. Pac. Coal & Oil Co.*, 312 U.S. 270, 273 (1941)).

There is nothing in § 2201 preventing a court from granting declaratory relief even if it is the only relief awarded. Section 2201 provides that declaratory relief may be granted "whether or not further relief is or could be sought." *Id.* Under the statute, the relief plaintiffs seek fits like a glove where plaintiffs' request declaratory relief independently of other forms of relief, such as an injunction. *See Steffel v. Thompson*, 415 U.S. 452, 475, (1974) (stating in a different context that "regardless of whether injunctive relief may be appropriate, federal declaratory relief is not precluded."). A declaration that defendants are violating plaintiffs' constitutional rights may be enough to bring about relief by changed conduct.

2. The Court's Power to Provide Redress

As expressed in *Marbury v. Madison*: "It is emphatically the province and duty of the judicial department to say what the law is." 5 U.S. at 177. Over the course of American history, courts have corrected longstanding, systemic wrongs of political branches that encroach on the fundamental rights of citizens.

The judiciary has the unique and singular duty to both declare constitutional rights and prevent political acts that would curb or violate those rights. *Id.* at 167. It is a foundational doctrine that when government conduct harms American citizens, the judiciary is constitutionally required to perform its independent role and determine whether the challenged conduct, not exclusively committed to any branch by the Constitution, is unconstitutional. *Id.* at 176-78.

The Act gives "federal courts competence to make a declaration of rights." *Pub. Affairs Associates v. Rickover*, 369 U.S. 111, 112 (1962). The Supreme Court has found it "consistent with the statute . . . to vest district courts with discretion in the first instance, because facts bearing on the usefulness of the declaratory judgment remedy, and the fitness of the case for resolution, are peculiarly within their grasp." *MedImmune,* 549 U.S. at 136.

A declaratory judgment need not be "unbound" as defendants assert but may precisely describe and quantify the government's obligations. For example, in the landmark treaty fishing cases, courts declared the tribes right to take up to 50 percent of the harvestable quantities of fish. *United States v. Washington*, 520 F.2d 676, 687 (9th Cir. 1975).

Declaratory judgments are thus firmly sited within the core competences of the courts in a way that structural injunctions are not. Declaratory judgments ask courts to declare actions lawful or unlawful, applying legal standards to a set of facts. Unlike structural injunctions, which envision an on-going dialogue between the court and the parties, the declaratory relief model facilitates a dialogue between the parties. Following a court's declaration of rights, which serves as the baseline below which a defendant may not fall, the various stakeholders are left to handle the details.[24]

[24] *See generally* Emily Chiang, *Reviving the Declaratory Judgment: A New Path to Structural Reform*, 63 Buff. L. Rev. 549 (May 2015) (discussing models of structural reform and encouraging public interest lawyers to consider declaratory relief as an effective and uniquely suited tool for structural reform in the modern age).

From the beginning, the Court has envisioned that the government defendants would be interested in collectively developing a remedial plan of their own making—not of the Court's making—containing measures that they decide are appropriate to bring the agencies into constitutional compliance.

Following a declaratory judgment outlining the constitutional benchmark, a fact-finding stage often requires scientific analysis (a proficiency in which defendants are well-equipped) along with production of data defendants most likely already possess. To avoid complex remedial issues from clouding the foundational task of defining plaintiffs' basic rights and defendants' consequent obligations, the Court would bifurcate the case into a "liability" stage and a "remedy" stage.

The liability stage may allow the Court to specify legal obligations in a declaratory judgment, while the remedy stage demands a more innovative judicial role to supervise the parties in crafting a plan. During the remedy stage, the Court could invoke the usual standards of deference to the agency, while the case remains open under its ongoing jurisdiction so that parties can challenge aspects of the remedy implementation without bringing a new lawsuit.

One model of supervision involves the appointment of a special master to handle complex factual issues, make determinations on recurring issues, and make recommendations to the court. Consent decrees are used in many contexts of long-lasting government violations. Professor Wood points out one notable example in the environmental context that arose from a treaty fishing case, *United States v. Oregon*,

handled by Judge Belloni, U.S. District Court of Oregon.[25] The litigation "culminated in a consent decree" and the Columbia River Fish Management Plan ("CRFMP") became "a model of judicial administration that gained nationwide acclaim."[26]

The CRFMP established a system of co-management between nine sovereigns (states, tribes, and the federal government) managing treaty fisheries in the Columbia River Basin. *See United States v. Oregon*, 699 F. Supp. at 1469 (describing and approving Columbia River Fish Management Plan). The CRFMP set forth detailed management criteria for each fishery, established technical and policy committees, and created a dispute resolution process that involved the court only as a last resort. Professor Wood argues that by "allowing the sovereign parties to identify points of agreement and work out the details of a remedy using their own administrative and scientific expertise, the consent decree process can create an enduring remedy structure to fit complex institutional and biological circumstances."[27]

Defendants have not shown that plaintiffs' claim for declaratory relief falls outside the scope of the Court's authority, where "facts bearing on the usefulness of the declaratory judgment remedy, and the fitness of the case for resolution, are peculiarly within [its] grasp." *MedImmune,* 549 U.S. at 136. Accordingly, defendants' motion to dismiss is denied as to this issue.

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25 Wood, *Eve of Destruction*, at 264 (citing *United States v. Oregon*, 699 F. Supp. 1456, 1469 (D. Or. 1988) (describing and approving the CRFMP)).

26 *Id.*

27 *Id.*

III. Political Question Doctrine

Defendants maintain that plaintiffs' claims present political questions over which the Court lacks jurisdiction. Mot. at 12-19. In defendants' view, plaintiffs ask the Court to "review and assess the entirety of Congress's and the Executive Branch's programs and regulatory decisions relating to climate change and then to pass on the comprehensive constitutionality of all of those policies, programs, and inaction in the aggregate." *Id.* at 17. Defendants assert that no federal court "has ever purported to use the judicial [p]ower to perform such a sweeping policy review." *Id.*

Defendants appear to misunderstand the function of the Court acting within its prescribed authority to declare what the law is—it is not the Court which will perform "a sweeping policy review," it is *defendants*.

There is no need for the Court to step outside its prescribed role to decide this case. At its heart, this lawsuit asks the Court to determine whether defendants have violated plaintiffs' constitutional rights. That question is squarely within the purview of the judiciary. *See INS v. Chadha*, 462 U.S. 919, 941 (1983) (the judiciary is bound to determine whether the political branches have "chosen a constitutionally permissible means of implementing [their] power"); *Jewel v. Nat'l Sec. Agency,* 673 F.3d 902, 912 (9th Cir. 2011) (although lawsuit challenging federal agencies' surveillance practices "strikes at the heart of a major public policy controversy," claims were justiciable because they were "straightforward claims of statutory and constitutional rights, not political questions.").

The Court previously analyzed whether plaintiffs' claims presented a political question under *Baker v. Carr*, 369 U.S. 186 (1962) and adopts that analysis here. *See Juliana v. United States*, 217 F. Supp. 3d 1224, 1235-42 (D. Or. 2016) *rev'd and remanded on other grounds*, 947 F.3d 1159 (9th Cir. 2020). The Ninth Circuit explicitly stated that it did not find that plaintiffs had presented a political question. *Juliana*, 947 F.3d at 1174 n.9 ("Contrary to the dissent, we do not find this to be a political question, although that doctrine's factors often overlap with redressability concerns").

Here the Constitution entrusts defendants with the power to oversee departments and agencies in the executive branch in their administration of the broad range of laws committed to their implementation. Mot. at 18. Speculation about the remedial stage does not support dismissal. *Baker*, 369 U.S. at 198 ("Beyond noting that we have no cause at this stage to doubt the District Court will be able to fashion relief if violations of constitutional rights are found, it is improper now to consider what remedy would be most appropriate if appellants prevail at trial."). Because the Court finds that under *Baker*, the political question doctrine does not impede plaintiffs' claims, defendants' motion to dismiss is denied on this issue.

IV. First Claim for Relief – Due Process Clause of the Fifth Amendment

Plaintiffs allege that the Due Process Clause of the Fifth Amendment recognizes and preserves the fundamental right of citizens to be free from government actions that harm "life, liberty, and property." SAC ¶ 278. Plaintiffs maintain that these "inherent and inalienable rights" reflect the basic societal contract of the

Constitution to protect citizens and "posterity"—future generations—from government infringement upon basic freedoms and basic rights. *Id*. Plaintiffs state that defendants' affirmative aggregate acts have been and are infringing on plaintiffs' liberties, by knowingly creating a destabilized climate system that is causing irreversible harm.

Defendants challenge plaintiffs' due process claims on two grounds. First, they assert any challenge to defendants' affirmative actions (*i.e.*, leasing land, issuing permits) cannot proceed because plaintiffs have failed to identify infringement of a fundamental right or discrimination against a suspect class of persons.

Second, they argue plaintiffs cannot challenge defendants' inaction (*i.e.*, failure to prevent third parties from emitting CO_2 at dangerous levels). Defendants maintain that the Constitution "does not impose an affirmative duty to protect individuals, and plaintiffs have failed to allege a cognizable claim under the "state-created danger" exception to that rule. Mot. at 21.

Defendants state that the Supreme Court has repeatedly instructed courts considering novel due process claims to "exercise the utmost care whenever . . . asked to break new ground in this field, . . . lest the liberty protected by the Due Process Clause be subtly transformed" into judicial policy preferences. *Id*. at 19-20 (quoting *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997)). Defendants maintain that plaintiffs' request to recognize an implied fundamental right to a stable climate system, SAC ¶ 304, "contradicts that directive, because such a purported right is without basis in the Nation's history or tradition." Mot. at 20.

A. Affirmative Government Action and Due Process

The Due Process Clause of the Fifth Amendment to the United States Constitution bars the federal government from depriving a person of "life, liberty, or property" without due process of law. U.S. CONST. amend. V.

When a plaintiff challenges affirmative government action under the Due Process Clause, the threshold inquiry is the applicable level of judicial scrutiny. *Witt v. Dep't of the Air Force*, 527 F.3d 806, 813 (9th Cir. 2008). The default level of scrutiny is rational basis, which requires a reviewing court to uphold the challenged governmental action so long as it "implements a rational means of achieving a legitimate governmental end[.]" *Kim v. United States*, 121 F.3d 1269, 1273 (9th Cir. 1997) (quotation marks omitted). When the government infringes on a "fundamental right," however, a reviewing court applies strict scrutiny. *Witt*, 527 F.3d at 817. Substantive due process "forbids the government to infringe certain fundamental liberty interests at all, no matter what process is provided, unless the infringement is narrowly tailored to serve a compelling state interest." *Reno v. Flores*, 507 U.S. 292, 302, (1993).

It appears undisputed by plaintiffs, and in any event is clear to this Court, that defendants' affirmative actions would survive rational basis review. Resolution of this part of the motion to dismiss therefore hinges on whether plaintiffs have alleged infringement of a fundamental right.

Fundamental liberty rights include both rights enumerated elsewhere in the Constitution and rights and liberties which are either (1) "deeply rooted in this

Nation's history and tradition" or (2) "fundamental to our scheme of ordered liberty[.]" *McDonald v. City of Chicago*, 561 U.S. 742, 767 (2010) (internal citations, quotations, and emphasis omitted). Seemingly "new" fundamental rights are not out of bounds. When the Supreme Court broke new legal ground by recognizing a constitutional right to same-sex marriage, Justice Kennedy wrote that

> The nature of injustice is that we may not always see it in our own times. The generations that wrote and ratified the Bill of Rights ... did not presume to know the extent of freedom in all its dimensions, and so they entrusted to future generations a charter protecting the right of all persons to enjoy liberty as we learn its meaning. When new insight reveals discord between the Constitutions central protections and a received legal stricture, a claim to liberty must be addressed.

Obergefell v. Hodges, 576 U.S. 644, 664 (2015). Thus, "[t]he identification and protection of fundamental rights is an enduring part of the judicial duty to interpret the Constitution . . . [that] has not been reduced to any formula." *Id.* at 663-64 (citation and quotation marks omitted). In determining whether a right is fundamental, courts must exercise "reasoned judgment," keeping in mind that "[h]istory and tradition guide and discipline this inquiry but do not set its outer boundaries." *Id.* at 664. The genius of the Constitution is that its text allows "future generations [to] protect . . . the right of all persons to enjoy liberty as we learn its meaning." *Id.*

Exercising "reasoned judgment," *id.*, the Court finds that the right to a climate system that can sustain human life is fundamental to a free and ordered society.

Defendants contend plaintiffs are asserting a right to be free from pollution or climate change, and that courts have consistently rejected attempts to define such

rights as fundamental. Mot. at 20. Defendants mischaracterize the right plaintiffs assert. Plaintiffs do not object to the government's role in producing any pollution or in causing any climate change; they assert the government has caused pollution and climate change on a catastrophic level, and that if the government's actions continue unchecked, they will permanently and irreversibly damage plaintiffs' property, their economic livelihood, their recreational opportunities, their health, and ultimately their (and their children's) ability to live.

In this opinion, this Court simply holds that where a complaint alleges governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, damage property, threaten human food sources, and dramatically alter the planets ecosystem, it states a claim for a due process violation. To hold otherwise would be to say that the Constitution affords no protection against a government's knowing decision to poison the air its citizens breathe or the water its citizens drink.

How can the judiciary uphold the Constitution's guarantee that the government shall not deprive its citizens of life without due process, while also upholding government "actions that could leave [future generations] a world with an environment on the brink of ruin and no mechanism to assert their rights." *Aji P. v. State*, 198 Wash. 2d 1025, 497 P.3d 350, 351 (2021) (Gonzalez, C.J.) (dissenting). We cannot vow to uphold the Constitution's protection of a God-given right to life, and at the same time, exercise "judicial restraint" by telling plaintiffs that "life" cannot possibly include the right to be free from knowing government destruction of their

ability to breathe, to drink, or to live. "It cannot be presumed that any clause in the [C]onstitution is intended to be without effect." *Marbury*, 5 U.S. at 174. Plaintiffs have adequately alleged infringement of a fundamental right and defendants' motion to dismiss is denied on this issue.

B. Government Inaction Under the Due Process Clause

Plaintiffs allege that "[a]cting with full appreciation of the consequences of their acts, defendants knowingly caused, and continue to cause, dangerous interference with our atmosphere and climate system." SAC ¶ 280. They allege this danger stems, "in substantial part, [from] [d]efendants' historic and continuing permitting, authorizing, and subsidizing of fossil fuel extraction, production, transportation, and utilization." *Id.* ¶ 279. Plaintiffs allege defendants acted "with full appreciation" of the consequences of their acts. *Id.* ¶¶ 278–79. Plaintiffs challenge defendants' failure to limit third-party CO_2 emissions under the danger creation exception stated in *DeShaney v. Winnebago Cnty. Dep't of Soc. Servs.*, 489 U.S. 189 (1989).

The Due Process Clause imposes no duty on the government to protect persons from harm inflicted by third parties that would violate due process if inflicted by the government. *Id.* at 196; *accord Patel v. Kent Sch. Dist.*, 648 F.3d 965, 971 (9th Cir. 2011). As a general matter:

> [The Due Process Clause] is phrased as a limitation on the State's power to act, not as a guarantee of certain minimal levels of safety and security. It forbids the State itself to deprive individuals of life, liberty, or property without "due process of law," but its language cannot fairly be extended to impose an affirmative obligation on the State to ensure that those interests do not come to harm through other means.

DeShaney, 489 U.S. at 194-95. The Ninth Circuit recognizes two narrow exceptions to the no-duty-to-protect rule from *DeShaney*: (1) the "special-relationship" exception, which applies to individuals involuntarily placed in state custody; and (2) the state-created danger exception. *Murguia v. Langdon*, 61 F.4th 1096, 1106 (9th Cir. 2023).

In the Ninth Circuit, a plaintiff challenging government inaction on a danger creation theory must first show the "state actor create[d] or expose[d] an individual to a danger which he or she would not have otherwise faced." *Kennedy v. City of Ridgefield*, 439 F.3d 1055, 1061 (9th Cir. 2006). The state action must place the plaintiff "in a worse position than that in which he would have been had the state not acted at all." *Pauluk v. Savage*, 836 F.3d 1117, 1125 (9th Cir. 2016) (quotation marks omitted and alterations normalized).

Second, the plaintiff must show the "state actor . . . recognize[d]" the unreasonable risks to the plaintiff and "actually intend[ed] to expose the plaintiff to such risks without regard to the consequences to the plaintiff." *Campbell v. Wash. Dep't of Soc. & Health Servs.*, 671 F.3d 837, 846 (9th Cir. 2011) (brackets and quotation marks omitted). The defendant must have acted with "[d]eliberate indifference," which "requires a culpable mental state more than gross negligence." *Pauluk*, 836 F.3d at 1125 (quotation marks omitted).

Defendants assert that applying the *DeShaney* exception to the circumstances of this case would cause the exception to swallow the rule, arguing that "[e]very instance" in which the Ninth Circuit has "permitted a state-created danger theory to proceed has [also] involved an act by a government official that created an obvious,

immediate, and particularized danger to a specific person known to that official." Mot. at 22; *Pauluk*, 836 F.3d at 1129-30 (Murguia, J., concurring in part and dissenting in part) (internal quotation marks omitted). Defendants assert that plaintiffs fail to identify immediate harm to their personal security or bodily integrity and identify no government actions or actors that put them in danger—only general degradation of the climate, without the immediate, direct, physical, and personal harms at issue in the above referenced cases. Mot. at 20.

Plaintiffs' allegations include "[harm to] plaintiffs' dignity, including their capacity to provide for their basic human needs, safely raise families, practice their religious and spiritual beliefs, maintain their bodily integrity, and lead lives with access to clean air, water, shelter, and food." SAC ¶ 283. In the face of these risks, plaintiffs allege defendants "have had longstanding, actual knowledge of the serious risks of harm and have failed to take necessary steps to address and ameliorate the known, serious risk to which they have exposed [p]laintiffs." *Id.* ¶ 285.

Accepting the allegations of the complaint as true, plaintiffs have adequately alleged a danger creation claim. Defendants' arguments do not reflect that *DeShaney* imposes rigorous proof requirements. A plaintiff asserting a danger-creation due process claim must show (1) the government's acts created the danger to the plaintiff; (2) the government knew its acts caused that danger; and (3) the government with deliberate indifference failed to act to prevent the alleged harm. These stringent standards are sufficient safeguards against the flood of litigation concerns raised by defendants.

At the motion-to-dismiss stage, the Court accepts the factual allegations in the complaint as true. Plaintiffs have alleged that defendants helped create the current climate crisis, that defendants acted with full knowledge of the consequences of their actions, and that defendants have failed to correct or mitigate the harms they helped create in deliberate indifference to the injuries caused by climate change. Plaintiffs may therefore proceed with their substantive due process challenge to defendants' failure to adequately regulate CO_2 emissions and defendants' motion to dismiss is denied as to this issue.

V. Second Claim for Relief: Equal Protection Under the Fifth Amendment

Plaintiffs allege that both unborn members of "future generations" and minor children who cannot vote are a suspect classification. SAC ¶¶ 290-301. Plaintiffs state that, for purposes of this action, they should be treated as protected classes because many harmful effects caused by the acts of defendants will occur again. *Id.* ¶ 297. Plaintiffs maintain that the Court should determine they must be treated as protected classes, and federal laws and actions that disproportionately discriminate against and endanger them must be invalidated. *Id.*

Defendants assert that "[n]one of the government actions that [p]laintiffs complain of classify or affect youth or posterity any differently than they affect other persons." Mot. at 29. While plaintiffs' allegations are to the contrary, asserting that future generations will be decidedly more effected by climate change, defendants assert that their actions furthering fossil fuel combustion survive rational basis

review, because plaintiffs cannot allege that there is no conceivable set of facts that could provide a rational basis for defendants' actions. *Id.*

Both the Supreme Court and the Ninth Circuit have held that age is not a suspect class. *City of Dallas v. Stanglin*, 490 U.S. 19, 25 (1989); *United States v. Flores-Villar*, 536 F.3d 990, 998 (9th Cir. 2008). *Stanglin* and *Flores-Villar* both applied rational basis review to governmental action that discriminated against teenagers of a similar age to plaintiffs here. In both cases, that discrimination was found to be permissible if it had a rational basis.

Even if plaintiffs' suspect-class argument were not foreclosed by precedent, the Court would not be persuaded to break new ground in this area. *See Cunningham v. Beavers*, 858 F.2d 269, 273 (5th Cir. 1988) ("No cases have ever held, and we decline to hold, that children are a suspect class.").

Accordingly, defendants' motion to dismiss plaintiffs' equal protection claim based on plaintiffs' constituting a suspect class is granted.

VI. Third Claim for Relief: Unenumerated Rights Under the Ninth Amendment

Plaintiffs' third claim for relief, which is pleaded as a freestanding claim under the Ninth Amendment, alleges that the Nation's founders intended that the federal government would have both the authority and the responsibility to be a steward of our country's essential natural resources. SAC ¶ 303. This stewardship, plaintiffs assert, is clear from the delegation of powers to manage lands and the conveyed authority to address major challenges facing our nation. *Id.* Plaintiffs allege that among the "implicit liberties protected from government intrusion by the Ninth

Amendment" is the right to be "sustained by our country's vital natural systems, including our climate system." *Id.*

Defendants assert that the Ninth Amendment has never been recognized as independently securing any constitutional right, and that this claim must be dismissed. Mot. at 21; *Strandberg v. City of Helena*, 791 F.2d 744, 748 (9th Cir. 1986).

Defendants are correct. Plaintiffs' Ninth Amendment claim is not viable. *Id.* Defendants' motion to dismiss plaintiffs' third claim for relief is granted.

VII. Fourth Claim for Relief: Rights Under Public Trust Doctrine

Plaintiffs' public trust claim arises from the particular application of the public trust doctrine to essential natural resources. The complaint alleges that the overarching public trust resource is our country's life-sustaining climate system, which encompasses our atmosphere, waters, oceans, and biosphere. SAC ¶ 308. Plaintiffs assert that defendants must take affirmative steps to protect those trust resources. *Id.* As sovereign trustees, plaintiffs contend that defendants have a duty to refrain from "substantial impairment" of these essential natural resources. *Id.* ¶ 309. The affirmative aggregate acts of defendants, in plaintiffs' view, in fossil fuel production and consumption have "unconstitutionally caused, and continue to cause, substantial impairment to the essential public trust resources." *Id.*

Plaintiffs allege that defendants have failed in their duty of care to safeguard plaintiffs' interest as the present and future beneficiaries of the public trust, and that such an abdication of duty abrogates the ability of succeeding members of the

Executive Branch and Congress to provide for the survival and welfare of our citizens and to promote the endurance of our nation. *Id*.

Defendants assert that plaintiffs' fourth claim for relief, asserting public trust claims, should be dismissed for two independent reasons. Mot. at 24. First, any public trust doctrine is a creature of state law that applies narrowly and exclusively to particular types of state-owned property not at issue here. *Id*; U.S. CONST. art. IV, § 3, cl. 2 ("The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."). Defendants contend there is no basis for plaintiffs' public trust claim against the federal government under federal law. Second, the "climate system" or atmosphere is not within any conceivable federal public trust. *Id*.

The Court has expended innumerable hours in research and analysis of plaintiffs' public trust claim and, in prior orders, determined that plaintiffs have alleged violations of the public trust doctrine in connection with the territorial sea. *See Juliana v. United States*, 217 F. Supp. 3d 1224, 1255 (D. Or. 2016), *rev'd and remanded on other grounds,* 947 F.3d 1159 (9th Cir. 2020). Because the Ninth Circuit did not reach the merits of plaintiffs' claims, the Court incorporates its analysis and legal conclusions, as stated in *Juliana*, 217 F. Supp at 1255-61 (finding that plaintiffs' alleged injuries relate to the effects of ocean acidification and rising ocean temperatures, thus pleadings adequately alleged harm to public trust assets; the public trust doctrine applies to the federal government; the federal government, like the states, holds public assets, including the territorial seas, in trust for the people;

environmental statutes have not displaced the venerable public trust doctrine; and plaintiffs' claims rest "directly on the Due Process Clause of the Fifth Amendment and are enforceable against the federal government.").

Accordingly, the Court finds that plaintiffs have stated a claim under a purported public trust doctrine. Defendants' motion to dismiss plaintiffs' fourth claim for relief is denied.

VIII. Action Under Administrative Procedure Act

Defendants argue that plaintiffs needed to bring their claims under the Administrative Procedure Act ("APA") and failed to do so. Mot. at 32.

The Court finds that the APA does not govern plaintiffs' claims, and that, as a result, plaintiffs' failure to state a claim under the APA is not a ground for dismissing this action. The Ninth Circuit found that "[w]hatever the merits of the plaintiffs' claims, they may proceed independently of the review procedures mandated by the APA." *Juliana*, 947 F.3d at 1167-68. Defendants' motion to dismiss is denied as to this issue. Defendants reserve their right to disagree with the Ninth Circuit's determination on this point but concede that the Ninth Circuit's decision governs, and respectfully preserve their arguments on the applicability of the APA for potential further review.

CONCLUSION

Other courts across the United States have noted that "[w]ith each year, the impacts of climate change amplify and the chances to mitigate dwindle." *Matter of Hawai'i Elec. Light Co., Inc.*, 152 Haw. 352, 359 (2023). The judicial branch of

government can no longer "abdicat[e] responsibility to apply the rule of law." *Id.* at 365 (Wilson, J., concurring). For the reasons explained, Defendants' motion to dismiss the second amended complaint, ECF No. 547, is GRANTED in part and DENIED in part. The Court also DENIES defendants' request to certify for interlocutory review this opinion and order; DENIES defendants' motion for an order certifying its prior order, ECF No. 540, for interlocutory appeal, ECF No. 551; and DENIES defendants' motion to stay litigation, ECF No. 552. The Court GRANTS plaintiffs' motion to set a pretrial conference, ECF No. 543, and ORDERS the parties to confer and contact the Court to schedule a telephonic status conference to discuss next steps in this case.

It is so ORDERED on this day, December 29, 2023.

Ann L. Aiken

/s/Ann L. Aiken
UNITED STATES DISTRICT JUDGE

Exhibit 2

Plaintiffs' second amended complaint, ECF No. 542 (June 8, 2023)

JULIA A. OLSON (OR Bar 062230)
julia@ourchildrenstrust.org
Our Children's Trust
1216 Lincoln Street
Eugene, OR 97401
Tel: (415) 786-4825

ANDREA K. RODGERS (OR Bar 041029)
andrea@ourchildrenstrust.org
Our Children's Trust
3026 NW Esplanade
Seattle, WA 98117
Tel: (206) 696-2851

PHILIP L. GREGORY (*pro hac vice*)
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, CA 94062
Tel: (650) 278-2957

Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON – EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA; **XIUHTEZCATL TONATIUH M.**, through his Guardian Tamara Roske-Martinez; **ALEXANDER LOZNAK**; **JACOB LEBEL**; **ZEALAND B.**, through his Guardian Kimberly Pash-Bell; **AVERY M.**, through her Guardian Holly McRae; **SAHARA V.**, through her Guardian Toña Aguilar; **KIRAN ISAAC OOMMEN**; **TIA MARIE HATTON**; **ISAAC V.**, through his Guardian Pamela Vergun; **MIKO V.**, through her Guardian Pamela Vergun; **HAZEL V.**, through her Guardian Margo Van Ummersen; **SOPHIE K.**, through her Guardian Dr. James Hansen; **JAIME B.**, through her Guardian Jamescita Peshlakai; **JOURNEY Z.**, through his Guardian Erika Schneider; **VIC B.**, through his Guardian Daisy Calderon; **NATHANIEL B.**, through his Guardian Sharon Baring; **AJI P.**, through his Guardian Helaina Piper; **LEVI D.**, through his Guardian Leigh-Ann Draheim; **JAYDEN F.**, through her Guardian Cherri Foytlin; **NICHOLAS V.**, through his Guardian Marie Venner; and **FUTURE GENERATIONS**, through their Guardian Dr. James Hansen;

Plaintiffs,

Case No.: 6:15-cv-01517-AA

SECOND AMENDED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

Constitutional Rights; Declaratory Judgment Action (28 U.S.C. §§ 1331, 2201, 2202)

vs.

The UNITED STATES OF AMERICA; **The OFFICE OF THE PRESIDENT OF THE UNITED STATES**; **BRENDA MALLORY**, in her official capacity as Director of Council on Environmental Quality; **SHALANDA YOUNG**, in her official capacity as Director of the Office of Management and Budget; **ARATI PRABHAKAR**, in her official capacity as Director of the Office of Science and Technology Policy; **The UNITED STATES DEPARTMENT OF ENERGY**; **JENNIFER GRANHOLM**, in her official capacity as Secretary of Energy; **The UNITED STATES DEPARTMENT OF THE INTERIOR**; **DEB HAALAND**, in her official capacity as Secretary of Interior; **The UNITED STATES DEPARTMENT OF TRANSPORTATION**; **PETE BUTTIGIEG**, in his official capacity as Secretary of Transportation; **The UNITED STATES DEPARTMENT OF AGRICULTURE**; **THOMAS J. VILSACK**, in his official capacity as Secretary of Agriculture; **The UNITED STATES DEPARTMENT OF COMMERCE**; **GINA RAIMONDO**, in her official capacity as Secretary of Commerce; **The UNITED STATES DEPARTMENT OF DEFENSE**; **LLOYD AUSTIN**, in his official capacity as Secretary of Defense; **The UNITED STATES DEPARTMENT OF STATE**; **ANTONY BLINKEN**, in his official capacity as Secretary of State; **The UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**; **MICHAEL REGAN**, in his official capacity as Administrator of the EPA;

Defendants.

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INTRODUCTION

1. For over fifty years, the United States of America[1] has known that carbon dioxide ("CO_2") pollution from burning fossil fuels was causing global warming and dangerous climate change, and that continuing to burn fossil fuels would destabilize the climate system on which present and future generations of our nation depend for their wellbeing and survival. Defendants also knew the harmful impacts of their actions would significantly endanger Plaintiffs, with the damage persisting for millennia. Despite this knowledge, Defendants continued their policies and practices of allowing the exploitation of fossil fuels. Specifically, Department of Energy has approved the export of liquefied natural gas ("LNG") from the Jordan Cove LNG terminal in Coos Bay, Oregon. This export terminal will be the largest projected source of CO_2 emissions in Oregon, and will significantly increase the harm that Defendants' actions are causing to Plaintiffs. Defendants have long-standing knowledge of the cumulative danger that their national energy system, and the aggregate actions taken thereunder, are causing Plaintiffs. The Jordan Cove project enhances the cumulative danger caused by Defendants' affirmative aggregate actions.

2. In a 1965 White House Report on "Restoring the Quality of Our Environment," for example, the President's Science Advisory Committee stated: "The land, water, air and living things of the United States are a heritage of the whole nation. They need to be protected for the benefit of all Americans, both now and in the future. The continued strength and welfare of our nation depend on the quantity and quality of our resources and on the quality of the environment in which our people live."

[1] Throughout this Complaint, the terms "United States" or "Federal Government" refer to Defendant United States of America. Alternatively, "U.S." refers to the country, not the Defendant.

3. The United States Environmental Protection Agency ("EPA") in 1990 and the Congressional Office of Technology Assessment in 1991 prepared plans to significantly reduce our nation's CO_2 emissions, stop global warming, and stabilize the climate system for the benefit of present and future generations. Both the EPA's 1990 Plan, "Policy Options for Stabilizing Global Climate," and the OTA's 1991 Plan, "Changing By Degrees: Steps to Reduce Greenhouse Gases," were prepared at the request of, and submitted to, Congress. Despite the imminent dangers identified in both the EPA's 1990 Plan and the OTA's 1991 Plan, Defendants never implemented either plan.

4. Since 1990, Defendants have known that CO_2 levels in the atmosphere must be stabilized at or below 350 parts per million ("ppm") in order to protect our nation's climate system and that a swift transition away from fossil fuels was necessary. Twenty-five years later, today's best science confirms that 350 ppm is the maximum safe level of atmospheric CO_2 required to restore a stable climate system.

5. Defendants have for decades ignored experts they commissioned to evaluate the danger to our Nation, as well as their own plans for stopping the dangerous destabilization of the climate system. Specifically, Defendants have known of the unusually dangerous risks of harm to human life, liberty, and property that would be caused by continued fossil fuel burning. Instead, Defendants have willfully ignored this impending harm. By their exercise of sovereign authority over our country's atmosphere and fossil fuel resources, they permitted, encouraged, and otherwise enabled continued exploitation, production, and combustion of fossil fuels, and so, by and through their aggregate actions and omissions, Defendants deliberately allowed atmospheric CO_2 concentrations to escalate to levels unprecedented in human history, resulting in a dangerous destabilizing climate system for our country and these Plaintiffs.

6. The 1965 Report and the 1990 and 1991 Plans are only examples of the extensive knowledge Defendants have had about the dangers they caused to present and future generations, including Plaintiffs. Since 1965, numerous other studies and reports also have informed Defendants of the significant harms that would be caused if Defendants did not reduce reliance on carbon-intense energy from fossil fuels and rapidly transition to carbon-free energy. These studies and reports concluded that continued fossil fuel dependency would drive the atmospheric concentration of CO_2 to dangerous levels that would destabilize the climate system.

7. Yet, rather than implement a rational course of effective action to phase out carbon pollution, Defendants have continued to permit, authorize, and subsidize fossil fuel extraction, development, consumption and exportation – activities producing enormous quantities of CO_2 emissions that have substantially caused or substantially contributed to the increase in the atmospheric concentration of CO_2. Through its policies and practices, the Federal Government bears a higher degree of responsibility than any other individual, entity, or country for exposing Plaintiffs to the present dangerous atmospheric CO_2 concentration. In fact, the United States is responsible for more than a quarter of global historic cumulative CO_2 emissions.

8. The present level of CO_2 and its warming, both realized and latent, are already in the zone of danger. Defendants have acted with deliberate indifference to the peril they knowingly created. As a result, Defendants have infringed on Plaintiffs' fundamental constitutional rights to life, liberty, and property. Defendants' acts also discriminate against these young citizens, who will disproportionately experience the destabilized climate system in our country.

9. By and through natural gas imports and exports, the Federal Government and the Department of Energy are further enhancing the dangerous climate situation, without due process

and in violation of Plaintiffs' right to equal protection. As noted above, the Jordan Cove LNG Terminal in Coos Bay, Oregon, is the sole LNG export terminal in the Northwest and Oregon's largest projected source of CO_2 emissions. The Department of Energy's approval of LNG exports from the Jordan Cove LNG Terminal heightens the danger to Plaintiffs that Defendants' actions in the aggregate have created. The result is an unconstitutional violation of Plaintiffs' fundamental rights.

10. Plaintiffs are especially vulnerable to the dangerous situation that Defendants have substantially caused. This Court is Plaintiffs' last resort to ensure their reasonable safety, and that of our Posterity, from the harm perpetrated by Defendants. There is an extremely limited amount of time to preserve a habitable climate system for our country; otherwise, the warming of our nation will become locked in or rendered increasingly severe. Recent scientific studies conclude that our country is now in a period of "carbon overshoot," with early consequences that are already threatening and that will, in the short term, rise to unbearable unless Defendants take immediate action to rapidly abate fossil fuel emissions and restore energy balance at a lower atmospheric CO_2 concentration.

11. The current policies, plans, and practices of the Federal Government will not achieve even a proportionate share of the fossil fuel emission reductions that must occur within this century. To the contrary, Defendants' policies, plans, and practices permit, authorize, and subsidize fossil fuel exploitation and consumption, and thus press our climate system further toward irretrievable impacts. A key recent instance is the government's approval of LNG exports from the Jordan Cove LNG Terminal. If Defendants continue to promote such development and further delay rapid, systematic annual emissions reductions, they will ensure a far less hospitable climate system, with far-reaching damage to our nation and Plaintiffs alike.

12. This Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and the government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' Fifth Amendment rights as described herein. Until the Court resolves this constitutional controversy, these young Plaintiffs will continue to be harmed and put at extreme risk by Defendants' energy system and Defendants will continue policies and practice, made up of many aggregate actions, to perpetuate an unconstitutional energy system, avoiding the constitutional check of Article III courts and undermining the separation of powers that the Framers intended. Without declaratory relief in the first instance, Defendants will be free to, and will, continue their policies and practices that make the nation's energy system in a manner that "may hasten an environmental apocalypse" and carry out "the Nation's willful destruction." Declaratory judgment will eliminate the current and substantial legal controversy and inform the parties of the unlawfulness or lawfulness of the government's conduct, especially as to whether Defendants' conduct causes a deprivation of rights secured by the Constitution. It has long been held that there is an expectation in our democracy that government officials will comply with a declaratory judgment. *Utah v. Evans*, 536 U.S. 452, 463-64 (2002). If the constitutional controversy is resolved in their favor by declaratory judgment, Plaintiffs intend to seek further relief as deemed appropriate and consistent with the separation of powers between the three branches of government. Plaintiffs come before this Court to defend and secure their fundamental rights under the Constitution, before it is too late.

JURISDICTION AND VENUE

13. This action is brought pursuant to the United States Constitution. It is authorized by Article III, Section 2, which extends the federal judicial power to all cases arising in equity

under the Constitution. An actual case and controversy exists between Plaintiffs and Defendants because Defendants have established and carried out a national energy system, through policies, practices and aggregate actions, that Plaintiffs claim cause a deprivation of their rights of equal protection, substantive due process, and public trust. An actual case and controversy exists because, while Plaintiffs claim Defendants' national energy system causes Plaintiffs' individual and particularized injuries that rise to a constitutional violation, Defendants deny that their national energy system is unconstitutional and that they are thereby causing a deprivation of Plaintiffs' rights secured by the Constitution. This controversy not only threatens Plaintiffs' lives and liberties, but threatens the very existence of our Republic until it is resolved by our Article III courts. The resolution of that controversy involves questions of scientific, historic, and other factual evidence. Plaintiffs have no adequate remedy at law to redress the harms herein, which are of a continuing nature and which, if left unresolved, will be irreversible.

14. This Court has jurisdiction pursuant to 28 U.S.C. § 1331 (federal question) as this action arises under the laws of the United States. This Court can grant declaratory relief in the first instance and later consider further necessary or proper relief, if warranted, pursuant to the Declaratory Judgment Act. 28 U.S.C. §§ 2201, *et seq.* Specifically, "[i]n a case of actual controversy within its jurisdiction, [ ] any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such." 28 U.S.C. § 2201. "Further necessary or proper relief based on a declaratory judgment or decree may be granted, after reasonable notice and hearing, against any adverse party whose rights have been determined by such judgment." 28 U.S.C. § 2202. Only the Court has the

authority to declare a government system unconstitutional. No other branch of government can do that. Declaring the United States national energy system to be unconstitutional would resolve the controversy between the parties, thereby redressing a substantial cause of Youth Plaintiffs' constitutional injuries and minimizing and eliminating a source of their significant risk of sustaining worsening injuries.

15. Venue lies in this judicial district by virtue of 28 U.S.C. § 1391(e). The majority of Youth Plaintiffs (as hereinafter defined) reside in this judicial district, some Defendants have offices in this judicial district, and the events, omissions, and harms giving rise to the claims herein arise in substantial part in this judicial district. Pursuant to Local Rule 3-2, divisional venue lies in the Eugene Division because the largest number of Youth Plaintiffs reside in this division of the judicial district, and events, omissions, and harms giving rise to the claims herein arise in substantial part in this division of the judicial district.

PLAINTIFFS

16. Plaintiff **Kelsey Cascadia Rose Juliana** is a citizen of the U.S. and a resident of Eugene, Oregon. Kelsey is 19 years old and was born and raised in Oregon, the state where she hopes to work, grow food, recreate, have a family, and raise children. During the fall of 2014, Kelsey walked 1,600 miles from Nebraska to Washington D.C. in the Great March for Climate Action to raise awareness about the climate crisis. Kelsey is harmed by Defendants' actions and inactions regarding carbon pollution and the resulting climate destabilization and ocean acidification. Specifically, Defendants' actions have caused damage to and continue to threaten the resources on which she relies for her survival and wellbeing. Kelsey depends on the freshwaters of Oregon for drinking, hygiene, and recreation. She drinks the freshwater that flows from the McKenzie River and drinks from springs in the Oregon Cascades on hiking,

canoeing, and backpacking trips. Kelsey also depends upon the marine and estuarine waters of Oregon as a food source and a place of recreation and vacationing. Kelsey spends time along the Oregon coast in places like Yachats and Florence and enjoys playing on the beach, tidepooling, and observing unique marine animals. An important part of Kelsey's diet includes food that comes from the marine waters and freshwater rivers, including salmon, cod, tuna, clams, mussels, and crab. Kelsey also depends upon food grown in Oregon both by small farmers in the Willamette Valley and by her family in their garden.

17. The current and projected drought and lack of snow caused by Defendants are already harming all of the places Kelsey enjoys visiting, as well as her drinking water, and her food sources—including wild salmon. During the summer of 2015, record-setting heat and low water levels killed salmon in Oregon's rivers. In the coming decades, Kelsey will suffer even greater harm from the impacts of ocean acidification and rising sea levels on the marine life she eats for sustenance, and on the beaches, tidepools, and other places she visits along the Oregon coast.

18. In addition to coastal recreation, Kelsey enjoys snowshoeing, cross-country skiing, and snow camping. Warmer winters and declining snowpack make it harder for her to enjoy these winter activities. Kelsey also enjoys rafting, swimming in rivers, snorkeling on rivers, canoeing on lakes, hiking, rock-climbing, and backpacking in the warmer seasons. Increasing summer temperatures, and the resulting algal blooms in the lakes Kelsey visits harm her ability to enjoy these activities and prevent her from drinking the water. Intense wildfires, which also threaten Kelsey's ability to enjoy summer activities. Kelsey has had to abandon camping trips because of nearby wildfires.

19. Defendants have caused psychological and emotional harm to Kelsey as a result of her fear of a changing climate, her knowledge of the impacts that will occur in her lifetime, and her knowledge that Defendants are continuing to cause harms that threaten her life and wellbeing. As a result of the acts and omissions of Defendants, Kelsey believes that she will not be able to continue to do all of the things described in this Complaint for her life, health, and enjoyment, nor will she one day be able to share those experiences with her children.

19-A. Kelsey's individual injuries to her water and food sources, her personal security and safety, her mental wellbeing, her freedom to live, travel, recreate, safely raise children and pursue happiness in her home state of Oregon, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Kelsey's individual injuries each year. Kelsey is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Kelsey is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her water and food sources, her personal security and safety, her mental wellbeing, her freedom to live, travel, recreate, safely raise children, and pursue happiness in her home state of Oregon. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Kelsey. Another separate injury is the deprivation of Kelsey's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which Defendants know is

causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Kelsey's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Kelsey makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Kelsey and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Kelsey can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Kelsey will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the

likelihood that Kelsey would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Kelsey's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Kelsey's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

20. Plaintiff **Xiuhtezcatl Tonatiuh M.**, by and through his guardian and mother Tamara Roske-Martinez, is a 15-year-old citizen of the U.S. who lives in Boulder, Colorado. For nine years, Xiuhtezcatl has advocated for reductions in CO_2 emissions before local, state, federal, and international governmental bodies, including three speeches before the United Nations, and service on the Presidential Youth Council to advise the President of the United States. As the youth director for his organization Earth Guardians, Xiuhtezcatl uses music, dance, art, videos, speeches, testimony, and youth organizing to urge his governments to stop taking actions that promote fossil fuel exploitation and result in dangerous climate change.

21. Of Aztec descent, Xiuhtezcatl engages in sacred indigenous spiritual and cultural practices to honor and protect the Earth. Xiuhtezcatl has suffered harm to his spiritual and cultural practices from Defendants' actions. Climate change also harms Xiuhtezcatl's personal safety, property, and recreational interests through the resulting increased frequency and

intensity of wildfires, drought, declining snowpack, pine-beetle infested forests, and extreme flooding near his home in Colorado. Xiuhtezcatl's home, including the forests that he relies upon for his spiritual, physical, emotional, and mental wellbeing, will continue to die and burn as climate change worsens. Water will become increasingly scarce, adversely impacting every aspect of his life.

22. Xiuhtezcatl is also harmed by the adverse impacts to his air and water quality, and his health that result from the exploitation of fossil fuels in Colorado. Under authorizations by the Department of Energy, natural gas extracted through fracking in Colorado will be transported by pipeline to Oregon, liquefied at the Jordan Cove LNG Terminal in Coos Bay, and then shipped overseas for combustion. The LNG exports from Coos Bay, Oregon will harm Xiuhtezcatl because the export of natural gas enhances demand for natural gas extraction in Colorado and increases the atmospheric concentration of CO_2.

22-A. Xiuhtezcatl's individual injuries to his spiritual and cultural practices, his physical and mental health, his personal security and safety in his home and the forests and waters he relies upon for life sustenance and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Xiuhtezcatl's individual injuries each year. Xiuhtezcatl is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Xiuhtezcatl is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his spiritual and cultural practices, his physical and mental health, his personal security and safety in his home and the forests and waters he relies upon for life sustenance and happiness. The further

loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Xiuhtezcatl. Another separate injury is the deprivation of Xiuhtezcatl's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Xiuhtezcatl's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Xiuhtezcatl makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Xiuhtezcatl and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Xiuhtezcatl can prevent his irreversible injury. If the national energy system remains predominantly fossil

fuel-based, Xiuhtezcatl will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Xiuhtezcatl would obtain relief to safeguard his life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Xiuhtezcatl's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Xiuhtezcatl's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

23. Plaintiff **Alexander Loznak** is a citizen of the U.S. and lives in the unincorporated area of Kellogg, Oregon. He is 18 years old and graduated from Roseburg High School in June 2015. Alex is experiencing harm caused by Defendants. For example, Alex is

gravely concerned about how his life and his family's farm will continue to be affected by climate change.

24. Alex lives on his family's 570-acre farm, the Martha A. Maupin Century Farm ("Maupin Century Farm"), located along the Umpqua River. His great, great, great, great grandmother, Martha Poindexter Maupin, founded the farm in 1868 (she was one of the first women in Oregon to own a ranch) after arriving in the area by way of the Oregon Trail. The Maupin Century Farm is Alex's intellectual and spiritual base and a foundational piece of his life and heritage, and his identity and wellbeing depend on its preservation and protection. However, the drought conditions, unusually hot temperatures, and climate-induced migration of forest species are harming and will increasingly harm Alex's use and enjoyment of the Maupin Century Farm.

25. Alex's ability to fish on local rivers is harmed by drought and hot temperatures. The Pacific Connector Natural Gas Pipeline, which would connect to the Jordan Cove LNG Terminal at Coos Bay, would be located only about 30 miles from the Maupin Century Farm, in a forest where Alex recreates. The Pacific Connector Natural Gas Pipeline would cross bodies of water at 400 different locations in Oregon, including two places on the South Umpqua River where Alex recreates. Alex has walked along the pipeline route and has seen the old growth trees that will be logged and the special rivers that will be impacted in order to deliver natural gas to what would be the largest, most-polluting facility and power plant in Oregon, solely built to liquefy natural gas for export and ultimate combustion.

26. The Maupin Century Farm is also an important source of revenue and food for Alex and his family. On the Farm, Alex and his family grow plum trees and hazelnut trees, raise chickens and grass-fed cows, and have a large garden growing many of the fruits and vegetables

that his family consumes. The record-setting heat waves and drought in Oregon adversely impact both Alex's life and the Farm, especially their hazelnut orchard. The heat waves and drought harm Alex's ability to work outside on the Farm during the summer months.

27. The Maupin Century Farm is home to many different species of wildlife, including deer, bears, mountain lions, and birds, which Alex enjoys seeing. Alex and his family hunt deer, elk, and wild turkeys to provide food. Each of these species of wildlife is adversely impacted by climate change caused by Defendants. Other food sources for Alex, including crab and seafood, are negatively impacted by ocean acidification, warming, and sea level rise caused by Defendants.

28. The health and bodily integrity of his family and their Farm, which they rely on for food and as a source of income—as well as for their personal wellbeing—increasingly are harmed by climate change caused by Defendants. The Maupin Century Farm has been passed from generation to generation in Alex's family, and in many ways Alex's future depends on that family farm. He would like to reside at, raise children on, and retire to the Maupin Century Farm, but he is concerned about how it will be further damaged by climate change caused by Defendants. Wildfires, more common and more destructive due to warmer summers and drought conditions, are increasingly common in Southern Oregon. The area where Alex lives is frequently smoky due to nearby wildfires during the warmer months. Additionally, Alex is allergic to pollen and suffers worse in unseasonably warm years. He also suffers from asthma, which is worse in the increasingly smoky summer months. Alex's allergies and asthma will worsen as climate change caused by Defendants worsens.

29. For recreation, Alex enjoys activities in the snow in Oregon and also hiking in Northern Washington and Glacier National Park, where he has seen the glaciers receding due to

climate change caused by Defendants. Alex plans to return to Montana, and he also plans to travel to Alaska, and his recreational and aesthetic interests are harmed as the glaciers continue to disappear before he can visit them.

30. Alex has taken individual action to try to protect the climate system by driving an efficient hybrid car, by starting a Climate Change Club at Roseburg High School with the goal of installing solar panels on the school's roof, by starting the League of Umpqua Climate Youth ("LUCY"), and by lobbying his state legislators to pass comprehensive climate legislation.

30-A. Alex's individual injuries to his health, his food sources, his home, his personal security and safety, his ability to work outside for part of the year, his family farm heritage, his freedom to live, travel, and recreate where he wants in the United States, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Alex's individual injuries each year. Alex is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Alex is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his health, food sources, personal security and safety, ability to work, and protect his family farm. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Alex. Another separate injury is the deprivation of Alex's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to

prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Alex's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Alex makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Alex and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Alex can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Alex will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Alex would obtain relief to safeguard his life, liberty, property, and

equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Alex's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Alex's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

31. Plaintiff **Jacob Lebel** is an 18-year-old citizen of the U.S. residing in Roseburg, Oregon. In 2000, Jacob and his family immigrated to Oregon from Quebec, Canada, attracted by the state's pristine landscape and temperate weather. Since then, Jacob's family has established Rose Hill Farms, a diverse, organically managed farm, as well as a thriving local medical practice at White Oak Medical Clinic. Jacob grew up working on Rose Hill Farms, where he currently spends most of his time. Jacob intends to continue his use and enjoyment of Rose Hill Farms for these purposes and for his vocational career in the future. Jacob derives educational, inspirational, spiritual, and other benefits from his work at the Farm. Jacob is harmed and will continue to be harmed by Defendants' actions described herein and the climate change impacts to the Farm, including the deterioration of the Farm environment, rising temperatures, and a dwindling water supply.

32. In the summer, Rose Hill Farms depends on home-dug ponds to irrigate a large garden and three greenhouses, as well as several orchards of more than four hundred fruit and

nut trees. The recent long, dry summers, droughts, and heat waves reduced, and are currently reducing, the supply of water in the ponds, just as the water needs of the crops and trees have increased. As climate impacts continue to grow in severity, so will this water shortage. Furthermore, experts predict that large destructive wildfires, aggravated by record-low snowpacks and consistently drier and hotter conditions, will become increasingly common in Oregon. A wildfire would destroy the fourteen years of work that have gone into making the Rose Hill Farms. In addition to the farm structures, orchards, greenhouses, and pastures at risk from a fire, approximately 70 percent of the 350 acres of land owned by Jacob's family is mixed conifer forest which they manage sustainably and which represents an enormous investment. Already, Jacob and his family are required to invest resources to install an irrigation system in order to contend with the increasing drought conditions as a result of climate destabilization caused by Defendants.

33. Throughout Jacob's life, wilderness and healthy natural environments have been essential parts of his spiritual and emotional wellbeing. Jacob frequently and regularly recreates in the natural areas of Oregon, through hiking, exploring, snowboarding, and rafting. Native ecosystems and animal species have always been the main source of inspiration for Jacob's writing, music, and poetry. Jacob also spends significant time fishing, gathering mussels, and crabbing as a source of both enjoyment and food for himself and his family. Jacob intends to continue all of these activities in the future. In 2014-2015, Jacob experienced drastic snow retreat on Crater Lake National Park and Mount Hood, as well as the nearby South Umpqua River drying up in some spots, adversely affecting his use and enjoyment of these areas. Low river flows and warm water temperatures all have contributed and contribute to losses of fish in the salmon runs in the rivers near Roseburg, on which Jacob relies for recreation and food.

Rising sea levels caused by Defendants threaten the natural areas of the Oregon coast used and enjoyed by Jacob. Ocean acidification caused by Defendants has already begun to adversely impact shellfish along the coast, and is projected to take its toll on crabs, mussels, and all shelled seafood. Jacob is adversely affected by these changes caused by Defendants' actions as described herein.

34. The Pacific Connector Natural Gas Pipeline, which would connect to the Jordan Cove LNG Terminal at Coos Bay, would run directly behind the Rose Hill Farms. The Pacific Connector Natural Gas Pipeline would adversely affect Jacob's aesthetic, inspirational, and spiritual enjoyment of the property. This pipeline also carries risks of dangerous leaks or explosions, which could trigger a wildfire in the hot summer months. The associated hundred-foot clear-cut area would affect the landscape integrity and biodiversity of Jacob's immediate surroundings, all of which adversely impact Jacob.

34-A. Jacob's individual injuries to his farm and livelihood, his food and water sources, his physical, spiritual and mental health, his personal security and safety in his home and the snow and waters he relies upon for life sustenance and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Jacob's individual injuries each year. Jacob is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Jacob is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his farm and livelihood, his food and water sources, his physical, spiritual and mental health, his personal security and safety in his home and the snow and waters he relies upon for life sustenance and happiness. The further loss

of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Jacob. Another separate injury is the deprivation of Jacob's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Jacob's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Jacob makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Jacob and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Jacob can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Jacob will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Jacob would obtain relief to safeguard his life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Jacob's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Jacob's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

35. Plaintiff **Zealand B.**, by and through his guardian and mother Kimberly Pash-Bell, is an 11-year-old citizen of the U.S. and a resident of Eugene, Oregon. Zealand has worked to increase community awareness about climate change caused by Defendants and has advocated before local and state governmental bodies for science-based government action on climate change. Zealand and his family minimize their impact on the environment and reduce their carbon footprint by biking, gardening, participating in community-supported agriculture, buying

locally-made products, and picking up litter in the places where they recreate. Zealand has experienced and will continue to experience harm from climate change caused by Defendants if immediate action is not taken to secure a stable climate system.

36. Zealand loves living in Oregon and hopes to stay in Oregon in the future. He enjoys skiing, biking, rock climbing, rafting, and camping in Oregon. Oregon's rivers are especially important to Zealand. While rafting along the rivers in Oregon, Zealand enjoys the solitude of the wilderness and the experience of seeing plants and animals in their natural habitat. Rafting trips with his family have been canceled or shortened due to the increased temperatures, drought, and reduced water levels. Zealand and his family twice experienced large forest fires while rafting on Oregon rivers.

37. The record-setting heat during the summer of 2015 adversely impacts Zealand and his enjoyment of outdoor activities by making bike-riding, playing soccer, and playing basketball difficult. Zealand suffers from allergies, which have increased in severity over the past few years, and caused him to decrease the amount of time that he spends outside in the spring and early summer. Heat waves and an increase in pollen counts will worsen with further climate change caused by Defendants and harm Zealand's recreational and health interests.

38. Warmer winters and decreased snowpack levels in Oregon have harmed, and will continue to harm, Zealand and his family. Zealand's mother usually works during the winter at the Willamette Pass ski resort, but that seasonal job was not available during the winter of 2014-2015 due to the lack of snow, resulting in lost income. The lack of snow also meant Zealand was unable to ski. Decreased snowpack levels in the future will also harm the availability of drinking water for Zealand, his family, and his community, as Eugene's only water source, the McKenzie River, is fed by melting snowpack.

39. Zealand and his family spend substantial time at the Oregon Coast. He enjoys playing in the dunes, camping, surfing, boogie boarding, and taking pictures of the ocean and surrounding areas. The impacts from warmer water temperatures, rising sea levels, and ocean acidification caused by Defendants will negatively impact Zealand's future ability to enjoy the same areas on the coast that he now loves and to eat the same seafood, which is an important part of his diet.

39-A. Zealand's individual injuries to his physical and mental health, his personal security and safety in his home and the snow, forests, and waters he relies upon for life sustenance and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Zealand's individual injuries each year. Zealand is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Zealand is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his physical and mental health, his personal security and safety in his home and the snow, forests, and waters he relies upon for life sustenance and happiness. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Zealand. Another separate injury is the deprivation of Zealand's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to

prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Zealand's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Zealand makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Zealand and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Zealand can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Zealand will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Zealand would obtain relief to safeguard his life, liberty, property,

and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Zealand's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Zealand's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

40. Plaintiff **Avery M.**, by and through her guardian and mother Holly McRae, is a 10-year-old citizen of the U.S. and a resident of Eugene, Oregon. Avery has worked to increase awareness in her community about impacts of climate change caused by Defendants and advocated for CO_2 reductions before her representatives at both the municipal and state levels. Avery and her family limit their carbon footprint as much as possible by recycling, biking, eating less meat and growing some of their own food, repairing, reusing, and buying second-hand goods, decreasing energy use at home, and minimizing their vehicle and air travel.

41. The impacts from climate change caused by Defendants are harming and will continue to harm Avery and her enjoyment of and interaction with nature and wildlife. Avery's favorite activity is swimming in natural bodies of water. Avery and her family enjoy boating, hiking, backpacking, camping, and watching salmon spawn throughout Oregon. In 2015, Avery was not been able to participate in these recreational activities as frequently as past years due to warmer temperatures, drought, low water levels, forest fires, and algal blooms. The 2015

summer heat has caused Avery to avoid outdoor activities to prevent becoming overheated. Avery also suffers from allergies, which will worsen with increased pollen count and a changing climate caused by Defendants. Avery enjoys taking vacations to Yellowstone with her family and has seen burned, beetle-killed forests on these trips. The increase of hungry bears in the area due to the decline in white bark pine trees forced her family to postpone Avery's first big backpacking trip in the area.

42. Climate change caused by Defendants has reduced snowpack levels in Oregon, negatively impacting Avery's enjoyment of winter activities and the future availability of drinking water for her and her family. Every winter, Avery takes a trip with her family to Clear Lake, where she enjoys snowshoeing and sledding. These winter activities were not possible from 2013-2015 due to lack of snow.

43. Avery enjoys eating seafood and going to the Oregon coast, where she wades in the water and explores tide pools. At the coast, Avery has noticed coastal erosion and her recreational experience is harmed by seeing dead wildlife from the coastal changes. Warmer water temperatures, sea level rise, and ocean acidification caused by Defendants will worsen and negatively impact Avery's enjoyment of the Oregon coast and the food she eats.

43-A. Avery's individual injuries to the waters of Oregon, her food sources, her physical and mental health, and the places in nature she relies upon for life, sustenance, and happiness, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Avery's individual injuries each year. Avery is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Avery is also injured by each passing year

of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her water and food sources, her physical and mental health, and the places in nature she relies upon for life, sustenance, and happiness. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Avery. Another separate injury is the deprivation of Avery's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Avery's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Avery makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Avery and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world

as to whether Avery can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Avery will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Avery would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Avery's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Avery's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

44. Plaintiff **Sahara V.**, by and through her guardian and mother Toña Aguilar, is an 11-year-old citizen of the U.S. and a resident of Eugene, Oregon. Sahara is experiencing harm as a result of Defendants' aggregate actions and omissions in causing climate change. Sahara has

been involved in both local and state initiatives to raise awareness about climate change and advocate for science-based CO_2 emission reductions. In order to reduce her impact on the environment, Sahara and her family bike, garden, recycle, and practice vegetarianism. Sahara spends time with her family recreating in Oregon's rivers, lakes, beaches, sand dunes, and forests. She enjoys swimming, biking, camping, and mushroom hunting. Sahara frequently visits her grandparents' home on the Mohawk River and has witnessed the water levels decrease dramatically.

45. Climate impacts caused by Defendants, such as increased temperatures and drought conditions, infringe upon Sahara's enjoyment and use of freshwater resources and will continue to do so in the future if immediate action is not taken to reduce CO_2 emissions. Sahara and her family take frequent trips to the Oregon coast to visit her grandparents, who own property in Yachats. On the Oregon coast, Sahara enjoys climbing rocks and sand dunes, swimming, and tidepooling to see marine life. Sahara's enjoyment of these activities is being increasingly harmed in the future by sea level rise, greater erosion, enhanced ocean acidification, and increased water temperatures.

46. Sahara has asthma, and the increased frequency of forest fires in Oregon, due to hotter and drier conditions, has triggered severe asthma attacks for Sahara. The smoke inhibits her ability to breath, causes her throat to close up, and necessitates the use of her inhaler. As a result of Defendants' actions in causing climate change, Sahara has become more susceptible to grass allergies, further aggravating her asthma. These health effects will worsen as climate change becomes more severe. Warmer winters and the lack of snow in Oregon have prevented Sahara's enjoyment of winter activities and will negatively impact her water supply in the future.

Sahara wants to stay in Oregon, yet she fears her children and grandchildren will be unable to experience and enjoy Oregon's natural resources and wildlife.

46-A. Sahara's individual injuries to her physical and mental health, water and food sources, her personal security and safety, her ability to seek sustenance and happiness in the natural places she enjoys, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Sahara's individual injuries each year. Sahara is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Sahara is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to physical and mental health, water and food sources, her personal security and safety, her ability to seek sustenance and happiness in the natural places she enjoys. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Sahara. Another separate injury is the deprivation of Sahara's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Sahara's

injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Sahara makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Sahara and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Sahara can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Sahara will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Sahara would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Sahara's injuries at the hands of her government will end, providing substantially

meaningful partial redress of her injuries. The Court will thereby preserve Sahara's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

47. Plaintiff **Kiran Isaac Oommen** is an 18-year-old citizen of the U.S. and a resident of Eugene, Oregon. Kiran enjoys camping, hiking, kayaking, biking, and swimming in Oregon. In recent years, decreased water levels and rising temperatures have limited Kiran's enjoyment of both these activities and the special places in Oregon Kiran visits. Local Oregon produce and seafood are staples in Kiran's diet. Ocean acidification and the warmer water temperatures and lower water levels in rivers and streams have negatively impacted Kiran's ability to enjoy eating shellfish and salmon. Kiran enjoys cross-country skiing in the winter, but was not able to ski in 2015 due to the lack of snow in Oregon. Kiran enjoys visiting the Oregon coast to walk along the beach, swim, and go tidepooling. Impacts of climate change, such as sea level rise, will negatively impact Kiran's future ability to enjoy the Oregon coast.

48. Due to drastic seasonal variations, Kiran has endured increasingly severe grass and tree pollen allergies, making it difficult for them to enjoy outdoor activities. Kiran used to be able to regularly visit their friend's family farm in southern Oregon but the increased prevalence of forest fires due to dry conditions and high temperatures has impacted Kiran's ability to visit this farm, as the intensity of the smoke and ash have shortened their trips and inhibited their ability to breathe.

49. Kiran has family they visit in Olympia, Washington and near Miami, Florida, both areas scientists predict will be gravely impacted by sea level rise. When Kiran visited Florida in the past, they enjoyed seeing wildlife and experiencing the beauty of the Florida Keys, which is a place Kiran plans to visit again. Kiran would like to continue visiting their family in these coastal areas in the future, but the increasing severity of climate impacts, unless promptly abated, will prevent them from doing so – as large portions of these areas will be inundated by the rising seas.

49-A. Kiran's individual injuries to their water and food sources, their personal security and safety, their mental wellbeing, and their freedom to live, travel, and recreate safely, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Kiran's individual injuries each year. Kiran is additionally injured by each passing year of losing the ability to prevent the worsening of their injuries. Kiran is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to their water and food sources, their personal security and safety, their mental wellbeing, and their freedom to live, travel, and recreate safely. The further loss of the ability to protect their life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Kiran. Another separate injury is the deprivation of Kiran's ability to act in their own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect their life, all the while suffering these ongoing harms each year from Defendants' national energy

system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Kiran's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Kiran makes to safeguard their life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Kiran and which foreclose their ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Kiran can prevent their irreversible injury. If the national energy system remains predominantly fossil fuel-based, Kiran will permanently lose their ability to obtain relief that will protect themself and their rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the

likelihood that Kiran would obtain relief to safeguard their life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Kiran's injuries at the hands of their government will end, providing substantially meaningful partial redress of their injuries. The Court will thereby preserve Kiran's opportunity to obtain relief to safeguard their life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

50. Plaintiff **Tia Marie Hatton** is a citizen of the U.S. and a resident of Bend, Oregon. She is 18 years old and will enter the University of Oregon in September 2015. For the past two years Tia has experienced pronounced climate change impacts in Bend and surrounding areas. Tia is an avid Nordic skier, and has skied competitively since middle school. During 2013-2015, her ability to ski was limited by the record low snowfall in the Bend area. Tia regularly skis at Virginia Meissner Sno-Park and Willamette Pass Resort. These areas were closed this past winter because of record low snowfall. In 2015, ski teams from across Oregon, including Tia's team, had to move their state competition to higher elevations at Mt. Bachelor where trails were limited and not well groomed. In the future, unless the severe impacts to our nation's climate system are immediately abated, she will not be able to ski at all, even at higher elevations.

51. For the 2015 summer, Oregon's Governor issued a drought declaration for Deschutes County, where Tia lives. Tia spends most of her time recreating outdoors, not only skiing, but cross-country running, rock climbing, hiking, camping, and kayaking. Warmer summer temperatures and forest fires in Deschutes National Forest south of Bend are preventing Tia from participating in these activities as often as she would like and once could. For the past several years there have been fires every summer in the forests surrounding Bend, and residents have had to evacuate. Tia is psychologically impacted by these events, as it is hard for her to watch the destruction of the wilderness she loves and its ecosystems. Tia and her family vacation around Oregon and have experienced coastal erosion in Seaside, Florence, and Newport. Tia has also experiences the climate impacts similar to those in the Bend area when she visits the Steens Mountain for running camp.

52. Tia works hard to protect the environment and create awareness about the impacts of climate change caused by Defendants. In high school she was a member of her school's Green Club, and spent time planning Earth Day activities to raise awareness and educate the student body. Tia tries to limit her transportation via cars and is participating in the Bend Energy Challenge, a nationwide energy-saving competition, to help her family save energy and make their home healthier.

52-A. Tia's individual injuries to her physical and mental wellbeing, her personal security and safety, and the snow that she depends on for her health and her pursuit of happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Tia's individual injuries each year. Tia is additionally injured by each passing year of losing the ability to prevent the

worsening of her injuries. Tia is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her physical and mental wellbeing, her personal security and safety, and the snow that she depends on for her health and her pursuit of happiness. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Tia. Another separate injury is the deprivation of Tia's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Tia's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Tia makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Tia and which foreclose her ability to obtain relief that will protect herself. The composition of the United

States national energy system is the most important factor in the world as to whether Tia can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Tia will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Tia would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Tia's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Tia's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

53. Plaintiff **Isaac V.**, by and through his guardian and mother, Pamela Vergun, is a thirteen-year-old U.S. citizen and a resident of Beaverton, Oregon. Isaac is involved in climate

activism and he founded Plant for the Planet Academy in Oregon, along with his mom and sister. Isaac started a petition asking the city of Beaverton to adopt a resolution to lower the city's carbon emissions. At home, his family installed solar panels on their roof and they drive an electric vehicle.

54. Isaac and his family are experiencing the adverse impacts of climate change caused by Defendants. 2015 has been the hottest summer Isaac remembers, with temperatures at 100 degrees Fahrenheit in his hometown. The groundwater level in his backyard has dropped significantly, causing trees to die. Isaac enjoys recreating along the Spring Water Trail near Portland, Oregon and is harmed by the drought conditions, which have eliminated a substantial portion of the flow in Johnson Creek. In parts of southern and eastern Oregon, wildfires are tearing through forests where Isaac enjoys recreating, threatening the ecosystems he relies upon for his personal enjoyment.

55. In winter, Isaac recreates in the Oregon snow and thereby derives emotional, spiritual, and physical benefits. He intends to continue his use and enjoyment of the snow. The record-low snowfall across the state, caused by Defendants' actions and the climate change resulting from those actions, harms Isaac by reducing his opportunity to recreate in the snow.

56. Since he was very young, Isaac has had asthma. Isaac's asthma is worsening and will continue to worsen as air quality becomes more polluted from increased pollen counts and smoke from wildfires. Isaac enjoys athletic activities including hiking, soccer, and basketball. He intends to continue these activities in the future. Increasing temperatures caused by Defendants' actions will worsen his asthma, affect his athletic performance, and make him less likely to play sports.

56-A. Isaac's individual injuries to his lungs and his overall physical and mental health, as well as his personal security and safety, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Isaac's individual injuries each year. Isaac is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Isaac is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his overall physical and mental health, as well as his personal security and safety. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Isaac. Another separate injury is the deprivation of Isaac's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Isaac's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Isaac makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as

constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Isaac and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Isaac can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Isaac will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Isaac would obtain relief to safeguard his life, liberty, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Isaac's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Isaac's opportunity to obtain relief to safeguard his life, liberty, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial

federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

57. Plaintiff **Miko V.**, by and through her guardian and mother, Pamela Vergun, is a 14-year-old citizen of the United States and a resident of Beaverton, Oregon. Miko is a climate activist. Along with her Mother and brother, Miko started the first Plant for the Planet Academy in Oregon to help plant 150 trees per person in the United States to combat deforestation. She is spreading awareness to other young people and working to educate adults about the climate crisis. At home, her family has solar panels on their roof and they use an electric hybrid vehicle to reduce their emissions when they drive. Miko is committed to living a low-carbon lifestyle.

58. Miko was born in the Marshall Islands, and her low-lying home island is threatened by sea level rise. She fears she will never be able to travel back to the Marshall Islands as she intends to because the islands will likely be underwater in the future. In the last couple of years, Miko has experienced record-breaking heat waves in Beaverton and Portland, Oregon. Miko recently visited Timothy Lake, 75 miles southeast of Beaverton, to swim and fish, but the water levels were lower than usual, negatively impacting her use and enjoyment of the area.

59. Seafood is an important part of Miko's diet. Ocean acidification and warming ocean, coastal, and river waters are negatively affecting the health of fish and sea life on which Miko depends.

59-A. Miko's individual injuries to her familial heritage and land, her food sources, her personal security and safety, her mental wellbeing, and her freedom to travel to and spend time in the Marshall Islands, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Miko's individual injuries each year. Miko is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Miko is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her familial heritage and land, her food sources, her personal security and safety, her mental wellbeing, and her freedom to travel to and spend time in the Marshall Islands. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Miko. Another separate injury is the deprivation of Miko's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Miko's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Miko makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to

power it with fossil fuels at levels that are dangerous for Miko and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Miko can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Miko will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Miko would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Miko's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Miko's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

60. Plaintiff **Hazel V.**, by and through her guardian and mother Margo Van Ummersen, is an 11-year-old citizen of the U.S. and a resident of Eugene, Oregon. Hazel has advocated in her community to raise awareness about climate change caused by Defendants and before her city leaders to ask for science-based reductions of CO_2 emissions. Hazel and her family reduce their carbon footprint by gardening, recycling, buying local products, biking, and walking.

61. Hazel enjoys swimming, canoeing, kayaking, camping, and hiking in Oregon. In recent years, she has been unable to fully enjoy these activities and special places she visits due to the increased temperatures, low water levels, and abnormal seasonal variations caused by the acts and omissions of Defendants. Hazel frequently visits the Oregon coast, where she enjoys bodysurfing, playing on the beach, tidepooling, harvesting seaweed, and hunting mushrooms. Increased surface and ocean temperatures, sea level rise, and ocean acidification caused by the acts of Defendants threaten Hazel's future ability to enjoy these activities, which are important aspects of her childhood. Salmon and seafood are important parts of Hazel's diet that will continue to be threatened due to increased water temperatures, drought, and ocean acidification caused by the acts of Defendants.

62. During the winter, Hazel enjoys skiing and sledding. However, due to declining snowpack and warmer winters, she has been unable to ski or sled. Decreased snowfall in the Cascades will have long-term adverse impacts on the water level in the McKenzie River, which provides drinking water to Hazel's hometown of Eugene. In June 2015, extreme heat caused by the acts of Defendants adversely impacted Hazel's health on a trip she took to Washington, D.C. During that trip, she suffered from two episodes of heat exhaustion.

62-A. Hazel's individual injuries to her personal security and safety, her mental wellbeing and physical health, and her freedom to live, recreate, and pursue happiness, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Hazel's individual injuries each year. Hazel is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Hazel is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her personal security and safety, her mental wellbeing and physical health, and her freedom to live, recreate, and pursue happiness. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Hazel. Another separate injury is the deprivation of Hazel's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Hazel's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Hazel makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Hazel and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Hazel can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Hazel will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Hazel would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Hazel's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Hazel's opportunity to obtain relief to safeguard her life, liberty, property, and equal

protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

63. Plaintiff **Sophie K.**, by and through her guardian and grandfather, Dr. James Hansen, is a 16-year-old citizen of the U.S., and a resident of Allentown, Pennsylvania. Through stories from her grandfather, Dr. James Hansen, Sophie has become passionate about climate science and feels a sense of urgency and responsibility to compel government action on climate change. Extreme weather events, including Hurricane Sandy, caused Sophie to miss school on many occasions; hailstorms have damaged her house; floodwaters often inundate roads by her house; and Sophie has even been forced to prepare for tornado warnings, which are very unusual for the area where she lives. Intense summer heat now diminishes Sophie's ability to participate in and enjoy outdoor activities, including track and tennis. Sophie would like to have the ability to one day live in coastal cities like New York or Los Angeles, but rising sea levels may inundate these coastal areas within Sophie's lifetime unless Defendants cease their actions that otherwise will soon ensure these catastrophic impacts. Sophie is distressed knowing the inundation of these, and other coastal hubs of our nation's economy and commerce, will have profoundly negative economic impacts on our nation and on her own life as she gets older, looks for work to support herself, and begins her professional career.

64. Climate change substantially caused by the acts of Defendants is harming, and will continue to harm, the ability of Sophie and her family to grow food in her garden as the population of bees and other pollinators decline. In 2015, Sophie's health was adversely impacted for the first time by pollen allergies, a condition exacerbated by global and regional

warming. Extreme weather events, intense heat, and rising seas have had, and will increasingly have, a negative impact on Sophie. Sophie is deeply concerned about the future because she knows that climate change will not only harm her, but will also harm the entire fabric of human civilization and all living things on Earth that she cherishes and relies on for her life, liberties, and property.

64-A. Sophie's individual injuries to her food sources, her personal security and safety, her physical health and mental wellbeing, and her freedom to live in coastal areas and to pursue her happiness, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Sophie's individual injuries each year. Sophie is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Sophie is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her food sources, her personal security and safety, her physical health and mental wellbeing, and her freedom to live in coastal areas and to pursue her happiness. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Sophie. Another separate injury is the deprivation of Sophie's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being

progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Sophie's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Sophie makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Sophie and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Sophie can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Sophie will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Sophie would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system

unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Sophie's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Sophie's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

65. Plaintiff **Jaime B.**, by and through her guardian and mother Jamescita Peshlakai, is a 14-year-old citizen of the U.S. and a resident of Flagstaff, Arizona. Jaime is a member of the Navajo Nation. Jaime was born into the Bitter Water Clan, with maternal grandfathers of the Red House Clan and paternal grandfathers of the Towering House Clan. Jaime and her family are experiencing harm from climate change caused by the acts of Defendants and will experience even more severe climate impacts in the future. Since she was four years old, Jaime has been working to protect the earth. Beginning in elementary school, Jaime has written letters to President Obama about her concerns for the environment, asking him to protect the Arctic National Wildlife Refuge and ensure that oil spills do not continue to happen.

66. Jaime grew up in Cameron, Arizona, on the Navajo Nation Reservation. In 2011, Jaime and her Mother had to move from Cameron to Flagstaff because of water scarcity. Jaime and her extended family on the Reservation remember times when there was enough water on the Reservation for agriculture and farm animals, but now the springs they once depended on year-round are drying up. Jaime and her Mother were not able to sustain living on the

Reservation because of the costs of hauling water into Cameron for themselves and their animals. Jaime is worried that her extended family, all of whom live on the Reservation, will also be displaced from their land, which will erode her culture and way of life. Participating in sacred Navajo ceremonies on the Reservation is an important part of Jaime's life, and climate impacts caused by the acts of Defendants are starting to harm the ability for Jamie and her tribe to participate in their traditional ceremonies.

67. Jaime now lives on property her Mother owns in the Kaibab National Forest. The forest is Jaime's favorite place to spend time. Jaime finds peace being outside in the forest surrounding her home, and she walks for 1-2 hours in the forest after school every day. Jaime's ability to spend time in the forest is going to be limited due to increasing climate change caused by the acts of Defendants. Large parts of the Kaibab National Forest have been destroyed due to pine beetle infestations and forest fires. In 2014, Jaime and her Mother were evacuated from their home for two days because of the Oak Creek Canyon fire north of their property. Winds brought smoke and ash into their neighborhood. Jaime is worried that the area surrounding their home is becoming unsafe due to an increase in drought conditions and forest fires caused by the acts of Defendants. Jaime and her Mother have seen climate change impact the vegetables they grow for food on their property in Flagstaff. Jaime's severe allergies have become increasingly worse over the last several years. She takes over-the-counter medication to combat her symptoms. With record-setting temperatures and a drought that has lasted several years, Jaime fears for her future and for the future of her family, their history, their traditions, and their way of life.

67-A. Jaime's individual injuries to her indigenous way of life, culture, and traditions, her family's property, her water and food sources, her personal security and safety, her physical

and mental health, and her freedom to pass to the next generation of Dine´ their heritage, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Jaime's individual injuries each year. Jaime is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Jaime is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to indigenous way of life, culture, and traditions, her family's property, her water and food sources, her personal security and safety, her physical and mental health, and her freedom to pass to the next generation of Dine´ their heritage. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Jaime. Another separate injury is the deprivation of Jaime's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Jaime's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Jaime makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Jaime and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Jaime can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Jaime will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Jaime would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Jaime's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Jaime's opportunity to obtain relief to safeguard her life, liberty, property, and equal

protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

68. Plaintiff **Journey Z.**, by and through his guardian and mother Erika Schneider, is a 15-year-old citizen of the U.S. Journey is a Native American born in South Dakota and a federally enrolled member of the Yankton Sioux Tribe. In 2009, Journey and his family moved to the island of Kaua'i, Hawai'i. Journey attends a Hawaiian cultural immersion school, has adopted the Hawaiian culture as his own, and speaks the native Hawaiian language. Journey has deep cultural and spiritual connections with the Earth and all life. These connections depend on a stable climate system for survival, providing Journey with a fundamental sense of responsibility to protect the Earth for his generation and for future generations. Journey is a youth leader on the Rising Youth for a Sustainable Earth ("RYSE") Youth Council and a youth ambassador for the Center for Native American Youth. Journey has advocated directly to President Obama's administration and other federal government officials to secure government action to stabilize the climate system and protect his fundamental rights.

69. Journey participates in many culturally important activities, such as working in the taro fields, organic farming, playing Tahitian drum, fire dancing, and performing Halau Hula O Leilani. He also enjoys swimming, snorkeling, fishing, canoeing, stand-up paddle boarding, and walking and biking along the beach. His participation in and enjoyment of these activities has been and will continue to be negatively impacted by the impacts of climate change and ocean acidification caused by Defendants.

70. Journey's food security and his enjoyment of the biological diversity of the coral reefs are and will continue to be adversely impacted by ocean acidification and the climate change impacts of sea-level rise, increased sea surface temperature, alteration in ocean circulation, and increased storm intensity, all caused by the acts of Defendants. These problems are all deleterious to coral reefs in Hawai'i and their associated ecosystems and fisheries. Journey's health, personal safety, cultural practices, and recreational interests are adversely impacted by the climate impacts of rising sea levels and intense storms that increase coastal flooding and erosion in Hawai'i, damaging coastal ecosystems, infrastructure, and agriculture, on which Journey relies. Watching beaches erode away and disappear has emotionally harmed Journey. Journey performs Halau Hula O Leilani at the hotels along the beaches and will not be able to do so in the future with continued sea level rise. The rock wall at Journey's favorite swimming beach eroded and fell into the ocean, and additional erosion will make it unsafe for Journey to swim there in the future. Decreased rainfall on Kaua'i and the resulting lower river water levels, combined with saltwater inundation from sea level rise, have caused serious water quality problems, high bacteria levels, and increased shark activities that threaten Journey's health and safety, preventing his use and enjoyment of rivers he frequently enjoyed. Declining freshwater availability also threatens Journey's future access to drinking water and ability to stay on the island. Drought conditions on part of Kaua'i and saltwater inundation negatively impact the soil and the agricultural productivity of the farms and taro patches where Journey works. While total rainfall has decreased, rain intensity has increased. In 2012, this increased rain intensity threatened Journey's personal safety when he and his family were displaced by widespread flooding and evacuated to a Red Cross shelter.

70-A. Journey's individual injuries to his physical and mental health, personal security and safety, cultural practices, food and freshwater sources, and the coral reefs and ocean life he depends on for sustenance and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Journey's individual injuries each year. Journey is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Journey is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his physical and mental health, personal security and safety, cultural practices, food and freshwater sources, and the coral reefs and ocean life he depends on for sustenance and happiness. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Journey. Another separate injury is the deprivation of Journey's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Journey's injuries stem precisely from Defendants' belief, and

resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Journey makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Journey and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Journey can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Journey will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Journey would obtain relief to safeguard his life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Journey's injuries at the hands of his government will end, providing substantially

meaningful partial redress of his injuries. The Court will thereby preserve Journey's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

71. Plaintiff **Vic B.**, by and through his guardian and mother Daisy Calderon, is a 16-year-old citizen of the U.S. and a resident of White Plains, New York. In September 2015, Vic will be a junior in high school at Notre Dame School of Manhattan in New York City. Since 2013, Vic has been active in the climate movement, educating people about climate change and working to mitigate it. Vic was a fellow with the Alliance for Climate Education and continues to advocate for education and action on climate change in New York.

72. Vic has become emotionally distressed by the increase in superstorms in the Northeast. Vic was harmed by Hurricane Sandy when he and his family lost power to their home, his school shut down, and his forms of public transportation were not operating. Vic is also harmed by the increasing sweltering summer temperatures, which limit the time he spends outdoors in New York. In recent years, his pollen allergies have become worse, making it even more difficult to enjoy being outside. Vic lives on low-lying land, which is threatened by rising sea levels and more frequent storm surges.

72-A. Vic is Honduran-American and belongs to the Afro-Indigenous Garifuna community that settled on the northern coast of Honduras hundreds of years ago and his and his family's traditional heritage, way of life, food sources, land, and home are critically endangered by sea level rise. Vic's individual injuries to his Garifuna heritage, his physical and mental

health, his personal security and safety, and his family's property are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Vic's individual injuries each year. Vic is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Vic is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his Garifuna heritage, his physical and mental health, his personal security and safety, and his family's property. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Vic. Another separate injury is the deprivation of Vic's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Vic's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Vic makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as

constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Vic and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Vic can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Vic will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Vic would obtain relief to safeguard his life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Vic's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Vic's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a

substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

73. Plaintiff **Nathaniel B.**, by and through his guardian and mother Sharon Baring, is a 15-year-old citizen of the U.S. and a resident of Fairbanks, Alaska. Nathaniel and his family are already witnessing the impacts of climate change and he is psychologically harmed knowing of the inevitable and increasingly severe climate impacts he will experience in the future.

74. Nathaniel is an avid Nordic skier who also enjoys downhill skiing. Nathaniel has been harmed by the reduced snowfall during the past few winters. Snow that typically comes in August is coming as late as November. In 2014-2015, Anchorage received its lowest seasonal snowfall to date. Nathaniel is experiencing more ice storms in Fairbanks. Last year the city declared a state of disaster after a severe ice storm created widespread power outages. Nathaniel and his family suffered without power for nearly a week in temperatures of 18 degrees Fahrenheit.

75. This summer, Alaska experienced over 300 wildfires across the state, all occurring at once. Wildfires have become a common occurrence every summer in Alaska. During the summer of 2015, Fairbanks was surrounded by numerous wildfires and air quality rivaled that of some of the world's smoggiest cities. As an asthma and allergy sufferer, the hot dry wildfire season makes it hard for Nathaniel to breathe outside and participate in cross-country running, one of his favorite sports. Nathaniel is distraught knowing that changing temperatures caused by Defendants will affect his way of life and the animals and ecosystems that surround him and on which he relies for recreation and food. His family raises chickens on their property and they hunt for moose and grouse for food. These animals are harmed by the extreme climate changes happening in Alaska caused by Defendants. Nathaniel has also noticed

a sharp decline of salmon, especially king salmon, which is important for his diet. This summer Alaska had a very small king salmon run on the Yukon River. Nathaniel and his family take fishing trips and he has experienced firsthand the decline in salmon runs. Nathaniel enjoys visiting Alaska's glaciers and intends to continue to do so. However, the glaciers Nathaniel visits are significantly receding, including the Mendenhall Glacier in Juneau, which has retreated over 1.5 miles.

76. Nathaniel is working hard to take actions to reverse and mitigate the effects of climate change through his membership in Alaska Youth for Environmental Action and his work with Citizens Climate Lobby and his church. At home, Nathaniel and his family try to ride bikes as much as possible. Nathaniel participates in the "dime a gallon" program at church, where members contribute a certain pre-arranged amount for every gallon of gas they use for transportation, which is then used to install insulation in their buildings, and other greening projects, such as solar panels.

76-A. Nathaniel's individual injuries to his physical and mental health, his food sources, his personal security and safety in his home, and the snow and winter conditions that he relies upon for life, sustenance, and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Nathaniel's individual injuries each year. Nathaniel is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Nathaniel is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his physical and mental health, his food sources, his personal security and safety in his home, and the snow and winter conditions

that he relies upon for life, sustenance, and happiness. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Nathaniel. Another separate injury is the deprivation of Nathaniel's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Nathaniel's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Nathaniel makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Nathaniel and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Nathaniel can prevent his irreversible injury. If the national energy

system remains predominantly fossil fuel-based, Nathaniel will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Nathaniel would obtain relief to safeguard his life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Nathaniel's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Nathaniel's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

77. Plaintiff **Aji P.**, by and through his guardian and mother Helaina Piper, is a 15-year-old citizen of the U.S. and a resident of West Seattle, Washington. Aji is experiencing the impacts of climate change caused by Defendants, and has been harmed by the increasing severity

of such impacts. In 2014, the State of Washington had the worst wildfire in the state's recorded history, the Carlton Complex fire. Aji and his family were impacted by that wildfire while on a trip through the Cascade Mountains when they were forced to breathe the smoke in the air. During the summer of 2015, Aji has struggled to participate in his regular summer outdoor activities because of temperatures climbing above 90 degrees Fahrenheit for extended periods, which is highly unusual for temperate Seattle.

78. Aji has also experienced the negative effects of climate change on Puget Sound and the freshwater systems and fish. The decreasing water quality in Puget Sound is causing dead zones to occur and ocean acidification is killing fish and shellfish. Aji recreates in these areas and enjoys seeing marine life. The impacts to shellfish and the diminishing numbers of starfish harm Aji's recreational and aesthetic interests. Aji has also been unable to touch or eat shellfish in Puget Sound due to toxicity levels. Aji is distraught by seeing the ecosystems surrounding his home harmed by climate change and ocean acidification caused by Defendants.

79. The impacts of climate change in other places in the western United States are also affecting Aji. On a trip to Montana with his grandparents, Aji experienced dead forests killed by pine bark beetles. Although Aji's mother is from Albuquerque, New Mexico, and they have family there, Aji and his family will not move back to New Mexico because of water shortage issues and the declining aquifer.

80. Aji advocates for actions to reverse and mitigate the effects of climate change caused by Defendants. He is a member of Plant for the Planet Leadership Corps, in which he plants trees, helps restore local forests, and speaks to the public about climate change impacts. He is also a member of Rising Youth for a Sustainable Earth. Aji is a vegetarian and he and his

family try to limit the time they spend driving as much as possible, opting to walk, bike, or take public transportation.

80-A. Aji's individual injuries to his physical and mental health, his personal security and safety, and the natural areas he relies upon for life, sustenance, and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Aji's individual injuries each year. Aji is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Aji is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his physical and mental health, his personal security and safety, and the natural areas he relies upon for life, sustenance, and happiness. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Aji. Another separate injury is the deprivation of Aji's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Aji's injuries stem precisely from Defendants' belief, and

resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Aji makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Aji and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Aji can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Aji will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Aji would obtain relief to safeguard his life, liberty, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Aji's injuries at the hands of his government will end, providing substantially

meaningful partial redress of his injuries. The Court will thereby preserve Aji's opportunity to obtain relief to safeguard his life, liberty, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

81. Plaintiff **Levi D.**, by and through his guardian and mother Leigh-Ann Draheim, is a citizen of the U.S. and a resident of Indialantic, Florida. Levi is 8-years-old and he is experiencing the impacts of climate change and working to take action and spread awareness about protecting the climate system.

82. Levi lives with his Mother and maternal grandparents in Indialantic, which is situated on a barrier island that separates the Indian River Lagoon from the Atlantic Ocean. The barrier island consists of primarily unconsolidated sand that sits on top of porous limestone bedrock. During the summer of 2015, Levi experienced a lack of rainfall that the island usually receives in the afternoons. Temperatures have been abnormally hot, making it harder than normal for Levi and his family to grow vegetables and herbs.

83. The beaches on the island are Levi's backyard. During the summer months he spends time at the beach five days a week. In the last couple of years, Levi has noticed a Sargassum seaweed invasion, with seaweed covering the beaches along the island. Levi is having a hard time enjoying beach activities because the rotting seaweed smells like sulfur. Levi has also seen climate impacts affect ecosystems at the beach, and has specifically experienced fewer sea turtles in the area. Levi can no longer swim in the Indian River Lagoon because of increasing flesh-eating bacteria and dead fish. Levi and his family are able to smell the dead fish

in their community. He is also now limited by where he can swim in the Atlantic Ocean, due to an increase in flesh-eating bacteria.

84. Levi and his family regularly visit the City of Satellite Beach. In 2009, Satellite Beach, an 8-minute drive from Levi's house, authorized a project to assess rising sea levels and work to mitigate impacts. In July 2010, the Sea Level Rise Subcommittee of Satellite Beach provided the results of the study: the City needs to plan for sea level rise. The island's real estate prices are declining, and Levi's family knows the property they own will decrease in value, and could eventually be lost completely, due to sea level rise caused by climate change and melting ice.

85. In the last two years, Levi's severe allergies have made it harder for him to spend time outdoors. Experiencing nature and wilderness in healthy conditions is important for Levi's emotional wellbeing, and his fears for the future of the beaches and springs in Florida and the wildlife that inhabit them are causing adverse psychological impacts to Levi. Levi works hard to keep the environment healthy on the coast by cleaning up the beaches and maintaining the dunes; at church by teaching his friends about how they can help the environment; and at home by conserving water by taking short timed showers, eating a vegetarian diet, and recycling.

85-A. Levi's individual injuries to his physical and mental health, his personal security and safety in his home, his family's property, and the waters and beaches and wildlife he relies upon for life, sustenance, and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Levi's individual injuries each year. Levi is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Levi is also injured by each passing year of losing

the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his physical and mental health, his personal security and safety in his home, his family's property, and the waters and beaches and wildlife he relies upon for life, sustenance, and happiness. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Levi. Another separate injury is the deprivation of Levi's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Levi's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Levi makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Levi and which foreclose his ability to obtain relief that will protect himself. The composition of the United

States national energy system is the most important factor in the world as to whether Levi can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Levi will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Levi would obtain relief to safeguard his life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Levi's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Levi's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

86. Plaintiff **Jayden F.**, by and through her mother and guardian Cherri Foytlin, is a 12-year-old citizen of the U.S. and a resident of Rayne, Louisiana. In 2005, Jayden moved to

Louisiana Since then, she has lived through three hurricanes and many more tropical storms. Jayden has suffered harm and will continue to suffer harm to her and her family's personal safety, bodily integrity, property, economic stability, food security, and recreational interests from rising sea levels, increased frequency and severity of hurricanes with ensuing storm surges, flooding, and high winds, all associated with or exacerbated by climate change caused by Defendants. Jayden is also directly harmed by Defendants' support and promotion of fossil fuel development in Louisiana, which adversely impacts her air and water quality and health and exacerbates the climate impacts she has experienced and will experience in the region.

87. Impacts from climate change and fossil fuel development threaten Jayden's life, liberty, and property. With warmer ocean water temperatures, hurricanes are becoming more frequent and more destructive. Rising sea level means higher storm surges, even from relatively minor storms, which increase coastal flooding, storm damage, and land loss where she lives. Defendants' approval of the dredging of canals through marshes for oil and gas exploration and pipelines has compounded the problem by its destruction of natural storm barriers, increased erosion, and intense saltwater intrusion, resulting in additional land loss. In 2008, during Hurricane Gustav, Jayden's family lost power and water for a week.

88. The air and water pollution from the development of fossil fuels in southern Louisiana also threaten the health of Jayden and her family. Jayden and her family used to enjoy visiting the beach frequently, swimming in the Gulf of Mexico, crabbing, and eating seafood, but she has avoided these activities since the BP oil spill because residual oil is continually dispersed across the Gulf when the increasing number of storms or hurricanes come ashore due to climate change, making such normally enjoyable activities dangerous. Jayden enjoys traveling and visiting family friends all along the Gulf Coast in every state from Texas to Florida and plans to

do so in the future, but the coastal impacts from climate change caused by Defendants, including increased coastal flooding, storm damage, and land loss, will impair her ability to do so in the future.

88-A. Jayden's individual injuries to her personal security, her safety and bodily integrity, her mental health, her home and property, her food and water security, the air she breathes, and her pursuit of happiness in nature, are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Jayden's individual injuries each year. Jayden is additionally injured by each passing year of losing the ability to prevent the worsening of her injuries. Jayden is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to her personal security, her safety and bodily integrity, her mental health, her home and property, her food and water security, the air she breathes, and her pursuit of happiness in nature. The further loss of the ability to protect her life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Jayden. Another separate injury is the deprivation of Jayden's ability to act in her own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect her life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress

will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Jayden's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Jayden makes to safeguard her life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Jayden and which foreclose her ability to obtain relief that will protect herself. The composition of the United States national energy system is the most important factor in the world as to whether Jayden can prevent her irreversible injury. If the national energy system remains predominantly fossil fuel-based, Jayden will permanently lose her ability to obtain relief that will protect herself and her rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Jayden would obtain relief to safeguard her life, liberty, property, and equal protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional

policies and practices of the national energy system. The worsening of Jayden's injuries at the hands of her government will end, providing substantially meaningful partial redress of her injuries. The Court will thereby preserve Jayden's opportunity to obtain relief to safeguard her life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

89. Plaintiff **Nicholas V.**, by and through his legal guardian and mother, Marie Venner, is a 14-year-old citizen of the U.S. and a resident of Lakewood, Colorado. Nick sees climate change caused by Defendants as a threat to human civilization and has given numerous presentations educating people about the science of climate change. As a Catholic, he is drawn to the intersection between his church and environmental stewardship, and was inspired by Pope Francis's 2015 encyclical, *On Care for Our Common Home*.

90. Pine beetles and wildfires, forcing Nick to stop visiting some of his favorite places, have destroyed forests in Colorado, where Nick used to go hiking, fishing, and camping. Nick enjoys fishing, especially in Boulder Creek, but due to wildfires and variable water flows from droughts and floods, he has not been able to go fishing for the past three years. Nick and his family grow fruit trees, have a garden, and buy food from local farmers. Hail, rainstorms, drought, and pests have ruined their garden several years over the last decade. The unusual weather has affected Nick's consumption of the locally grown produce available through community-supported agriculture. Rising summer temperatures make it harder for Nick to enjoy

outdoor activities, including hiking, biking, and tennis. Warmer winters mean Nick gets to ski less; moreover, when he does go skiing, his favorite parts of the mountain frequently are closed.

90-A. Nick suffers from asthma that is made worse by fossil fuel burning and climate destabilization, especially the increase in the number of very hot days and the extended wildfire and smoke season where Nick lives, breathes, and recreates. Nick's mental health is harmed by both his physical injuries and living in a nation whose government is knowingly harming him and Earth's ability to sustain human life. Nick's individual injuries to his lungs, and his overall physical and mental health, and access to the food, forests, and waters he relies upon for life, sustenance, and happiness are already occurring. Defendants' national energy system is a substantial cause of those actual injuries.

a. Defendants' national energy system worsens Nick's individual injuries each year. Nick is additionally injured by each passing year of losing the ability to prevent the worsening of his injuries. Nick is also injured by each passing year of losing the ability to prevent the irreversibility and inevitability of a lifetime of worsening hardship to his lungs, and his overall physical and mental health, and access to the food, forests, and waters he relies upon for life, sustenance, and happiness. The further loss of the ability to protect his life, while suffering these harms, is a separate concrete psychological, emotional, and mental health injury to Nick. Another separate injury is the deprivation of Nick's ability to act in his own interest to preserve the window of opportunity to prevent irreversible and inevitable injury going forward and therefore protect his life, all the while suffering these ongoing harms each year from Defendants' national energy system, which they know is causing these injuries. The opportunity to prevent

irreversible and inevitable injuries is still available now and is being progressively foreclosed by the ongoing national energy system. When the irreversibility of these harms becomes certain, redress will be forever foreclosed by this Court or the political majority through the ballot box. Thus, Nick's injuries stem precisely from Defendants' belief, and resultant policies and practices, that the national energy system is constitutionally compliant.

b. Every attempt Nick makes to safeguard his life, liberties, property, and equal protection of the law fails because Defendants view the national energy system as constitutionally compliant. As long as Defendants operate under the belief that the national energy system is constitutionally compliant, Defendants will continue to power it with fossil fuels at levels that are dangerous for Nick and which foreclose his ability to obtain relief that will protect himself. The composition of the United States national energy system is the most important factor in the world as to whether Nick can prevent his irreversible injury. If the national energy system remains predominantly fossil fuel-based, Nick will permanently lose his ability to obtain relief that will protect himself and his rights.

c. If this Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and these government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein, the Court will have ordered a change in legal status that would have practical consequences. A declaratory judgment would significantly increase the likelihood that Nick would obtain relief to safeguard his life, liberty, and equal

protection of the law. If the Court declares the nation's energy system unconstitutional in its present form, Defendants will correct the unconstitutional policies and practices of the national energy system. The worsening of Nick's injuries at the hands of his government will end, providing substantially meaningful partial redress of his injuries. The Court will thereby preserve Nick's opportunity to obtain relief to safeguard his life, liberty, property, and equal protection of the law from irreversible and inevitable injury. Protecting the opportunity for freedom and happiness and safety and security, by eliminating a substantial federal government restraint on freedom and decreasing the substantial risk of irreversibility, is tremendously meaningful redress.

91. [DELETED]

92. Plaintiff **Future Generations, by and through their Guardian Dr. James Hansen,** retain the legal right to inherit well-stewarded public trust resources and to protection of their future lives, liberties, and property – all of which are imminently threatened by the actions of Defendants challenged herein. Guardian Hansen stands in this case both to demand effective governmental action to protect these fundamental rights and, until that is done, a cessation of governmental action that exacerbates the imposed risk.

93. Dr. James Hansen is the former Director of the NASA Goddard Institute for Space Studies, and is presently an Adjunct Professor at Columbia University's Earth Institute, where he directs a program in Climate Science, Awareness, and Solutions. Dr. Hansen trained in physics and astronomy in the space science program of Dr. James Van Allen at the University of Iowa, receiving a bachelor's degree with highest distinction in physics and mathematics, master's degree in astronomy, and Ph.D. in physics in 1967. In his early research Dr. Hansen

used telescopic observations of Venus to extract detailed information on the physical properties of the cloud and haze particles that veil Venus. Since the mid-1970s, Dr. Hansen has focused on studies and computer simulations of the Earth's climate, for the purpose of understanding the human impact on global climate. His testimony on climate change to Congress in the 1980s helped raise broad awareness of the global warming issue.

94. In recent years, Dr. Hansen has drawn attention to the danger of passing climate tipping points, producing irreversible climate impacts that would yield a different planet from the one on which civilization developed. Dr. Hansen has also outlined steps that are needed to stabilize climate. Dr. Hansen's most recent work clearly establishes that danger and those steps, and it is summarized in Dr. Hansen's declaration, which Plaintiffs attach hereto as **Exhibit A**. Dr. Hansen has long advocated for government actions to protect the climate system for present and future generations.

95. Dr. Hansen is an elected member of the United States National Academy of Sciences (1995) and a recipient of the Heinz Award for the Environment (2001), the Leo Szilard Award for Use of Physics for the Benefit of Society (2007), the American Association for the Advancement of Science Award for Scientific Freedom and Responsibility (2007), the Sophie Prize (2010), and the Blue Planet Prize (2010).

95-A. As described above, Youth Plaintiffs are actually harmed in uniquely individual and particularized ways by Defendants' fossil fuel energy policies and practices that make up the national energy system. Youth Plaintiffs are actually harmed physically by the national energy system. Youth Plaintiffs are actually harmed psychologically, mentally, and emotionally by the national energy system. Youth Plaintiffs are also being injured because their federal government continues to put them at greater risk of even more physical and mental health harm than they

already experience, as the policies and practices that make up the national energy system continue and the climate crisis worsens. The United States' ongoing energy system places Youth Plaintiffs at great risk of sustaining additional irreversible physical and mental health harms. The national energy system hastens the irreversibility and worsening of the existing injuries and that hastening in and of itself is an injury to Youth Plaintiffs. Declaratory judgment in Youth Plaintiffs' favor would be substantially likely to stop the United States' hastening of the environmental apocalypse that locks in irreversible injuries to Plaintiffs.

95-B. If the national energy system is not declared unconstitutional, Youth Plaintiffs will disproportionately and irrevocably suffer from the worsening physical and mental health harms caused by the national energy system and the hastening irreversibility of them. If the energy system is not declared unconstitutional, the energy system will inflict additional irreversible and catastrophic harm on these young Plaintiffs. If the energy system is declared unconstitutional, on information and belief, Defendants will take corrective action and change and/or cease the policies and practices that make the national energy system unconstitutional. If the national energy system is declared unconstitutional and Defendants thereafter abide by this Court's declaratory judgment, it is substantially likely that Youth Plaintiffs' injuries will be minimized, reduced to some meaningful extent and in some cases abated entirely. It is also substantially likely that the hastening of the irreversibility of these injuries will slow or cease.

95-C. The systematic conduct making up the national energy system, which has caused and is causing Plaintiffs' ongoing injuries, includes government policies, practices, and aggregate actions, such as permits, licenses, leases, subsidies, standards, and authorizations for the extraction, development, processing, combustion, and transportation of fossil fuel. Until the Court resolves this constitutional controversy, these young Plaintiffs will continue to be harmed

and put at extreme risk by the GHG emissions caused by Defendants' national energy system and Defendants will be free to continue to operate the national energy system to cause harmful GHG emissions in an unconstitutional manner, avoiding the constitutional check of Article III courts and undermining the separation of powers that the Framers intended. Without declaratory relief in the first instance, Defendants will be free to continue this systematic conduct that "may hasten an environmental apocalypse" and carry out "the Nation's willful destruction."

95-D. Declaratory judgment will eliminate the current and substantial legal controversy and inform the parties of the unlawfulness or lawfulness of the government's national energy system, especially as to whether Defendants' policies, practices, and aggregate actions cause a deprivation of rights secured by the Constitution. That declaratory judgment will have immediate practical consequences and will be substantially likely to provide meaningful redress because upon information and belief Defendants will abide by any declaratory judgment order and bring the national energy system into constitutional compliance.

96. Youth Plaintiffs[2] represent the youngest living generation, beneficiaries of the public trust. Youth Plaintiffs have a substantial, direct, and immediate interest in protecting the atmosphere, other vital natural resources, their quality of life, their property interests, and their liberties. They also have an interest in ensuring that the climate system remains stable enough to secure their constitutional rights to life, liberty, and property, rights that depend on a livable future, in other words, a stable climate system capable of sustaining human life. A livable future includes the opportunity to drink clean water, to grow food, to be free from direct and imminent property damage caused by extreme weather events, to benefit from the use of property, and to enjoy the abundant and rich biodiversity of our Nation. Youth Plaintiffs are suffering both

[2] The term "Youth Plaintiffs" refers to each of the individually named Plaintiffs.

immediate and threatened injuries as a result of actions and omissions by Defendants alleged herein and will continue to suffer life-threatening and irreversible injuries without the relief sought. Youth Plaintiffs have suffered and will continue to suffer harm to their health, personal safety, bodily integrity, cultural and spiritual practices, economic stability, food security, property, and recreational interests from the impacts of climate change and ocean acidification caused by Defendants. Youth Plaintiffs have also been denied the procedural right to participate in decision-making regarding the Department of Energy's approval of LNG exports from the Jordan Cove LNG terminal in Coos Bay, Oregon. Youth Plaintiffs, and all of them, have suffered procedural harm as a result of this denial.

97. [DELETED]

DEFENDANTS

98. Defendant **the United States of America** ("United States") is the sovereign trustee of national natural resources, including air, water, sea, shores of the sea, and wildlife. In its sovereign capacity, the United States controls our nation's air space and atmosphere. In its sovereign capacity, the United States controls federal public lands, waters, and other natural resources, including fossil fuel reserves. In its sovereign capacity, the United States controls articles of interstate and international commerce, including extraction, development, and conditions for the utilization of fossil fuels, such as allowing CO_2 emissions from major sources. As a result of both its exercise of control over the national energy system, exercised through its fossil fuel energy policies, practices, and aggregate actions, as well as its failure to limit and phase-out CO_2 emissions, the United States has caused dangerous levels of CO_2 to build up in the atmosphere. That build-up seriously threatens the relatively stable climate system that enabled civilization to develop over the last 10,000 years. It impairs essential national public

trust resources required by Youth Plaintiffs and future generations. This failure to prevent the present and looming climate crisis constitutes a breach in the government's basic duty of care to protect Plaintiffs' fundamental constitutional rights. United States' ongoing energy system places Youth Plaintiffs at great risk of sustaining additional irreversible physical and mental health harms.

99. [DELETED]

100. Defendant **the Office of the President of the United States** includes the Council on Environmental Quality ("CEQ"), the Office of Management and Budget ("OMB"), and the Office of Science and Technology Policy ("OSTP").

a. CEQ's mission is to promote the well-being of our country for both current and future generations, which includes curbing the carbon pollution that is causing climate change.

b. OMB serves as the implementation and enforcement arm of all Presidential policy, including budget development and execution, coordination and review of all significant federal regulations, and issuance of executive orders. OMB promotes the government's affirmative aggregate acts in the areas of fossil fuel production, consumption, and combustion by coordination and review of Federal regulations by executive agencies and review and assessment of information collection requests.

c. OSTP leads interagency efforts to develop and implement sound science and technology policies and budgets, and to work with state and local governments, the scientific community, private sectors, and other nations

toward this end. Pursuant to authority granted by Congress under National Science and Technology Policy, Organization, and Priorities Act of 1976, President Bush's 2001 Executive Order 13226, and President Obama's 2010 Executive Order 13539, OSTP has been involved in the President's strategy for addressing climate change. Despite its charge to ensure that the policies of the Executive are informed by sound science, OSTP has permitted additional fossil fuel projects, including extraction, processing, transportation, combustion, and exportation of coal, oil, and gas from conventional and unconventional reserves.

101. The policies and practices promoted by CEQ, OMB, and OSTP have been contrary to sound science. These policies and practices have led to the current dangerous levels of atmospheric CO_2, dangerous interference with a stable climate system, and violations of Plaintiffs' constitutional rights. Specifically, the policies and practices continue to allow dangerous levels of carbon pollution and, at best, promise very modest future limitations and no near-term CO_2 phase out, as is required to preserve a stable climate system capable of sustaining human life.

102. Defendant **Brenda Mallory** is the current Director of CEQ, and in her official capacity is responsible for all actions of CEQ.

103. Defendant **Shalanda Young** is the current Director of OMB, and in her official capacity is responsible for all actions of OMB.

104. Defendant **Arati Prabhakar** is the current Director of OSTP, and in her official capacity is responsible for all actions of OSTP.

105. Defendant **the United States Department of Energy** ("DOE") is a federal agency whose mission is to advance the national, economic, and energy security of the United States through clean, reliable, and affordable energy; to protect the environment; and to encourage innovations in science and technology that improve the quality of life. DOE's mission statement is to "ensure America's security and prosperity by addressing . . . environmental . . . challenges through transformative science." DOE through the Office of Fossil Energy issues short-term and long-term authorizations for the import and export of natural gas pursuant to authority granted by Congress under the Natural Gas Act of 1938, 15 U.S.C. § 717, as amended by section 201 of the Energy Policy Act of 1992, Pub. L. No. 102-486, § 201, 106 Stat. 2776, 2866. DOE permits domestic energy production and interstate commerce of fossil fuels pursuant to authority granted by Congress under the Department of Energy Organization Act of 1977, 42 U.S.C. § 7112. DOE through the Office of Energy Efficiency and Renewable Energy, regulates the minimum number of light duty alternative fuel vehicles required in certain federal fleets pursuant to authority granted by Congress under the Energy Policy Act of 1992. DOE, through the Building Technology Office, also sets energy efficiency standards, which dictate energy consumption rates for appliances and equipment pursuant to authority granted by Congress under The Energy Policy and Conservation Act, 42 U.S.C. § 6201, as amended.

a. The Federal Energy Regulatory Commission ("FERC"), an agency of DOE, regulates the transmission and sale of electricity and natural gas in interstate commerce; regulates the transportation of oil by pipeline in interstate commerce; reviews proposals for natural gas terminals, pipelines, and storage facilities; ensures the safe operation and reliability

of proposed and operating LNG terminals; and monitors and investigates energy markets.

106. DOE has knowingly failed to perform its duty to transition our nation away from the use of fossil fuel energy. DOE's actions and omissions have substantially contributed to unsafe levels of atmospheric CO_2 and a dangerous climate system.

107. DOE, through the Office of Fossil Energy, issued DOE/FE Order No. 3041, granting long-term multi-contract authorization to export liquefied natural gas by vessel from the Jordan Cove LNG Terminal in Coos Bay.

108. Defendant **Jennifer Granholm** is the current Secretary of Energy and, in her official capacity, is responsible for all actions of DOE.

109. Defendant **the United States Department of the Interior** ("DOI") manages one-fifth of our nation's land, including forests and grazing lands, thirty-five thousand miles of coastline, and 1.76 billion acres of the Outer Continental Shelf. DOI's mission is to protect America's natural resources and heritage, honor cultures and tribal communities, and supply the energy to power the future of our country. DOI claims to be taking the lead in protecting our nation's resources from climate impacts and in managing federal public lands to mitigate climate change.

110. DOI, through the Bureau of Land Management ("BLM"), leases minerals and manages oil and gas development activities on over 570 million acres of federal lands, as well as on private lands where the federal government retained mineral rights, pursuant to the authority granted by Congress in the Mineral Leasing Act of 1920, 30 U.S.C. § 182, as amended, and the Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1719(a). BLM and other federal agencies manage most of the land suitable for oil and gas development in the U.S.

111. DOI, through the Bureau of Ocean Energy Management ("BOEM"), leases the Outer Continental Shelf, the submerged lands, subsoil, and seabed, lying between the seaward extent of the jurisdiction of the States and the seaward extent of Federal jurisdiction, for oil and gas development pursuant to authority granted by Congress under the Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1333(a), as amended. As of January 2015, BOEM was administering more than 6,000 active oil and gas leases covering nearly 33 million Outer Continental Shelf acres. Pursuant to authority granted by Congress under the Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594, 760, DOI repealed the 160-acre cap on coal leases, allowed the advanced payment of royalties from coal mines, and provided incentives to companies to drill for oil in the Gulf of Mexico.

112. Through its policies and practices in permitting the extraction of coal, coal-bed methane, oil, oil-shale and natural gas, and oil, coal and electric infrastructure and transmission facilities, and logging, livestock grazing, and off-road vehicle use on public land, the DOI is substantially contributing to dangerous levels of atmospheric CO_2 and a dangerous climate system in our Nation.

113. Defendant **Deb Haaland** is the current Secretary of Interior and, in her official capacity, is responsible for all actions of DOI.

114. Defendant **the United States Department of Transportation** ("DOT") is a federal agency overseeing this Nation's aviation, road, highway, railway, truck, and marine transportation infrastructure. DOT's regulations of emissions related to that infrastructure play a vital role in the Federal Government's response to climate change.

a. DOT, through the Federal Aviation Administration, the Federal Highway Administration, and the Pipeline and Hazardous Materials Safety

Administration, oversees and regulates the spending programs that finance construction and maintenance of our nation's transportation infrastructure, pursuant to authority granted by Congress under the Department of Transportation Act of 1966, 49 U.S.C. § 305, as amended.

b. DOT, through the National Highway Traffic Safety Administration, sets fuel economy standards for U.S. vehicle manufacturers, pursuant to authority granted by Congress under the Energy Policy and Conservation Act of 1975, Pub. L. No. 94–163, § 301, 89 Stat. 902, 903, 905, as amended by the Energy Independence and Security Act of 2007, 49 U.S.C. § 32902.

115. With the power to regulate the means of transportation throughout our country, DOT has the responsibility to ensure that all modes of transportation use only clean energy and eliminate dangerous carbon pollution. Further, DOT permits the transport of fossil fuels via truck and rail. DOT's stated mission is to "[enhance] the quality of life of the American people, today and into the future." DOT acknowledges the severity of the threats of climate change, yet continues to facilitate the severity of climate change impacts by contributing approximately 27% of U.S. CO_2 emissions in 2013.

116. Defendant **Pete Buttigieg** is the current Secretary of Transportation and, in his official capacity, is responsible for all DOT policies and practices.

117. Defendant **the United States Department of Agriculture** ("USDA") is a federal agency whose vision statement expresses the agency's goal to preserve and conserve our nation's natural resources. USDA's mission statement states that it will use the best available science as it carries out its responsibilities in caring for natural resources. USDA has authority over our

nation's food and agriculture, as well as many natural resources, including national forests, which serve the vital role of absorbing CO_2 from our atmosphere—commonly referred to as "carbon sequestering."

a. USDA, through the U.S. Forest Service, authorizes 25% of U.S. coal production.

b. The U.S. Forest Service, along with BLM, coordinates and authorizes the leasing of federal public lands for the extraction of oil and gas pursuant to authority granted by Congress under the Mineral Leasing Act of 1920, as amended by both the Federal Onshore Oil and Gas Leasing Reform Act, and the Mineral Leasing Act for Acquired Lands. The U.S. Forest Service, in conjunction with BLM, issues leases and mining permits for coal mining development and oversees coal mining on federal public lands pursuant to authority granted by Congress, under the Mineral Leasing Act of 1920, as amended, and the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. § 1273.

c. USDA's Forest Service Minerals & Geology Management division manages and oversees aspects of the development and production of energy and mineral resources, including authorizing ancillary projects such as roads and pipelines that are part of the energy and minerals development projects of USDA.

d. USDA has substantially contributed to and continues to substantially contribute to a dangerous climate system by permitting large-scale logging in national forests, by supporting polluting farming and agricultural

practices, and by authorizing fossil fuel extraction and use under its jurisdiction. USDA has not protected the nation's National Forest System as a carbon sink.

118. Defendant **Thomas J. Vilsack** is the current Secretary of Agriculture and, in his official capacity, is responsible for all actions of the USDA.

119. Defendant **the United States Department of Commerce** ("Commerce") is a federal agency that is supposed to promote sustainable development. Commerce has authority over the monitoring equipment for greenhouse gas ("GHG") emissions, giving it direct oversight of our nation's industries and emissions pursuant to authority granted by Congress under Title 15 of the United States Code.

a. Commerce, through National Institute of Standards and Technology, oversees research in energy efficiency opportunities for homes and companies nationwide.

b. Commerce, through the International Trade Administration's Office of Energy and Environmental Industries, promotes fossil fuel export opportunities, including identifying for the fossil fuel industry oil and gas markets where export activities can make the biggest impact, pursuant to authority granted by Congress, under the Reorganization Plan No. 3 of 1979.

c. Commerce, through the Bureau of Industry and Security ("BIS"), authorizes and administers the rules governing crude oil exports pursuant to 15 C.F.R. § 754.2. BIS issues permits to export crude oil to all destinations, including Canada.

d. Commerce, through the National Oceanic and Atmospheric Administration, is charged with overseeing the preservation and protection of the oceans and the atmosphere pursuant to authority granted by Congress under the Reorganization Plan No. 4 of 1970.

e. Commerce has abrogated its duty to preserve and protect the atmosphere and other natural resources under its jurisdiction and has not prevented the waste of the public trust in the atmosphere and oceans.

120. Defendant **Gina Raimondo** is the current Secretary of Commerce and, in her official capacity, is responsible for all actions of Commerce.

121. Defendant **the United States Department of Defense** ("DOD") is a federal agency charged with ensuring the security of this nation. DOD considers climate change a threat multiplier for its potential to exacerbate many challenges confronting our nation, including infectious disease, regional instability, mass migrations, and terrorism. Climate change has impacted and will continue to impact all military installations, as well as the DOD's supply chains, equipment, vehicles, and weapon systems.

a. DOD is our nation's largest employer and is responsible for significant carbon pollution from both its vehicle fleet, and its 500 bases of military infrastructure, including 300,000 buildings totaling 2.2 billion square feet.

b. For all exports of coal, oil, and gas by ship, the DOD's Army Corps of Engineers authorizes marine export facilities, pursuant to the Clean Water Act and the Rivers & Harbors Act. The Army Corps of Engineers also maintains international navigation channels, including the navigation channel at Coos Bay, pursuant to authority granted by Congress under the

Rivers & Harbors Act. Such exports endanger the climate system on which our nation and plaintiffs alike depend.

122. Defendant **Lloyd Austin** is the current Secretary of Defense and, in his official capacity, is responsible for all actions of DOD.

123. Defendant **the United States Department of State** ("State Department") is a federal agency whose stated mission is to "shape and sustain a peaceful, prosperous, just, and democratic world and foster conditions for stability and progress for the benefit of the American people and people everywhere." The State Department plays a lead role in Defendants' response to climate change. The State Department prepared the 2014 U.S. Climate Action Report, which states that the Federal Government is "committed to continuing enhanced action . . . to lead the global effort to achieve a low-emission, climate resilient future."

a. The State Department leads international efforts on climate change on behalf of the Office of the President.

b. The State Department, through the Office of the Special Envoy for Climate Change is the Administration's chief climate negotiator. In 2009, Special Envoy for Climate Change Todd Stern stated: "The costs of inaction—or inadequate actions—are unacceptable. But along with this challenge comes a great opportunity. By transforming to a low-carbon economy, we can stimulate global economic growth and put ourselves on a path of sustainable development for the 21st century."

c. The Secretary of State receives all applications for Presidential Permits for the construction, connection, operation, or maintenance, at the borders of the United States, of facilities for the exportation or importation of

petroleum, petroleum products, coal, or other fuels, including hazardous liquids to or from a foreign country, and is required to issue a Presidential Permit if such exportation would serve the national interest, under Executive Order 13337, and pursuant to 3 U.S.C. § 301. Specifically, the State Department has jurisdiction over all cross-border oil pipelines, and in the last decade has been considering and approving longer cross-border projects, including those transporting oil sands crude, otherwise known as tar sands. All petroleum products entering and leaving the U.S. by pipeline do so under State Department approval. Currently there are at least 13 active Presidential Permits for oil pipelines. The State Department has consistently approved such permits, even though it has full authority and discretion to deny them where fossil fuel projects endanger the nation by causing or enhancing dangerous climate change.

124. Defendant **Antony Blinken** is the current Secretary of State and, in his official capacity, is responsible for all actions of the State Department.

125. Defendant **the United States Environmental Protection Agency** ("EPA") permits and regulates the activities, industries, and sources of carbon pollution in the U.S. under the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Resource Conservation and Recovery Act. The stated mission of the EPA is to protect human health and the environment and ensure that the Federal Government's actions to reduce environmental risks are based on the best available science. EPA sets CO_2 standards for power plants, which account for our nation's largest source of CO_2 emissions at 37% of U.S. annual emissions. EPA has

authorized, and continues to authorize installations and activities that emit prodigious amounts of CO_2, which authorizations dangerously disrupt and fail to preserve a habitable climate system – in violation of Plaintiffs' fundamental rights.

a. EPA, through the Office of Ground Water and Drinking Water and the Office of Science and Technology, exempts oil and gas producers from certain requirements of the Safe Drinking Water Act (thereby easing regulatory burdens to oil and gas development), pursuant to authority granted by Congress, under the Energy Policy Act of 2005.

126. EPA abrogated its duty to implement its 1990 Plan, entitled "Policy Options for Stabilizing Global Climate," to reduce CO_2 emissions (a pollutant under its jurisdiction) in line with the best available science, and continues to allow CO_2 emissions in excess of what is necessary for climate stability.

127. That failure is not allayed by EPA's August 3, 2015 final "Clean Power Plan" because CO_2 emissions reductions projected under the "Clean Power Plan" do not even approach the rate required to preserve a habitable climate system. First, the "Clean Power Plan" affects emissions only in the power sector. Second, the "Clean Power Plan" aims for power plant emissions reductions of only approximately 32% from 2005 levels by full implementation in 2030. Those power plant emission reductions from 2005 levels would achieve only an 8-10% reduction in total U.S. emissions by 2030. The annualized emissions reduction rate is thus, even accepting EPA's biased math, approximately 1.25% per year, a reduction rate that is a fifth of that minimally required to preserve a habitable climate system. Moreover, nearly half of the EPA-asserted emission reduction was already realized in the 2005-2014 period, namely *before* the "Clean Power Plan" was finalized. Furthermore, upon information and belief, the "Clean

Power Plan" will allow fossil fuel-fired power units to continue to operate and will encourage increased investment in, utilization, and reliance on natural gas (whose principle constituent, methane, is a highly potential greenhouse gas). The "Clean Power Plan," moreover, does nothing to halt or otherwise diminish fossil fuel extraction, production, and exportation in the United States, fails even to return U.S. emissions to 1990 levels, and continues to allow CO_2 emissions far in excess of what is minimally required to secure a stable climate system. EPA's "Clean Power Plan," accordingly, is not an adequate or proportionally appropriate response to the climate crisis. By allowing emissions to continue at dangerous levels, EPA continues to jeopardize the climate system on which Plaintiffs depend, now and in the future.

128. Defendant **Michael Regan** is the current Administrator of EPA and, in his official capacity, is responsible for all actions of EPA.

129. Pursuant to its policies and practices that make up the national energy system, Defendants have permitted, authorized, and subsidized the extraction, production, transportation, and utilization of fossil fuels through aggregate actions across the U.S. (and beyond). Defendants retain authority to limit or to deny that extraction, production, transportation, and utilization of fossil fuels, and otherwise to limit or prohibit their emissions. The vastness of our nation's fossil fuel enterprise renders it infeasible for Plaintiffs to challenge every instance of Defendants' violations and, even if feasible, challenging each of Defendants' actions would overwhelm the court. Nonetheless, Defendants' liability arises from the policies and practices that make up Defendants' national energy system. The national energy system has substantially caused the present climate crisis and Plaintiffs' injuries.

130. Director Brenda Mallory, Director Shalanda Young, Director Arati Prabhakar, Secretary Jennifer Granholm, Secretary Deb Haaland, Secretary Pete Buttigieg, Secretary

Thomas J. Vilsack, Secretary Gina Raimondo, Secretary Lloyd Austin, Secretary Antony Blinken, and Administrator Michael Regan, through their respective offices, departments, and agencies, CEQ, OMB, OSTP, DOE, DOI, DOT, USDA, Commerce, DOD, State Department, and EPA, are primarily responsible for the United States' energy system through authorizing, permitting, and incentivizing fossil fuel production, consumption, transportation, and combustion, causing the atmospheric CO_2 concentration to increase to at least 400 ppm and, thus, substantial harm to Plaintiffs. Defendants have failed to preserve a habitable climate system for present and future generations, and instead have created dangerous levels of atmospheric CO_2 concentrations. The national energy system and the affirmative aggregate acts, omissions, and policies and practices of Defendants that make up the national energy system, jointly and severally, have violated and continue to violate Plaintiffs' fundamental constitutional rights to freedom from deprivation of life, liberty, and property; Plaintiffs' constitutional rights to equal protection; Plaintiffs' unenumerated inherent and inalienable natural rights; and Plaintiffs' rights as beneficiaries of the federal public trust.

STATEMENT OF FACTS

I. THE FEDERAL GOVERNMENT HAS KNOWN FOR DECADES THAT CARBON DIOXIDE POLLUTION WAS CAUSING CATASTROPHIC CLIMATE CHANGE AND THAT MASSIVE EMISSION REDUCTIONS AND A NATION-WIDE TRANSITION AWAY FROM FOSSIL FUELS WAS NEEDED TO PROTECT PLAINTIFFS' CONSTITUTIONAL RIGHTS.

131. As early as 1899, scientists understood that CO_2 concentrations in the atmosphere cause heat retention on Earth and that a doubling or tripling of the CO_2 content in 1899 would significantly elevate Earth's surface temperature. Scientists also understood that CO_2 was the determinative factor for global heating. By the turn of the 20th Century, it was widely accepted in the scientific community that increasing the atmospheric concentration of CO_2 could cause global climate change.

132. By 1965, the Executive Branch reported that anthropogenic pollutants, including CO_2, impair our nation's economy and its quality of life. In the 1965 Report of President Lyndon Johnson's Scientific Advisors, "Restoring the Quality of Our Environment," the White House confirmed that anthropogenic pollutants, including CO_2, threaten "the health, longevity, livelihood, recreation, cleanliness and happiness of citizens who have no direct stake in their production, but cannot escape their influence."

133. For fifty years, the Executive Branch has known that "pollutants have altered on a global scale the CO_2 content of the air" through "the burning of coal, oil and natural gas." The Executive Branch predicted that CO_2 "will modify the heat balance of the atmosphere to such an extent that marked changes in climate, not controllable th[r]ough local or even national efforts, could occur." The Executive Branch warned that "carbon dioxide [gases] are accumulating in such large quantities that they may eventually produce marked climatic change."

134. Fifty years ago, the Executive Branch described the marked climatic changes from CO_2 pollution as including the melting of the Antarctic icecap, rising sea levels, warming oceans, acidifying waters, and additional releasing of CO_2 and methane due to these events. It recommended reducing the heating of the Earth because of the extraordinary economic and human importance of our climate system.

135. Fifty years ago, the White House recommended that a tax system be implemented to tax polluters, including air pollution, "in proportion to their contribution to pollution" to incentivize pollution reduction.

136. In 1969, Patrick Moynihan, then-Adviser to President Nixon, wrote a letter to White House counsel John Ehrlichman stating that CO_2 pollution resulting from burning fossil fuels was a problem perhaps on the scale of "apocalyptic change," threatening the loss of cities

like New York and Washington D.C. from sea level rise. The 1969 Moynihan Letter urged the Federal Government to immediately address this threat.

137. In 1978, Congress passed the National Climate Program Act "to establish a national climate program that will assist the Nation and the world to understand and respond to natural and man-induced climate processes and their implications." 15 U.S.C. § 2901(3).

138. On June 23, 1988, Plaintiff-Guardian Dr. James Hansen, then Director of NASA's Institute for Space Studies and a leading climate scientist in the Federal Government, testified before Congress that carbon pollution in the atmosphere was causing global warming and that impacts were already being observed.

139. Around the time of Dr. Hansen's testimony, Congress directed its own offices and EPA to separately prepare reports on how to stabilize the global climate system and transition our country away from the use of fossil fuels.

140. In response, in December 1990, EPA submitted a report to Congress on "Policy Options for Stabilizing Global Climate." The EPA's 1990 Report concluded: "responses to the greenhouse problem that are undertaken now will be felt for decades in the future, and lack of action now will similarly bequeath climate change to future generations."

141. The EPA's 1990 Report called for a 50% reduction in total U.S. CO_2 emissions below 1990 levels by 2025. EPA explained that such reductions were the only pathway to achieve Congress' goal of stopping global warming and stabilizing the climate system. The EPA's 1990 Report also called for stabilizing atmospheric CO_2 concentrations at 350 ppm, the current level of that time, a response to the congressional objective that total global warming not exceed 1.5° C above the preindustrial level. In its 1990 Report, EPA confirmed the Executive Branch's findings from 1965 that CO_2 was a "dangerous" pollutant.

142. In 1991, promptly following EPA's 1990 Report, the Congressional Office of Technology Assessment ("OTA") delivered to Congress its own report, "Changing By Degrees: Steps to Reduce Greenhouse Gases." Finding the United States was the single largest contributor to carbon pollution, the OTA's 1991 Report developed "an energy conservation, energy-supply, and forest-management package that can achieve a 20- to 35-percent emissions reduction" through a mix of regulatory and market-based federal policies, in order to prevent global warming and climate change. OTA reported that, if its "package" was implemented, the Federal Government could lower CO_2 emissions 35% from 1987 levels by 2015 and possibly save the Federal Government $20 billion per year. OTA determined that the 35% necessary reduction in CO_2 emissions was only the beginning and further efforts in the 21st century would be required to stabilize our nation's climate system.

143. The OTA's 1991 Report stated that major reductions of CO_2 would require significant new initiatives by the Federal Government and must be sustained over decades, even before all the scientific certainties are resolved: "[I]t is clear that the decision to limit emissions cannot await the time when the full impacts are evident. The lag time between emission of the gases and their full impact is on the order of decades to centuries; so too is the time needed to reverse any effects." The OTA's 1991 Report informed Congress that the level of emission reductions needed would require the country to wean itself from fossil fuels. OTA also urged that, while global warming was a problem on a global scale, U.S. leadership was critical to solving the problem and would seriously impact what happened around the globe.

144. Concluding that actions would be required across the federal government, both the EPA's 1990 Report and the OTA's 1991 Report concluded that an essential component of reducing CO_2 emissions was implementing a rising carbon tax.

145. On October 15, 1992, following receipt of the EPA and OTA Reports, the Senate ratified the United Nations Framework Convention on Climate Change ("UNFCCC"). The UNFCCC was executed to "protect the climate system for the benefit of present and future generations of humankind." The UNFCCC evidences an "overwhelming weight" of support for protection of the atmosphere under the norms and principles of intergenerational equity. UNFCCC, Art. 3. The minimal objective of the UNFCCC is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner." UNFCCC, Art. 2.

146. The recommendations in the EPA's 1990 Report ("Policy Options for Stabilizing Global Climate") and the OTA's 1991 Report ("Changing By Degrees: Steps to Reduce Greenhouse Gases") were never implemented. U.S. fossil fuel production, consumption, and combustion all continued to accelerate at dangerous speeds for decades.

147. On December 7, 2009, nearly 17 years after the United States ratified the UNFCCC, the then-Administrator of EPA, Lisa Jackson, issued EPA's formal endangerment finding under the Clean Air Act. The finding stated that current and projected atmospheric concentrations of greenhouse gases including, in particular, CO_2, threatened the public health and welfare of current and future generations. EPA issued its endangerment determination only after being compelled to do so by the U.S. Supreme Court in *Massachusetts v. EPA*, 549 U.S. 497 (2007).

148. On January 2, 2011, EPA commenced partial regulation of greenhouse gases under the Clean Air Act from mobile and stationary sources of air pollution.

149. More than two decades have passed since the EPA's 1990 Report and the OTA's 1991 Report were issued to Congress. Little has been accomplished in the way of phasing out emissions even though, as DOE admits in its strategic plan, "our responsibility to future generations is to eliminate most of our carbon emissions and transition to a sustainable energy future."

150. During the last decade, Defendants have repeatedly stated that allowing "business as usual" CO_2 emissions will imperil future generations with dangerous and unacceptable economic, social, and environmental risks. As Defendants have acknowledged, the use of fossil fuels is a major source of these emissions, placing our nation on an increasingly costly, insecure, and environmentally dangerous path.

II. IN SPITE OF KNOWING OF THE SEVERE DANGERS POSED BY CARBON POLLUTION, DEFENDANTS CREATED AND ENHANCED THE DANGERS THROUGH FOSSIL FUEL EXTRACTION, PRODUCTION, CONSUMPTION, TRANSPORTATION, AND EXPORTATION

A. Despite the Known Danger, Defendants Caused Climate Instability and Allowed U.S. Fossil Fuel Extraction, Production, Consumption, Transportation, and Exportation and Associated Emissions, to Dangerously Increase

151. Through its policies, practices, and aggregate acts, the United States has long had and continues to have a national energy system that has made fossil energy the dominant form of energy used in the United States. In 2014, over 80% of U.S. energy comes from fossil fuels. Between 1751 and 2014, the United States has been responsible for emitting 25.5% of the world's cumulative CO_2 emissions to the atmosphere from within its borders. Those emissions do not account for the embedded emissions in imported goods and materials that are consumed in the United States. Defendants enabled and permitted those cumulative emissions.

152. In the last fifty years, total U.S. production and consumption of fossil fuels drastically increased.

153. Acting with deliberate indifference, Defendants have not implemented, or complied with, the EPA's 1990 Report and the OTA's 1991 Report to reduce carbon pollution from fossil fuels, stop global warming, and protect the climate system for future generations. Had Defendants followed the EPA's 1990 Report and the OTA's 1991 Report, CO_2 emissions today would be reduced by 35% from 1987 levels. Instead, since 1991, Defendants have knowingly allowed at least an additional 130,466 million metric tons of CO_2 emissions from fossil fuel combustion.

154. Accordingly, instead of pursuing their own plans to slash emissions and reduce the risk of dangerous climate change, Defendants knowingly acted to exacerbate that risk and impose harm on the nation and on Plaintiffs.

155. Total Fossil fuel production in the U.S. climbed to 65.244 Quadrillion Btu in 2014, up substantially from such consumption in 1965.

U.S. Primary Energy Production by Source (Quadrillion Btu)				
Year	**Coal**	**Natural Gas**	**Petroleum**	**Fossil Fuels**
1965	13.055	15.775	16.521	45.351
1991	21.636	18.229	15.701	55.566
2014	20.287	26.516	18.441	65.244

156. Total Fossil fuel energy consumption in the U.S. climbed to 80.366 Quadrillion Btu in 2014, up substantially from such consumption in 1965.

U.S. Primary Energy Consumption by Source (Quadrillion Btu)				
Year	**Coal**	**Natural Gas**	**Petroleum**	**Fossil Fuels**
1965	11.581	15.769	23.246	50.596
1991	18.992	20.033	32.846	71.871
2014	17.991	27.592	34.783	80.366

157. Fossil fuel emissions from energy consumption in the U.S. climbed to 5.4 billion metric tons of CO_2 in 2014, up substantially from such emissions in 1965.

U.S. CO2 Emissions From Energy Consumption by Source (Million Metric Tons of CO2)				
Year	**Coal**	**Natural Gas**	**Petroleum**	**Total Fossil Fuels**
1965	1,075	828	1,483	3,386
1991	1,807	1,047	2,005	4,859
2014	1,713	1,441	2,249	5,404

158. In 2011, fossil fuel combustion in the U.S. accounted for 94% of CO_2 emissions.

159. The above emissions figures are from U.S. Government sources and, regrettably, underreport the amount of emissions that Defendants' actions have substantially caused. EPA uses a sector-based emission inventory, upon which the other Defendants also rely. A sector-based emission inventory accounts only for in-boundary emissions, and not those attributed to embedded emissions – emissions that account for the consumption of goods imported to the U.S. Defendants have not provided a national consumption-based inventory for CO_2 emissions, which would include all embedded CO_2 emissions for goods produced outside of the U.S. and consumed within the U.S.

160. In 2012, the U.S. was the largest producer of natural gas, producing a total that year of 24,058 billion cubic feet (Bcf). Also in 2012, the U.S. was second in "Total Primary Coal Production," with 1,016,458 thousand short tons; second in "Total Primary Energy Production," producing 79.212 Quadrillion Btu; and second in "Total Primary Energy Consumption," consuming 95.058 Quadrillion Btu.

161. In 2014, according to the United States Energy Information Administration ("EIA"), the U.S. was the largest producer of total petroleum and other liquids with 13,973 thousand barrels produced per day.

162. The U.S. is by far the dominant producer of both shale gas and tight oil in the world. Also, the U.S. is one of four countries in the world that is producing commercial volumes of either natural gas from shale formations (shale gas) or crude oil from shale formations (tight oil).

163. The aggregate actions by Defendants in allowing fossil fuel production, consumption, and emissions to increase in the U.S. since 1965 ignored science driven considerations of climate system protection. These aggregate actions were taken with deliberate indifference to the need for a national carbon budget or a national plan that includes an analysis of the cumulative impacts of Defendants' actions upon the climate system and with respect to the fundamental rights of the present and future generations.

B. Defendants Have Allowed Excessive Fossil Fuel Production on Federal Public Lands.

164. In 2013, 25% of all fossil fuels extracted in the U.S. originated on federal public lands.

165. In 2014, Defendant United States, through the President, DOI through BLM, DOD through Army Corps of Engineers, and EPA, authorized and oversaw the sale of 421 million tons of coal from federally-leased lands.

166. Since January 1990, DOI through BLM has leased 107 coal tracts, and associated coal production and revenues have grown. In 2015, the BLM reported that approximately 40% of all coal produced in the United States comes from federal lands. The United States has more coal deposits available than any other fossil fuel resource within its borders and, as of 2015, has 28% of the world's coal reserves.

167. In 1985, there were 18,849 recorded federal producing oil and gas leases issued by DOI through BLM. By 2014 there were 23,657 recorded federal producing oil and gas leases issued by DOI through BLM.

168. As of June 2014, DOI's BLM has authorized approximately 47,000 oil and gas leases on public lands, and approximately 95,000 oil and gas wells, with an additional 3,000 wells drilled annually by the oil and gas industry. The BLM oversees approximately 700 million subsurface acres of mineral estate. There are currently 36 million acres of federal land under lease for potential fossil fuel development in 33 states, pursuant to DOI's BLM authorization.

169. From 2009-2011, the President and DOI through BLM processed more applications for permits to drill oil and gas, despite receiving far fewer applications, than the prior administration from 2006-2008.

170. Since 1985, DOI through BLM has issued between 1,486 to 6,617 permits annually to drill on federal lands. BLM has approved approximately 99% of all received applications for permits to drill, without taking into consideration that such permits would endanger Plaintiffs or increase Plaintiffs' susceptibility to harm.

C. Defendants Subsidize the Fossil Fuel Industry

171. In addition to leasing federal public lands for fossil fuel exploitation, the United States subsidizes, funds, and subsidizes fossil fuel production and consumption.

172. The United States subsidizes the fossil fuel industry by undervaluing royalty rates for federal public leasing, as well as through royalty relief resulting in the loss of billions of dollars of foregone revenue. U.S. royalty rates are consistently less than state royalty rates. For example, Texas's royalty rate for leasing is double the federal percentage.

173. Through eleven federal fossil fuel production tax provisions, the United States incurs approximately $4.7 billion in annual revenue costs. Through a fossil fuel consumption subsidy, the United States annually forgoes approximately $3.4 billion in revenue.

174. The United States provides approximately $5.1 billion per year in tax provision subsidies to support fossil-fuel exploration.

175. Two tax code provisions for the benefit of the fossil fuel enterprise were introduced in the early 1900s. These provisions are still in place today, resulting in substantial revenue losses. The "intangible drilling costs" provision was introduced in 1916, 26 U.S.C. § 263(c); in 1926 the "percentage depletion allowance" provision was introduced, 26 U.S.C. § 613.

176. According to the International Monetary Fund ("IMF"), the United States is the world's top subsidizer of fossil fuels, in absolute terms, in the amount of $502 billion per year, which includes the IMF's accounting of negative externalities.

177. The United States has supported fossil fuel development through overseas public financing, primarily through the Export-Import Bank of the United States, an agency of the Office of the President. For example, through the Export-Import Bank of the United States, the Office of the President provided $14.8 billion in commitments for 78 transactions or projects in

the petroleum sector, including 49 transactions in Latin American, 14 in Africa, six in Russia/FSU, five in the Middle East, and four in Asia. In fiscal year 2010, the Export-Import Bank of the United States provided approximately $3 billion in financing for the Papua New Guinea LNG Project or Papua New Guinea Liquefied Natural Gas Project and $18 million for the Sangatta Surface Coal Mine in Indonesia. The Export-Import Bank of the United States also supported numerous coal and gas power plants.

178. The United States supports fossil fuel development by allowing the fossil fuel industry to avoid the true social cost of CO_2 emissions from fossil fuels. Based on EPA's social cost of carbon estimates, CO_2 emissions from fossil fuels have the potential to cause trillions of dollars in damages.

D. Defendants Recklessly Allow Interstate and International Transport of Fossil Fuels

179. Despite knowledge of the harm to Plaintiffs caused by the CO_2 emissions from fossil fuels, Defendants recklessly allow all interstate transport of fossil fuels. Despite knowledge of the harm to Plaintiffs caused by the CO_2 emissions from fossil fuels, Defendants recklessly authorize and/or permit the exportation and importation of fossil fuels and/or the facilities allowing the exports and imports of fossil fuels.

180. The Office of the President exercises permitting authority over the construction and operation of "pipelines, conveyor belts, and similar facilities for the exportation or importation of petroleum, [and] petroleum products." President Obama has failed to dismantle the U.S. fossil fuel edifice, adding an additional 100,000 miles to the 2.5 million miles of oil and gas pipelines within the nation.

181. A presidential exemption or federal license is required for all exports of crude oil to all destinations. In 2014, DOE oversaw the importation of 2,677,911 thousand barrels of

crude oil, and Commerce through BIS authorized the exportation of 126,152 thousand barrels of crude oil, both increases from 2013.

182. No natural gas can be exported or imported without DOE authorization through FERC. FERC permits all LNG export terminals, including Jordan Cove LNG Terminal. Since 1995, the U.S. has imported 71,730 Bcf of natural gas and exported 14,623 Bcf. In 2014, through DOE's authorization, 51,824 thousand barrels of natural gas plant liquids and liquefied refinery gases were imported and 257,948 thousand barrels of natural gas plant liquids and liquefied refinery gases were exported.

183. Although in 1975 Congress authorized the Office of the President to restrict coal exports under the Energy Policy and Conservation Act of 1975, 42 U.S.C. § 6212(a), the President has not exercised this authority to impose any significant export restrictions on coal. In fact, since 1990, the United States has promoted expanding coal exports. Coastal facilities through which coal may be exported are subject to federal approvals. In the Pacific Northwest alone, three new marine coal terminal projects are under various stages of federal permitting and review.

184. In 2011, the U.S. exported 107 million short tons of coal. In 2012, U.S. coal exports totaled 125 million short tons, the highest level of coal exports in over twenty years. Most recently, in 2014 the EIA reported that the U.S. imported 11 million short tons of coal and exported 97 million short tons of coal.

E. Defendants Recklessly Allow CO_2 Pollution From Combustion of Fossil Fuels

185. Either directly or through the control of the Federal Government, Defendants authorize the combustion of all fossil fuels in the U.S., including coal, oil, and gas. Such

combustion occurs primarily in the energy and refineries sector, the transportation sector, and the manufacturing sector.

186. In 2012, petroleum accounted for 36.5% of the total primary energy consumption in the U.S., the single largest source of energy consumption. All U.S. petroleum refineries are permitted and regulated by EPA.

187. In 2013, fossil fuel combustion from various industrial processes accounted for approximately 15% of total CO_2 emissions in the U.S. The EPA regulates these industrial processes.

188. The DOE establishes efficiency standards in buildings and appliances. These standards affect levels of energy consumption and combustion.

189. Since 1975, through the Corporate Average Fuel Economy ("CAFE") program, the United States has required manufacturers of vehicles sold in the U.S. to comply with fuel economy standards set by DOT. By controlling the fuel economy standards, Defendants have exercised control over CO_2 emissions in the transportation sector.

190. From 1996-2014, through tax breaks, the United States subsidized the purchase, and thus increased demand for, vehicles weighing more than 6,000 pounds ("SUVs"). SUVs are less fuel-efficient and emit greater quantities of CO_2 per mile than lighter-weight vehicles, other factors held equal.

191. In 2012, U.S. CO_2 equivalent emissions from transportation were 1,837 million metric tons. In 2012, CO_2 equivalent emissions from transportation of all vehicles in the U.S., including aviation, passenger cars, SUVs, heavy-duty trucks, freight rail, ships, and boats, were responsible for 28% of total U.S. greenhouse gas emissions.

III. THE JORDAN COVE LNG EXPORTS

192. Enacted in 1992, Section 201 of the Energy Policy Act mandates the authorization of natural gas imports from, or exports to, a nation with which the United States has a free trade agreement, without modification or delay, to any person applying for such authorization. Accordingly, under the Energy Policy Act, such natural gas imports and exports are automatically deemed consistent with the public interest. 15 U.S.C. § 717b(c).

193. Pursuant to Section 201 of the Energy Policy Act, on December 7, 2011, DOE, through the Office of Fossil Energy, issued DOE/FE Order No. 3041, granting long-term multi-contract authorization to Jordan Cove Energy Project, L.P. to export liquefied natural gas from Jordan Cove LNG Terminal in Coos Bay, Oregon, to free trade agreement nations. The DOE/FE Order authorizes the export of up to 13,140 Bcf of natural gas over 30 years. That quantity of natural gas would result in approximately 716.2 million metric tons of CO_2 emissions, more than all of the CO_2 emitted in 2012 by our nation's largest emitter, Texas.

194. Jordan Cove will be operational in the first quarter of 2018, according to the Vice President of the Jordan Cove Energy Project, LLC, seven years after receiving its export authorization from DOE.

195. Pursuant to its authorization, the Jordan Cove LNG L.P. has given notice to DOE that, by the end of 2015, even before it has all final approvals from other agencies, it will enter into "binding long-term liquefaction tolling service agreements" for the full liquefaction capacity of the export terminal.

196. The sources of natural gas for Jordan Cove LNG's exports authorized by DOE include suppliers operating in the Rocky Mountain region of the U.S., western Wyoming, northwestern Colorado, northern Utah, northern Nevada, and northern California.

197. In a letter of support for Jordan Cove LNG Terminal exports, Governor John Hickenlooper of Colorado wrote to DOE and FERC: "Jordan Cove is of specific interest to Colorado . . . The project terminal is the only LNG facility on the west coast that would directly link Colorado to new energy markets via the Ruby Pipeline which originates in northwest Colorado and carries natural gas from that region to states further west of Colorado."

198. Jordan Cove LNG will liquefy this natural gas for export at its proposed LNG export terminal in Coos Bay, Oregon. Jordan Cove plans to build a new power plant to provide the additional electricity needed to liquefy the natural gas for export. The proposed 420-MW South Dunes Power Plant would be the second-largest single source of greenhouse gas emissions in Oregon and would be the largest single source of CO_2 emissions in Oregon in 2020 if it were built. The Jordan Cove South Dunes Power Plant would emit 51.6 million tons of CO_2 over 30 years, or 1.72 million tons of CO_2 per year.

199. According to the EIA, liquefying natural gas requires the energy equivalent of 10% of the gas being exported.

200. The CO_2 emissions resulting from the Jordan Cove LNG Terminal exports and the South Dunes Power Plant emissions will harm Youth Plaintiffs who live in and around Oregon, as well as Future Generation Plaintiffs, by further endangering the climate system.

201. Youth Plaintiffs who live in Colorado are also adversely impacted by the opening up of an international market for the export of natural gas being extracted through hydraulic fracturing in the State of Colorado, and in the Rocky Mountain region of the U.S. generally, and then shipped by pipeline to Oregon for liquefaction and export abroad, ultimately to be burned, thereby causing additional CO_2 emissions. The Youth Plaintiffs from Colorado and Oregon are harmed by the fossil fuel exploitation in and running through their states, which will be

connected by the Pacific Connector Natural Gas Pipeline and 3,900 mile gas transmission system crossing the states of Washington, Oregon, Idaho, Wyoming, Utah, and Colorado.

IV. CURRENT SCIENCE ON GLOBAL CLIMATE CHANGE AND OCEAN ACIDIFICATION

202. There is a scientific consensus that climate change endangers humanity and nature. Present climate change is a consequence of anthropogenic GHGs, primarily CO_2, derived from the combustion of fossil fuels. The fossil fuel emissions have led to an energy imbalance and consequent dangerous disruption of the climate system upon which our nation and Plaintiffs depend.

203. Atmospheric CO_2 levels greater than 350 ppm cause this energy imbalance. That energy imbalance is now approximately 0.6 Watts/m2 averaged over the entire planet, equivalent to exploding more than 400,000 Hiroshima atomic bombs per day, 365 days per year, throughout our planet.

204. The 2014 National Climate Assessment acknowledged that "[t]he cumulative weight of the scientific evidence . . . confirms that climate change is affecting the American people now, and that choices we make will affect our future and that of future generations."

205. Greenhouse gases in the atmosphere act like a blanket over the Earth, trapping energy received from the sun. More GHG emissions in the atmosphere means that more energy is retained on Earth, with less being radiated back into space.

206. A substantial portion of every ton of CO_2 emitted by humans persists in the atmosphere for as long as a millennium or more. Therefore, the impacts associated with past and current CO_2 emissions will be borne by our children and future generations. Our nation will continue to warm in response to concentrations of CO_2 from past emissions, as well as future emissions.

207. The current level of atmospheric CO_2 concentration caused by human-made climate change has already taken our country into the danger zone.

208. In 2013, the atmospheric CO_2 concentration exceeded 400 ppm for the first time in recorded history. The pre-industrial concentration was 280 ppm. Emissions must be rapidly and systematically reduced to well below the natural rate of draw-down into Earth's forests, soils, and crust in order to restore energy balance and avoid crossing tipping points that set in motion disastrous impacts to human civilization and nature.

209. March 2015 was the first month that the monthly global average concentration of CO_2 was 400 ppm for an entire month, reaching levels that have not been seen for about three million years. CO_2 concentrations have risen more than 120 ppm since pre-industrial times, with half of that rise occurring since 1980.

210. Earth has now warmed about 0.9°C above pre-industrial temperatures. That temperature is equivalent to the maximum temperatures of the Holocene era, the period of climate stability over the last 10,000 years that enabled human civilization to develop. Warming is expected to hit 1°C in 2015-16.

211. Civilization and the water sources, crops, foods, wildlife, marine life, and coastlines on which people depend have developed within a very narrow set of climatic conditions. It will be nearly impossible for Plaintiff to adapt to all of the current climate change impacts in the quick time-frame in which they will occur. The survival and well-being of Plaintiffs is significantly threatened by climate destabilization.

212. Declaring the United States' energy system to be unconstitutional would resolve the controversy between the parties. Defendants would abide by the decree and bring the energy system into constitutional compliance, thereby redressing a substantial cause of Youth Plaintiffs'

constitutional injuries and eliminating a source of their significant risk of sustaining worsening injuries. Any "[f]urther or proper relief" that may be granted based on the declaratory judgment, 22 U.S.C. § 2202, regarding Defendants' national energy system policies and practices would further aid in reducing the earth's energy imbalance, the severity of the Youth Plaintiffs' injuries, the severity of Defendants' disruption of the climate system, and the severity and pace of ocean acidification, within the lifetimes of Youth Plaintiffs.

V. EXISTING IMPACTS OF CLIMATE CHANGE ACROSS THE NATION

213. Climate change is already damaging human and natural systems, causing loss of life and pressing species to extinction. Unless arrested by government action informed by science, climate change will impose increasingly severe impacts on our nation and others, potentially to the point of collapse.

214. Recent scientific reports, for example, warn of the disintegration of both the West Antarctic ice sheet and the East Antarctic ice sheet, causing multi-meter sea-level rise. Such will devastate coastal regions, including much of the eastern seaboard. Millions of Americans and trillions of dollars in property damage will result. The risk of this devastation approaches certainty, unless fossil fuel emissions are rapidly phased out. The recent studies more fully than prior studies account for the potential for non-linear ice sheet melting, which could raise the sea level by 10 feet (or more) by mid-century.

215. If carbon pollution is not quickly abated, there is near scientific certainty that humanity will suffer sea level rise of several meters, submerging much of the eastern seaboard of the U.S., including Florida, as well as other low lying areas of Europe, the Far-East, and the Indian sub-continent.

216. Well-documented and observable impacts from the changes in Earth's climate system highlight that the current level of atmospheric CO_2 concentration has already taken our nation into a danger zone. Increased CO_2 emissions are already resulting not only in the warming of land surfaces, but also in the warming of oceans, increasing atmospheric moisture levels, rising global sea levels, and changing rainfall and atmospheric air circulation patterns that affect water and heat distribution.

217. One key observable change is the rapid increase in recorded surface temperatures. As a result of increased atmospheric CO_2 from human activities, our nation has been warming as scientists predicted as early as 1965. The increased concentrations of greenhouse gases in our atmosphere have raised global surface temperature by approximately 0.9° Celsius. In the last thirty years, Earth has been warming at a rate three times faster than that over the previous one hundred years. 2014 was the hottest on record, according to the National Aeronautics and Space Administration ("NASA").

218. As expected, our country's sea levels have also risen from glacial and ice cap melting, as well as from the thermal expansion of the ocean itself. Based on measurements taken from 1993 to 2010, sea levels have been rising at an average rate of 3.2 millimeters per year. Though sea levels rose about 170.18 millimeters (0.2 meters) over the last century, within the last decade, the rate of sea-level rise has nearly doubled. Rising seas have caused and will cause flooding in coastal and low-lying areas. The combination of rising sea levels and more severe storms creates conditions conducive to severe storm surges during high tides. In coastal communities this can overwhelm levees and sea walls, as witnessed during Hurricane Katrina, Hurricane Sandy, and other major storms.

219. Today, rising sea levels are submerging low-lying lands, eroding beaches, converting wetlands to open water, exacerbating coastal flooding, and increasing the salinity of estuaries and freshwater aquifers. Between 1996 and 2011, twenty square miles of land were inundated by rising sea levels along the Atlantic coast. Coastal states, such as Maryland and Louisiana, are experiencing wetland loss due to rising sea levels. Scientists have predicted that wetlands in the mid-Atlantic region of the U.S. cannot withstand a seven-millimeter per year rise in sea levels.

220. Similarly, climate change is already causing, and will continue to result in, more frequent, extreme, and costly weather events, such as floods and hurricanes. The annual number of major tropical storms and hurricanes has increased over the past 100 years in North America, coinciding with increasing temperatures in the Atlantic sea surface. Across the U.S., nine of the top ten years for extreme one-day precipitation events have occurred since 1990.

221. Changes in our country's water cycle as a result of climate change also increase the potential for, and severity of, droughts. Even in arid regions, increased precipitation is likely to cause flash flooding, and will be followed by drought. These changes are already occurring. Droughts in parts of the Midwestern, Southeastern, and Southwestern U.S. have increased in frequency and severity within the last fifty years, coinciding with rising temperatures. Most of the recent heat waves can be attributed to human-caused climate disruption.

222. In higher altitude and latitude regions, including in mountainous areas, more precipitation is falling as rain rather than snow. With early snow melt occurring because of climate change, the reduction in snowpack can aggravate water supply problems. The snow cover extent of North America in June 2015 was 0.75 million square miles, the second lowest ever recorded behind June 2012, with 0.68 million square miles. The average area of North

America covered by snow decreased by about 3,500 square miles per year between 1972 and 2013.

223. Arctic sea ice is declining precipitously and is expected to disappear completely in the coming decades. In 2013, Arctic sea ice extent for September was 700,000 square miles below the 1981-2010 average for the same period. In 2014, the Arctic sea ice extent for September was 463,000 square miles below average. In 2015, the maximum extent of the Arctic sea ice was the lowest in the satellite record. With less sea ice, less solar radiation is reflected back to space, a positive feedback loop serving to amplify regional and global warming.

224. Similarly, there has been an increase in permafrost temperatures and melting in Alaska. Substantial methane releases from thawing permafrost have already been observed in Alaska. Because much of the Alaskan permafrost overlays old peat bogs that sequester methane, permafrost melting ill release methane that will further increase global warming to even more dangerous levels. CO_2 and methane released from thawing permafrost could contribute as much as 0.4°F to 0.6°F of warming by 2100.

225. Mountain glaciers are receding nationwide because of warming temperatures. In 2010, Glacier National Park in Montana had only twenty-five glaciers larger than twenty-five acres, as opposed to 150 such glaciers in 1850. In the Brooks Range of northern Alaska, all of the glaciers are in retreat and in southeastern Alaska, 98% are in retreat.

226. The melting of mountain glaciers is particularly serious in areas that rely on snow melt for irrigation and drinking water supply. In effect, a large snow pack or glacier acts as a supplemental reservoir or water tower, holding a great deal of water in the form of ice and snow through the winter and spring and releasing it in the summer when rainfall is lower or absent. The water systems of the western U.S., particularly in California and Oregon, heavily rely on this

natural water storage. Yet as temperatures warm, not only will these areas lose this supplemental form of water storage, but severe flooding is also likely to increase as rainfall accelerates the melting of glaciers and snow packs.

227. Changes in water supply and water quality will also impact agriculture in the U.S. Increased heat and associated issues such as pests, crop diseases, and weather extremes, will all impact crop and livestock production and quality. For example, anthropogenic climate change in the U.S. has produced warmer summers, enabling the mountain pine beetle to produce two generations of beetles in a single summer season, where it had previously only been able to produce one. In Alaska, the spruce beetle is maturing in one year when it had previously taken two years. The expansion of the forest beetle population has killed millions of hectares of trees across the U.S. and resulted in millions of dollars lost from decreased tourism revenues.

228. Agriculture is extremely susceptible to climate change, threatening food security. Higher temperatures generally reduce yields of desirable crops while promoting pest and weed proliferation. Climate change is predicted to decrease crop yields, increase crop prices, decrease nationwide calorie availability, and increase malnutrition.

229. Increased wildfires, shifting precipitation patterns, higher temperatures, and drought conditions also threaten forest industries and private property. In the U.S., 72,000 wildfires have been recorded, on average, each year since 1983. Nine of the ten years with the largest acreage burned have occurred in the fourteen years since 2000.

230. Increased CO_2 emissions are having a severe negative impact on the health of our oceans. The oceans absorb approximately 25-30% of global CO_2 emissions, resulting in a 30% increase in surface ocean acidity.

231. Ocean acidification has been rising at a geologically unprecedented rate. Currently, acidity is rising at least 100 times faster than at any other period during the last 100,000 years, threatening marine life, including human food sources. Organisms at risk include: corals, oysters, clams, scallops, mussels, abalone, crabs, geoducks, barnacles, sea urchins, sand dollars, sea stars, sea cucumbers, many common single-celled organisms and protists that act as prey, and various forms of seaweed. The loss of some of these species can cause entire food webs to collapse.

232. By 2100, the surface waters of the ocean could be nearly 150% more acidic, resulting in a pH that the oceans have not experienced for more than 20 million years. In recent years, ocean acidification has already contributed to oyster reproductive failures impacting the Pacific Northwest's shellfish industry, including oyster harvests in Coos Bay, Oregon. In addition, warmer water in regional estuaries, such as Puget Sound, may contribute to a higher incidence of harmful blooms of algae linked to paralytic shellfish poisoning and may result in adverse economic impacts from beach closures affecting recreational harvesting of shellfish, such as razor clams.

233. The rise in ocean acidity places coral reefs at considerable risk. Given that coral reefs are among the most biologically diverse and economically important ecosystems, the impact of their loss cannot be overstated. Coral reefs provide shelter to a quarter of all marine species.

234. For major U.S. coral reefs, projections show extensive bleaching and dramatic loss of shallow coral cover occurring by 2050, and near complete loss by 2100. In Hawai'i, coral cover is projected to decline from 38% (current coral cover) to approximately 5% by 2050, with further declines thereafter. In Florida and Puerto Rico, where present-day temperatures are

already close to bleaching thresholds, coral is projected to disappear even faster. Given the severity of these impacts, it is inevitable that these effects would be felt across our country, and by future generations.

235. Climate change and ocean acidification are threatening the survival and wellbeing of plants, fish, wildlife, and biodiversity. As many as one in six species are threatened with extinction due to climate change. Many more species that do not face extinction will face changes in abundance, distributions, and species interactions that cause adverse impacts for ecosystems and humans.

236. Salmon have historically been associated with human society and been a major contributor to the economy. Due to physical changes to freshwater ecosystems resulting from climate change, salmon populations have declined significantly across the country. The optimum water temperature for salmonids is 55° to 64° Fahrenheit; massive fish kills have occurred at or above 71° Fahrenheit. As of 2015, four salmon species in eighteen locations are on NOAA's Endangered and Threatened Marine Species list; in five locales they are extinct. Scientists from the Salmon 2100 Project, housed in an EPA research laboratory in Oregon, have predicted that, despite current recovery efforts, salmon runs are not likely to sustain themselves through 2100 and other recovery strategies must be adopted to combat climatic shifts.

237. Fossil fuel extraction and combustion, and the resulting climate change, is already contributing to an increase in allergies, asthma, cancer, cardiovascular disease, stroke, heat-related morbidity and mortality, food-borne diseases, injuries, toxic exposures, mental health and stress disorders, and neurological diseases and disorders. Climate change threatens the basic requirements for maintaining health like clean air, pure water, sufficient food, and adequate shelter. It also increases occurrence of infectious diseases.

238. In the U.S., 8,000 Americans have died from heat-related illnesses over the last three decades. There are now twice as many Lyme disease cases than were reported in 1991. In the past three decades, the percentage of Americans with asthma has more than doubled, and climate change is putting those Americans at greater risk of requiring hospitalization. Longer growing seasons allow for ragweed to produce pollen for a longer period, resulting in aggravated and prolonged allergies for millions of Americans.

239. Climate change also harms our national security, adding tension even in stable regions of the world. The DOD acknowledged the severity of climate change and its connections to national security when, in its 2014 Quadrennial Defense Review, climate change was classified as a "threat multiplier": "Pentagon leaders have identified three main ways that climate change will affect security; accelerating instability in parts of the world wracked by drought, famine, and climate-related migrations; threatening U.S. military bases in arid Western states or on vulnerable coastlines; and increasing the need for U.S. forces to respond to major humanitarian disasters."

240. By 2025, 40% of the world's population will be living in countries experiencing significant water shortages, while sea-level rise could cause displacement of tens, or even hundreds, of millions of people. As a result, the U.S. will experience an additional need to accept immigrant and refugee populations as droughts increase and food production declines in other countries. Increased extreme weather events (such as hurricanes) will also present an increased strain on foreign aid provided by the U.S. and materially increased deployment of our country's military forces.

241. Our nation is already observing significant impacts from the relatively small amount of warming that has occurred. These impacts constitute harbingers of far more

dangerous changes to come. If unabated, continued GHG emissions, especially CO_2, will initiate dynamic climate change and effects that spin out of control for Plaintiffs and future generations as the planet's energy imbalance triggers amplifying feedbacks and the climate system and biological system pass critical tipping points. Such changes would be irreversible on any time scale relevant to Plaintiffs and threaten their survival.

VI. FUTURE NATIONAL CLIMATE IMPACTS EXPECTED BY 2050 AND 2100

242. By 2050, Youth Plaintiffs will range in age from 43 to 55.

243. By 2100, global mean sea level rise is projected to be at 56 inches, if sea level rise occurs linearly. Based on that global projection, it is predicted that the U.S. will experience a 56-65 inch sea level rise on the East Coast, up to a 76-87 inch sea level rise in areas surrounding the Gulf of Mexico, and a 47-65 inch sea level rise along the West Coast. Sea level rise could be even more catastrophic depending upon the rate of disintegration of the Antarctic ice sheets. Sea level rise will result in increased erosion and the loss of land. In Washington and Oregon, more than 140,000 acres of coastal lands lie within 40 inches in elevation of high tide. Among the most vulnerable parts of the coast is the heavily populated south Puget Sound region, which includes Olympia, Tacoma, and Seattle, Washington.

244. New scientific evidence demonstrates that a non-linear process could trigger much greater sea level rise in a time frame of 50 to 200 years.

245. Global temperature increases are projected to increase by 9° Fahrenheit by 2100. In the U.S., the largest temperature increases are expected in the Mountain West and Northern regions consisting of 14° and 12° Fahrenheit, respectively.

246. In an EPA-funded study, "Ensemble Projections of Wildfire Activity and Carbonaceous Aerosol Concentrations Over the Western United States in the Mid-21st Century,"

scientists estimated that, by 2050, wildfire activity is expected to double in the Southwest, Pacific Northwest, Rocky Mountains Forest, and the Eastern Rockies/Great Plains regions. In the western U.S., increases in temperature are projected to cause an increase of 54% in annual mean area burned by 2050 relative to the present day. Changes in area burned are ecosystem dependent, with the forests of the Pacific Northwest and Rocky Mountains experiencing the greatest increases of 78% and 175%, respectively. Increased area burned results in near doubling of wildfire carbonaceous aerosol emissions by midcentury. The increase in wildfires and the associated emissions will have harmful impacts on health. Polar bears are just one of the species listed as endangered due to the impacts of a changing climate on their habitat. If emissions continue to rise at current rates throughout the 21st century, polar bears will likely be extirpated from much of their present-day range, including Alaska's North Slope Borough. Sea ice, which polar bears depend upon to access their prey, is projected to disappear by 2100. Experts project there will be massive species extinction this century.

247. Human-induced warming, if business continues as usual, is projected to raise average temperatures by about 6° to 11° Fahrenheit in this century. Heat waves would then increase in frequency, severity, and duration. For example, by the end of this century, if Defendants do not dramatically reduce emissions, the number of heat-wave days in Los Angeles is projected to double, and the number of heat-wave days in Chicago to quadruple, resulting in many more deaths.

248. While potential climate change impacts on water resources vary between regions, the western states will be particularly impacted by drought, reduced precipitation, increased evaporation, and increased water loss from plants.

249. Warmer temperatures particularly impact the Pacific Northwest because reduced snowpack and earlier snowmelt alter the timing and amount of water supplies. By 2050, snowmelt is projected to shift three to four weeks earlier than the 20th century average. Since earlier snowmelt will result in warmer and shallower rivers and streams in summer and fall, diseases and parasites that tend to flourish in warmer water threaten to eliminate up to 40% of remaining Northwest salmon populations by 2050.

250. By 2050, biologists conservatively expect decreases in salmon populations will lead to 11% to 14% less annual carcass biomass available to bald eagles, our country's national bird.

251. Defendants, through the Department of Homeland Security, have acknowledged mass human migrations are a potential impact of climate change, and have developed a mass migration plan. Estimates put the number of climate-induced migrants worldwide at 200 million by 2050.

252. Climate change projections estimate an increase in monetary damages associated with inland flooding across most of the contiguous U.S. Approximately 190,000 of our nation's bridges are vulnerable to increased inland flooding caused by climate change, with adaptation costs estimated at $170 billion for the period from 2010 to 2050. In the Northwest, a region including Washington and parts of Oregon and Idaho, 56% of inland bridges are identified as vulnerable in the second half of the 21st Century.

253. In 2100 alone, adaptation costs associated with the 50-year, 24-hour storm moniker in 50 U.S. cities are estimated to range from $1.1 to $12 billion. Further, climate change is projected to result in $5.0 trillion in damage to coastal properties in the contiguous U.S. through 2100.

254. Due to extreme temperature increases and unsuitable working conditions, our nation's labor force may experience a drastic decline in labor hours and lost wages. In 2100, a projected 1.8 billion labor hours will be lost along with approximately $170 billion in lost wages.

255. By 2050, climate change is expected to add thousands of additional premature deaths per year nationally from combined ozone and particle health effects. Higher surface temperatures, especially in urban areas, promote the formation of ground–level ozone, which has adverse impacts on human health by irritating the respiratory system, reducing lung function, aggravating asthma, and inflaming and damaging cells that line the airways. Climate change is expected to increase the frequency of high ozone pollution events by 50% to 100% by 2050.

VII. RESTORING THE ENERGY BALANCE AND PROTECTING AGAINST A DANGEROUS DESTABILIZED CLIMATE SYSTEM IS POSSIBLE BASED ON BEST AVAILABLE SCIENCE

256. An urgent and critical undertaking is required to protect the climate system and cause a cessation of Defendants' infringement of Plaintiffs' constitutional rights. Defendants must act rapidly and effectively to phase out CO_2 emissions so as to restore Earth's energy balance. Absent such immediate action, the Federal Government must cease permitting and authorizing fossil fuel projects so as not to exacerbate the climate crisis and further infringe on Plaintiffs' constitutional rights.

257. Global atmospheric CO_2 concentrations must be reduced to below 350 ppm by the end of the century in order to limit the period of CO_2 overshoot and stabilize our climate system.

258. To reduce global atmospheric CO_2 concentrations to 350 ppm by the end of this century would require a near-term peak in CO_2 emissions and a global reduction in CO_2 emissions of at least 6% per year, alongside approximately 100 gigatons of carbon drawdown this century from global reforestation and improved agriculture.

259. Reducing the global atmospheric CO_2 concentration to 350 ppm by the end of the century is also necessary in order to protect oceans and marine life. As a result of CO_2 emissions, of which approximately 25% are absorbed by the oceans, humans, marine organisms, and ecosystems are already harmed and will increasingly be harmed by ocean acidification. To prevent the further impairment or depletion of the oceans and oceanic resources, it is imperative that Defendants take immediate measures to return atmospheric CO_2 concentrations to below 350 ppm by the end of this century.

260. Targets that aim to limit atmospheric CO_2 concentrations at or below 450 ppm are insufficient to avoid severe, irreversible damage as a result of ocean acidification and ocean warming. For example, the weight of recent evidence establishes that, at a prolonged 450 ppm level, coral reefs will become extremely rare, if not extinct, and at least half of coral-associated wildlife will become either rare or extinct. As a result, coral reef ecosystems will likely be reduced to crumbling frameworks with few calcareous corals remaining.

261. Current actions by Defendants will not yield atmospheric CO_2 levels of 350 ppm by the end of the century, are not based on any scientific standard, and are not adequate to prevent and remedy the degradation, diminution, or depletion of our country's public trust resources.

262. Defendants' national energy system makes it extremely difficult for Plaintiffs to protect their vital natural systems and a livable world. Defendants must act immediately to restore Earth's energy balance and put the nation on a trajectory that is consistent with reducing the atmospheric CO_2 concentrations to no more than 350 ppm by 2100.

VIII. THE FEDERAL GOVERNMENT'S ADMISSIONS OF ITS PUBLIC TRUSTEE OBLIGATIONS

263. Defendants are trustees of national public natural resources. The national public natural resources include the air (atmosphere), seas, shores of the sea, water, and wildlife.

264. In 1968, Congress declared that the Federal Government has "continuing responsibility" to "use all practicable means" so as to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations." 42 U.S.C. § 4331(b)(1).

265. Congress also declared that the Federal Government is among the "trustees for natural resources" and directed Defendants to act as trustees, on behalf of the public beneficiaries, of all natural resources under their management and control. 42 U.S.C. § 9607 (f)(1); *see also* 33 U.S.C. § 2706 (Oil Pollution Act).

266. Pursuant to Congressional direction, the President designated the following federal agencies to act on behalf of the public as trustees for natural resources: the USDA, Commerce, DOD, DOE, and DOI. In this context, the term natural resources "means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled (referred to as 'managed or controlled') by the United States (including the resources of the exclusive economic zone)." 40 C.F.R. § 300.600(a); *see* 42 U.S.C. § 9607 (f)(2)(A).

267. According to the National Research Council, "fisheries within federal waters are held in public trust for the people of the United States."

268. According to the U.S. Commission on Ocean Policy, "the U.S. government holds ocean and coastal resources in the public trust – a special responsibility that necessitates balancing different uses of those resources for the continued benefit of all Americans."

269. According to NOAA, it "has an obligation to conserve, protect, and manage living marine resources in a way that ensures their continuation as functioning components of marine ecosystems, affords economic opportunities, and enhances the quality of life for the American public." Further, NOAA affirmed that air is a natural resource under the public trust doctrine, and that the Federal Government shares jurisdiction with states over such public trust resources.

270. NOAA admits that one principle of the public trust doctrine is: "The public has fundamental rights and interests in natural resources such as the sea, the shore, and the air."

271. The DOI admits that the public trust doctrine "now encompasses all natural resources," and that natural resources include "land, fish, wildlife, biota, air, water, ground water, drinking water supplies and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the U.S." The DOI admits that the "Department of the Interior, Department of Commerce (delegated to NOAA), Department of Energy, Department of Agriculture, Department of Defense, and any other Federal Land Managing Agency" are "Federal Trustees."

272. The State Department admitted "an obligation to current and future generations to take action" on climate change.

273. The United States has taken the position before federal courts that the Federal Government is a trustee over important national natural resources, including wildlife, and has both rights and obligations under the public trust doctrine.

274. By way of example, in a 2010 complaint filed against British Petroleum, the United States alleged: "Natural resources under the trusteeship of the United States and other sovereigns have been injured, destroyed, or lost as a result of discharged oil and associated

removal efforts. The discharged oil is harmful to natural resources exposed to the oil, including aquatic organisms, birds, wildlife, vegetation, and habitats."

275. Since 1965, Defendants have known they each have mandatory duties to abate CO_2 pollution from fossil fuels in order to stop global climate change: "The pervasive nature of pollution, its disregard of political boundaries including state lines, the national character of the technical, economic and political problems involved, and the recognized Federal responsibilities for administering vast public lands which can be changed by pollution, for carrying out large enterprises which can produce pollutants, for preserving and improving the nation's natural resources, all make it mandatory that the Federal Government assume leadership and exert its influence in pollution abatement on a national scale."

276. Defendants have exerted their influence, control, custodianship, and sovereignty over the polluted atmosphere and the exploitation of fossil fuels, but they have not abated the harm. Because Defendants have put Plaintiffs in danger and increased Plaintiffs' susceptibility to harm, Defendants are responsible for taking action to protect Plaintiffs. In fact, Defendants have exacerbated the harm to our atmosphere in violation of Plaintiffs' constitutional rights.

276-A. This Court should issue a declaratory judgment to resolve this actual constitutional case and controversy between these young Plaintiffs and the government Defendants as to whether Defendants' national energy system has violated and continues to violate Plaintiffs' constitutional rights as described herein. Until the Court resolves this constitutional controversy, these young Plaintiffs will continue to be harmed and put at extreme risk by Defendants' energy system and Defendants will continue policies and practice, made up of many aggregate actions, to perpetuate an unconstitutional energy system, avoiding the constitutional check of Article III courts, and undermining the separation of powers that the

Framers intended. Without declaratory relief in the first instance, Defendants will be free to, and will, continue its policies and practices that make the nation's energy system in a manner that "may hasten an environmental apocalypse" and carry out "the Nation's willful destruction." Declaratory judgment will eliminate the current and substantial legal controversy and inform the parties of the unlawfulness or lawfulness of the government's conduct, especially as to whether Defendants' conduct causes a deprivation of rights secured by the Constitution. It has long been held that there is an expectation in our democracy that government officials will comply with a declaratory judgment. *Utah v. Evans*, 536 U.S. 452, 463-64 (2002). If the constitutional controversy is resolved in their favor by declaratory judgment, Plaintiffs reserve the right to seek further relief as deemed appropriate and consistent with the separation of powers between the three branches of government. Plaintiffs come before this Court to defend and secure their fundamental rights under the Constitution, before it is too late.

CLAIMS FOR RELIEF

First Claim for Relief
Violation of the Due Process Clause of the Fifth Amendment

277. Plaintiffs hereby re-allege and incorporate by reference each of the allegations set forth above.

278. The Constitution recognizes and preserves the fundamental right of citizens to be free from government actions that harm life, liberty, and property. These inherent and inalienable rights reflect the basic societal contract of the Constitution to protect citizens and posterity from government infringement upon basic freedoms and basic (or natural) rights. The rights to life, liberty, and property have evolved and continue to evolve as technological advances pose new threats to these fundamental rights and as new insights reveal discord between the Constitution's central protections and the conduct of government. As set forth in the

Preamble of the Constitution, these rights belong to present generations as well to our "Posterity" (or future generations).

279. Our nation's climate system, including the atmosphere and oceans, is critical to Plaintiffs' rights to life, liberty, and property. Our nation's climate system has been, and continues to be, harmed by Defendants. Defendants harmed our nation's climate system with full appreciation of the results of their acts. Plaintiffs' substantive Fifth Amendment rights have been infringed because Defendants' national energy system is a substantial factor in causing atmospheric CO_2 to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Plaintiffs. The present CO_2 concentration and continuing CO_2 emissions – a function, in substantial part, of Defendants' historic and continuing permitting, authorizing, and subsidizing of fossil fuel extraction, production, transportation, and utilization – endangers Plaintiffs' lives, liberties, and property.

280. For the past fifty years, Defendants have known about the danger to Plaintiffs' safety created by carbon pollution. Acting with full appreciation of the consequences of their acts, Defendants knowingly caused, and continue to cause, dangerous interference with our atmosphere and climate system. Defendants have knowingly endangered Plaintiffs' health and welfare by approving and promoting fossil fuel development, including exploration, extraction, production, transportation, importation, exportation, and combustion, and by subsidizing and promoting this fossil fuel exploitation. All of these deliberate actions by Defendants have cumulatively resulted in dangerous levels of atmospheric CO_2, which deprive Plaintiffs of their fundamental rights to life, liberty, and property.

281. Plaintiffs are suffering harm by the dangerous aggregate actions and deliberate omissions of Defendants. Defendants' dangerous interference with a stable climate system is

having such irreversible and catastrophic consequences as to shock the conscience. The conduct, if not fundamentally altered, will have even worse consequences for future generations.

282. The affirmative aggregate acts of Defendants have been and are infringing on Plaintiffs' right to life by causing dangerous CO_2 concentrations in our nation's atmosphere and dangerous interference with our country's stable climate system.

283. The affirmative aggregate acts of Defendants have been and are infringing on Plaintiffs' liberties by placing Plaintiffs in a position of danger with a destabilized climate system and dangerous levels of CO_2 in our country's atmosphere. Defendants' aggregate acts of increasing CO_2 concentrations in the atmosphere have been and are harming Plaintiffs' dignity, including their capacity to provide for their basic human needs, safely raise families, practice their religious and spiritual beliefs, maintain their bodily integrity, and lead lives with access to clean air, water, shelter, and food.

284. After knowingly creating this dangerous situation for Plaintiffs, Defendants continue to knowingly enhance that danger by allowing fossil fuel production, consumption, and combustion at dangerous levels, thereby violating Plaintiffs' substantive Fifth Amendment due process rights.

285. After placing Plaintiffs in a position of climate danger, Defendants have continued to act with deliberate indifference to the known danger they helped create and enhance. A destabilized climate system poses unusually serious risks of harm to Plaintiffs' lives and their bodily integrity and dignity. As described at length, *supra*, these risks are so substantial as to shock the conscience. Defendants have had longstanding, actual knowledge of the serious risks of harm and have failed to take necessary steps to address and ameliorate the known, serious risk to which they have exposed Plaintiffs. With deliberate indifference,

Defendants have not implemented their own plans for climate stabilization or any other comprehensive policy measures to effectively reduce CO_2 emissions to levels that would adequately protect Plaintiffs from the dangerous situation of climate destabilization.

286. By exercising sovereignty over the air space, the federal public domain, and the national energy system, by assuming authority and regulatory responsibility over fossil fuels, and by allowing and permitting fossil fuel production, consumption, and its associated CO_2 pollution, Defendants have also assumed custodial responsibilities over the climate system within its jurisdiction and influence. In assuming control of our nation's atmosphere, air space, the federal domain, national energy system, fossil fuels, and climate system, Defendants have imposed severe limitations on Plaintiffs' freedom to act on their own behalf to secure a stable climate system and, therefore, have a special relationship with Plaintiffs, and a concomitant duty of care to ensure their reasonable safety. By and through the national energy system resulting in dangerous interference with a stable climate system, Defendants have abrogated their duty of care to protect Plaintiffs' fundamental rights to life, liberty, and property. In their custodial role, Defendants have failed to protect Plaintiffs' needs with respect to the climate system in violation of the Fifth Amendment.

287. Furthermore, Defendants' national energy system, if not fundamentally altered without delay, will effect a complete taking of some of Plaintiffs' property interests by virtue of the sea level rise that is an incident of Defendants' unlawful actions.

288. The United States, through DOE, is depriving Plaintiffs of their fundamental rights to be free from the dangerous government acts, which infringe on their fundamental rights to life, liberty, and property, by requiring and giving approval for the exportation and importation of natural gas resources in the U.S. through section 201 of the Energy Policy Act of

1992. The extraction, interstate transport, liquefaction, exportation, and ultimate combustion of U.S. natural gas, facilitated by section 201 of the Energy Policy Act, increase carbon pollution and exacerbate already-dangerous climate instability. Section 201 of the Energy Policy Act is unconstitutional on its face and as applied to Plaintiffs through DOE's issuance of the section 201 permit for Jordan Cove LNG Terminal in Coos Bay, Oregon. The Energy Policy Act and DOE's actions taken pursuant to the Energy Policy Act deprive Plaintiffs of their fundamental rights to life, liberty, and property.

289. The affirmative aggregate acts of Defendants in the areas of fossil fuel extraction, production, transportation, importation and exportation, and consumption, as described in this Complaint, are causing dangerous concentrations of CO_2 in the atmosphere and a dangerous climate system, and irreversible harm to the natural systems critical to Plaintiffs' rights to life, liberty, and property. The affirmative aggregate acts of Defendants cannot and do not operate to secure a more compelling state interest than Plaintiffs' fundamental rights to life, liberty, and property.

WHEREFORE, Plaintiffs pray for relief as more fully set forth below.

Second Claim for Relief
Violation of Equal Protection Principles
Embedded in the Fifth Amendment

290. Plaintiffs hereby re-allege and incorporate by reference each of the allegations set forth above.

291. Defendants have violated the equal protection principles of the Fourteenth Amendment, embedded in the Due Process Clause of the Fifth Amendment.

292. The affirmative aggregate acts of Defendants in the areas of fossil fuel production and consumption irreversibly discriminate against Plaintiffs' exercise of their fundamental rights

to life, liberty, and property, and abridge central precepts of equality. The affirmative aggregate acts of Defendants in the areas of fossil fuel production and consumption have caused and are causing irreversible climate change. As a result, the harm caused by Defendants has denied Plaintiffs the same protection of fundamental rights afforded to prior and present generations of adult citizens. The imposition of this disability on Plaintiffs serves only to disrespect and subordinate them. The principles of the Equal Protection Clause, which are embedded in the Due Process Clause, prohibit the Federal Government's unjustified infringement of Plaintiffs' right to be free from Defendants' aggregate acts that destabilize our nation's climate system whose protection is fundamental to Plaintiffs' fundamental rights to life, liberty, and property. Because fundamental rights are at stake and are being infringed by the affirmative aggregate acts of Defendants, this Court must apply strict scrutiny for a denial of equal protection of the law.

293. The Fifth Amendment's Due Process Clause and the Fifth Amendment's equal protection principles are profoundly connected but set forth distinct principles, which are implicated here. The reason why a stable climate system is inherent in our fundamental rights to life, liberty, and property becomes more clear and compelling because of the grave and continuing harm to children that results from discriminatory laws and actions that prevent a stable climate system. The application of these dual principles requires strict scrutiny of Defendants' discriminatory laws and actions.

294. Plaintiffs are separate suspect classes in need of extraordinary protection from the political process pursuant to the principles of Equal Protection. As evidenced by their affirmative aggregate acts, Defendants have a long history of deliberately discriminating against children and future generations in exerting their sovereign authority over our nation's air space and federal fossil fuel resources for the economic benefit of present generations of adults.

Plaintiffs are an insular minority with no voting rights and little, if any, political power or influence over Defendants and their actions concerning fossil fuels. Plaintiffs have immutable age characteristics that they cannot change.

295. Future generations do not have present political power or influence, have immutable characteristics, and are also an insular minority.

296. Plaintiffs have no avenues of redress other than this Court, as Plaintiffs cannot challenge or alter Defendants' national energy system. Plaintiffs will disproportionately experience the irreversible and catastrophic impacts of an atmosphere and oceans containing dangerous levels of CO_2 and a dangerous destabilized national climate system. The adults living in our country today will not experience the full scope of catastrophic harms that will be experienced by Plaintiffs.

297. For purposes of the present action, Plaintiffs should be treated as protected classes because the overwhelming majority of harmful effects caused by the acts of Defendants will occur in the future. As Plaintiffs include citizens presently below the voting age and future generations, this Court should determine they must be treated as protected classes, and federal laws and actions that disproportionately discriminate against and endanger them must be invalidated.

298. The affirmative aggregate acts of Defendants reflect a *de facto* policy choice to favor influential and entrenched short-term fossil fuel energy interests to the long-term detriment of Plaintiff—precisely the sort of dysfunctional majoritarian outcome that our constitutional democratic system is designed to check. Such a check is especially appropriate here because our country will soon pass the point where Plaintiffs will no longer be able to secure equal protection of the laws and protection against an uninhabitable climate system.

299. The Energy Policy Act's mandatory authorization for export and import of natural gas discriminates against Plaintiffs by exacerbating already-dangerous levels of atmospheric CO_2 and a dangerous climate system, the consequences of which will be irreversible and catastrophic in Plaintiffs' lifetimes. The Energy Policy Act, section 201, creates a disproportionate impact on suspect classes. Historical evidence demonstrates Defendants' discriminatory and intentional acts against children and future generations in order to foster the short-term economic and energy interests of other classes, including corporations. The Energy Policy Act unconstitutionally deprives minor children and future generations of equal protection of the law because the full impacts of excess atmospheric CO_2 and the dangerous climate system, resulting from the U.S. government-authorized natural gas exports and imports, will be disproportionately imposed upon minor children, including Youth Plaintiffs, and for millennia by future generations.

300. Section 201 of the Energy Policy Act violates Plaintiffs' rights of equal protection under the law.

301. The affirmative aggregate acts of Defendants unconstitutionally favor the present, temporary economic benefits of certain citizens, especially corporations, over Plaintiffs' rights to life, liberty, and property.

WHEREFORE, Plaintiffs pray for relief as more fully set forth below.

Third Claim for Relief
The Unenumerated Rights Preserved for the People
by the Ninth Amendment

302. Plaintiffs hereby re-allege and incorporate by reference each of the allegations set forth above.

303. Protecting the vital natural systems of our nation for present and future generations is fundamental to our scheme of ordered liberty and is deeply rooted in this nation's

history and tradition. Without a stable climate system, both liberty and justice are in peril. Our nation's obligation to protect vital natural systems for Posterity has been recognized throughout American history, particularly through our country's conservation legislation. Our nation's founders intended that the federal government would have both the authority and the responsibility to be a steward of our country's essential natural resources. This stewardship is clear from the delegation of powers to manage lands and the conveyed authority to address major challenges facing our nation as a whole. Among the implicit liberties protected from government intrusion by the Ninth Amendment is the right to be sustained by our country's vital natural systems, including our climate system.

304. Fundamental to our scheme of ordered liberty, therefore, is the implied right to a stable climate system and an atmosphere and oceans that are free from dangerous levels of anthropogenic CO_2. Plaintiffs hold these inherent, inalienable, natural, and fundamental rights.

305. The affirmative aggregate acts of Defendants have unconstitutionally caused, and continue to materially contribute to, dangerous levels of atmospheric and oceanic CO_2 and a destabilized climate system.

306. The affirmative aggregate acts of Defendants have infringed, and continue to infringe, on Plaintiffs' fundamental constitutional rights.

WHEREFORE, Plaintiffs pray for relief as more fully set forth below.

Fourth Claim for Relief
Violation of the Public Trust Doctrine

307. Plaintiffs hereby re-allege and incorporate by reference each of the allegations set forth above.

308. Plaintiffs are beneficiaries of rights under the public trust doctrine, rights that are secured by the Ninth Amendment and embodied in the reserved powers doctrines of the Tenth

Amendment and the Vesting, Nobility, and Posterity Clauses of the Constitution. These rights protect the rights of present and future generations to those essential natural resources that are of public concern to the citizens of our nation. These vital natural resources include at least the air (atmosphere), water, seas, the shores of the sea, and wildlife. The overarching public trust resource is our country's life-sustaining climate system, which encompasses our atmosphere, waters, oceans, and biosphere. Defendants must take affirmative steps to protect those trust resources.

309. As sovereign trustees, Defendants have a duty to refrain from "substantial impairment" of these essential natural resources. The affirmative aggregate acts of Defendants in the areas of fossil fuel production and consumption have unconstitutionally caused, and continue to cause, substantial impairment to the essential public trust resources. Defendants have failed in their duty of care to safeguard the interests of Plaintiffs as the present and future beneficiaries of the public trust. Such abdication of duty abrogates the ability of succeeding members of the Executive Branch and Congress to provide for the survival and welfare of our citizens and to promote the endurance of our nation.

310. As sovereign trustees, the affirmative aggregate acts of Defendants are unconstitutional and in contravention of their duty to hold the atmosphere and other public trust resources in trust. Instead, Defendants have alienated substantial portions of the atmosphere in favor of the interests of private parties so that these private parties can treat our nation's atmosphere as a dump for their carbon emissions. Defendants have failed in their duty of care as trustees to manage the atmosphere in the best interests of the present and future beneficiaries of the trust property, including, but not limited to, Plaintiffs. Such abdication of duty abrogates the

sovereign powers of succeeding members of the Executive Branch and Congress to provide for the survival and welfare of our Nation's citizens and to promote the endurance of our Nation.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for relief as set forth below:

1. Pursuant to 28 U.S.C. § 2201 and this Court's Article III authority, enter a judgment declaring the United States' national energy system that creates the harmful conditions described herein has violated and continues to violate the Fifth Amendment of the U.S. Constitution and Plaintiffs' constitutional rights to substantive due process and equal protection of the law;
2. Pursuant to 28 U.S.C. § 2201 and this Court's Article III authority, enter a judgment declaring the United States' national energy system that creates the harmful conditions described herein has violated and continues to violate the public trust doctrine;
3. Pursuant to 28 U.S.C. § 2201 and this Court's Article III authority, enter a judgment declaring that § 201 of the Energy Policy Act has violated and continues to violate the Fifth Amendment of the U.S. Constitution and Plaintiffs' constitutional rights to substantive due process and equal protection of the law.
4. Pursuant to this Court's declaratory judgment, 28 U.S.C. § 2202, and this Court's Article III authority, if deemed necessary, just and proper, issue an appropriate injunction restraining Defendants from carrying out policies, practices, and affirmative actions that render the national energy system unconstitutional in a manner that harms Plaintiffs;

5. Award Plaintiffs their costs and reasonable attorneys' fees;

6. Pursuant to 28 U.S.C. § 2202 and this Court's Article III authority, grant such other and further relief as the Court deems just and proper, to redress the constitutional violations so declared.

Respectfully submitted this 8th day of June, 2023,

s/ Julia A. Olson

JULIA OLSON (OR Bar 062230)
julia@ourchildrenstrust.org
Our Children's Trust
1216 Lincoln Street
Eugene, OR 97401
Tel: (415) 786-4825

PHILIP L. GREGORY (*pro hac vice*)
pgregory@gregorylawgroup.com
Gregory Law Group
1250 Godetia Drive
Redwood City, CA 94062
Tel: (650) 278-2957

ANDREA K. RODGERS (OR Bar 041029)
andrea@ourchildrenstrust.org
Our Children's Trust
3026 NW Esplanade
Seattle, WA 98117
Tel: (206) 696-2851

Attorneys for Plaintiffs

Exhibit A

Declaration of Dr. James E. Hansen in Support of Plaintiffs' Complaint for Declaratory and Injunctive Relief

In the matter
Kelsey Cascadia Rose Juliana, Xiuhtezcatl Tonatiuh M. et al. v. United States, Barack Obama et al. (D. Or. Aug. 12, 2015)

I, DR. JAMES E. HANSEN, hereby declare as follows:

1. I make and offer this declaration in my capacity as guardian for Plaintiffs Sophie K. and Future Generations, and as an expert in the field of climate science.

2. I am Sophie's grandfather.

3. I am also a US citizen, an Adjunct Professor at Columbia University's Earth Institute, and Director of the Climate Science, Awareness and Solutions program at the Earth Institute, Columbia University. I am also the immediate past Director of the NASA Goddard Institute for Space Studies and a member of the United States National Academy of Sciences.

I have testified before the United States Senate and House of Representatives on many occasions, and in court on several occasions, in support of efforts to reduce reliance on carbon-intense energy from fossil fuels and rapidly transition to carbon-free energy.

4. My training is in physics and astronomy, with early research on the clouds of Venus. Since the late 1970s, I have focused my research on Earth's climate, especially human-made climate change. Most recently, I have dedicated significant effort towards outlining the actions that must be undertaken by communities, states, the U.S. Government, and others, in order to preserve a viable climate system for young people, future generations, and other life on Earth. For the Court's more complete reference, I have attached my full CV as **Exhibit 1** to this declaration.

5. In my opinion, this lawsuit is made necessary by the at-best schizophrenic, if not suicidal, nature of U.S. climate and energy policy.

6. On the one hand, our federal government has recognized a fundamental duty to protect the public resources of our nation; to safeguard our lives and property; to secure the blessings of liberty; to ensure equal protection under the law for "ourselves and our posterity";

and, pursuant to the United Nations Framework Convention on Climate Change (UNFCCC), to "protect the climate system for present and future generations."

7. On the other hand, the federal government continues to permit and otherwise support industry's efforts to exploit fully our reserves of gas, coal, and oil, even in the face of increasing overwhelming evidence that our continued fossil fuel dependency is driving the atmospheric concentration of carbon dioxide (CO_2) far beyond that in human experience, and constitutes one of the greatest threats to our nation, human civilization and nature alike.

8. These antinomies cannot be explained away as the product of ignorance. Our government has known for decades that the continued burning of coal, oil and natural gas causes global warming and risks dangerous and uncontrollable destabilization of the planet's climate system on which our nation and future generations depend.

9. Moreover, the government has, during this last half decade, promoted the exploitation and consumption of fossil fuels in myriad ways. They include: permitting of fossil fuel development projects within the U.S.; financing of overseas fossil fuel development projects through the Export Import Bank and World Bank; issuance of leases and permits for oil, gas and coal extraction and development on contiguous federal and OCS lands; and subsidies through tax credits, deductions, preferences, percentage depletion, expensing, favorable loans and guarantees, accelerated amortization, below fair-market-value lease and royalty requirements, and other favorable tax treatment for fossil fuel development. This listing is partial.

10. It is now clear, as the relevant scientific community has established for some time, that continued high CO_2 emissions from fossil fuel burning will further disrupt Earth's climate system, and that, in turn, will impose profound and mounting risks of ecological, economic and social collapse. In my view, our government's actions and inactions that cause or contribute to

those emissions violate the fundamental rights of Sophie, other Youth, and future generations. Those violated rights include the right to life, the right to liberty, the right to property, the right to equal protection under the law, the right to government protection of public trust resources, and the right to retain a fighting chance to preserve a habitable climate system.

11. Here, then, I will address the fundamental context in which those fundamental rights violations arise. That context includes Earth's present and growing energy imbalance and the still real, but highly time-limited, opportunity to rapidly phase-down CO_2 emissions, restore energy balance, and stabilize the climate system.

12. The Court will find a more detailed treatment of these points, with supporting explanatory material and data, in two recent papers of which I am the lead author.

13. The first, Assessing ''Dangerous Climate Change'': Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature, was published in late 2013, in conjunction with 17 colleagues. In that study we established that continued fossil fuel burning up to even 2°C above the preindustrial level[1] likely would cause large climate change with disastrous and irreversible consequences, so that actions to rapidly phase out CO_2 emissions are urgently needed to reduce the atmospheric CO_2 concentration to no more than 350ppm and restore Earth's energy balance. I have attached *Dangerous Climate Change* hereto as **Exhibit 2**,[2] and I hereby incorporate by reference, into this declaration, its analyses and conclusions.

[1] We are already 0.9°C above the preindustrial temperature. Indeed, in 2015 global temperature is reaching a level ~1°C above the preindustrial level, but the high 2015 level is partly a temporary effect of a strong El Nino, a natural oscillation of tropical Pacific Ocean temperature.

[2] Published by PLOS One (Dec. 3, 2013) and available at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0081648

14. The second, Ice Melt, Sea Level Rise and Superstorms: Evidence from Paleoclimate Data, Climate Modeling, and Modern Observations that 2°C Global Warming is Highly Dangerous, was published this month in conjunction with 16 colleagues. In it we conclude that, if CO_2 emissions are allowed such that energy is continuously pumped at a high rate into the ocean, then multi-meter sea level rise will become practically unavoidable, with consequences that may threaten the very fabric of civilization. I have attached *Ice Melt, Sea Level Rise and Superstorms* hereto as **Exhibit 3**,[3] and hereby incorporate by reference into this declaration its analyses and conclusions.

I. PRESENT AND LOOMING CLIMATE CRISES, AND A PATH TO STABILITY

15. As indicated above, our late-2013 study provides a detailed treatment of our present predicament and the route that must be taken to sufficiently reduce atmospheric CO_2 to preserve a habitable climate system. *See* **Exhibit 2**. Our most recent work, establishing that nonlinear melting of Earth's major ice sheets is likely within a century, among other things, if fossil fuel emissions continue unabated, adds an additional element of immediacy to what, for too long, has been treated in practical terms as, at best, a distant but growing complication. *See* **Exhibit 3**.

16. I outline and summarize these matters here, before proceeding to a further explanation of them.

17. **First**: Human burning of fossil fuels has disrupted Earth's energy balance. In response, the planet is heating up – with no end in sight, unless we alter our present path. Atmospheric CO_2 concentration, for example, is now at its highest level in 3 million years, and

[3] *See also*: http://www.atmos-chem-phys-discuss.net/15/20059/2015/acpd-15-20059-2015.pdf

global surface temperatures now have reached the prior maximum of the Holocene era, the period of relatively moderate climate that, over the last 10,000 years, enabled civilization to develop.

18. **Second**: We are observing impacts of the relatively small amount of warming that has already occurred, and these constitute harbingers of far more dangerous change to come. We can discuss the observable consequences, and their implications, but the key point is that, if unabated, continued carbon emissions will initiate dynamic climate change and effects that spin out of human control, as the planet's energy imbalance triggers amplifying feedbacks and the climate and biological systems pass critical tipping points. Sea-level rise provides a key metric here.

19. **Third**: There is still time and opportunity to preserve a habitable climate system -- if we pursue a rational course. I will outline the glide path that we think remains feasible, though further delay in taking effective action will consign that effort to failure. Objectively, then, the situation is urgent and what governments and other decision-makers do, or do not do, today to reduce carbon pollution matters immensely.

II. OUR PLANET IS NOW OUT OF ENERGY BALANCE

20. In Chart 1, we show global fossil fuel CO_2 emissions on an annual basis from the burning of coal, oil, and natural gas, and from cement production and flaring, along with the total emissions from these major sources. Although it is more than twenty years since 170 nations agreed to limit fossil fuel emissions in order to avoid dangerous human-made climate change, the stark reality – as illustrated here – is that global emissions have accelerated. Specifically, the growth rate of fossil fuel emissions increased from 1.5%/year during 1973–2000 to 2.6%/year in 2000–2014 (Chart 1(a)), due in the main to increased utilization of coal, oil, gas and cement (Chart 1(b)).

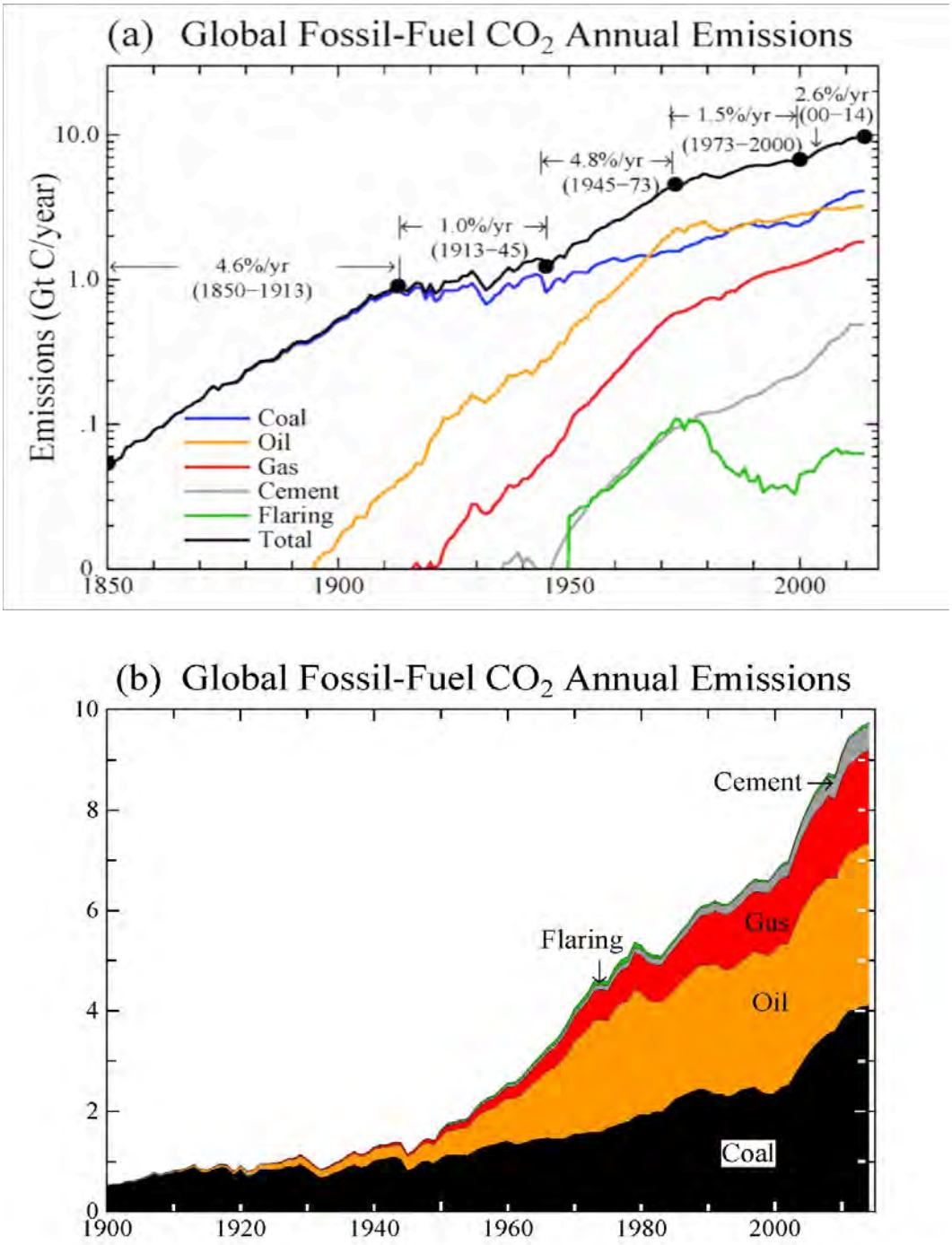


Chart 1: **CO_2 Annual Emissions From Fossil Fuel Use And Cement Manufacture**
Source: *Dangerous Climate Change* (**Exhibit 2** to this Declaration, at Fig. 1), updated through 2014 from http://www.columbia.edu/~mhs119/CO2Emissions/.

21. Our increased emissions are reflected, at least in part, in the rising concentration of atmospheric CO_2, as is illustrated in Chart 2[4] that is based on readings taken at the Mauna Loa, Hawaii, observatory. The CO_2, atmospheric level is now approximately 400 ppm, over 40 percent more than the preindustrial level.

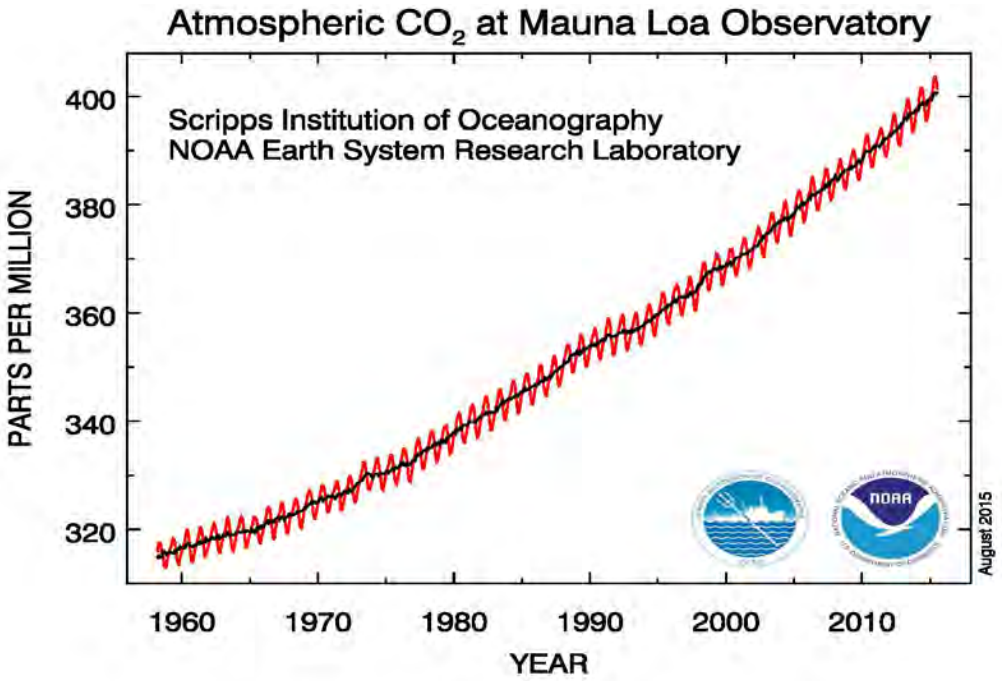


Chart 2: From Noaa's Earth System Research Laboratory
at http://www.esrl.noaa.gov/gmd/ccgg/trends/#mlo_full.

22. Moreover, the *increase* in the atmospheric CO_2 concentration is itself speeding up, as is illustrated in Chart 3.[5] The annual mean rate of CO_2 growth more than doubled from 0.85ppm in the 1960-70 period to 2.0ppm in 2000-2010.

[4] *From* http://www.esrl.noaa.gov/gmd/ccgg/trends/#mlo_growth

[5] *Id*.

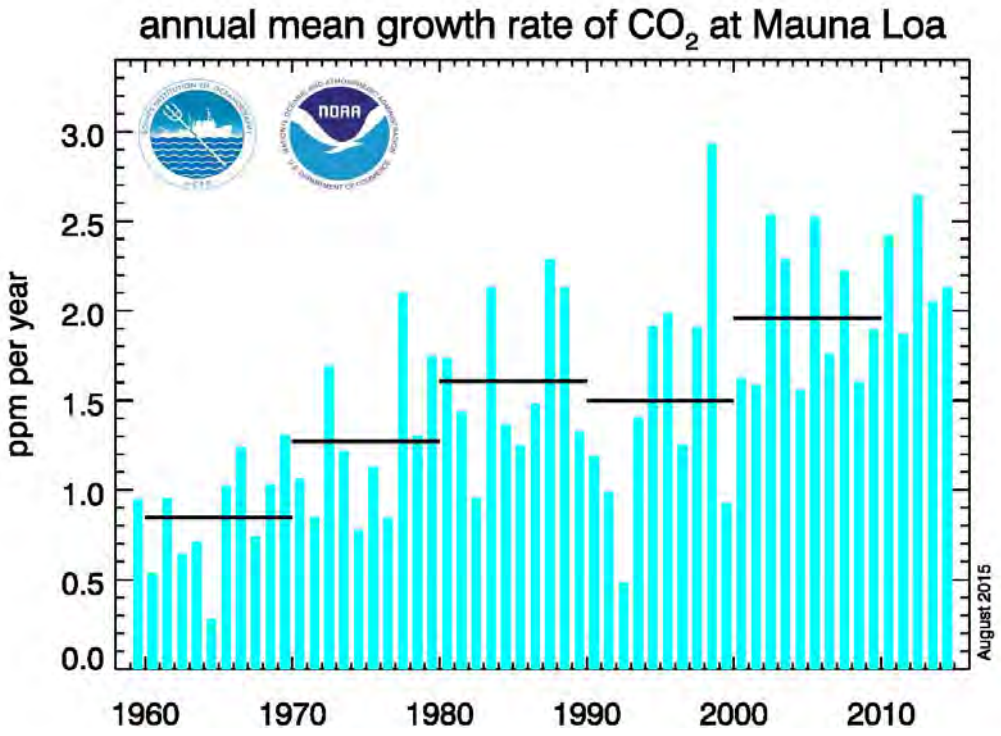


Chart 3: From Noaa's Earth System Research Laboratory
at http://www.esrl.noaa.gov/gmd/ccgg/trends/#mlo_growth.

23. This increased concentration of CO_2 and other GHGs in the atmosphere operates to reduce Earth's heat radiation to space, thus causing an energy imbalance – less energy going out than coming in. This imbalance causes Earth to heat-up until it again radiates as much energy to space as it absorbs from the sun.

24. In point of fact, warming of Earth caused by the increasingly thick CO_2 "blanket" persisted even during the recent five-year solar minimum from 2005-2010. Had changes in insolation been the dominant forcing, the planet would have had a negative energy balance in that period, when solar irradiance was at its lowest level in the period of accurate data, i.e., since the 1970s. Instead, even though much of the greenhouse gas forcing had been expended in causing observed 0.9°C global warming to date, the residual positive forcing from CO_2 emissions

overwhelmed the negative solar. This illustrates, unequivocally, that it is human activity, and not the sun, that is the dominant driver of recent climate change.

25. In terms of responsibility for our present predicament, I will note that it is true, as we can illustrate with the aid of Chart 4 (a) (left side), that in recent years, CO_2 emissions from China have exceeded those from the U.S.

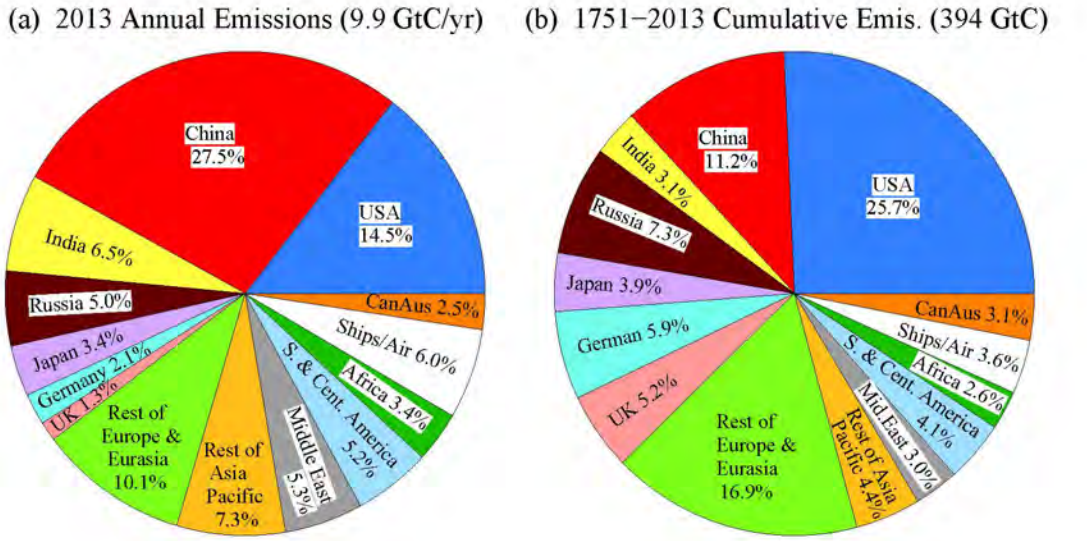


Chart 4: Fossil Fuel CO_2 Emissions
Source: *Dangerous Climate Change* (Exhibit 2 to this Declaration at Fig. 11)
updated through 2013 at http://www.columbia.edu/~mhs119/CO2Emissions/Emis_moreFigs/.

26. However, in light of the long residence time of CO_2 following its injection into the atmosphere, it is a nation's sum total of its emissions that is the more proper measure of its responsibility for already-realized and latent climate change. *See* Chart 4 (b) (right side). That chart illustrates that the United States is more responsible than any other for the present dangerously-highly atmospheric CO_2 concentration.

27. Here, I believe that a further word about the atmospheric residence time of CO_2 is in order, and we can do that with the aid of Chart 5 (left side).

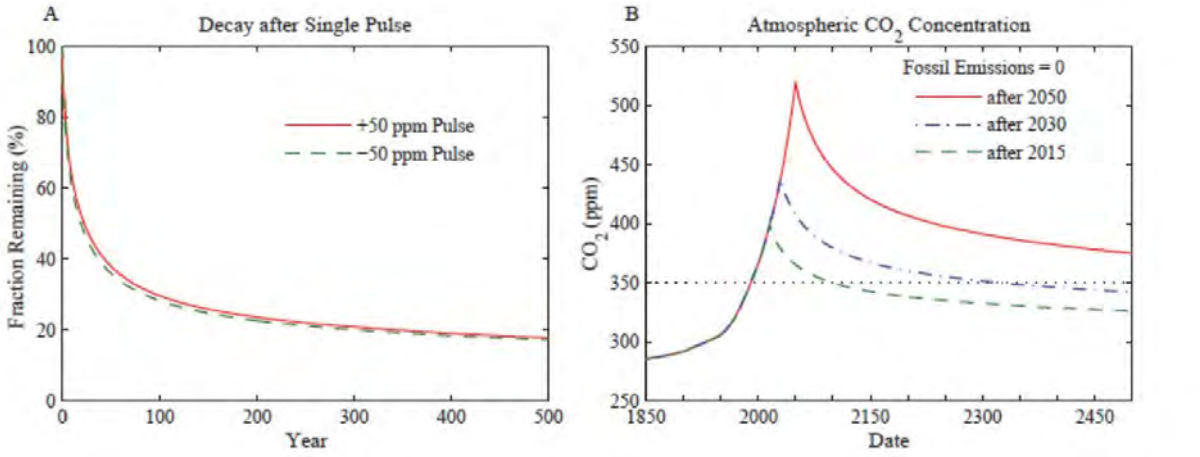


Chart 5: Decay Of Atmospheric CO_2 Perturbations
Source: *Dangerous Climate Change* (Exhibit 2 to this Declaration at Fig. 4). (A) Instantaneous injection or extraction of CO_2 with initial conditions at equilibrium. (B) Fossil fuel emissions terminate at the end of 2015, 2030, or 2050 and land use emissions terminate after 2015 in all three cases, i.e., thereafter there is no net deforestation.

28. A pulse of CO_2 injected into the air decays by half in about 25 years, as CO_2 is taken up by the ocean, biosphere and soil, but nearly one-fifth remains in the atmosphere after 500 years. Indeed, that estimate is likely optimistic, in light of the well-known nonlinearity in ocean chemistry and saturation of carbon sinks, implying that the airborne fraction probably will remain larger for a century and more. It requires hundreds of millennia for the chemical weathering of rocks to eventually deposit all of this initial CO_2 pulse on the ocean floor as carbonate sediments.

29. The critical point here is that carbon from fossil fuel burning remains in the climate system, with much of it in the atmosphere, and thus continues to affect the climate system for many millennia.

30. It is in part for this reason – the atmospheric persistence of CO_2 – that our national contribution to the problem is so large. Moreover, we can observe that, as compared with that of other major CO_2-emitting nations, our national contribution to the global climate crisis is not only

largest in absolute amount (Chart 4b), it dwarfs the contributions of the most populous nations on a per capita basis. Chart 6.

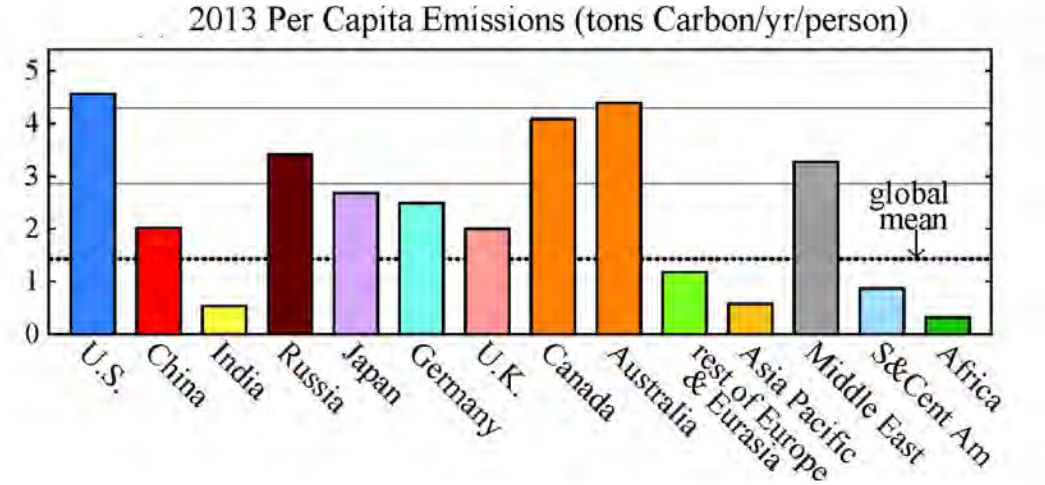


Chart 6: **Cumulative Per Capita Carbon Dioxide Emissions**
Source: www.columbia.edu/~mhs119/YoungPeople/.

31. Turning, now to Chart 7, we see the upward march of recent average global surface temperature.

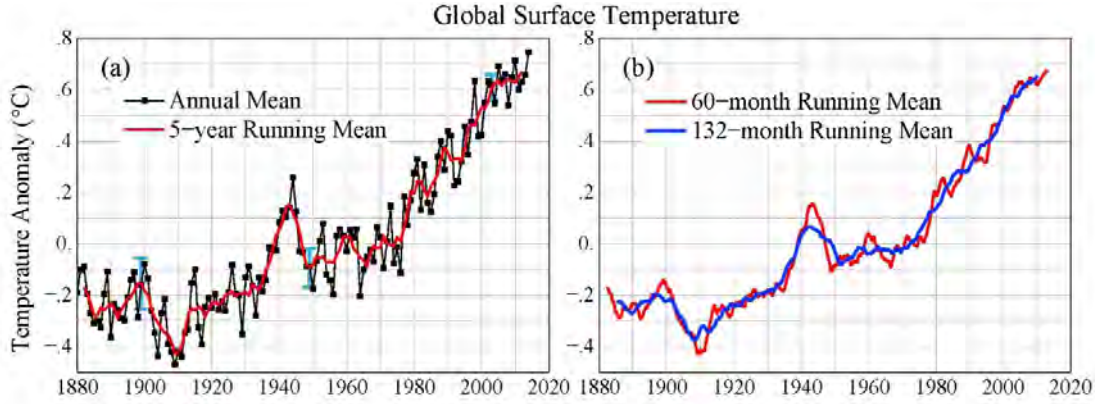


Chart 7: **Global Surface Temperature Anomaly (60-Month And 132-Month Running Means) With A Base Period Of 1951-1980**
Source: *Dangerous Climate Change* (Exhibit 2 to this Declaration at Fig. 3), updated at http://www.columbia.edu/~mhs119/Temperature/.

32. Earth has now warmed about 0.9°C above the pre-industrial level. That is now close to, and probably slightly above, the prior maximum of the Holocene era – the period of relatively stable climate over the last 10,000 years that has enabled human civilization to develop.

33. The warming increases Earth's radiation to space, thus reducing Earth's energy imbalance. However, because of the ocean's great thermal inertia, it requires centuries for the climate system to reach a new equilibrium consistent with a changed atmospheric composition. The planet's energy imbalance confirms that substantial additional warming is "in the pipeline". That energy imbalance is now measured by an international fleet of more than 3000 submersible floats that plumb the depths of the world's ocean measuring the increasing heat content.

34. Earth's energy imbalance now averages about 0.6 Watts/m^2 averaged over the entire planet, but I am uncertain whether this conveys to the Court the scale of what is going on. I can note that the total energy surplus is 300 trillion joules per second, but that large number may still be insufficiently evocative. Accordingly, it may be more useful to observe, and with equal validity, that Earth's energy imbalance is equivalent to exploding more than 400,000 Hiroshima atomic bombs per day, 365 days per year. That is how much extra energy Earth is now gaining each day because of our use of the atmosphere as a waste dump for our carbon pollution.

35. We can turn now to Chart 8.

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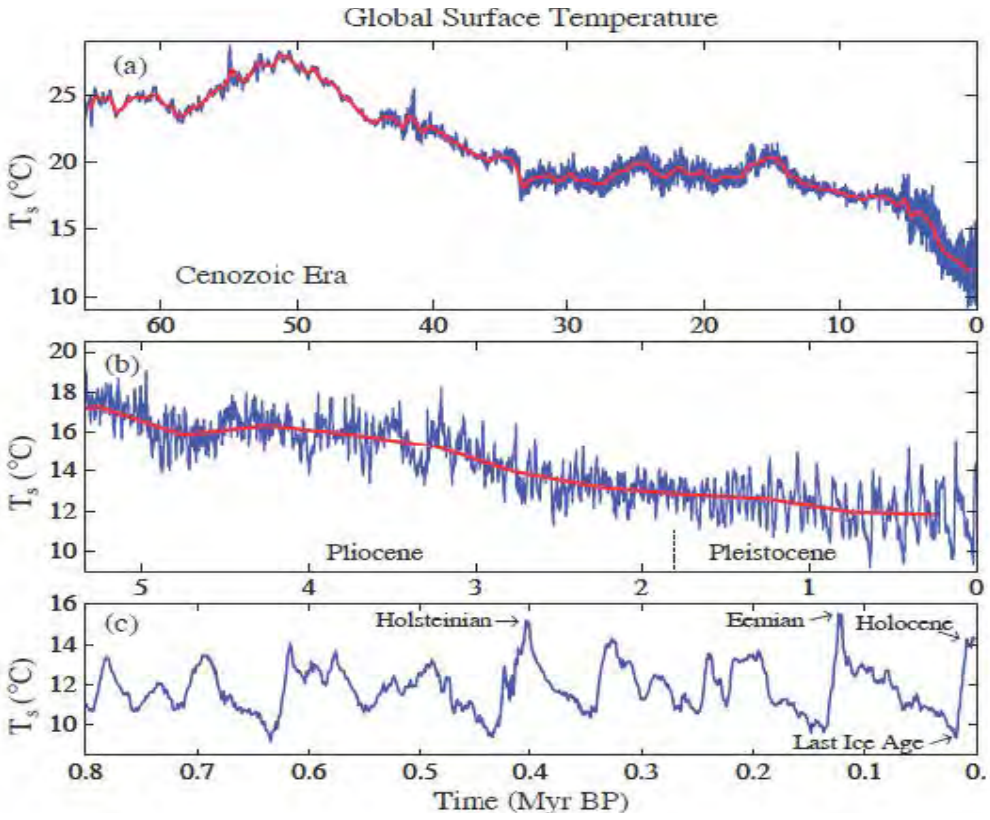


Chart 8: **Surface Temperature Estimate for the Past 65.5 Myr, Including An Expanded Time Scale for (B) The Pliocene and Pleistocene and (C) The Past 800 000 Years**
Source: J. Hansen, et al, *Climate Sensitivity, Sea level and Atmospheric Carbon Dioxide*, Phil Trans R Soc A (2013), Fig. 4.

36. Here, we summarize the average global surface temperature record of the last 65 million years. This record is based on high-resolution ice core data covering the most recent several hundred thousand years, and ocean cores on time scales of millions of years. It provides us with insight as to global temperature sensitivity to external forcings such as added CO_2, and sea level sensitivity to global temperature. It also provides quantitative information about so-called "slow" feedback processes – such as melting ice sheets and lessened surface reflectivity attributable to darker surfaces resulting from melting ice sheets and reduced area of ice.

37. Several relevant conclusions can be drawn. First, the mechanisms that account for the relatively rapid oscillations between cold and warm climates were the same as those operating today. Those past climate oscillations were initiated not by fossil fuel burning, but by slow insolation changes attributable to perturbations of Earth's orbit and spin axis tilt. However, the mechanisms that caused these historical climate changes to be so large were two powerful amplifying feedbacks: the planet's surface albedo (its reflectivity, literally its whiteness) and atmospheric CO_2.

38. Second, the longer paleoclimate record shows that warming coincident with atmospheric CO_2 concentrations as low as 450 ppm may have been enough to melt most of Antarctica. Global fossil fuel emissions – towards which, as I noted above, our nation has contributed more than any other – have already driven up the atmospheric CO_2 concentration to approximately 400 ppm – up from 280 ppm of the preindustrial era.

39. I conclude that the present level of CO_2 and its warming, both realized and latent, is already in the dangerous zone. Indeed, we are now in a period of overshoot, with early consequences that are already highly threatening and that will rise to unbearable unless action is taken without delay to restore energy balance at a lower atmospheric CO_2 amount. We can turn now to a brief review of the increasingly unacceptable, but still avoidable, consequences.

III. UNABATED EMISSIONS MAY DEVASTATE OUR COASTS, CIVILIZATION AND NATURE AS WE KNOW IT

40. I will start with the ocean, in light of our most recent research.

41. While I have postulated previously that major ice sheet disintegration and resulting sea level rise is likely to be nonlinear in the event of continued high fossil fuel impacts, my concern had been based largely on heuristic grounds. Now, utilizing multiple lines of evidence – including satellite gravity measurement, surface mass balances, and satellite radar altimetry – it

has become clear, regrettably, that ice mass losses from Greenland, West Antarctica and parts of East Antarctica are growing nonlinearly, with doubling times so far this century of approximately 10 years.

42. My colleagues and I expect the growth rate for ice mass loss in Greenland to slow, based on the most recent few years of data, but because of amplifying feedbacks described in our paper we also think it likely that Antarctic ice mass loss will continue to climb exponentially – again, if fossil fuel emissions are not rapidly abated. This prospect alone cries out for urgent national and international action to constrain carbon pollution, considering that complete disintegration of the Totten glacier in East Antarctica could raise sea levels by approximately 6-7m; that ice fronted by the Cook glacier in East Antarctica could add 3-4m of sea rise; and that West Antarctic ice fronted by Amundsen Sea glaciers have the potential to raise sea level an additional *3-4m*. *See* **Exhibit 3** at 41.

43. In the light of this and related information, we have concluded that humanity faces "nearly certainty of eventual sea level rise of at least . . . 5-9m if fossil fuel emissions continue on a business-as-usual course." *See* **Exhibit 3** at PDF page 31. Much of the U.S. eastern seaboard,[6] as well as low-lying areas of Europe, the Indian sub-continent, and the Far East, would then be submerged. *See* Chart 9.

[6] Western U.S. cities too are vulnerable, to the degree that parts of them are relatively low-lying. It is estimated, for example, that sea level rise of "only" 10 feet (approximately 3 meters) will inundate over 4,000 acres (and over 3,000 homes) in Seattle, nearly 3,000 acres (and over 13,000 homes) in San Francisco, and over 4,000 acres (and nearly 10,000 homes) in San Diego. *See* Climate Central's "Surging Seas" project at http://sealevel.climatecentral.org/ .

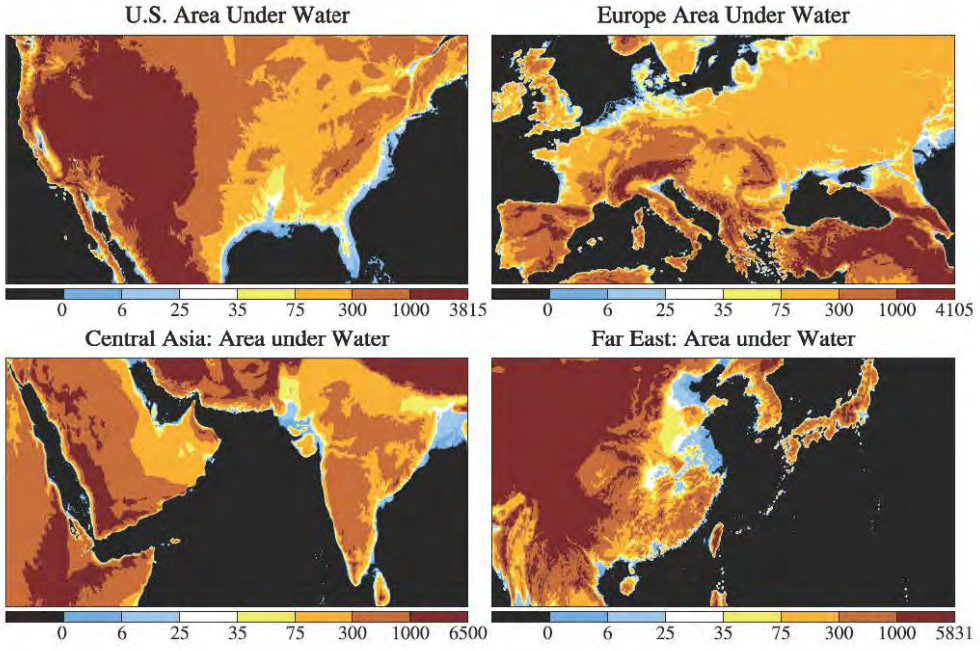


Chart 9: **Areas (Light And Dark Blue) That Nominally Would Be Under Water For 6 And 25 M Sea Level Rise**
Source: Climate Science, Awareness, and Solutions, Earth Institute, Columbia University (2015).

44. That order of sea level rise would result in the loss of hundreds of historical coastal cities worldwide, with incalculable economic consequences. It would also create hundreds of millions of global warming refugees from highly populated low-lying areas, and thus likely cause or exacerbate major international conflicts.[7]

45. To avoid such a calamity, sea level rise must be recognized as a key limit on any conceivably allowable human-made climate forcing and atmospheric CO_2 concentration, with

[7] In addition, strong temperature gradients caused by ice melt freshening is likely to increase baroclinicity and provide energy for more severe weather events, including in the North Atlantic. This set of circumstances will drive the powerful superstorms of our future. Some of these impacts are beginning to occur sooner in the real world than in our climate model. *See* **Exhibit 3** at pdf 31.

fossil fuel emissions and land use changes constrained accordingly.[8] As discussed, ice sheet melting has now commenced even though global warming to date measures "only" 0.9°C above the pre-industrial period. This is consistent with the relevant paleoclimate evidence showing a multi-meter rise in sea level in the late Eemian period, approximately 125K years ago, when temperature was at most ~2°C warmer than pre-industrial climate (at most ~1°C warmer than today). This, in itself, and quite apart from the additional harm to terrestrial systems that must also be considered, implies that national and international goals and targets that aim to limit global warming to no more than 2°C run an unacceptably high risk of global catastrophe.

46. An important effect for the coming period of large scale ice sheet melting, in our view, is that the discharge of ice and cold fresh water will expand sea ice cover and result in ocean surface, regional and global cooling effects. *See* **Exhibit 3** at pdf 3-11. For varying periods, these effects would mask some of the global warming that would otherwise result from projected high CO_2 levels. The temporary surface cooling, however, would be coincident with a further increase in the planet's energy imbalance, with added energy pumped into the ocean, and there be available, at Antarctica and Greenland, to further melt the subsurface shelves that, at present, restrain several of the planet's major ice sheets at their grounding lines. *See* **Exhibit 3** at pdf 18.

47. Upon cessation of ice sheet disintegration and freshwater discharge, global temperature will recover – with the time period for such recovery depending on the amount of ice melt (and sea level rise), and with geographical, geophysical and oceanic circulation factors detailed in our recent study. *See* **Exhibit 3** at pdf 11.

[8] This is so, as we wrote in "Ice Melt, Sea Level Rise and Superstorms," **Exhibit 3** at pdf 32, in light of the "extreme sensitivity of sea level to ocean warming and the devastating economic and humanitarian impacts of a multi-meter sea level rise."

48. With respect to other important natural and human systems, to which I will now turn, the impacts of global warming – including the renewed warming – will depend in part on the magnitude of Earth's energy imbalance, and that, in turn, will be controlled by the level of excess atmospheric CO_2. As I have noted already, global warming to date measures "only" 0.9°C above the pre-industrial period, and yet, that level of warming has already begun to have a widespread effect on natural and human systems.

49. For example, mountain glaciers, the source of fresh water to major world rivers during dry seasons, are receding rapidly all around the world. To cite a close-to-home example, glaciers in iconic Glacier National Park appear to be in full retreat: In 1850, according to the Park Service, Glacier had 150 glaciers measuring larger than twenty-five acres. Today, it has just twenty-five.

50. As well, tropospheric water vapor and heavy precipitation events have increased, as we would expect. A warmer atmosphere holds more moisture, thus enabling precipitation to be heavier and cause more extreme flooding. Higher temperatures, on the other hand, increase evaporation and can intensify droughts when they occur, as can the expansion of the subtropics that occurs as a consequence of global warming.

51. Coral reef ecosystems, harboring more than 1,000,000 species as the "rainforests" of the ocean, are impacted by a combination of ocean warming, acidification from rising atmospheric CO_2, and other human-caused stresses, resulting in a 0.5-2% per year decline in geographic extent.

52. World health experts have concluded with "very high confidence" that climate change already contributes to the global burden of disease and premature death with expansion of

infectious disease vectors. Increasing climate variability is being examined as a possible contributor to the expansion of Ebola.

53. Subtropical climate belts have expanded, contributing to more intense droughts, summer heat waves, and devastating wildfires. Further, summer mega-heat-waves, such as those in Europe in 2003, the Moscow area in 2010, Texas and Oklahoma in 2011, Greenland in 2012, Australia in 2013, *Australia and California in 2014, and India, France and Spain this year (2015),* have become more widespread.[9] The probability of such extreme heat events has increased by several times because of global warming, and the probability will increase even further if fossil fuel emissions continue to be permitted, so that global warming becomes locked in or rendered increasingly severe.

54. I have already mentioned the unparalleled calamity that the loss of scores of coastal cities to rapid sea level rise presents to human civilization. But I should mention that many other impacts also will abound.

55. For example, acidification stemming from ocean uptake of a portion of increased atmospheric CO_2 will increasingly disrupt coral reef ecosystem health, with potentially devastating impacts to certain nations and communities. Inland, fresh water security will be compromised, due to the effects of receding mountain glaciers and snowpack on seasonal freshwater availability of major rivers.

56. As to human health: increasing concentrations of CO_2 and associated increased global temperatures will deepen impacts, with children being especially vulnerable. Climate

[9] Climate researchers in Oregon consider that state's recent heat and dry spell to be consistent with these trends, with the month of June, 2015 being said to be the warmest on record in much of the state. *See* Oregon Climate Service at http://ocs.oregonstate.edu/ . In general, however, local observations of climate (heat) extremes are illustrative of what will occur with the increasing atmospheric CO_2 concentration, but I will caution that other, more stochastic, variables usually will be in play as well.

threats to health move through various pathways, including by placing additional stress on the availability of food, clean air, and clean water. Accordingly, unabated climate change will increase malnutrition and consequent disorders, including those related to child growth and development. It will increase death and illness associated with COPD, asthma, and other respiratory distress triggered by worsened allergies. Unabated emissions will also produce other injuries from heat waves; floods, storms, fires and droughts, and it will increase cardio-respiratory morbidity and mortality associated with increased ground-level ozone.

57. With regard to other species, we see that climate zones are already shifting at rates that exceed natural rates of change; this trend will continue as long as the planet is out of energy balance. As the shift of climate zones becomes comparable to the range of some species, the less mobile species will be driven to extinction. According to the UN Panel on Climate Change, with global warming of 1.6°C or more relative to pre-industrial levels, 9-31 percent of species are anticipated to be driven to extinction, while with global warming of 2.9°C, an estimated 21-52 percent of species will be driven to extinction. These temperature/extinction thresholds will not be avoided absent concerted, rational action on carbon emissions.

58. At present, we remain on track to burn a significant fraction of readily available fossil fuels, including coal, oil, natural gas, and tar sands, and so to raise average surface temperature, over time, to far above pre-industrial levels.

59. High global surface temperatures have been recorded previously, in the age of mammals, with some successful adaptation through evolution of higher surface-area-to-mass ratio body types – for example transient dwarfing of mammals and even soil fauna. However, human-made warming is occurring rapidly and will be fully realized in only centuries, as opposed to millennia, thus providing little opportunity for evolutionary dwarfism to alleviate impacts of

global warming. Along with several colleagues, I have been forced to conclude that the large climate change that would result from burning all or most fossil fuels threatens the survival of humanity.

60. All of which brings me to my third point.

IV. RESTORATION OF OUR CLIMATE SYSTEM, AND SO PROTECTION OF OUR FUTURE, IS STILL POSSIBLE, BUT WE MUST ACT WITH REASON, COURAGE, AND NO FURTHER DELAY

61. As I indicated above, the energy imbalance of Earth is about 0.6 W/m2. In the light of that imbalance, colleagues and I have calculated the level to which atmospheric CO_2 must be drawn down in order to increase Earth's heat radiation to space by the same amount and thus restore energy balance – the fundamental requirement to stabilize climate and avoid further dangerous warming.

62. The measured energy imbalance indicates that CO_2 must be reduced to a level below 350 ppm, assuming that the net of other human-made climate forcings remains at today's level. Specification now of a CO_2 target more precise than <350 ppm is difficult due to uncertain future changes of radiative forcing from other gases, aerosols and surface albedo, but greater precision should be feasible during the time that it takes to turn around CO_2 growth and approach the initial 350 ppm target.

63. Let us return, for a moment, to Chart 5, so as to consider again the question of delay. On the left side of the chart, the long-residence time for atmospheric CO_2 is illustrated. It is reflected in the length of time it would take to return CO_2 to lower concentrations even if, as indicated on the right side of the chart, fossil fuel emissions were to cease entirely.

64. Of course, an abrupt cessation of all CO_2 emissions, whether this year or in 2030, is unrealistic. Industry, other business, and consumers all need time to retool and reinvest in emission-free options to fossil fuels.

65. Accordingly, we have evaluated emissions reduction scenarios to devise the path that is both technically and economically feasible, while being sufficiently rigorous to constrain the period of "carbon overshoot" and avoid calamitous consequences (greatly accelerated warming, ecosystem collapse, and widespread species extermination). *See* Chart 10.

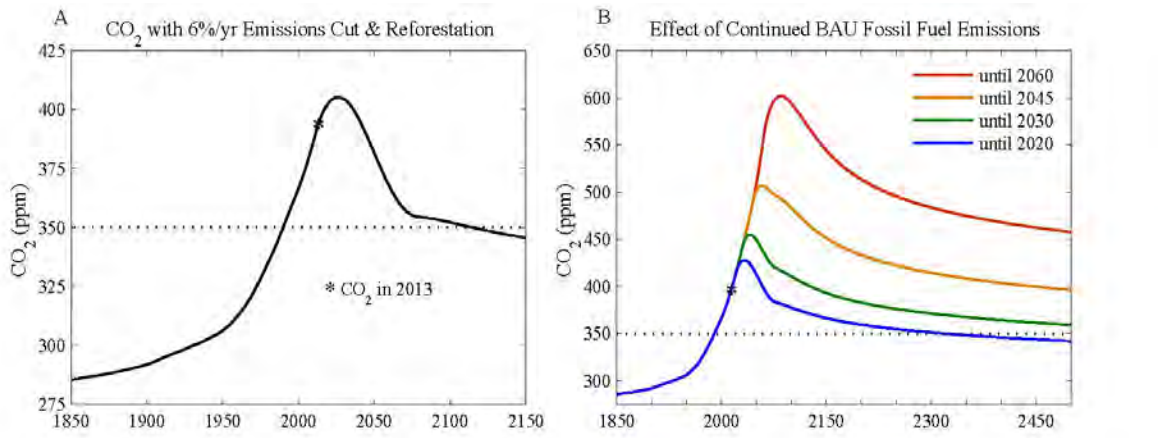


Chart 10: **Atmospheric CO_2 If Fossil Fuel Emissions Are Reduced.**
(A) 6% Or 2% Annual Cut Begins In 2013 And 100 GRC Reforestation Drawdown Occurs In 2031-2080, (B) Effect Of Delaying Onset Of Emission Reductions.
Source: *Dangerous Climate Change* (Exhibit 2 to this Declaration at Fig. 5).

66. Our analysis prescribes a glide path towards achieving energy balance by the end of the century. It is characterized by large, long-term global emissions reductions (of approximately 6 percent annually, if commenced this year), coupled with programs to limit and reverse land use emissions via reforestation and improved agricultural and forestry practices (drawing down approximately 100 GtC by the year 2100).

67. These actions could achieve the goal of restoring the atmosphere to approximately 350 ppm within this century if the plan were commenced without delay, and then adhered to. As I have indicated, such action is minimally needed to restore earth's energy balance, preserve the planet's climate system, and avert irretrievable damage to human and natural systems – including agriculture, ocean fisheries, and fresh water supply – on which civilization depends. However, consistent with the abrupt phase out scenarios discussed in the prior paragraph, if rapid annual emissions reductions are delayed until 2030, then the global temperature will remain more than 1°C higher than preindustrial levels for about 400 years. Were the emissions cessation only to commence after 40 years, then the atmosphere would not return to 350 ppm CO_2 for nearly 1000 years. Overshooting the safe level of atmospheric CO_2 and the safe range of global ambient temperature for anything approaching these periods will consign succeeding generations to a vastly different, less hospitable planet.

68. Considered another way, the required rate of emissions reduction would have been about 3.5% per year if reductions had started in 2005 and continued annually thereafter, while the required rate of reduction, if commenced in 2020, will be approximately 15% per year. Accordingly, the dominant factor is the date at which fossil fuel emission phase out begins, again presuming the rate of annual emissions reductions thereafter are sustained.

V. THE FUNDAMENTAL RIGHTS OF MY GRANDDAUGHTER SOPHIE, OTHER CHILDREN, AND FUTURE GENERATIONS TO A HABITABLE PLANET

69. With all of the above having now been said, and serving as background, I can return, finally, and briefly, to consider the nature of the violations of the rights of my granddaughter and future generations that are properly attributable our government's continued permitting, leasing, and other support for fossil fuel exploitation and expansion projects--

particularly in the absence of any countervailing, coherent, effective government program to rapidly reduce atmospheric CO_2 to a safe level.

70. In this, I include our government's approval of the Jordan Cove project at Coos Bay, Oregon. To be specific, in the context of US emissions to date and the present global climate crisis those emissions have done much to engender, the additional emissions stemming from Jordan Cove will work only to further increase the atmospheric concentrations of CO_2, and thus to further increase Earth's energy imbalance – *thereby driving our planet towards and potentially beyond irretrievable climate system tipping points*.

71. This is so because, by exacerbating or locking-in Earth's energy imbalance, such government action jeopardizes the signal features of the relatively benign and favorable climate system that, over the last 10,000 years, enabled civilization to develop and nature to thrive, as I have discussed. These features included relatively stable coastlines, moderate weather, fertile soils, and dependable hydrological systems – the natural capital on which the lives of Plaintiffs depend no less than did the lives of their parents and *their* forebears.

72. As well, present and future government action that exacerbates or locks-in Earth's energy imbalance risk economic collapse, social disintegration, and the loss of essential natural and human services, as I have discussed. The resulting diminution of Plaintiffs' life prospects – their compromised ability to earn a living, to meet their basic human needs, to safely raise families, to practice their religious and spiritual beliefs, and otherwise to lead dignified lives – is a predictable if not intended result of the government action.

73. In addition, where such government action exacerbates or locks-in Earth's energy imbalance that, in turn, predictably will lead to the climate change-driven inundation, burning, or other destruction of the value of property in which Plaintiffs hold interests. These will include the

homes, farms and other valuable property that their parents or grandparents own and that Plaintiffs will inherit.

74. Further, these government actions, in consequence of their long-term impacts on Earth's climate system and the thermal inertia of the ocean, will disproportionately impose harsh burdens on Plaintiffs. If fossil fuel emissions are not systematically and rapidly abated, as I have discussed above – including in the materials that I have incorporated by reference – then Youth and Future Generations Plaintiffs will confront what reasonably only can be described as, at best, an inhospitable future. That future may be marked by rising seas, coastal city functionality loss, mass migrations, resource wars, food shortages, heat waves, mega-storms, soil depletion and desiccation, freshwater shortage, public health system collapse, and the extinction of increasing numbers of species. That is to mention only the start of it. At this late stage it is important not to sugarcoat the fundamental assault on their right to equal protection of the law: While prior generations and, to a certain extent, some in our present generation have benefitted and, even, been enriched by the exploitation of fossil fuels, our children and their progeny will not similarly benefit. Indeed, the impact on Plaintiffs' will be nearly completely to the contrary, as I have discussed.

75. Closely-related to the above, our government's continued permitting and promotion of the fossil fuel enterprise now impairs and increasingly will compromise the fundamental natural resources on which Plaintiffs will depend. Again, these are the fundamental resources on which the prior and present generations have relied, and on which Plaintiffs now and in the future must rely. They include the air, freshwater, the oceans and stable shores, the soil and its agronomic capacity, the forests and its wildlife, biodiversity on earth, and the planet's climate system in a form conducive to civilization, humanity and nature as we know it.

76. Furthermore, it is clear to me that Plaintiffs' right to a government that retains any significant capacity to address the climate crisis adequately is violated by prior and present government actions that exacerbate or lock-in our planet's energy imbalance. In time and, as I have argued, likely within the century, such action will irretrievably damage our planet's favorable climate system. Once begun, for example, collapsing and disintegrating ice sheets will not readily be reformulated – certainly not within a timeframe relevant to present and foreseeable generations. The loss of species too is irretrievable. Many are adapted to specific climate zones, so those species adapted to polar and alpine regions will have no place to run. Present and pending actions by our government now must be viewed in the context of a climate crisis that our government to date has done so much to bring about. Action is required to preserve and restore the climate system such as we have known it in order for the planet as we have known it to be able to continue adequately to support the lives and prospects of young people and future generations. But that cannot be done effectively by future governments if ours continues to exacerbate the planet's energy imbalance and press our planet towards irretrievable tipping points from which there can be no practical opportunity to return.

77. To further explain this last point, I will note that earlier in this declaration I discussed our nation's outsized role in creating, through its CO_2 emissions, our present emergency with respect to the planet's climate system. *See supra*, text surrounding Chart 4 and Chart 6. Other nations are keenly aware of this basic fact including, most importantly, China. It is, accordingly, worthwhile here – in the context of considering responsibility to resolve the present crisis and preserve a habitable climate system – to consider further these top two emitters' role.

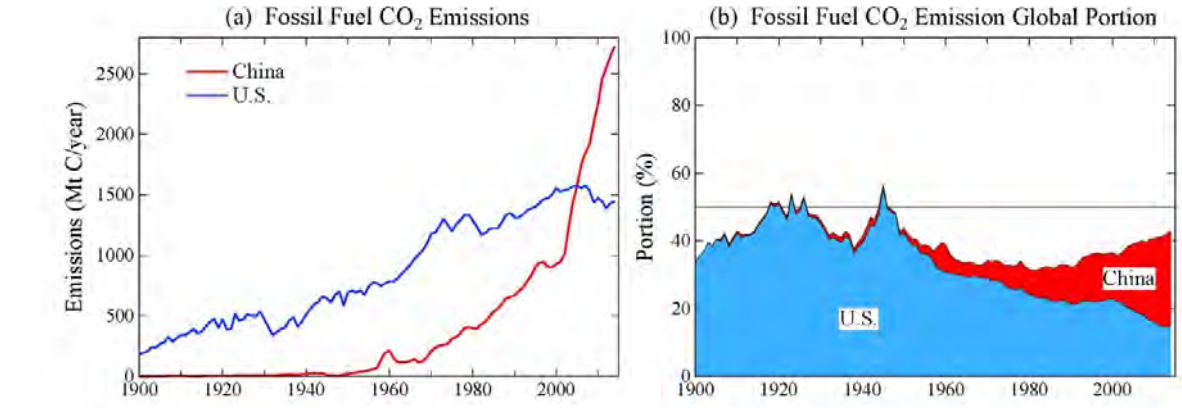


Chart 11: **Top Two Annual Emitters And Their Cumulative Emissions**
(a) Fossil fuel CO_2 Emissions, 1990 Through 2014, (B) Cumulative Shares: U.S. And China
Source: Climate Science, Awareness and Solutions, based on data from ORNL through 2011, updated with BP data through 2014.

78. China's annual CO_2 emissions caught those of the United States in 2005 and then rapidly surpassed U.S. emissions. *See* Chart 11 (a) (left side). However, any nation's contribution to climate change is proportional to its cumulative emissions over time.[10] China's responsibility for global climate change remains a fraction of that of the U.S., despite China's much larger population. *See* Chart 11 (b) (right side). Specifically, China's share of global fossil fuel CO_2 emissions through 2014 is 11.6 percent while the United States share is 25.5 percent.

79. Accordingly, in the light of our preponderant role, the United States has special responsibility for helping to solve the global emissions problem. The remaining carbon "budget" – the amount of emissions that can be tolerated while still allowing the possibility of stabilizing climate – is very small. As we have noted, climate stability requires that global emissions decline by at least 6% per year. In effect, the United States burned not only its fair share of the total (cumulative) carbon budget, it also burned much of China and India's fair shares.

[10] Hansen, J., *et al*., Dangerous human-made interference with climate: A GISS modelE study. *Atmos. Chem. Phys.*, **7**, 2287-2312, doi:10.5194/acp-7-2287-2007.

80. It is instructive to examine the emissions of China and India, which are shown in Chart 12. China is the #1 global emitter of CO_2 and India is #3, with the United States being #2. Together the three nations emit about half of global emissions, i.e., the same as the other 190 nations of the world combined. Two conclusions leap out from Chart 12. First, emissions in those nations are accelerating rapidly. Second, most of their emissions are from coal burning. (Note that the scale of the vertical axis is different for China and India. India is in an earlier stage of economic development and its emissions are as yet much smaller than China's.)

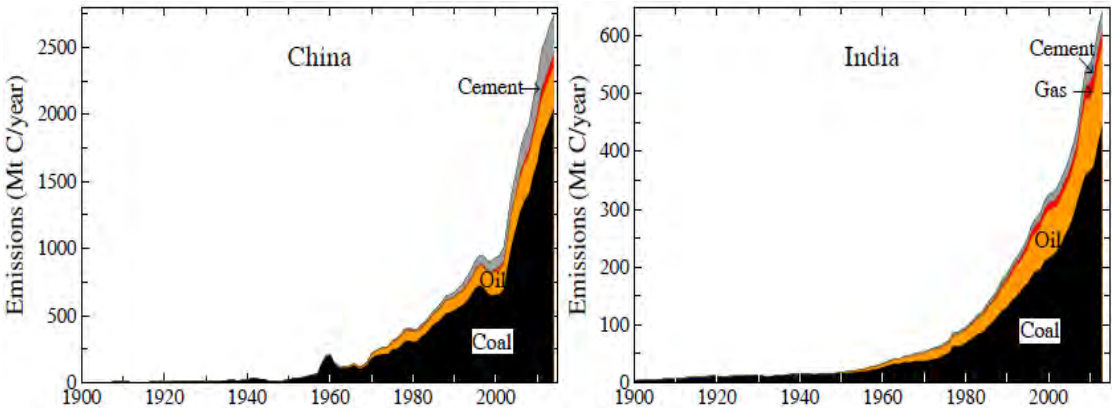


Chart 12: CO_2 Emissions From China (Left Side) And India (Right Side)
Graphic from Climate Science, Awareness and Solutions, utilizing data from the Carbon Dioxide Information Analysis Center and the BP Statistical Review of World Energy (2014).

81. The rapid growth of coal emissions is both a threat to global climate and a source of hope. If coal can be replaced with carbon-free energy, a huge reduction of global emissions becomes possible. In view of the responsibility of the United States for the excess CO_2 in the air today, as well as the fact that U.S. citizens will suffer the consequences of global emissions, it is incumbent upon the U.S. to vigorously assist China with the technology required to replace coal burning. Yet the U.S. government, and its chief executive, the President have not undertaken such actions, leaving today's young people and future generations extremely vulnerable. Indeed,

U.S. actions to date have been mostly rhetorical.[11] Instead, our government including, especially, the U.S. President, should marshal every available tool, talent, and resource to address and resolve the present crisis with honesty and without further delay.

82. Young people have multiple rights that are guaranteed by our Constitution, including equal protection of the law, equal rights to enjoy life, liberty, property, and the pursuit of happiness – rights that should not be denied without due process. It is the duty of all branches of government to protect those rights. Specifically, it is a duty of the chief executive, the President, to lead and propose and pursue policies that achieve the required ends, as opposed to ineffectual actions that are demonstrably far short of what is needed.

83. The essential step, in my view and that of other experts, including economists,[12] is an accord establishing a growing price on CO_2 emissions, which would lead over time to their phase-out. Agreement upon such a domestic fee by major emitters, most notably the United States and China, with a border duty on products from nations that do not have an equivalent domestic carbon fee, would be expected to lead to widespread global movement toward carbon-free energies.

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[11] EPA's much-vaunted "Clean Power Plan," for example, actually allows U.S. coal-fired power plants to continue to operate for decades, and that Agency itself anticipates that, under the rule, power plant emission reductions will proceed at a slower pace than occurred in the ten-year period *prior* to the rule's enactment.

[12] These include three co-authors of our 2013 PLOS One study. *See* **Exhibit 2**. The government also has understood the central importance of a rising carbon price, and for at least 25 years. *See*, e.g., Congressional Office of Technology Assessment, *Changing by Degrees: Steps To Reduce Greenhouse Gases* (1991) at 15 ("a particularly effective way of targeting the heaviest economic sanctions against the worst emitters of CO_2."). As colleagues and I noted in 2013, **Exhibit 2** at 19, "[a] rising carbon fee is the *sine qua non* for fossil fuel phase out."

84. I could go on, but will not so as to show mercy on the Court. Accordingly, I end here with a summary statement, in the light of the foregoing material that I have outlined and referenced, and with the offer to further explain my views and reasoning at the Court's request.

85. Simply put: Our government's persistent permitting and underwriting of fossil fuel projects serves now to further disrupt the favorable climate system that to date enabled human civilization to develop. In order to preserve a viable climate system, our use of fossil fuels must be phased out as rapidly as is feasible. Only government can ensure this will be done. Instead, our government seeks approval for permitting of fossil fuel projects that would slam shut the narrowing window of opportunity to stabilize climate and ensure a hospitable climate and planet for young people and future generations. These projects only allow our government to shirk its duty. Our government's permitting of additional, new, or renewed fossil fuel projects is entirely antithetical to its fundamental responsibility to our children and their posterity. Their fundamental rights now hang in the balance.

I am prepared, as necessary, to further explain or elaborate on any of the points I have made in this declaration, as warranted, for the Court.

I, James E. Hansen, declare under penalty of perjury under the laws of the United States of America that the foregoing constitutes my true and correct written testimony in the matter *Xiuhtezcatl Tonatiuh M. et al. v. the United States of America et al.*, No. __, United States District Court, District of Oregon.

I declare under penalty of perjury under the laws of the State of Oregon that the foregoing is true and correct.

Executed this 11th day of August, 2015 in New York City, New York.

DR. JAMES E. HANSEN

James E. Hansen

Columbia University Earth Institute, Climate Science, Awareness and Solutions
Interchurch Building, 475 Riverside Drive, Room 239T, New York, NY 10115 jimehansen@gmail.com

1-paragraph bio/introduction:
Dr. James Hansen, formerly Director of the NASA Goddard Institute for Space Studies, is an Adjunct Professor at Columbia University's Earth Institute, where he directs a program in Climate Science, Awareness and Solutions. Dr. Hansen is best known for his testimony on climate change in the 1980s that helped raise awareness of global warming. He is a member of the U.S. National Academy of Sciences and has received numerous awards including the Sophie and Blue Planet Prizes. Dr. Hansen is recognized for speaking truth to power and for outlining actions needed to protect the future of young people and all species on the planet.

1-long-paragraph bio:
Dr. James Hansen, formerly Director of the NASA Goddard Institute for Space Studies, is an Adjunct Professor at Columbia University's Earth Institute, where he directs a program in Climate Science, Awareness and Solutions. He was trained in physics and astronomy in the space science program of Dr. James Van Allen at the University of Iowa. His early research on the clouds of Venus helped identify their composition as sulfuric acid. Since the late 1970s, he has focused his research on Earth's climate, especially human-made climate change. Dr. Hansen is best known for his testimony on climate change to congressional committees in the 1980s that helped raise broad awareness of the global warming issue. He was elected to the National Academy of Sciences in 1995 and was designated by Time Magazine in 2006 as one of the 100 most influential people on Earth. He has received numerous awards including the Carl-Gustaf Rossby and Roger Revelle Research Medals, the Sophie Prize and the Blue Planet Prize. Dr. Hansen is recognized for speaking truth to power, for identifying ineffectual policies as greenwash, and for outlining actions that the public must take to protect the future of young people and other life on our planet.

3-paragraph bio:
Dr. James Hansen, formerly Director of the NASA Goddard Institute for Space Studies, is an Adjunct Professor at Columbia University's Earth Institute, where he directs a program in Climate Science, Awareness and Solutions. He was trained in physics and astronomy in the space science program of Dr. James Van Allen at the University of Iowa, receiving a bachelor's degree with highest distinction in physics and mathematics, master's degree in astronomy, and Ph. D. in physics in 1967. Dr. Hansen was a visiting student, at the Institute of Astrophysics, University of Kyoto and Dept. of Astronomy, Tokyo University, Japan from 1965-1966. He received his Ph.D. in physics from the University of Iowa in 1967. Except for 1969, when he was an NSF post-doctoral scientist at Leiden Observatory under Prof. H.C. van de Hulst, he has spent his post-doctoral career at NASA GISS.

In his early research Dr. Hansen used telescopic observations of Venus to extract detailed information on the physical properties of the cloud and haze particles that veil Venus. Since the mid-1970s, Dr. Hansen has focused on studies and computer simulations of the Earth's climate, for the purpose of understanding the human impact on global climate. He is best known for his testimony on climate change to Congress in the 1980s that helped raise broad awareness of the global warming issue. In recent years Dr. Hansen has drawn attention to the danger of passing climate tipping points, producing irreversible climate impacts that would yield a different planet from the one on which civilization developed. Dr. Hansen disputes the contention, of fossil fuel interests and governments that support them, that it is an almost god-given fact that all fossil fuels must be burned with their combustion products discharged into the atmosphere. Instead Dr. Hansen has outlined steps that are needed to stabilize climate, with a cleaner atmosphere and ocean, and he emphasizes the need for the public to influence government and industry policies.

Dr. Hansen was elected to the National Academy of Sciences in 1995 and, in 2001, received the Heinz Award for environment and the American Geophysical Union's Roger Revelle Medal. Dr. Hansen received the World Wildlife Federation's Conservation Medal from the Duke of Edinburgh in 2006 and was designated by Time Magazine as one of the world's 100 most influential people in 2006. In 2007 Dr. Hansen won the Dan David Prize in the field of Quest for Energy, the Leo Szilard Award of the American Physical Society for Use of Physics for the Benefit of Society, and the American Association for the Advancement of Science Award for Scientific Freedom and Responsibility. In 2008, he won the Common Wealth Award for Distinguished Service in Science and was also awarded both the Ohio State University's Bownocker Medal and the Desert Research Institute's Nevada Medal. In 2009, Dr. Hansen received the American Meteorological Society's Carl-Gustaf Rossby Research Medal. In 2010 he received the Sophie Prize and the Blue Planet Prize.

Additional Information:

Http://www.columbia.edu/~jeh1/
http://www.columbia.edu/~mhs119/
Photos: http://ww.mediafire.com/?8ecel33ccmg81

Education:

BA with highest distinction (Physics and Mathematics), University of Iowa, 1963
MS (Astronomy), University of Iowa, 1965
Visiting student, Inst. of Astrophysics, University of Kyoto & Dept. of Astronomy, Tokyo University, Japan, 1965-1966
Ph.D. (Physics), University of Iowa, 1967

Research Interests:

Analysis of the causes and consequences of global climate change using the Earth's paleoclimate history, ongoing global observations, and interpretive tools including climate models. Connecting the dots all the way from climate observations to the policies that are needed to stabilize climate and preserve our planet for young people and other species.

Professional Employment:

1967-1969	NAS-NRC Resident Research Associate: Goddard Institute for Space Studies (GISS), NY
1969	NSF Postdoctoral Fellow: Leiden Observatory, Netherlands
1969-1972	Research Associate: Columbia University, NY
1972-1981	Staff Member/Space Scientist: Goddard Institute for Space Studies (GISS), Manager of GISS Planetary and Climate Programs
1978-1985	Adjunct Associate Professor: Department of Geological Sciences, Columbia University
1981-2013	Director: NASA Goddard Institute for Space Studies
1985-present	Adjunct Professor: Earth and Environmental Sciences, Columbia University
2013-present	Director: Program on Climate Science, Awareness and Solutions, Columbia University

Project Experience:

1971-1974	Co-Principal Investigator AEROPOL Project (airborne terrestrial infrared polarimeter)
1972-1985	Co-Investigator, Voyager Photopolarimeter Experiment
1974-1994	Principal Investigator (1974-8) and subsequently Co-Investigator, Pioneer Venus Orbiter Cloud-Photopolarimeter Experiment
1977-2000	Principal Investigator, Galileo (Jupiter Orbiter) Photopolarimeter Radiometer Experiment

Teaching Experience:

Atmospheric Radiation (graduate level): New York Univ., Dept. of Meteorology & Oceanography
Intro. to Planetary Atmospheres & Climate Change: Columbia Univ., Dept. of Geological Sciences

Awards:

1977	Goddard Special Achievement Award (Pioneer Venus)
1978	NASA Group Achievement Award (Voyager, Photopolarimeter)
1984	NASA Exceptional Service Medal (Radiative Transfer)
1989	National Wildlife Federation Conservation Achievement Award
1990	NASA Presidential Rank Award of Meritorious Executive
1991	University of Iowa Alumni Achievement Award
1992	American Geophysical Union Fellow
1993	NASA Group Achievement Award (Galileo, Polarimeter/Radiometer)
1996	Elected to National Academy of Sciences
1996	GSFC William Nordberg Achievement Medal
1996	Editors' Citation for Excellence in Refereeing for Geophysical Research Letters
1997	NASA Presidential Rank Award of Meritorious Executive
2000	University of Iowa Alumni Fellow
2000	GISS Best Scientific Publication (peer vote): "Global warming – alternative scenario"
2001	John Heinz Environment Award
2001	Roger Revelle Medal, American Geophysical Union
2004	GISS Best Scientific Publication (peer vote): 'Soot Climate Forcing'

2005	GISS Best Scientific Publication (peer vote): 'Earth's Energy Imbalance'
2006	Duke of Edinburgh Conservation Medal, World Wildlife Fund (WWF)
2006	GISS Best Scientific Publication (peer vote): 'Global Temperature Change'
2006	*Time Magazine* designation as one of World's 100 Most Influential People.
2007	Laureate, Dan David Prize for Outstanding Achievements & Impacts in Quest for Energy
2007	Leo Szilard Award, American Physical Society for Outstanding Promotion & Use of Physics for the Benefit of Society
2007	Haagen-Smit Clean Air Award
2008	American Association for the Advancement of Science Award for Scientific Freedom and Responsibility
2008	Nevada Medal, Desert Research Institute
2008	Common Wealth Award for Distinguished Service in Science
2008	Bownocker Medal, Ohio State University
2008	Rachel Carson Award for Integrity in Science, Center for Science in the Public Interest
2009	Carl-Gustaf Rossby Research Medal, American Meteorological Society
2009	Peter Berle Environmental Integrity Award
2010	Sophie Prize for Environmental and Sustainable Development
2010	Blue Planet Prize, Asahi Glass Foundation
2011	American Association of Physics Teachers Klopsteg Memorial Award for communicating physics to the general public
2011	Edinburgh Medal from City of Edinburgh, Edinburgh Science Festival
2012	Steve Schneider Climate Science Communications Award
2012	*Foreign Policy* designation as one of its Top 100 Global Thinkers
2013	Ridenhour Courage Prize
2013	NASA Distinguished Service Medal
2014	Center for International Environmental Law's Frederick R. Anderson Award for Outstanding Contributions to Addressing Climate Change
2014	Walker Prize, Museum of Science, Boston

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PLOS ONE

Review

Assessing "Dangerous Climate Change": Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature

James Hansen[1]*, Pushker Kharecha[1,2], Makiko Sato[1], Valerie Masson-Delmotte[3], Frank Ackerman[4], David J. Beerling[5], Paul J. Hearty[6], Ove Hoegh-Guldberg[7], Shi-Ling Hsu[8], Camille Parmesan[9,10], Johan Rockstrom[11], Eelco J. Rohling[12,13], Jeffrey Sachs[1], Pete Smith[14], Konrad Steffen[15], Lise Van Susteren[16], Karina von Schuckmann[17], James C. Zachos[18]

1 Earth Institute, Columbia University, New York, New York, United States of America, **2** Goddard Institute for Space Studies, NASA, New York, New York, United States of America, **3** Institut Pierre Simon Laplace, Laboratoire des Sciences du Climat et de l'Environnement (CEA-CNRS-UVSQ), Gif-sur-Yvette, France, **4** Synapse Energy Economics, Cambridge, Massachusetts, United States of America, **5** Department of Animal and Plant Sciences, University of Sheffield, Sheffield, South Yorkshire, United Kingdom, **6** Department of Environmental Studies, University of North Carolina, Wilmington, North Carolina, United States of America, **7** Global Change Institute, University of Queensland, St. Lucia, Queensland, Australia, **8** College of Law, Florida State University, Tallahassee, Florida, United States of America, **9** Marine Institute, Plymouth University, Plymouth, Devon, United Kingdom, **10** Integrative Biology, University of Texas, Austin, Texas, United States of America, **11** Stockholm Resilience Center, Stockholm University, Stockholm, Sweden, **12** School of Ocean and Earth Science, University of Southampton, Southampton, Hampshire, United Kingdom, **13** Research School of Earth Sciences, Australian National University, Canberra, ACT, Australia, **14** University of Aberdeen, Aberdeen, Scotland, United Kingdom, **15** Swiss Federal Institute of Technology, Swiss Federal Research Institute WSL, Zurich, Switzerland, **16** Center for Health and the Global Environment, Advisory Board, Harvard School of Public Health, Boston, Massachusetts, United States of America, **17** L'Institut Francais de Recherche pour l'Exploitation de la Mer, Ifremer, Toulon, France, **18** Earth and Planetary Science, University of California, Santa Cruz, CA, United States of America

Abstract: We assess climate impacts of global warming using ongoing observations and paleoclimate data. We use Earth's measured energy imbalance, paleoclimate data, and simple representations of the global carbon cycle and temperature to define emission reductions needed to stabilize climate and avoid potentially disastrous impacts on today's young people, future generations, and nature. A cumulative industrial-era limit of ~500 GtC fossil fuel emissions and 100 GtC storage in the biosphere and soil would keep climate close to the Holocene range to which humanity and other species are adapted. Cumulative emissions of ~1000 GtC, sometimes associated with 2°C global warming, would spur "slow" feedbacks and eventual warming of 3–4°C with disastrous consequences. Rapid emissions reduction is required to restore Earth's energy balance and avoid ocean heat uptake that would practically guarantee irreversible effects. Continuation of high fossil fuel emissions, given current knowledge of the consequences, would be an act of extraordinary witting intergenerational injustice. Responsible policymaking requires a rising price on carbon emissions that would preclude emissions from most remaining coal and unconventional fossil fuels and phase down emissions from conventional fossil fuels.

Introduction

Humans are now the main cause of changes of Earth's atmospheric composition and thus the drive for future climate change [1]. The principal climate forcing, defined as an imposed change of planetary energy balance [1–2], is increasing carbon dioxide (CO_2) from fossil fuel emissions, much of which will remain in the atmosphere for millennia [1,3]. The climate response to this forcing and society's response to climate change are complicated by the system's inertia, mainly due to the ocean and the ice sheets on Greenland and Antarctica together with the long residence time of fossil fuel carbon in the climate system. The inertia causes climate to appear to respond slowly to this human-made forcing, but further long-lasting responses can be locked in.

More than 170 nations have agreed on the need to limit fossil fuel emissions to avoid dangerous human-made climate change, as formalized in the 1992 Framework Convention on Climate Change [6]. However, the stark reality is that global emissions have accelerated (Fig. 1) and new efforts are underway to massively expand fossil fuel extraction [7–9] by drilling to increasing ocean depths and into the Arctic, squeezing oil from tar sands and tar shale, hydro-fracking to expand extraction of natural gas, developing exploitation of methane hydrates, and mining of coal via mountaintop removal and mechanized longwall mining. The growth rate of fossil fuel emissions increased from 1.5%/year during 1980–2000 to 3%/year in 2000–2012, mainly because of increased coal use [4–5].

The Framework Convention [6] does not define a dangerous level for global warming or an emissions limit for fossil fuels. The

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* E-mail: jimehansen@gmail.com

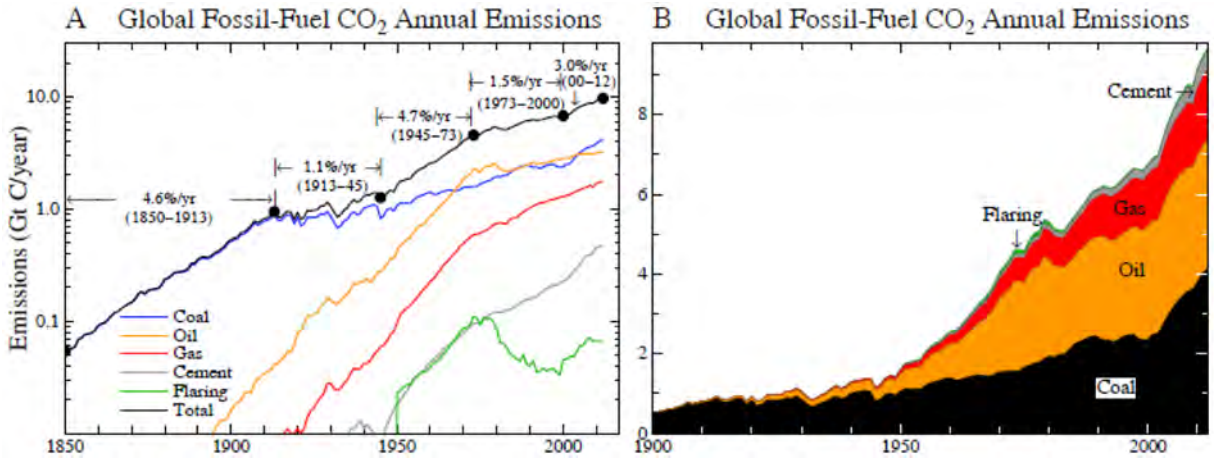


Figure 1. CO_2 annual emissions from fossil fuel use and cement manufacture, based on data of British Petroleum [4] concatenated with data of Boden et al. [5]. (A) is log scale and (B) is linear.
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European Union in 1996 proposed to limit global warming to 2°C relative to pre-industrial times [10], based partly on evidence that many ecosystems are at risk with larger climate change. The 2°C target was reaffirmed in the 2009 "Copenhagen Accord" emerging from the 15th Conference of the Parties of the Framework Convention [11], with specific language "We agree that deep cuts in global emissions are required according to science, as documented in the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius…".

A global warming target is converted to a fossil fuel emissions target with the help of global climate-carbon-cycle models, which reveal that eventual warming depends on cumulative carbon emissions, not on the temporal history of emissions [12]. The emission limit depends on climate sensitivity, but central estimates [12–13], including those in the upcoming Fifth Assessment of the Intergovernmental Panel on Climate Change [14], are that a 2°C global warming limit implies a cumulative carbon emissions limit of the order of 1000 GtC. In comparing carbon emissions, note that some authors emphasize the sum of fossil fuel and deforestation carbon. We bookkeep fossil fuel and deforestation carbon separately, because the larger fossil fuel term is known more accurately and this carbon stays in the climate system for hundreds of thousands of years. Thus fossil fuel carbon is the crucial human input that must be limited. Deforestation carbon is more uncertain and potentially can be offset on the century time scale by storage in the biosphere, including the soil, via reforestation and improved agricultural and forestry practices.

There are sufficient fossil fuel resources to readily supply 1000 GtC, as fossil fuel emissions to date (370 GtC) are only a small fraction of potential emissions from known reserves and potentially recoverable resources (Fig. 2). Although there are uncertainties in reserves and resources, ongoing fossil fuel subsidies and continuing technological advances ensure that more and more of these fuels will be economically recoverable. As we will show, Earth's paleoclimate record makes it clear that the CO_2 produced by burning all or most of these fossil fuels would lead to a very different planet than the one that humanity knows.

Our evaluation of a fossil fuel emissions limit is not based on climate models but rather on observational evidence of global climate change as a function of global temperature and on the fact that climate stabilization requires long-term planetary energy balance. We use measured global temperature and Earth's measured energy imbalance to determine the atmospheric CO_2 level required to stabilize climate at today's global temperature, which is near the upper end of the global temperature range in the current interglacial period (the Holocene). We then examine climate impacts during the past few decades of global warming and in paleoclimate records including the Eemian period, concluding that there are already clear indications of undesirable impacts at the current level of warming and that 2°C warming would have major deleterious consequences. We use simple representations of the carbon cycle and global temperature, consistent with observations, to simulate transient global temperature and assess carbon emission scenarios that could keep global climate near the Holocene range. Finally, we discuss likely overshooting of target emissions, the potential for carbon extraction from the atmosphere, and implications for energy and economic policies, as well as intergenerational justice.

Global Temperature and Earth's Energy Balance

Global temperature and Earth's energy imbalance provide our most useful measuring sticks for quantifying global climate change and the changes of global climate forcings that would be required to stabilize global climate. Thus we must first quantify knowledge of these quantities.

Temperature

Temperature change in the past century (Fig. 3; update of figures in [16]) includes unforced variability and forced climate change. The long-term global warming trend is predominantly a forced climate change caused by increased human-made atmospheric gases, mainly CO_2 [1]. Increase of "greenhouse" gases such as CO_2 has little effect on incoming sunlight but makes the atmosphere more opaque at infrared wavelengths, causing infrared (heat) radiation to space to emerge from higher, colder levels, which thus reduces infrared radiation to space. The resulting planetary energy imbalance, absorbed solar energy exceeding heat emitted to space, causes Earth to warm. Observations, discussed below, confirm that Earth is now substantially out of energy balance, so the long-term warming will continue.

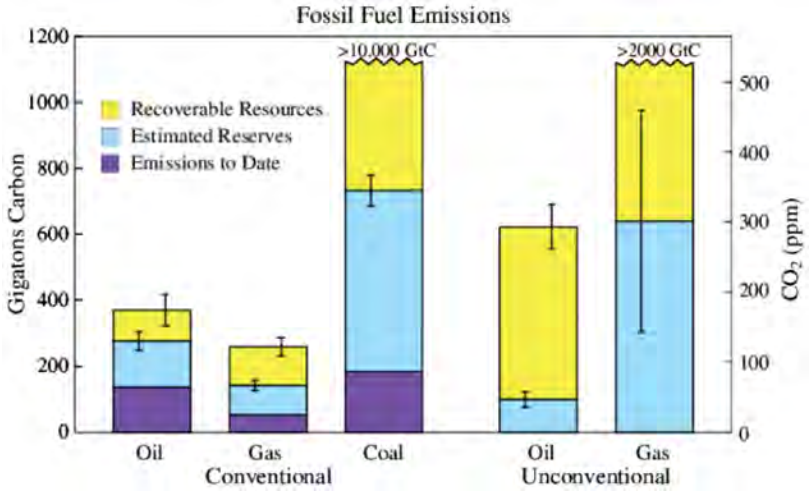


Figure 2. Fossil fuel CO_2 emissions and carbon content (1 ppm atmospheric CO_2 ~ 2.12 GtC). Estimates of reserves (profitable to extract at current prices) and resources (potentially recoverable with advanced technology and/or at higher prices) are the mean of estimates of Energy Information Administration (EIA) [7], German Advisory Council (GAC) [8], and Global Energy Assessment (GEA) [9]. GEA [9] suggests the possibility of >15,000 GtC unconventional gas. Error estimates (vertical lines) are from GEA and probably underestimate the total uncertainty. We convert energy content to carbon content using emission factors of Table 4.2 of [15] for coal, gas and conventional oil, and, also following [15], emission factor of unconventional oil is approximated as being the same as for coal. Total emissions through 2012, including gas flaring and cement manufacture, are 384 GtC; fossil fuel emissions alone are ~370 GtC.
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Global temperature appears to have leveled off since 1998 (Fig. 3a). That plateau is partly an illusion due to the 1998 global temperature spike caused by the El Niño of the century that year. The 11-year (132-month) running mean temperature (Fig. 3b) shows only a moderate decline of the warming rate. The 11-year averaging period minimizes the effect of variability due to the 10–12 year periodicity of solar irradiance as well as irregular El Niño/La Niña warming/cooling in the tropical Pacific Ocean. The current solar cycle has weaker irradiance than the several prior solar cycles, but the decreased irradiance can only partially account for the decreased warming rate [17]. Variability of the El Niño/La Niña cycle, described as a Pacific Decadal Oscillation, largely accounts for the temporary decrease of warming [18], as we discuss further below in conjunction with global temperature simulations.

Assessments of dangerous climate change have focused on estimating a permissible level of global warming. The Intergovernmental Panel on Climate Change [1,19] summarized broad-based assessments with a "burning embers" diagram, which indicated that major problems begin with global warming of 2–3°C. A probabilistic analysis [20], still partly subjective, found a median "dangerous" threshold of 2.8°C, with 95% confidence that the dangerous threshold was 1.5°C or higher. These assessments were relative to global temperature in year 1990, so add 0.6°C to these values to obtain the warming relative to 1880–1920, which is the base period we use in this paper for preindustrial time. The conclusion that humanity could tolerate global warming up to a few degrees Celsius meshed with common sense. After all, people readily tolerate much larger regional and seasonal climate variations.

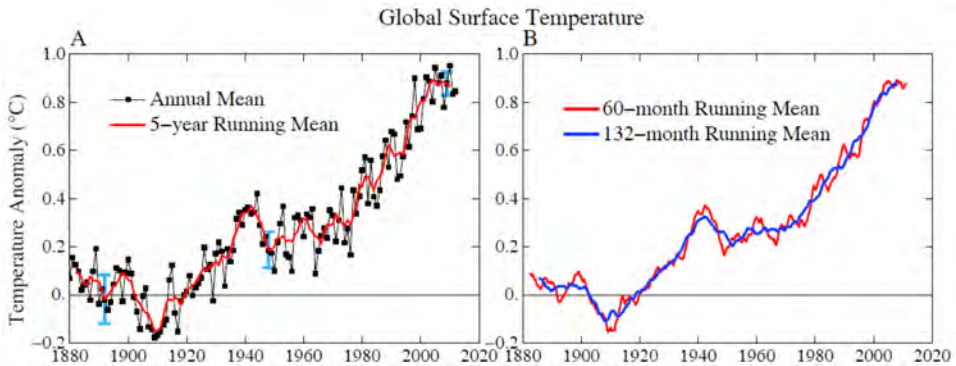


Figure 3. Global surface temperature relative to 1880–1920 mean. B shows the 5 and 11 year means. Figures are updates of [16] using data through August 2013.
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The fallacy of this logic emerged recently as numerous impacts of ongoing global warming emerged and as paleoclimate implications for climate sensitivity became apparent. Arctic sea ice end-of-summer minimum area, although variable from year to year, has plummeted by more than a third in the past few decades, at a faster rate than in most models [21], with the sea ice thickness declining a factor of four faster than simulated in IPCC climate models [22]. The Greenland and Antarctic ice sheets began to shed ice at a rate, now several hundred cubic kilometers per year, which is continuing to accelerate [23–25]. Mountain glaciers are receding rapidly all around the world [26–29] with effects on seasonal freshwater availability of major rivers [30–32]. The hot dry subtropical climate belts have expanded as the troposphere has warmed and the stratosphere cooled [33–36], contributing to increases in the area and intensity of drought [37] and wildfires [38]. The abundance of reef-building corals is decreasing at a rate of 0.5–2%/year, at least in part due to ocean warming and possibly ocean acidification caused by rising dissolved CO_2 [39–41]. More than half of all wild species have shown significant changes in where they live and in the timing of major life events [42–44]. Mega-heatwaves, such as those in Europe in 2003, the Moscow area in 2010, Texas and Oklahoma in 2011, Greenland in 2012, and Australia in 2013 have become more widespread with the increase demonstrably linked to global warming [45–47].

These growing climate impacts, many more rapid than anticipated and occurring while global warming is less than 1°C, imply that society should reassess what constitutes a "dangerous level" of global warming. Earth's paleoclimate history provides a valuable tool for that purpose.

Paleoclimate Temperature

Major progress in quantitative understanding of climate change has occurred recently by use of the combination of data from high resolution ice cores covering time scales of order several hundred thousand years [48–49] and ocean cores for time scales of order one hundred million years [50]. Quantitative insights on global temperature sensitivity to external forcings [51–52] and sea level sensitivity to global temperature [52–53] are crucial to our analyses. Paleoclimate data also provide quantitative information about how nominally slow feedback processes amplify climate sensitivity [51–52,54–56], which also is important to our analyses.

Earth's surface temperature prior to instrumental measurements is estimated via proxy data. We will refer to the surface temperature record in Fig. 4 of a recent paper [52]. Global mean temperature during the Eemian interglacial period (120,000 years ago) is constrained to be 2°C warmer than our pre-industrial (1880–1920) level based on several studies of Eemian climate [52]. The concatenation of modern and instrumental records [52] is based on an estimate that global temperature in the first decade of the 21st century (+0.8°C relative to 1880–1920) exceeded the Holocene mean by 0.25±0.25°C. That estimate was based in part on the fact that sea level is now rising 3.2 mm/yr (3.2 m/millennium) [57], an order of magnitude faster than the rate during the prior several thousand years, with rapid change of ice sheet mass balance over the past few decades [23] and Greenland and Antarctica now losing mass at accelerating rates [23–24]. This concatenation, which has global temperature 13.9°C in the base period 1951–1980, has the first decade of the 21st century slightly (~0.1°C) warmer than the early Holocene maximum. A recent reconstruction from proxy temperature data [55] concluded that global temperature declined about 0.7°C between the Holocene maximum and a pre-industrial minimum before recent warming brought temperature back near the Holocene maximum, which is consistent with our analysis.

Climate oscillations evident in Fig. 4 of Hansen et al. [52] were instigated by perturbations of Earth's orbit and spin axis tilt relative to the orbital plane, which alter the geographical and seasonal distribution of sunlight on Earth [58]. These forcings change slowly, with periods between 20,000 and 400,000 years, and thus climate is able to stay in quasi-equilibrium with these forcings. Slow insolation changes initiated the climate oscillations, but the mechanisms that caused the climate changes to be so large were two powerful amplifying feedbacks: the planet's surface albedo (its reflectivity, literally its whiteness) and atmospheric CO_2 amount. As the planet warms, ice and snow melt, causing the surface to be darker, absorb more sunlight and warm further. As the ocean and soil become warmer they release CO_2 and other greenhouse gases, causing further warming. Together with fast feedbacks processes, via changes of water vapor, clouds, and the vertical temperature profile, these slow amplifying feedbacks were responsible for almost the entire glacial-to-interglacial temperature change [59–62].

The albedo and CO_2 feedbacks amplified weak orbital forcings, the feedbacks necessarily changing slowly over millennia, at the pace of orbital changes. Today, however, CO_2 is under the control of humans as fossil fuel emissions overwhelm natural changes. Atmospheric CO_2 has increased rapidly to a level not seen for at least 3 million years [56,63]. Global warming induced by increasing CO_2 will cause ice to melt and hence sea level to rise as the global volume of ice moves toward the quasi-equilibrium amount that exists for a given global temperature [53]. As ice melts and ice area decreases, the albedo feedback will amplify global warming.

Earth, because of the climate system's inertia, has not yet fully responded to human-made changes of atmospheric composition. The ocean's thermal inertia, which delays some global warming for decades and even centuries, is accounted for in global climate models and its effect is confirmed via measurements of Earth's energy balance (see next section). In addition there are slow climate feedbacks, such as changes of ice sheet size, that occur mainly over centuries and millennia. Slow feedbacks have little effect on the immediate planetary energy balance, instead coming into play in response to temperature change. The slow feedbacks are difficult to model, but paleoclimate data and observations of ongoing changes help provide quantification.

Earth's Energy Imbalance

At a time of climate stability, Earth radiates as much energy to space as it absorbs from sunlight. Today Earth is out of balance because increasing atmospheric gases such as CO_2 reduce Earth's heat radiation to space, thus causing an energy imbalance, as there is less energy going out than coming in. This imbalance causes Earth to warm and move back toward energy balance. The warming and restoration of energy balance take time, however, because of Earth's thermal inertia, which is due mainly to the global ocean.

Earth warmed about 0.8°C in the past century. That warming increased Earth's radiation to space, thus reducing Earth's energy imbalance. The remaining energy imbalance helps us assess how much additional warming is still "in the pipeline". Of course increasing CO_2 is only one of the factors affecting Earth's energy balance, even though it is the largest climate forcing. Other forcings include changes of aerosols, solar irradiance, and Earth's surface albedo.

Determination of the state of Earth's climate therefore requires measuring the energy imbalance. This is a challenge, because the imbalance is expected to be only about 1 W/m^2 or less, so accuracy approaching 0.1 W/m^2 is needed. The most promising

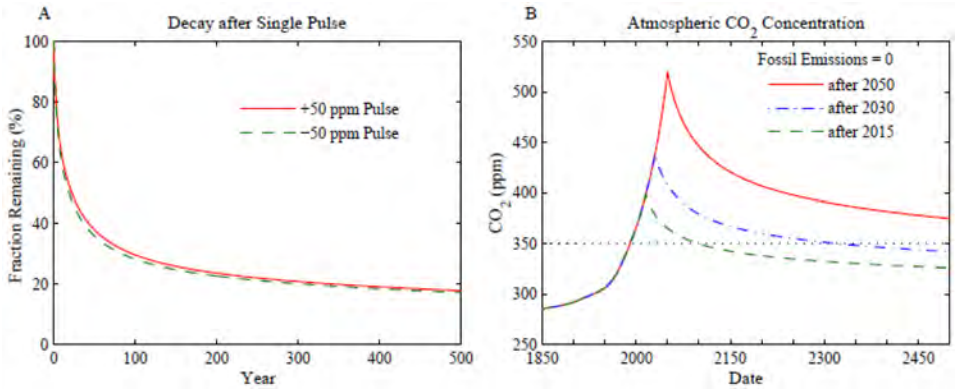


Figure 4. Decay of atmospheric CO_2 perturbations. (A) Instantaneous injection or extraction of CO_2 with initial conditions at equilibrium. (B) Fossil fuel emissions terminate at the end of 2015, 2030, or 2050 and land use emissions terminate after 2015 in all three cases, i.e., thereafter there is no net deforestation.
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approach is to measure the rate of changing heat content of the ocean, atmosphere, land, and ice [64]. Measurement of ocean heat content is the most critical observation, as nearly 90 percent of the energy surplus is stored in the ocean [64–65].

Observed Energy Imbalance

Nations of the world have launched a cooperative program to measure changing ocean heat content, distributing more than 3000 Argo floats around the world ocean, with each float repeatedly diving to a depth of 2 km and back [66]. Ocean coverage by floats reached 90% by 2005 [66], with the gaps mainly in sea ice regions, yielding the potential for an accurate energy balance assessment, provided that several systematic measurement biases exposed in the past decade are minimized [67–69].

Argo data reveal that in 2005–2010 the ocean's upper 2000 m gained heat at a rate equal to 0.41 W/m^2 averaged over Earth's surface [70]. Smaller contributions to planetary energy imbalance are from heat gain by the deeper ocean (+0.10 W/m^2), energy used in net melting of ice (+0.05 W/m^2), and energy taken up by warming continents (+0.02 W/m^2). Data sources for these estimates and uncertainties are provided elsewhere [64]. The resulting net planetary energy imbalance for the six years 2005–2010 is +0.58±0.15 W/m^2.

The positive energy imbalance in 2005–2010 confirms that the effect of solar variability on climate is much less than the effect of human-made greenhouse gases. If the sun were the dominant forcing, the planet would have a negative energy balance in 2005–2010, when solar irradiance was at its lowest level in the period of accurate data, i.e., since the 1970s [64,71]. Even though much of the greenhouse gas forcing has been expended in causing observed 0.8°C global warming, the residual positive forcing overwhelms the negative solar forcing. The full amplitude of solar cycle forcing is about 0.25 W/m^2 [64,71], but the reduction of solar forcing due to the present weak solar cycle is about half that magnitude as we illustrate below, so the energy imbalance measured during solar minimum (0.58 W/m^2) suggests an average imbalance over the solar cycle of about 0.7 W/m^2.

Earth's measured energy imbalance has been used to infer the climate forcing by aerosols, with two independent analyses yielding a forcing in the past decade of about −1.5 W/m^2 [64,72], including the direct aerosol forcing and indirect effects via induced cloud changes. Given this large (negative) aerosol forcing, precise monitoring of changing aerosols is needed [73]. Public reaction to increasingly bad air quality in developing regions [74] may lead to future aerosol reductions, at least on a regional basis. Increase of Earth's energy imbalance from reduction of particulate air pollution, which is needed for the sake of human health, can be minimized via an emphasis on reducing absorbing black soot [75], but the potential to constrain the net increase of climate forcing by focusing on black soot is limited [76].

Energy Imbalance Implications for CO_2 Target

Earth's energy imbalance is the most vital number characterizing the state of Earth's climate. It informs us about the global temperature change "in the pipeline" without further change of climate forcings and it defines how much greenhouse gases must be reduced to restore Earth's energy balance, which, at least to a good approximation, must be the requirement for stabilizing global climate. The measured energy imbalance accounts for all natural and human-made climate forcings, including changes of atmospheric aerosols and Earth's surface albedo.

If Earth's mean energy imbalance today is +0.5 W/m^2, CO_2 must be reduced from the current level of 395 ppm (global-mean annual-mean in mid-2013) to about 360 ppm to increase Earth's heat radiation to space by 0.5 W/m^2 and restore energy balance. If Earth's energy imbalance is 0.75 W/m^2, CO_2 must be reduced to about 345 ppm to restore energy balance [64,75].

The measured energy imbalance indicates that an initial CO_2 target "<350 ppm" would be appropriate, if the aim is to stabilize climate without further global warming. That target is consistent with an earlier analysis [54]. Additional support for that target is provided by our analyses of ongoing climate change and paleoclimate, in later parts of our paper. Specification now of a CO_2 target more precise than <350 ppm is difficult and unnecessary, because of uncertain future changes of forcings including other gases, aerosols and surface albedo. More precise assessments will become available during the time that it takes to turn around CO_2 growth and approach the initial 350 ppm target.

Below we find the decreasing emissions scenario that would achieve the 350 ppm target within the present century. Specifically, we want to know the annual percentage rate at which emissions must be reduced to reach this target, and the dependence of this rate upon the date at which reductions are initiated. This approach is complementary to the approach of estimating cumulative emissions allowed to achieve a given limit on global warming [12].

If the only human-made climate forcing were changes of atmospheric CO_2, the appropriate CO_2 target might be close to the pre-industrial CO_2 amount [53]. However, there are other human forcings, including aerosols, the effect of aerosols on clouds, non-CO_2 greenhouse gases, and changes of surface albedo that will not disappear even if fossil fuel burning is phased out. Aerosol forcings are substantially a result of fossil fuel burning [1,76], but the net aerosol forcing is a sensitive function of various aerosol sources [76]. The indirect aerosol effect on clouds is non-linear [1,76] such that it has been suggested that even the modest aerosol amounts added by pre-industrial humans to an otherwise pristine atmosphere may have caused a significant climate forcing [59]. Thus continued precise monitoring of Earth's radiation imbalance is probably the best way to assess and adjust the appropriate CO_2 target.

Ironically, future reductions of particulate air pollution may exacerbate global warming by reducing the cooling effect of reflective aerosols. However, a concerted effort to reduce non-CO_2 forcings by methane, tropospheric ozone, other trace gases, and black soot might counteract the warming from a decline in reflective aerosols [54,75]. Our calculations below of future global temperature assume such compensation, as a first approximation. To the extent that goal is not achieved, adjustments must be made in the CO_2 target or future warming may exceed calculated values.

Climate Impacts

Determination of the dangerous level of global warming inherently is partly subjective, but we must be as quantitative as possible. Early estimates for dangerous global warming based on the "burning embers" approach [1,19–20] have been recognized as probably being too conservative [77]. A target of limiting warming to 2°C has been widely adopted, as discussed above. We suspect, however, that this may be a case of inching toward a better answer. If our suspicion is correct, then that gradual approach is itself very dangerous, because of the climate system's inertia. It will become exceedingly difficult to keep warming below a target smaller than 2°C, if high emissions continue much longer.

We consider several important climate impacts and use evidence from current observations to assess the effect of 0.8°C warming and paleoclimate data for the effect of larger warming, especially the Eemian period, which had global mean temperature about +2°C relative to pre-industrial time. Impacts of special interest are sea level rise and species extermination, because they are practically irreversible, and others important to humankind.

Sea Level

The prior interglacial period, the Eemian, was at most ~2°C warmer than 1880–1920 (Fig. 3). Sea level reached heights several meters above today's level [78–80], probably with instances of sea level change of the order of 1 m/century [81–83]. Geologic shoreline evidence has been interpreted as indicating a rapid sea level rise of a few meters late in the Eemian to a peak about 9 meters above present, suggesting the possibility that a critical stability threshold was crossed that caused polar ice sheet collapse [84–85], although there remains debate within the research community about this specific history and interpretation. The large Eemian sea level excursions imply that substantial ice sheet melting occurred when the world was little warmer than today.

During the early Pliocene, which was only ~3°C warmer than the Holocene, sea level attained heights as much as 15–25 meters higher than today [53,86–89]. Such sea level rise suggests that parts of East Antarctica must be vulnerable to eventual melting with global temperature increase of a few degrees Celsius. Indeed, satellite gravity data and radar altimetry reveal that the Totten Glacier of East Antarctica, which fronts a large ice mass grounded below sea level, is now losing mass [90].

Greenland ice core data suggest that the Greenland ice sheet response to Eemian warmth was limited [91], but the fifth IPCC assessment [14] concludes that Greenland very likely contributed between 1.4 and 4.3 m to the higher sea level of the Eemian. The West Antarctic ice sheet is probably more susceptible to rapid change, because much of it rests on bedrock well below sea level [92–93]. Thus the entire 3–4 meters of global sea level contained in that ice sheet may be vulnerable to rapid disintegration, although arguments for stability of even this marine ice sheet have been made [94]. However, Earth's history reveals sea level changes of as much as a few meters per century, even though the natural climate forcings changed much more slowly than the present human-made forcing.

Expected human-caused sea level rise is controversial in part because predictions focus on sea level at a specific time, 2100. Sea level on a given date is inherently difficult to predict, as it depends on how rapidly non-linear ice sheet disintegration begins. Focus on a single date also encourages people to take the estimated result as an indication of what humanity faces, thus failing to emphasize that the likely rate of sea level rise immediately after 2100 will be much larger than within the 21st century, especially if CO_2 emissions continue to increase.

Recent estimates of sea level rise by 2100 have been of the order of 1 m [95–96], which is higher than earlier assessments [26], but these estimates still in part assume linear relations between warming and sea level rise. It has been argued [97–98] that continued business-as-usual CO_2 emissions are likely to spur a nonlinear response with multi-meter sea level rise this century. Greenland and Antarctica have been losing mass at rapidly increasing rates during the period of accurate satellite data [23]; the data are suggestive of exponential increase, but the records are too short to be conclusive. The area on Greenland with summer melt has increased markedly, with 97% of Greenland experiencing melt in 2012 [99].

The important point is that the uncertainty is not about whether continued rapid CO_2 emissions would cause large sea level rise, submerging global coastlines – it is about how soon the large changes would begin. The carbon from fossil fuel burning will remain in and affect the climate system for many millennia, ensuring that over time sea level rise of many meters will occur – tens of meters if most of the fossil fuels are burned [53]. That order of sea level rise would result in the loss of hundreds of historical coastal cities worldwide with incalculable economic consequences, create hundreds of millions of global warming refugees from highly-populated low-lying areas, and thus likely cause major international conflicts.

Shifting Climate Zones

Theory and climate models indicate that the tropical overturning (Hadley) atmospheric circulation expands poleward with global warming [33]. There is evidence in satellite and radiosonde data and in observational data for poleward expansion of the tropical circulation by as much as a few degrees of latitude since the 1970s [34–35], but natural variability may have contributed to that expansion [36]. Change in the overturning circulation likely contributes to expansion of subtropical conditions and increased aridity in the southern United States [30,100], the Mediterranean region, South America, southern Africa, Madagascar, and southern Australia. Increased aridity and temperature contribute to increased forest fires that burn hotter and are more destructive [38].

Despite large year-to-year variability of temperature, decadal averages reveal isotherms (lines of a given average temperature) moving poleward at a typical rate of the order of 100 km/decade in the past three decades [101], although the range shifts for specific species follow more complex patterns [102]. This rapid shifting of climate zones far exceeds natural rates of change. Movement has been in the same direction (poleward, and upward in elevation) since about 1975. Wild species have responded to climate change, with three-quarters of marine species shifting their ranges poleward as much as 1000 km [44,103] and more than half of terrestrial species shifting ranges poleward as much as 600 km and upward as much as 400 m [104].

Humans may adapt to shifting climate zones better than many species. However, political borders can interfere with human migration, and indigenous ways of life already have been adversely affected [26]. Impacts are apparent in the Arctic, with melting tundra, reduced sea ice, and increased shoreline erosion. Effects of shifting climate zones also may be important for indigenous Americans who possess specific designated land areas, as well as other cultures with long-standing traditions in South America, Africa, Asia and Australia.

Human Extermination of Species

Biodiversity is affected by many agents including overharvesting, introduction of exotic species, land use changes, nitrogen fertilization, and direct effects of increased atmospheric CO_2 on plant ecophysiology [43]. However, an overriding role of climate change is exposed by diverse effects of rapid warming on animals, plants, and insects in the past three decades.

A sudden widespread decline of frogs, with extinction of entire mountain-restricted species attributed to global warming [105–106], provided a dramatic awakening. There are multiple causes of the detailed processes involved in global amphibian declines and extinctions [107–108], but global warming is a key contributor and portends a planetary-scale mass extinction in the making unless action is taken to stabilize climate while also fighting biodiversity's other threats [109].

Mountain-restricted and polar-restricted species are particularly vulnerable. As isotherms move up the mountainside and poleward, so does the climate zone in which a given species can survive. If global warming continues unabated, many of these species will be effectively pushed off the planet. There are already reductions in the population and health of Arctic species in the southern parts of the Arctic, Antarctic species in the northern parts of the Antarctic, and alpine species worldwide [43].

A critical factor for survival of some Arctic species is retention of all-year sea ice. Continued growth of fossil fuel emissions will cause loss of all Arctic summer sea ice within several decades. In contrast, the scenario in Fig. 5A, with global warming peaking just over 1°C and then declining slowly, should allow summer sea ice to survive and then gradually increase to levels representative of recent decades.

The threat to species survival is not limited to mountain and polar species. Plant and animal distributions reflect the regional climates to which they are adapted. Although species attempt to migrate in response to climate change, their paths may be blocked by human-constructed obstacles or natural barriers such as coast lines and mountain ranges. As the shift of climate zones [110] becomes comparable to the range of some species, less mobile species can be driven to extinction. Because of extensive species interdependencies, this can lead to mass extinctions.

Rising sea level poses a threat to a large number of uniquely evolved endemic fauna living on islands in marine-dominated ecosystems, with those living on low lying islands being especially vulnerable. Evolutionary history on Bermuda offers numerous examples of the direct and indirect impact of changing sea level on evolutionary processes [111–112], with a number of taxa being extirpated due to habitat changes, greater competition, and island inundation [113]. Similarly, on Aldahabra Island in the Indian Ocean, land tortoises were exterminated during sea level high stands [114]. Vulnerabilities would be magnified by the speed of human-made climate change and the potentially large sea level rise [115].

IPCC [26] reviewed studies relevant to estimating eventual extinctions. They estimate that if global warming exceeds 1.6°C above preindustrial, 9–31 percent of species will be committed to extinction. With global warming of 2.9°C, an estimated 21–52 percent of species will be committed to extinction. A comprehensive study of biodiversity indicators over the past decade [116] reveals that, despite some local success in increasing extent of protected areas, overall indicators of pressures on biodiversity including that due to climate change are continuing to increase and indicators of the state of biodiversity are continuing to decline.

Mass extinctions occurred several times in Earth's history [117–118], often in conjunction with rapid climate change. New species evolved over millions of years, but those time scales are almost beyond human comprehension. If we drive many species to extinction we will leave a more desolate, monotonous planet for our children, grandchildren, and more generations than we can imagine. We will also undermine ecosystem functions (e.g., pollination which is critical for food production) and ecosystem resilience (when losing keystone species in food chains), as well as reduce functional diversity (critical for the ability of ecosystems to respond to shocks and stress) and genetic diversity that plays an important role for development of new medicines, materials, and sources of energy.

Coral Reef Ecosystems

Coral reefs are the most biologically diverse marine ecosystem, often described as the rainforests of the ocean. Over a million species, most not yet described [119], are estimated to populate coral reef ecosystems generating crucial ecosystem services for at least 500 million people in tropical coastal areas. These ecosystems are highly vulnerable to the combined effects of ocean acidification and warming.

Acidification arises as the ocean absorbs CO_2, producing carbonic acid [120], thus making the ocean more corrosive to the calcium carbonate shells (exoskeletons) of many marine organisms. Geochemical records show that ocean pH is already outside its range of the past several million years [121–122]. Warming causes coral bleaching, as overheated coral expel symbiotic algae and become vulnerable to disease and mortality [123]. Coral bleaching and slowing of coral calcification already are causing mass mortalities, increased coral disease, and reduced reef carbonate accretion, thus disrupting coral reef ecosystem health [40,124].

Local human-made stresses add to the global warming and acidification effects, all of these driving a contraction of 1–2% per year in the abundance of reef-building corals [39]. Loss of the three-dimensional coral reef frameworks has consequences for all the species that depend on them. Loss of these frameworks also has consequences for the important roles that coral reefs play in supporting fisheries and protecting coastlines from wave stress. Consequences of lost coral reefs can be economically devastating for many nations, especially in combination with other impacts such as sea level rise and intensification of storms.

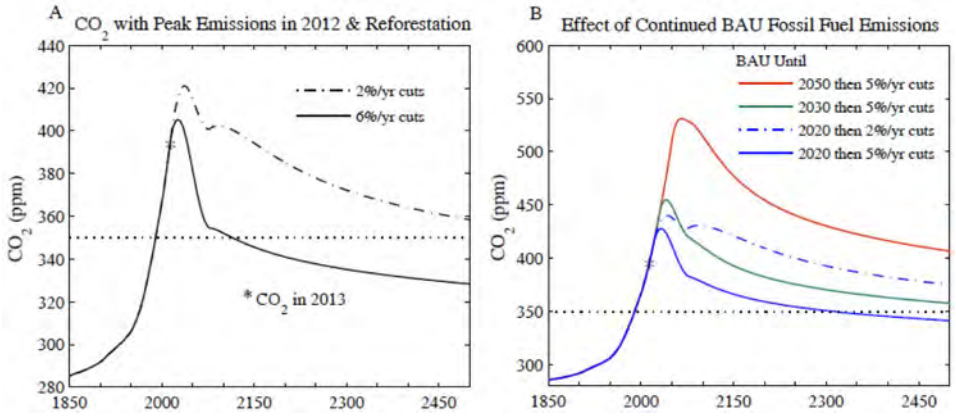


Figure 5. Atmospheric CO_2 if fossil fuel emissions reduced. (A) 6% or 2% annual cut begins in 2013 and 100 GtC reforestation drawdown occurs in 2031–2080, (B) effect of delaying onset of emission reduction.
doi:10.1371/journal.pone.0081648.g005

Climate Extremes

Changes in the frequency and magnitude of climate extremes, of both moisture and temperature, are affected by climate trends as well as changing variability. Extremes of the hydrologic cycle are expected to intensify in a warmer world. A warmer atmosphere holds more moisture, so precipitation can be heavier and cause more extreme flooding. Higher temperatures, on the other hand, increase evaporation and can intensify droughts when they occur, as can expansion of the subtropics, as discussed above. Global models for the 21st century find an increased variability of precipitation minus evaporation [P-E] in most of the world, especially near the equator and at high latitudes [125]. Some models also show an intensification of droughts in the Sahel, driven by increasing greenhouse gases [126].

Observations of ocean salinity patterns for the past 50 years reveal an intensification of [P-E] patterns as predicted by models, but at an even faster rate. Precipitation observations over land show the expected general increase of precipitation poleward of the subtropics and decrease at lower latitudes [1,26]. An increase of intense precipitation events has been found on much of the world's land area [127–129]. Evidence for widespread drought intensification is less clear and inherently difficult to confirm with available data because of the increase of time-integrated precipitation at most locations other than the subtropics. Data analyses have found an increase of drought intensity at many locations [130–131] The magnitude of change depends on the drought index employed [132], but soil moisture provides a good means to separate the effect of shifting seasonal precipitation and confirms an overall drought intensification [37].

Global warming of ~0.6°C since the 1970s (Fig. 3) has already caused a notable increase in the occurrence of extreme summer heat [46]. The likelihood of occurrence or the fractional area covered by 3-standard-deviation hot anomalies, relative to a base period (1951–1980) that was still within the range of Holocene climate, has increased by more than a factor of ten. Large areas around Moscow, the Mediterranean region, the United States and Australia have experienced such extreme anomalies in the past three years. Heat waves lasting for weeks have a devastating impact on human health: the European heat wave of summer 2003 caused over 70,000 excess deaths [133]. This heat record for Europe was surpassed already in 2010 [134]. The number of extreme heat waves has increased several-fold due to global warming [45–46,135] and will increase further if temperatures continue to rise.

Human Health

Impacts of climate change cause widespread harm to human health, with children often suffering the most. Food shortages, polluted air, contaminated or scarce supplies of water, an expanding area of vectors causing infectious diseases, and more intensely allergenic plants are among the harmful impacts [26]. More extreme weather events cause physical and psychological harm. World health experts have concluded with "very high confidence" that climate change already contributes to the global burden of disease and premature death [26].

IPCC [26] projects the following trends, if global warming continue to increase, where only trends assigned very high confidence or high confidence are included: (i) increased malnutrition and consequent disorders, including those related to child growth and development, (ii) increased death, disease and injuries from heat waves, floods, storms, fires and droughts, (iii) increased cardio-respiratory morbidity and mortality associated with ground-level ozone. While IPCC also projects fewer deaths from cold, this positive effect is far outweighed by the negative ones.

Growing awareness of the consequences of human-caused climate change triggers anxiety and feelings of helplessness [136–137]. Children, already susceptible to age-related insecurities, face additional destabilizing insecurities from questions about how they will cope with future climate change [138–139]. Exposure to media ensures that children cannot escape hearing that their future and that of other species is at stake, and that the window of opportunity to avoid dramatic climate impacts is closing. The psychological health of our children is a priority, but denial of the truth exposes our children to even greater risk.

Health impacts of climate change are in addition to direct effects of air and water pollution. A clear illustration of direct effects of fossil fuels on human health was provided by an inadvertent experiment in China during the 1950–1980 period of central planning, when free coal for winter heating was provided to North China but not to the rest of the country. Analysis of the impact was made [140] using the most comprehensive data file ever compiled on mortality and air pollution in any developing country. A principal conclusion was that the 500 million residents of North China experienced during the 1990s a loss of more than 2.5 billion life years owing to the added air pollution, and an average reduction in life expectancy of 5.5 years. The degree of air pollution in China exceeded that in most of the world, yet

assessments of total health effects must also include other fossil fuel caused air and water pollutants, as discussed in the following section on ecology and the environment.

The Text S1 has further discussion of health impacts of climate change.

Ecology and the Environment

The ecological impact of fossil fuel mining increases as the largest, easiest to access, resources are depleted [141]. A constant fossil fuel production rate requires increasing energy input, but also use of more land, water, and diluents, with the production of more waste [142]. The increasing ecological and environmental impact of a given amount of useful fossil fuel energy is a relevant consideration in assessing alternative energy strategies.

Coal mining has progressively changed from predominantly underground mining to surface mining [143], including mountaintop removal with valley fill, which is now widespread in the Appalachian ecoregion in the United States. Forest cover and topsoil are removed, explosives are used to break up rocks to access coal, and the excess rock is pushed into adjacent valleys, where it buries existing streams. Burial of headwater streams causes loss of ecosystems that are important for nutrient cycling and production of organic matter for downstream food webs [144]. The surface alterations lead to greater storm runoff [145] with likely impact on downstream flooding. Water emerging from valley fills contain toxic solutes that have been linked to declines in watershed biodiversity [146]. Even with mine-site reclamation intended to restore pre-mined surface conditions, mine-derived chemical constituents are found in domestic well water [147]. Reclaimed areas, compared with unmined areas, are found to have increased soil density with decreased organic and nutrient content, and with reduced water infiltration rates [148]. Reclaimed areas have been found to produce little if any regrowth of woody vegetation even after 15 years [149], and, although this deficiency might be addressed via more effective reclamation methods, there remains a likely significant loss of carbon storage [149].

Oil mining has an increasing ecological footprint per unit delivered energy because of the decreasing size of new fields and their increased geographical dispersion; transit distances are greater and wells are deeper, thus requiring more energy input [145]. Useful quantitative measures of the increasing ecological impacts are provided by the history of oil development in Alberta, Canada for production of both conventional oil and tar sands development. The area of land required per barrel of produced oil increased by a factor of 12 between 1955 and 2006 [150] leading to ecosystem fragmentation by roads and pipelines needed to support the wells [151]. Additional escalation of the mining impact occurs as conventional oil mining is supplanted by tar sands development, with mining and land disturbance from the latter producing land use-related greenhouse gas emissions as much as 23 times greater than conventional oil production per unit area [152], but with substantial variability and uncertainty [152–153]. Much of the tar sands bitumen is extracted through surface mining that removes the "overburden" (i.e., boreal forest ecosystems) and tar sand from large areas to a depth up to 100 m, with ecological impacts downstream and in the mined area [154]. Although mined areas are supposed to be reclaimed, as in the case of mountaintop removal, there is no expectation that the ecological value of reclaimed areas will be equivalent to predevelopment condition [141,155]. Landscape changes due to tar sands mining and reclamation cause a large loss of peatland and stored carbon, while also significantly reducing carbon sequestration potential [156]. Lake sediment cores document increased chemical pollution of ecosystems during the past several decades traceable to tar sands development [157] and snow and water samples indicate that recent levels of numerous pollutants exceeded local and national criteria for protection of aquatic organisms [158].

Gas mining by unconventional means has rapidly expanded in recent years, without commensurate understanding of the ecological, environmental and human health consequences [159]. The predominant approach is hydraulic fracturing ("fracking") of deep shale formations via injection of millions of gallons of water, sand and toxic chemicals under pressure, thus liberating methane [155,160]. A large fraction of the injected water returns to the surface as wastewater containing high concentrations of heavy metals, oils, greases and soluble organic compounds [161]. Management of this wastewater is a major technical challenge, especially because the polluted waters can continue to backflow from the wells for many years [161]. Numerous instances of groundwater and river contamination have been cited [162]. High levels of methane leakage from fracking have been found [163], as well as nitrogen oxides and volatile organic compounds [159]. Methane leaks increase the climate impact of shale gas, but whether the leaks are sufficient to significantly alter the climate forcing by total natural gas development is uncertain [164]. Overall, environmental and ecologic threats posed by unconventional gas extraction are uncertain because of limited research, however evidence for groundwater pollution on both local and river basin scales is a major concern [165].

Today, with cumulative carbon emissions ~370 GtC from all fossil fuels, we are at a point of severely escalating ecological and environmental impacts from fossil fuel use and fossil fuel mining, as is apparent from the mountaintop removal for coal, tar sands extraction of oil, and fracking for gas. The ecological and environmental implications of scenarios with carbon emissions of 1000 GtC or greater, as discussed below, would be profound and should influence considerations of appropriate energy strategies.

Summary: Climate Impacts

Climate impacts accompanying global warming of 2°C or more would be highly deleterious. Already there are numerous indications of substantial effects in response to warming of the past few decades. That warming has brought global temperature close to if not slightly above the prior range of the Holocene. We conclude that an appropriate target would be to keep global temperature at a level within or close to the Holocene range. Global warming of 2°C would be well outside the Holocene range and far into the dangerous range.

Transient Climate Change

We must quantitatively relate fossil fuel emissions to global temperature in order to assess how rapidly fossil fuel emissions must be phased down to stay under a given temperature limit. Thus we must deal with both a transient carbon cycle and transient global climate change.

Global climate fluctuates stochastically and also responds to natural and human-made climate forcings [1,166]. Forcings, measured in W/m^2 averaged over the globe, are imposed perturbations of Earth's energy balance caused by changing forcing agents such as solar irradiance and human-made greenhouse gases (GHGs). CO_2 accounts for more than 80% of the added GHG forcing in the past 15 years [64,167] and, if fossil fuel emissions continue at a high level, CO_2 will be the dominant driver of future global temperature change.

We first define our method of calculating atmospheric CO_2 as a function of fossil fuel emissions. We then define our assumptions

about the potential for drawing down atmospheric CO_2 via reforestation and increase of soil carbon, and we define fossil fuel emission reduction scenarios that we employ in our study. Finally we describe all forcings employed in our calculations of global temperature and the method used to simulate global temperature.

Carbon Cycle and Atmospheric CO_2

The carbon cycle defines the fate of CO_2 injected into the air by fossil fuel burning [1,168] as the additional CO_2 distributes itself over time among surface carbon reservoirs: the atmosphere, ocean, soil, and biosphere. We use the dynamic-sink pulse-response function version of the well-tested Bern carbon cycle model [169], as described elsewhere [54,170].

Specifically, we solve equations 3–6, 16–17, A.2.2, and A.3 of Joos et al. [169] using the same parameters and assumptions therein, except that initial (1850) atmospheric CO_2 is assumed to be 285.2 ppm [167]. Historical fossil fuel CO_2 emissions are from Boden et al. [5]. This Bern model incorporates non-linear ocean chemistry feedbacks and CO_2 fertilization of the terrestrial biosphere, but it omits climate-carbon feedbacks, e.g., assuming static global climate and ocean circulation. Therefore our results should be regarded as conservative, especially for scenarios with large emissions.

A pulse of CO_2 injected into the air decays by half in about 25 years as CO_2 is taken up by the ocean, biosphere and soil, but nearly one-fifth is still in the atmosphere after 500 years (Fig. 4A). Eventually, over hundreds of millennia, weathering of rocks will deposit all of this initial CO_2 pulse on the ocean floor as carbonate sediments [168].

Under equilibrium conditions a negative CO_2 pulse, i.e., artificial extraction and storage of some CO_2 amount, decays at about the same rate as a positive pulse (Fig. 4A). Thus if it is decided in the future that CO_2 must be extracted from the air and removed from the carbon cycle (e.g., by storing it underground or in carbonate bricks), the impact on atmospheric CO_2 amount will diminish in time. This occurs because carbon is exchanged among the surface carbon reservoirs as they move toward an equilibrium distribution, and thus, e.g., CO_2 out-gassing by the ocean can offset some of the artificial drawdown. The CO_2 extraction required to reach a given target atmospheric CO_2 level therefore depends on the prior emission history and target timeframe, but the amount that must be extracted substantially exceeds the net reduction of the atmospheric CO_2 level that will be achieved. We clarify this matter below by means of specific scenarios for capture of CO_2.

It is instructive to see how fast atmospheric CO_2 declines if fossil fuel emissions are instantly terminated (Fig. 4B). Halting emissions in 2015 causes CO_2 to decline to 350 ppm at century's end (Fig. 4B). A 20 year delay in halting emissions has CO_2 returning to 350 ppm at about 2300. With a 40 year delay, CO_2 does not return to 350 ppm until after 3000. These results show how difficult it is to get back to 350 ppm if emissions continue to grow for even a few decades.

These results emphasize the urgency of initiating emissions reduction [171]. As discussed above, keeping global climate close to the Holocene range requires a long-term atmospheric CO_2 level of about 350 ppm or less, with other climate forcings similar to today's levels. If emissions reduction had begun in 2005, reduction at 3.5%/year would have achieved 350 ppm at 2100. Now the requirement is at least 6%/year. Delay of emissions reductions until 2020 requires a reduction rate of 15%/year to achieve 350 ppm in 2100. If we assume only 50 GtC reforestation, and begin emissions reduction in 2013, the required reduction rate becomes about 9%/year.

Reforestation and Soil Carbon

Of course fossil fuel emissions will not suddenly terminate. Nevertheless, it is not impossible to return CO_2 to 350 ppm this century. Reforestation and increase of soil carbon can help draw down atmospheric CO_2. Fossil fuels account for ~80% of the CO_2 increase from preindustrial time, with land use/deforestation accounting for 20% [1,170,172–173]. Net deforestation to date is estimated to be 100 GtC (gigatons of carbon) with ±50% uncertainty [172].

Complete restoration of deforested areas is unrealistic, yet 100 GtC carbon drawdown is conceivable because: (1) the human-enhanced atmospheric CO_2 level increases carbon uptake by some vegetation and soils, (2) improved agricultural practices can convert agriculture from a CO_2 ource into a CO_2 sink [174], (3) biomass-burning power plants with CO_2 capture and storage can contribute to CO_2 drawdown.

Forest and soil storage of 100 GtC is challenging, but has other benefits. Reforestation has been successful in diverse places [175]. Minimum tillage with biological nutrient recycling, as opposed to plowing and chemical fertilizers, could sequester 0.4–1.2 GtC/year [176] while conserving water in soils, building agricultural resilience to climate change, and increasing productivity especially in smallholder rain-fed agriculture, thereby reducing expansion of agriculture into forested ecosystems [177–178]. Net tropical deforestation may have decreased in the past decade [179], but because of extensive deforestation in earlier decades [170,172–173,180–181] there is a large amount of land suitable for reforestation [182].

Use of bioenergy to draw down CO_2 should employ feedstocks from residues, wastes, and dedicated energy crops that do not compete with food crops, thus avoiding loss of natural ecosystems and cropland [183–185]. Reforestation competes with agricultural land use; land needs could decline by reducing use of animal products, as livestock now consume more than half of all crops [186].

Our reforestation scenarios assume that today's net deforestation rate (~1 GtC/year; see [54]) will stay constant until 2020, then linearly decrease to zero by 2030, followed by sinusoidal 100 GtC biospheric carbon storage over 2031–2080. Alternative timings do not alter conclusions about the potential to achieve a given CO_2 level such as 350 ppm.

Emission Reduction Scenarios

A 6%/year decrease of fossil fuel emissions beginning in 2013, with 100 GtC reforestation, achieves a CO_2 decline to 350 ppm near the end of this century (Fig. 5A). Cumulative fossil fuel emissions in this scenario are ~129 GtC from 2013 to 2050, with an additional 14 GtC by 2100. If our assumed land use changes occur a decade earlier, CO_2 returns to 350 ppm several years earlier; however that has negligible effect on the maximum global temperature calculated below.

Delaying fossil fuel emission cuts until 2020 (with 2%/year emissions growth in 2012–2020) causes CO_2 to remain above 350 ppm (with associated impacts on climate) until 2300 (Fig. 5B). If reductions are delayed until 2030 or 2050, CO_2 remains above 350 ppm or 400 ppm, respectively, until well after 2500.

We conclude that it is urgent that large, long-term emission reductions begin soon. Even if a 6%/year reduction rate and 500 GtC are not achieved, it makes a huge difference when reductions begin. There is no practical justification for why emissions necessarily must even approach 1000 GtC.

Climate Forcings

Atmospheric CO_2 and other GHGs have been well-measured for the past half century, allowing accurate calculation of their climate forcing. The growth rate of the GHG forcing has declined

moderately since its peak values in the 1980s, as the growth rate of CH_4 and chlorofluorocarbons has slowed [187]. Annual changes of CO_2 are highly correlated with the El Niño cycle (Fig. 6). Two strong La Niñas in the past five years have depressed CO_2 growth as well as the global warming rate (Fig. 3). The CO_2 growth rate and warming rate can be expected to increase as we move into the next El Niño, with the CO_2 growth already reaching 3 ppm/year in mid-2013 [188]. The CO_2 climate forcing does not increase as rapidly as the CO_2 amount because of partial saturation of CO_2 absorption bands [75]. The GHG forcing is now increasing at a rate of almost 0.4 W/m^2 per decade [187].

Solar irradiance variations are sometimes assumed to be the most likely natural driver of climate change. Solar irradiance has been measured from satellites since the late 1970s (Fig. 7). These data are from a composite of several satellite-measured time series. Data through 28 February 2003 are from [189] and Physikalisch Meteorologisches Observatorium Davos, World Radiation Center. Subsequent update is from University of Colorado Solar Radiation & Climate Experiment (SORCE). Data sets are concatenated by matching the means over the first 12 months of SORCE data. Monthly sunspot numbers (Fig. 7) support the conclusion that the solar irradiance in the current solar cycle is significantly lower than in the three preceding solar cycles. Amplification of the direct solar forcing is conceivable, e.g., through effects on ozone or atmospheric condensation nuclei, but empirical data place a factor of two upper limit on the amplification, with the most likely forcing in the range 100–120% of the directly measured solar irradiance change [64].

Recent reduced solar irradiance (Fig. 7) may have decreased the forcing over the past decade by about half of the full amplitude of measured irradiance variability, thus yielding a negative forcing of, say, − 0.12 W/m^2. This compares with a decadal increase of the GHG forcing that is positive and about three times larger in magnitude. Thus the solar forcing is not negligible and might partially account for the slowdown in global warming in the past decade [17]. However, we must (1) compare the solar forcing with the net of other forcings, which enhances the importance of solar change, because the net forcing is smaller than the GHG forcing, and (2) consider forcing changes on longer time scales, which greatly diminishes the importance of solar change, because solar variability is mainly oscillatory.

Human-made tropospheric aerosols, which arise largely from fossil fuel use, cause a substantial negative forcing. As noted above, two independent analyses [64,72] yield a total (direct plus indirect) aerosol forcing in the past decade of about −1.5 W/m^2, half the magnitude of the GHG forcing and opposite in sign. That empirical aerosol forcing assessment for the past decade is consistent with the climate forcings scenario (Fig. 8) that we use for the past century in the present and prior studies [64,190]. Supplementary Table S1 specifies the historical forcings and Table S2 gives several scenarios for future forcings.

Future Climate Forcings

Future global temperature change should depend mainly on atmospheric CO_2, at least if fossil fuel emissions remain high. Thus to provide the clearest picture of the CO_2 effect, we approximate the net future change of human-made non-CO_2 forcings as zero and we exclude future changes of natural climate forcings, such as solar irradiance and volcanic aerosols. Here we discuss possible effects of these approximations.

Uncertainties in non-CO_2 forcings concern principally solar, aerosol and other GHG forcings. Judging from the sunspot numbers (Fig. 7B and [191]) for the past four centuries, the current solar cycle is almost as weak as the Dalton Minimum of the late 18th century. Conceivably irradiance could decline further to the level of the Maunder Minimum of the late 17th century [192–193]. For our simulation we choose an intermediate path between recovery to the level before the current solar cycle and decline to a still lower level. Specifically, we keep solar irradiance fixed at the reduced level of 2010, which is probably not too far off in either direction. Irradiance in 2010 is about 0.1 W/m^2 less than the mean of the prior three solar cycles, a decrease of forcing that

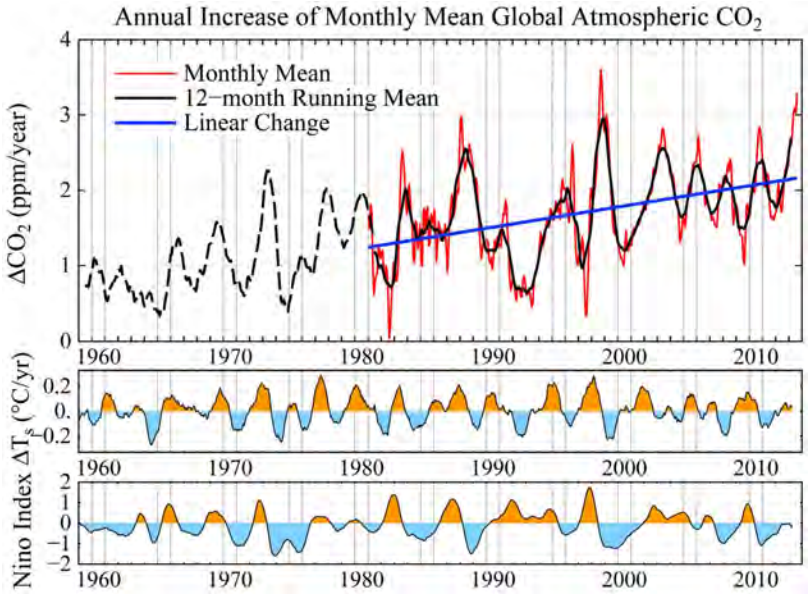


Figure 6. Annual increase of CO_2 based on data from the NOAA Earth System Research Laboratory [188]. Prior to 1981 the CO_2 change is based on only Mauna Loa, Hawaii. Temperature changes in lower diagram are 12-month running means for the globe and Niño3.4 area [16].
doi:10.1371/journal.pone.0081648.g006

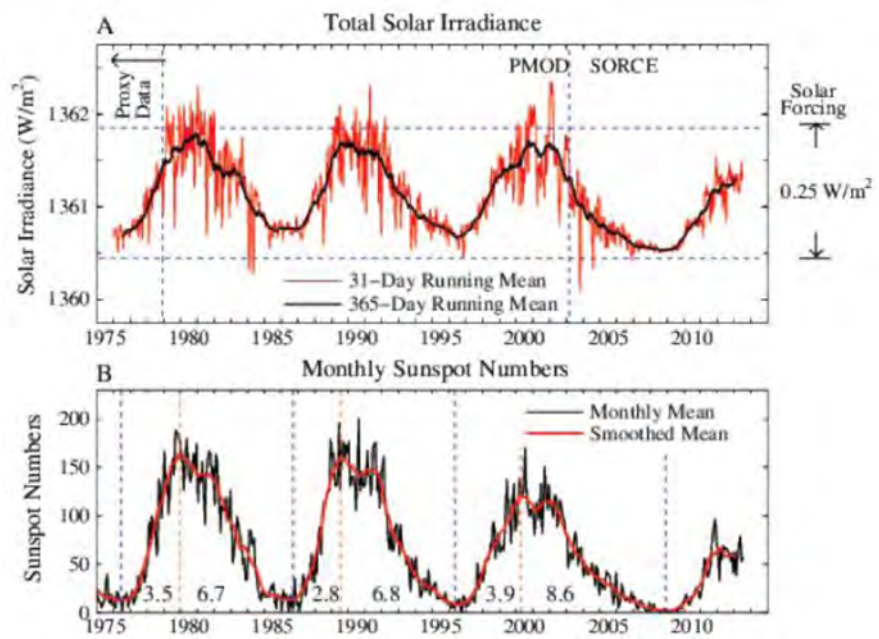


Figure 7. Solar irradiance and sunspot number in the era of satellite data (see text). Left scale is the energy passing through an area perpendicular to Sun-Earth line. Averaged over Earth's surface the absorbed solar energy is ~240 W/m^2, so the full amplitude of measured solar variability is ~0.25 W/m^2.
doi:10.1371/journal.pone.0081648.g007

would be restored by the CO_2 increase within 3–4 years at its current growth rate. Extensive simulations [17,194] confirm that the effect of solar variability is small compared with GHGs if CO_2 emissions continue at a high level. However, solar forcing can affect the magnitude and detection of near-term warming. Also, if rapidly declining GHG emissions are achieved, changes of solar forcing will become relatively more important.

Aerosols present a larger uncertainty. Expectations of decreases in large source regions such as China [195] may be counteracted by aerosol increases other places as global population continues to increase. Our assumption of unchanging human-made aerosols could be substantially off in either direction. For the sake of interpreting on-going and future climate change it is highly desirable to obtain precise monitoring of the global aerosol forcing [73].

Non-CO_2 GHG forcing has continued to increase at a slow rate since 1995 (Fig. 6 in [64]). A desire to constrain climate change may help reduce emissions of these gases in the future. However, it will be difficult to prevent or fully offset positive forcing from increasing N_2O, as its largest source is associated with food production and the world's population is continuing to rise.

On the other hand, we are also probably underestimating a negative aerosol forcing, e.g., because we have not included future volcanic aerosols. Given the absence of large volcanic eruptions in the past two decades (the last one being Mount Pinatubo in 1991), multiple volcanic eruptions would cause a cooling tendency [196] and reduce heat storage in the ocean [197].

Overall, we expect the errors due to our simple approximation of non-CO_2 forcings to be partially off-setting. Specifically, we have likely underestimated a positive forcing by non-CO_2 GHGs, while also likely underestimating a negative aerosol forcing.

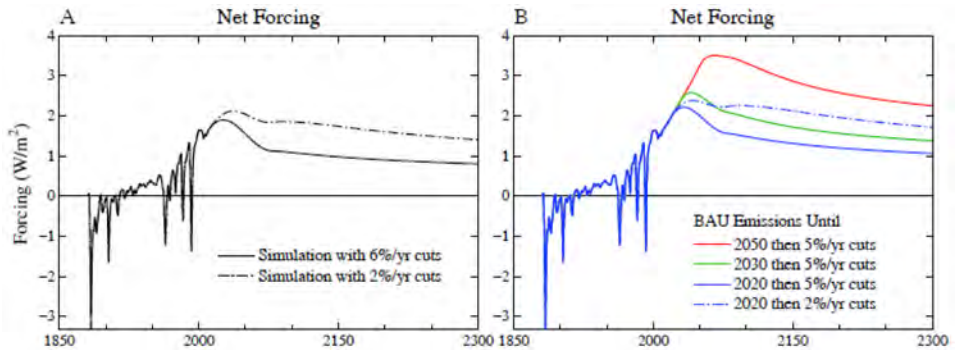


Figure 8. Climate forcings employed in our six main scenarios. Forcings through 2010 are as in [64].
doi:10.1371/journal.pone.0081648.g008

Note that uncertainty in forcings is partly obviated via the focus on Earth's energy imbalance in our analysis. The planet's energy imbalance is an integrative quantity that is especially useful for a case in which some of the forcings are uncertain or unmeasured. Earth's measured energy imbalance includes the effects of all forcings, whether they are measured or not.

Simulations of Future Global Temperature

We calculate global temperature change for a given CO_2 scenario using a climate response function (Table S3) that accurately replicates results from a global climate model with sensitivity 3°C for doubled CO_2 [64]. A best estimate of climate sensitivity close to 3°C for doubled CO_2 has been inferred from paleoclimate data [51–52]. This empirical climate sensitivity is generally consistent with that of global climate models [1], but the empirical approach makes the inferred high sensitivity more certain and the quantitative evaluation more precise. Because this climate sensitivity is derived from empirical data on how Earth responded to past changes of boundary conditions, including atmospheric composition, our conclusions about limits on fossil fuel emissions can be regarded as largely independent of climate models.

The detailed temporal and geographical response of the climate system to the rapid human-made change of climate forcings is not well-constrained by empirical data, because there is no faithful paleoclimate analog. Thus climate models necessarily play an important role in assessing practical implications of climate change. Nevertheless, it is possible to draw important conclusions with transparent computations. A simple response function (Green's function) calculation [64] yields an estimate of global mean temperature change in response to a specified time series for global climate forcing. This approach accounts for the delayed response of the climate system caused by the large thermal inertia of the ocean, yielding a global mean temporal response in close accord with that obtained from global climate models.

Tables S1 and S2 in Supporting Information give the forcings we employ and Table S3 gives the climate response function for our Green's function calculation, defined by equation 2 of [64]. The Green's function is driven by the net forcing, which, with the response function, is sufficient information for our results to be reproduced. However, we also include the individual forcings in Table S1, in case researchers wish to replace specific forcings or use them for other purposes.

Simulated global temperature (Fig. 9) is for CO_2 scenarios of Fig. 5. Peak global warming is ~1.1°C, declining to less than 1°C by mid-century, if CO_2 emissions are reduced 6%/year beginning in 2013. In contrast, warming reaches 1.5°C and stays above 1°C until after 2400 if emissions continue to increase until 2030, even though fossil fuel emissions are phased out rapidly (5%/year) after 2030 and 100 GtC reforestation occurs during 2030–2080. If emissions continue to increase until 2050, simulated warming exceeds 2°C well into the 22nd century.

Increased global temperature persists for many centuries after the climate forcing declines, because of the thermal inertia of the ocean [198]. Some temperature reduction is possible if the climate forcing is reduced rapidly, before heat has penetrated into the deeper ocean. Cooling by a few tenths of a degree in Fig. 9 is a result mainly of the 100 GtC biospheric uptake of CO_2 during 2030–2080. Note the longevity of the warming, especially if emissions reduction is as slow as 2%/year, which might be considered to be a rapid rate of reduction.

The temporal response of the real world to the human-made climate forcing could be more complex than suggested by a simple response function calculation, especially if rapid emissions growth continues, yielding an unprecedented climate forcing scenario. For example, if ice sheet mass loss becomes rapid, it is conceivable that the cold fresh water added to the ocean could cause regional surface cooling [199], perhaps even at a point when sea level rise has only reached a level of the order of a meter [200]. However, any uncertainty in the surface thermal response this century due to such phenomena has little effect on our estimate of the dangerous level of emissions. The long lifetime of the fossil fuel carbon in the climate system and the persistence of ocean warming for millennia [201] provide sufficient time for the climate system to achieve full response to the fast feedback processes included in the 3°C climate sensitivity.

Indeed, the long lifetime of fossil fuel carbon in the climate system and persistence of the ocean warming ensure that "slow" feedbacks, such as ice sheet disintegration, changes of the global vegetation distribution, melting of permafrost, and possible release of methane from methane hydrates on continental shelves, would also have time to come into play. Given the unprecedented rapidity of the human-made climate forcing, it is difficult to establish how soon slow feedbacks will become important, but clearly slow feedbacks should be considered in assessing the "dangerous" level of global warming, as discussed in the next section.

Danger of Initiating Uncontrollable Climate Change

Our calculated global warming as a function of CO_2 amount is based on equilibrium climate sensitivity 3°C for doubled CO_2. That is the central climate sensitivity estimate from climate models [1], and it is consistent with climate sensitivity inferred from Earth's climate history [51–52]. However, this climate sensitivity includes only the effects of fast feedbacks of the climate system, such as water vapor, clouds, aerosols, and sea ice. Slow feedbacks, such as change of ice sheet area and climate-driven changes of greenhouse gases, are not included.

Slow Climate Feedbacks and Irreversible Climate Change

Excluding slow feedbacks was appropriate for simulations of the past century, because we know the ice sheets were stable then and our climate simulations used observed greenhouse gas amounts that included any contribution from slow feedbacks. However, we must include slow feedbacks in projections of warming for the 21st century and beyond. Slow feedbacks are important because they affect climate sensitivity and because their instigation is related to the danger of passing "points of no return", beyond which irreversible consequences become inevitable, out of humanity's control.

Antarctic and Greenland ice sheets present the danger of change with consequences that are irreversible on time scales important to society [1]. These ice sheets required millennia to grow to their present sizes. If ice sheet disintegration reaches a point such that the dynamics and momentum of the process take over, at that point reducing greenhouse gases may be unable to prevent major ice sheet mass loss, sea level rise of many meters, and worldwide loss of coastal cities – a consequence that is irreversible for practical purposes. Interactions between the ocean and ice sheets are particularly important in determining ice sheet changes, as a warming ocean can melt the ice shelves, the tongues of ice that extend from the ice sheets into the ocean and buttress the large land-based ice sheets [92,202–203]. Paleoclimate data for sea level change indicate that sea level changed at rates of the order of a meter per century [81–83], even at times when the forcings driving climate change were far weaker than the human-

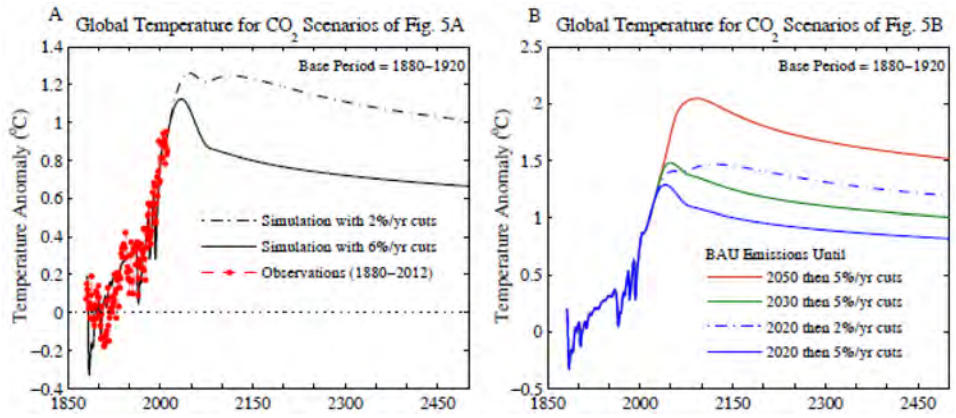


Figure 9. Simulated global temperature relative to 1880–1920 mean for CO_2 scenarios of Figure 5.
doi:10.1371/journal.pone.0081648.g009

made forcing. Thus, because ocean warming is persistent for centuries, there is a danger that large irreversible change could be initiated by excessive ocean warming.

Paleoclimate data are not as helpful for defining the likely rate of sea level rise in coming decades, because there is no known case of growth of a positive (warming) climate forcing as rapid as the anthropogenic change. The potential for unstable ice sheet disintegration is controversial, with opinion varying from likely stability of even the (marine) West Antarctic ice sheet [94] to likely rapid non-linear response extending up to multi-meter sea level rise [97–98]. Data for the modern rate of annual ice sheet mass changes indicate an accelerating rate of mass loss consistent with a mass loss doubling time of a decade or less (Fig. 10). However, we do not know the functional form of ice sheet response to a large persistent climate forcing. Longer records are needed for empirical assessment of this ostensibly nonlinear behavior.

Greenhouse gas amounts in the atmosphere, most importantly CO_2 and CH_4, change in response to climate change, i.e., as a feedback, in addition to the immediate gas changes from human-caused emissions. As the ocean warms, for example, it releases CO_2 to the atmosphere, with one principal mechanism being the simple fact that the solubility of CO_2 decreases as the water temperature rises [204]. We also include in the category of slow feedbacks the global warming spikes, or "hyperthermals", that have occurred a number of times in Earth's history during the course of slower global warming trends. The mechanisms behind these hyperthermals are poorly understood, as discussed below, but they are characterized by the injection into the surface climate system of a large amount of carbon in the form of CH_4 and/or CO_2 on the time scale of a millennium [205–207]. The average rate of injection of carbon into the climate system during these hyperthermals was slower than the present human-made injection of fossil fuel carbon, yet it was faster than the time scale for removal of carbon from the surface reservoirs via the weathering process [3,208], which is tens to hundreds of thousands of years.

Methane hydrates – methane molecules trapped in frozen water molecule cages in tundra and on continental shelves – and organic matter such as peat locked in frozen soils (permafrost) are likely mechanisms in the past hyperthermals, and they provide another climate feedback with the potential to amplify global warming if large scale thawing occurs [209–210]. Paleoclimate data reveal instances of rapid global warming, as much as 5–6°C, as a sudden additional warming spike during a longer period of gradual warming [see Text S1]. The candidates for the carbon injected into the climate system during those warmings are methane hydrates on continental shelves destabilized by sea floor warming [211] and carbon released from frozen soils [212]. As for the present, there are reports of methane release from thawing permafrost on land [213] and from sea-bed methane hydrate deposits [214], but amounts so far are small and the data are snapshots that do not prove that there is as yet a temporal increase of emissions.

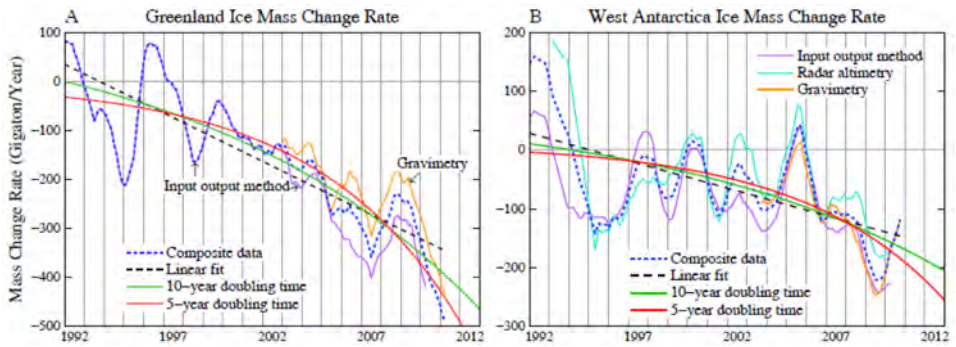


Figure 10. Annual Greenland and West Antarctic ice mass changes as estimated via alternative methods. Data were read from Figure 4 of Shepherd et al. [23] and averaged over the available records.
doi:10.1371/journal.pone.0081648.g010

There is a possibility of rapid methane hydrate or permafrost emissions in response to warming, but that risk is largely unquantified [215]. The time needed to destabilize large methane hydrate deposits in deep sediments is likely millennia [215]. Smaller but still large methane hydrate amounts below shallow waters as in the Arctic Ocean are more vulnerable; the methane may oxidize to CO_2 in the water, but it will still add to the long-term burden of CO_2 in the carbon cycle. Terrestrial permafrost emissions of CH_4 and CO_2 likely can occur on a time scale of a few decades to several centuries if global warming continues [215]. These time scales are within the lifetime of anthropogenic CO_2, and thus these feedbacks must be considered in estimating the dangerous level of global warming. Because human-made warming is more rapid than natural long-term warmings in the past, there is concern that methane hydrate or peat feedbacks could be more rapid than the feedbacks that exist in the paleoclimate record.

Climate model studies and empirical analyses of paleoclimate data can provide estimates of the amplification of climate sensitivity caused by slow feedbacks, excluding the singular mechanisms that caused the hyperthermal events. Model studies for climate change between the Holocene and the Pliocene, when Earth was about 3°C warmer, find that slow feedbacks due to changes of ice sheets and vegetation cover amplified the fast feedback climate response by 30–50% [216]. These same slow feedbacks are estimated to amplify climate sensitivity by almost a factor of two for the climate change between the Holocene and the nearly ice-free climate state that existed 35 million years ago [54].

Implication for Carbon Emissions Target

Evidence presented under Climate Impacts above makes clear that 2°C global warming would have consequences that can be described as disastrous. Multiple studies [12,198,201] show that the warming would be very long lasting. The paleoclimate record and changes underway in the Arctic and on the Greenland and Antarctic ice sheets with only today's warming imply that sea level rise of several meters could be expected. Increased climate extremes, already apparent at 0.8°C warming [46], would be more severe. Coral reefs and associated species, already stressed with current conditions [40], would be decimated by increased acidification, temperature and sea level rise. More generally, humanity and nature, the modern world as we know it, is adapted to the Holocene climate that has existed more than 10,000 years. Warming of 1°C relative to 1880–1920 keeps global temperature close to the Holocene range, but warming of 2°C, to at least the Eemian level, could cause major dislocations for civilization.

However, distinctions between pathways aimed at ~1°C and 2°C warming are much greater and more fundamental than the numbers 1°C and 2°C themselves might suggest. These fundamental distinctions make scenarios with 2°C or more global warming far more dangerous; so dangerous, we suggest, that aiming for the 2°C pathway would be foolhardy.

First, most climate simulations, including ours above and those of IPCC [1], do not include slow feedbacks such as reduction of ice sheet size with global warming or release of greenhouse gases from thawing tundra. These exclusions are reasonable for a ~1°C scenario, because global temperature barely rises out of the Holocene range and then begins to subside. In contrast, global warming of 2°C or more is likely to bring slow feedbacks into play. Indeed, it is slow feedbacks that cause long-term climate sensitivity to be high in the empirical paleoclimate record [51–52]. The lifetime of fossil fuel CO_2 in the climate system is so long that it must be assumed that these slow feedbacks will occur if temperature rises well above the Holocene range.

Second, scenarios with 2°C or more warming necessarily imply expansion of fossil fuels into sources that are harder to get at, requiring greater energy using extraction techniques that are increasingly invasive, destructive and polluting. Fossil fuel emissions through 2012 total ~370 GtC (Fig. 2). If subsequent emissions decrease 6%/year, additional emissions are ~130 GtC, for a total ~500 GtC fossil fuel emissions. This 130 GtC can be obtained mainly from the easily extracted conventional oil and gas reserves (Fig. 2), with coal use rapidly phased out and unconventional fossil fuels left in the ground. In contrast, 2°C scenarios have total emissions of the order of 1000 GtC. The required additional fossil fuels will involve exploitation of tar sands, tar shale, hydrofracking for oil and gas, coal mining, drilling in the Arctic, Amazon, deep ocean, and other remote regions, and possibly exploitation of methane hydrates. Thus 2°C scenarios result in more CO_2 per unit useable energy, release of substantial CH_4 via the mining process and gas transportation, and release of CO_2 and other gases via destruction of forest "overburden" to extract subterranean fossil fuels.

Third, with our ~1°C scenario it is more likely that the biosphere and soil will be able to sequester a substantial portion of the anthropogenic fossil fuel CO_2 carbon than in the case of 2°C or more global warming. Empirical data for the CO_2 "airborne fraction", the ratio of observed atmospheric CO_2 increase divided by fossil fuel CO_2 emissions, show that almost half of the emissions is being taken up by surface (terrestrial and ocean) carbon reservoirs [187], despite a substantial but poorly measured contribution of anthropogenic land use (deforestation and agriculture) to airborne CO_2 [179,216]. Indeed, uptake of CO_2 by surface reservoirs has at least kept pace with the rapid growth of emissions [187]. Increased uptake in the past decade may be a consequence of a reduced rate of deforestation [217] and fertilization of the biosphere by atmospheric CO_2 and nitrogen deposition [187]. With the stable climate of the ~1°C scenario it is plausible that major efforts in reforestation and improved agricultural practices [15,173,175–177], with appropriate support provided to developing countries, could take up an amount of carbon comparable to the 100 GtC in our ~1°C scenario. On the other hand, with warming of 2°C or more, carbon cycle feedbacks are expected to lead to substantial additional atmospheric CO_2 [218–219], perhaps even making the Amazon rainforest a source of CO_2 [219–220].

Fourth, a scenario that slows and then reverses global warming makes it possible to reduce other greenhouse gases by reducing their sources [75,221]. The most important of these gases is CH_4, whose reduction in turn reduces tropospheric O_3 and stratospheric H_2O. In contrast, chemistry modeling and paleoclimate records [222] show that trace gases increase with global warming, making it unlikely that overall atmospheric CH_4 will decrease even if a decrease is achieved in anthropogenic CH_4 sources. Reduction of the amount of atmospheric CH_4 and related gases is needed to counterbalance expected forcing from increasing N_2O and decreasing sulfate aerosols.

Now let us compare the 1°C (500 GtC fossil fuel emissions) and the 2°C (1000 GtC fossil fuel emissions) scenarios. Global temperature in 2100 would be close to 1°C in the 500 GtC scenario, and it is less than 1°C if 100 GtC uptake of carbon by the biosphere and soil is achieved via improved agricultural and forestry practices (Fig. 9). In contrast, the 1000 GtC scenario, although nominally designed to yield a fast-feedback climate response of ~ 2°C, would yield a larger eventual warming because of slow feedbacks, probably at least 3°C.

Danger of Uncontrollable Consequences

Inertia of the climate system reduces the near-term impact of human-made climate forcings, but that inertia is not necessarily our friend. One implication of the inertia is that climate impacts "in the pipeline" may be much greater than the impacts that we presently observe. Slow climate feedbacks add further danger of climate change running out of humanity's control. The response time of these slow feedbacks is uncertain, but there is evidence that some of these feedbacks already are underway, at least to a minor degree. Paleoclimate data show that on century and millennial time scales the slow feedbacks are predominately amplifying feedbacks.

The inertia of energy system infrastructure, i.e., the time required to replace fossil fuel energy systems, will make it exceedingly difficult to avoid a level of atmospheric CO_2 that would eventually have highly undesirable consequences. The danger of uncontrollable and irreversible consequences necessarily raises the question of whether it is feasible to extract CO_2 from the atmosphere on a large enough scale to affect climate change.

Carbon Extraction

We have shown that extraordinarily rapid emission reductions are needed to stay close to the 1°C scenario. In absence of extraordinary actions, it is likely that growing climate disruptions will lead to a surge of interest in "geo-engineering" designed to minimize human-made climate change [223]. Such efforts must remove atmospheric CO_2, if they are to address direct CO_2 effects such as ocean acidification as well as climate change. Schemes such as adding sulfuric acid aerosols to the stratosphere to reflect sunlight [224], an attempt to mask one pollutant with another, is a temporary band-aid for a problem that will last for millennia; besides it fails to address ocean acidification and may have other unintended consequences [225].

Potential for Carbon Extraction

At present there are no proven technologies capable of large-scale air capture of CO_2. It has been suggested that, with strong research and development support and industrial scale pilot projects sustained over decades, costs as low as ~$500/tC may be achievable [226]. Thermodynamic constraints [227] suggest that this cost estimate may be low. An assessment by the American Physical Society [228] argues that the lowest currently achievable cost, using existing approaches, is much greater ($600/tCO$_2$ or $2200/tC).

The cost of capturing 50 ppm of CO_2, at $500/tC (~$135/tCO$_2$), is ~$50 trillion (1 ppm CO_2 is ~2.12 GtC), but more than $200 trillion for the price estimate of the American Physical Society study. Moreover, the resulting atmospheric CO_2 reduction will ultimately be less than 50 ppm for the reasons discussed above. For example, let us consider the scenario of Fig. 5B in which emissions continue to increase until 2030 before decreasing at 5%/year – this scenario yields atmospheric CO_2 of 410 ppm in 2100. Using our carbon cycle model we calculate that if we extract 100 ppm of CO_2 from the air over the period 2030–2100 (10/7 ppm per year), say storing that CO_2 in carbonate bricks, the atmospheric CO_2 amount in 2100 will be reduced 52 ppm to 358 ppm, i.e., the reduction of airborne CO_2 is about half of the amount extracted from the air and stored. The estimated cost of this 52 ppm CO_2 reduction is $100–400 trillion.

The cost of CO_2 capture and storage conceivably may decline in the future. Yet the practicality of carrying out such a program with alacrity in response to a climate emergency is dubious. Thus it may be appropriate to add a CO_2 removal cost to the current price of fossil fuels, which would both reduce ongoing emissions and provide resources for future cleanup.

Responsibility for Carbon Extraction

We focus on fossil fuel carbon, because of its long lifetime in the carbon cycle. Reversing the effects of deforestation is also important and there will need to be incentives to achieve increased carbon storage in the biosphere and soil, but the crucial requirement now is to limit the amount of fossil fuel carbon in the air.

The high cost of carbon extraction naturally raises the question of responsibility for excess fossil fuel CO_2 in the air. China has the largest CO_2 emissions today (Fig. 11A), but the global warming effect is closely proportional to cumulative emissions [190]. The United States is responsible for about one-quarter of cumulative emissions, with China next at about 10% (Fig. 11B). Cumulative responsibilities change rather slowly (compare Fig. 10 of 190). Estimated per capita emissions (Fig. 12) are based on population estimates for 2009–2011.

Various formulae might be devised to assign costs of CO_2 air capture, should removal prove essential for maintaining acceptable climate. For the sake of estimating the potential cost, let us assume that it proves necessary to extract 100 ppm of CO_2 (yielding a reduction of airborne CO_2 of about 50 ppm) and let us assign each country the responsibility to clean up its fraction of cumulative emissions. Assuming a cost of $500/tC (~$135/tCO$_2$) yields a cost of $28 trillion for the United States, about $90,000 per individual. Costs would be slightly higher for a UK citizen, but less for other nations (Fig. 12B).

Cost of CO_2 capture might decline, but the cost estimate used is more than a factor of four smaller than estimated by the American Physical Society [228] and 50 ppm is only a moderate reduction. The cost should also include safe permanent disposal of the captured CO_2, which is a substantial mass. For the sake of scaling the task, note that one GtC, made into carbonate bricks, would produce the volume of ~3000 Empire State buildings or ~1200 Great Pyramids of Giza. Thus the 26 ppm assigned to the United States, if made into carbonate bricks, would be equivalent to the stone in 165,000 Empire State buildings or 66,000 Great Pyramids of Giza. This is not intended as a practical suggestion: carbonate bricks are not a good building material, and the transport and construction costs would be additional.

The point of this graphic detail is to make clear the magnitude of the cleanup task and potential costs, if fossil fuel emissions continue unabated. More useful and economic ways of removing CO_2 may be devised with the incentive of a sufficient carbon price. For example, a stream of pure CO_2 becomes available for capture and storage if biomass is used as the fuel for power plants or as feedstock for production of liquid hydrocarbon fuels. Such clean energy schemes and improved agricultural and forestry practices are likely to be more economic than direct air capture of CO_2, but they must be carefully designed to minimize undesirable impacts and the amount of CO_2 that can be extracted on the time scale of decades will be limited, thus emphasizing the need to limit the magnitude of the cleanup task.

Policy Implications

Human-made climate change concerns physical sciences, but leads to implications for policy and politics. Conclusions from the physical sciences, such as the rapidity with which emissions must be reduced to avoid obviously unacceptable consequences and the long lag between emissions and consequences, lead to implications in social sciences, including economics, law and ethics. Intergov-

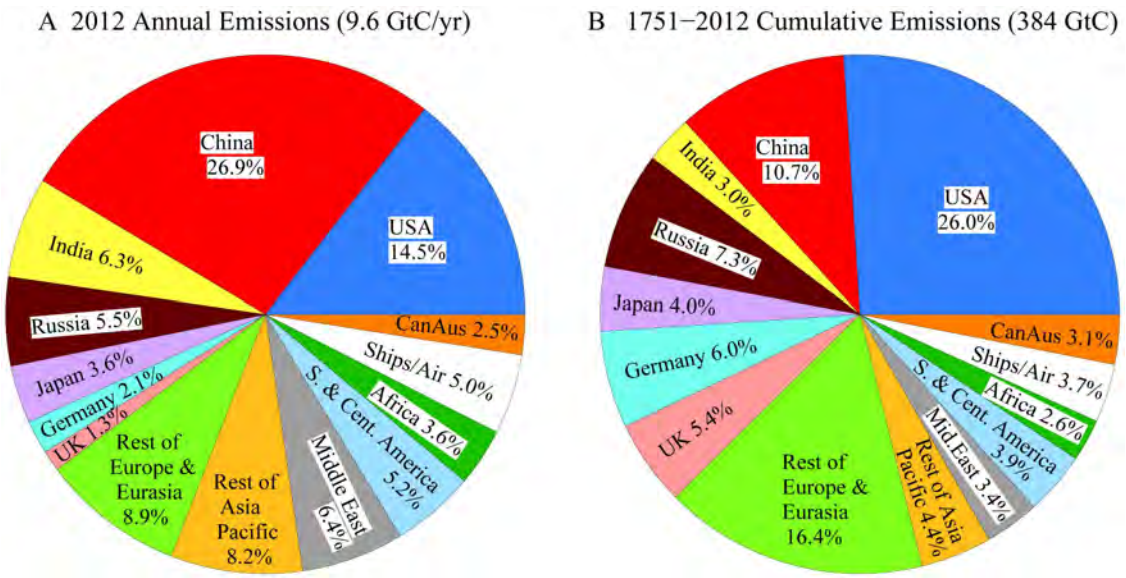


Figure 11. Fossil fuel CO_2 emissions. (A) 2012 emissions by source region, and (B) cumulative 1751–2012 emissions. Results are an update of Fig. 10 of [190] using data from [5].
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ernmental climate assessments [1,14] purposely are not policy prescriptive. Yet there is also merit in analysis and discussion of the full topic through the objective lens of science, i.e., "connecting the dots" all the way to policy implications.

Energy and Carbon Pathways: A Fork in the Road

The industrial revolution began with wood being replaced by coal as the primary energy source. Coal provided more concentrated energy, and thus was more mobile and effective. We show data for the United States (Fig. 13) because of the availability of a long data record that includes wood [229]. More limited global records yield a similar picture [Fig. 14], the largest difference being global coal now at ~30% compared with ~20% in the United States. Economic progress and wealth generation were further spurred in the twentieth century by expansion into liquid and gaseous fossil fuels, oil and gas being transported and burned more readily than coal. Only in the latter part of the twentieth century did it become clear that long-lived combustion products from fossil fuels posed a global climate threat, as formally acknowledged in the 1992 Framework Convention on Climate Change [6]. However, efforts to slow emissions of the principal atmospheric gas driving climate change, CO_2, have been ineffectual so far (Fig. 1).

Consequently, at present, as the most easily extracted oil and gas reserves are being depleted, we stand at a fork in the road to our energy and carbon future. Will we now feed our energy needs by pursuing difficult to extract fossil fuels, or will we pursue energy policies that phase out carbon emissions, moving on to the post fossil fuel era as rapidly as practical?

This is not the first fork encountered. Most nations agreed to the Framework Convention on Climate Change in 1992 [6]. Imagine if a bloc of countries favoring action had agreed on a common gradually rising carbon fee collected within each of country at domestic mines and ports of entry. Such nations might place equivalent border duties on products from nations not having a carbon fee and they could rebate fees to their domestic industry for export products to nations without an equivalent carbon fee. The legality of such a border tax adjustment under international trade law is untested, but is considered to be plausibly consistent with trade principles [230]. As the carbon fee gradually rose and as additional nations, for their own benefit, joined this bloc of nations, development of carbon-free energies and energy efficiency would have been spurred. If the carbon fee had begun in 1995, we

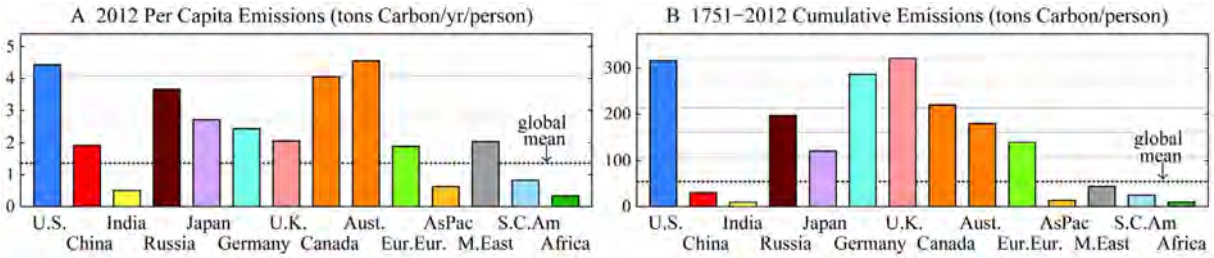


Figure 12. Per capita fossil fuel CO_2 emissions. Countries, regions and data sources are the same as in Fig. 11. Horizontal lines are the global mean and multiples of the global mean.
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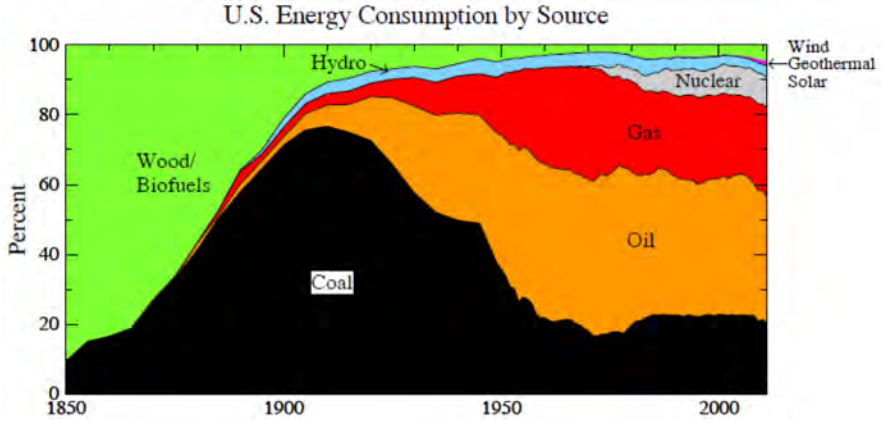


Figure 13. United States energy consumption [229].
doi:10.1371/journal.pone.0081648.g013

calculate that global emissions would have needed to decline 2.1%/year to limit cumulative fossil fuel emissions to 500 GtC. A start date of 2005 would have required a reduction of 3.5%/year for the same result.

The task faced today is more difficult. Emissions reduction of 6%/year and 100 GtC storage in the biosphere and soils are needed to get CO_2 back to 350 ppm, the approximate requirement for restoring the planet's energy balance and stabilizing climate this century. Such a pathway is exceedingly difficult to achieve, given the current widespread absence of policies to drive rapid movement to carbon-free energies and the lifetime of energy infrastructure in place.

Yet we suggest that a pathway is still conceivable that could restore planetary energy balance on the century time scale. That path requires policies that spur technology development and provide economic incentives for consumers and businesses such that social tipping points are reached where consumers move rapidly to energy conservation and low carbon energies. Moderate overshoot of required atmospheric CO_2 levels can possibly be counteracted via incentives for actions that more-or-less naturally sequester carbon. Developed countries, responsible for most of the excess CO_2 in the air, might finance extensive efforts in developing countries to sequester carbon in the soil and in forest regrowth on marginal lands as described above. Burning sustainably designed biofuels in power plants, with the CO_2 captured and sequestered, would also help draw down atmospheric CO_2. This pathway would need to be taken soon, as the magnitude of such carbon extractions is likely limited and thus not a solution to unfettered fossil fuel use.

The alternative pathway, which the world seems to be on now, is continued extraction of all fossil fuels, including development of unconventional fossil fuels such as tar sands, tar shale, hydro-fracking to extract oil and gas, and exploitation of methane hydrates. If that path (with 2%/year growth) continues for 20 years and is then followed by 3%/year emission reduction from 2033 to 2150, we find that fossil fuel emissions in 2150 would total 1022 GtC. Extraction of the excess CO_2 from the air in this case would be very expensive and perhaps implausible, and warming of the ocean and resulting climate impacts would be practically irreversible.

Economic Implications: Need for a Carbon Fee

The implication is that the world must move rapidly to carbon-free energies and energy efficiency, leaving most remaining fossil fuels in the ground, if climate is to be kept close to the Holocene range and climate disasters averted. Is rapid change possible?

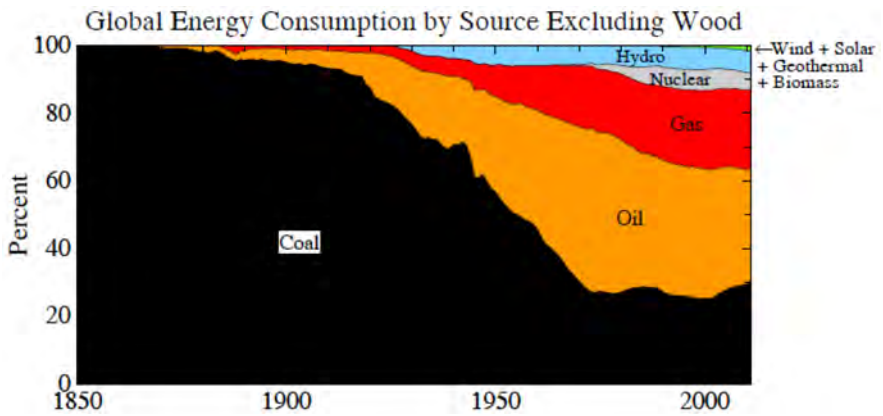


Figure 14. World energy consumption for indicated fuels, which excludes wood [4].
doi:10.1371/journal.pone.0081648.g014

The potential for rapid change can be shown by examples. A basic requirement for phasing down fossil fuel emissions is abundant carbon-free electricity, which is the most rapidly growing form of energy and also has the potential to provide energy for transportation and heating of buildings. In one decade (1977–1987), France increased its nuclear power production 15-fold, with the nuclear portion of its electricity increasing from 8% to 70% [231]. In one decade (2001–2011) Germany increased the non-hydroelectric renewable energy portion of its electricity from 4% to 19%, with fossil fuels decreasing from 63% to 61% (hydroelectric decreased from 4% to 3% and nuclear power decreased from 29% to 18%) [231].

Given the huge task of replacing fossil fuels, contributions are surely required from energy efficiency, renewable energies, and nuclear power, with the mix depending on local preferences. Renewable energy and nuclear power have been limited in part by technical challenges. Nuclear power faces persistent concerns about safety, nuclear waste, and potential weapons proliferation, despite past contributions to mortality prevention and climate change mitigation [232]. Most renewable energies tap diffuse intermittent sources often at a distance from the user population, thus requiring large-scale energy storage and transport. Developing technologies can ameliorate these issues, as discussed below. However, apparent cost is the constraint that prevents nuclear and renewable energies from fully supplanting fossil fuel electricity generation.

Transition to a post-fossil fuel world of clean energies will not occur as long as fossil fuels appear to the investor and consumer to be the cheapest energy. Fossil fuels are cheap only because they do not pay their costs to society and receive large direct and indirect subsidies [233]. Air and water pollution from fossil fuel extraction and use have high costs in human health, food production, and natural ecosystems, killing more than 1,000,000 people per year and affecting the health of billions of people [232,234], with costs borne by the public. Costs of climate change and ocean acidification, already substantial and expected to grow considerably [26,235], also are borne by the public, especially by young people and future generations.

Thus the essential underlying policy, albeit not sufficient, is for emissions of CO_2 to come with a price that allows these costs to be internalized within the economics of energy use. Because so much energy is used through expensive capital stock, the price should rise in a predictable way to enable people and businesses to efficiently adjust lifestyles and investments to minimize costs. Reasons for preference of a carbon fee or tax over cap-and-trade include the former's simplicity and relative ease of becoming global [236]. A near-global carbon tax might be achieved, e.g., via a bi-lateral agreement between China and the United States, the greatest emitters, with a border duty imposed on products from nations without a carbon tax, which would provide a strong incentive for other nations to impose an equivalent carbon tax. The suggestion of a carbon fee collected from fossil fuel companies with all revenues distributed to the public on a per capita basis [237] has received at least limited support [238].

Economic analyses indicate that a carbon price fully incorporating environmental and climate damage would be high [239]. The cost of climate change is uncertain to a factor of 10 or more and could be as high as ~$1000/tCO$_2$ [235,240]. While the imposition of such a high price on carbon emissions is outside the realm of short-term political feasibility, a price of that magnitude is not required to engender a large change in emissions trajectory.

An economic analysis indicates that a tax beginning at $15/tCO$_2$ and rising $10/tCO$_2$ each year would reduce emissions in the U.S. by 30% within 10 years [241]. Such a reduction is more than 10 times as great as the carbon content of tar sands oil carried by the proposed Keystone XL pipeline (830,000 barrels/day) [242]. Reduced oil demand would be nearly six times the pipeline capacity [241], thus the carbon fee is far more effective than the proposed pipeline.

A rising carbon fee is the *sine qua non* for fossil fuel phase out, but not enough by itself. Investment is needed in RD&D (research, development and demonstration) to help renewable energies and nuclear power overcome obstacles limiting their contributions. Intermittency of solar and wind power can be alleviated with advances in energy storage, low-loss smart electric grids, and electrical vehicles interacting with the grid. Most of today's nuclear power plants have half-century-old technology with light-water reactors [243] utilizing less than 1% of the energy in the nuclear fuel and leaving unused fuel as long-lived nuclear "waste" requiring sequestration for millennia. Modern light-water reactors can employ convective cooling to eliminate the need for external cooling in the event of an anomaly such as an earthquake. However, the long-term future of nuclear power will employ "fast" reactors, which utilize ~99% of the nuclear fuel and can "burn" nuclear waste and excess weapons material [243]. It should be possible to reduce the cost of nuclear power via modular standard reactor design, but governments need to provide a regulatory environment that supports timely construction of approved designs. RD&D on carbon capture and storage (CCS) technology is needed, especially given our conclusion that the current atmospheric CO_2 level is already in the dangerous zone, but continuing issues with CCS technology [7,244] make it inappropriate to construct fossil fuel power plants with a promise of future retrofit for carbon capture. Governments should support energy planning for housing and transportation, energy and carbon efficiency requirements for buildings, vehicles and other manufactured products, and climate mitigation and adaptation in undeveloped countries.

Economic efficiency would be improved by a rising carbon fee. Energy efficiency and alternative low-carbon and no-carbon energies should be allowed to compete on an equal footing, without subsidies, and the public and business community should be made aware that the fee will continually rise. The fee for unconventional fossil fuels, such as oil from tar sands and gas from hydrofracking, should include carbon released in mining and refining processes, e.g., methane leakage in hydrofracking [245–249]. If the carbon fee rises continually and predictably, the resulting energy transformations should generate many jobs, a welcome benefit for nations still suffering from long-standing economic recession. Economic modeling shows that about 60% of the public, especially low-income people, would receive more money via a per capita 100% dispersal of the collected fee than they would pay because of increased prices [241].

Fairness: Intergenerational Justice and Human Rights

Relevant fundamentals of climate science are clear. The physical climate system has great inertia, which is due especially to the thermal inertia of the ocean, the time required for ice sheets to respond to global warming, and the longevity of fossil fuel CO_2 in the surface carbon reservoirs (atmosphere, ocean, and biosphere). This inertia implies that there is additional climate change "in the pipeline" even without further change of atmospheric composition. Climate system inertia also means that, if large-scale climate change is allowed to occur, it will be exceedingly long-lived, lasting for many centuries.

One implication is the likelihood of intergenerational effects, with young people and future generations inheriting a situation in which grave consequences are assured, practically out of their

control, but not of their doing. The possibility of such intergenerational injustice is not remote – it is at our doorstep now. We have a planetary climate crisis that requires urgent change to our energy and carbon pathway to avoid dangerous consequences for young people and other life on Earth.

Yet governments and industry are rushing into expanded use of fossil fuels, including unconventional fossil fuels such as tar sands, tar shale, shale gas extracted by hydrofracking, and methane hydrates. How can this course be unfolding despite knowledge of climate consequences and evidence that a rising carbon price would be economically efficient and reduce demand for fossil fuels? A case has been made that the absence of effective governmental leadership is related to the effect of special interests on policy, as well as to public relations efforts by organizations that profit from the public's addiction to fossil fuels [237,250].

The judicial branch of governments may be less subject to pressures from special financial interests than the executive and legislative branches, and the courts are expected to protect the rights of all people, including the less powerful. The concept that the atmosphere is a public trust [251], that today's adults must deliver to their children and future generations an atmosphere as beneficial as the one they received, is the basis for a lawsuit [252] in which it is argued that the U.S. government is obligated to protect the atmosphere from harmful greenhouse gases.

Independent of this specific lawsuit, we suggest that intergenerational justice in this matter derives from fundamental rights of equality and justice. The Universal Declaration of Human Rights [253] declares "All are equal before the law and are entitled without any discrimination to equal protection of the law." Further, to consider a specific example, the United States Constitution provides all citizens "equal protection of the laws" and states that no person can be deprived of "life, liberty or property without due process of law". These fundamental rights are a basis for young people to expect fairness and justice in a matter as essential as the condition of the planet they will inhabit. We do not prescribe the legal arguments by which these rights can be achieved, but we maintain that failure of governments to effectively address climate change infringes on fundamental rights of young people.

Ultimately, however, human-made climate change is more a matter of morality than a legal issue. Broad public support is probably needed to achieve the changes needed to phase out fossil fuel emissions. As with the issue of slavery and civil rights, public recognition of the moral dimensions of human-made climate change may be needed to stir the public's conscience to the point of action.

A scenario is conceivable in which growing evidence of climate change and recognition of implications for young people lead to massive public support for action. Influential industry leaders, aware of the moral issue, may join the campaign to phase out emissions, with more business leaders becoming supportive as they recognize the merits of a rising price on carbon. Given the relative ease with which a flat carbon price can be made international [236], a rapid global emissions phasedown is feasible. As fossil fuels are made to pay their costs to society, energy efficiency and clean energies may reach tipping points and begin to be rapidly adopted.

Our analysis shows that a set of actions exists with a good chance of averting "dangerous" climate change, if the actions begin now. However, we also show that time is running out. Unless a human "tipping point" is reached soon, with implementation of effective policy actions, large irreversible climate changes will become unavoidable. Our parent's generation did not know that their energy use would harm future generations and other life on the planet. If we do not change our course, we can only pretend that we did not know.

Discussion

We conclude that an appropriate target is to keep global temperature within or close to the temperature range in the Holocene, the interglacial period in which civilization developed. With warming of 0.8°C in the past century, Earth is just emerging from that range, implying that we need to restore the planet's energy balance and curb further warming. A limit of approximately 500 GtC on cumulative fossil fuel emissions, accompanied by a net storage of 100 GtC in the biosphere and soil, could keep global temperature close to the Holocene range, assuming that the net future forcing change from other factors is small. The longevity of global warming (Fig. 9) and the implausibility of removing the warming if it is once allowed to penetrate the deep ocean emphasize the urgency of slowing emissions so as to stay close to the 500 GtC target.

Fossil fuel emissions of 1000 GtC, sometimes associated with a 2°C global warming target, would be expected to cause large climate change with disastrous consequences. The eventual warming from 1000 GtC fossil fuel emissions likely would reach well over 2°C, for several reasons. With such emissions and temperature tendency, other trace greenhouse gases including methane and nitrous oxide would be expected to increase, adding to the effect of CO_2. The global warming and shifting climate zones would make it less likely that a substantial increase in forest and soil carbon could be achieved. Paleoclimate data indicate that slow feedbacks would substantially amplify the 2°C global warming. It is clear that pushing global climate far outside the Holocene range is inherently dangerous and foolhardy.

The fifth IPCC assessment Summary for Policymakers [14] concludes that to achieve a 50% chance of keeping global warming below 2°C equivalent CO_2 emissions should not exceed 1210 GtC, and after accounting for non-CO_2 climate forcings this limit on CO_2 emissions becomes 840 GtC. The existing drafts of the fifth IPCC assessment are not yet approved for comparison and citation, but the IPCC assessment is consistent with studies of Meinshausen et al. [254] and Allen et al. [13], hereafter M2009 and A2009, with which we can make comparisons. We will also compare our conclusions with those of McKibben [255]. M2009 and A2009 appear together in the same journal with the two lead authors on each paper being co-authors on the other paper. McKibben [255], published in a popular magazine, uses quantitative results of M2009 to conclude that most remaining fossil fuel reserves must be left in the ground, if global warming this century is to be kept below 2°C. McKibben [255] has been very successful in drawing public attention to the urgency of rapidly phasing down fossil fuel emissions.

M2009 use a simplified carbon cycle and climate model to make a large ensemble of simulations in which principal uncertainties in the carbon cycle, radiative forcings, and climate response are allowed to vary, thus yielding a probability distribution for global warming as a function of time throughout the 21st century. M2009 use this distribution to infer a limit on total (fossil fuel+net land use) carbon emissions in the period 2000–2049 if global warming in the 21st century is to be kept below 2°C at some specified probability. For example, they conclude that the limit on total 2000–2049 carbon emissions is 1440 $GtCO_2$ (393 GtC) to achieve a 50% chance that 21st century global warming will not exceed 2°C.

A2009 also use a large ensemble of model runs, varying uncertain parameters, and conclude that total (fossil fuel+net land use) carbon emissions of 1000 GtC would most likely yield a peak

CO_2-induced warming of 2°C, with 90% confidence that the peak warming would be in the range 1.3–3.9°C. They note that their results are consistent with those of M2009, as the A2009 scenarios that yield 2°C warming have 400–500 GtC emissions during 2000–2049; M2009 find 393 GtC emissions for 2°C warming, but M2009 included a net warming effect of non-CO_2 forcings, while A2009 neglected non-CO_2 forcings.

McKibben [255] uses results of M2009 to infer allowable fossil fuel emissions up to 2050 if there is to be an 80% chance that maximum warming in the 21st century will not exceed 2°C above the pre-industrial level. M2009 conclude that staying under this 2°C limit with 80% probability requires that 2000–2049 emissions must be limited to 656 $GtCO_2$ (179 GtC) for 2007–2049. McKibben [255] used this M2009 result to determine a remaining carbon budget (at a time not specified exactly) of 565 $GtCO_2$ (154 GtC) if warming is to stay under 2°C. Let us update this analysis to the present: fossil fuel emissions in 2007–2012 were 51 GtC [5], so, assuming no net emissions from land use in these few years, the M2009 study implies that the remaining budget at the beginning of 2013 was 128 GtC.

Thus, coincidentally, the McKibben [255] approach via M2009 yields almost exactly the same remaining carbon budget (128 GtC) as our analysis (130 GtC). However, our budget is that required to limit warming to about 1°C (there is a temporary maximum during this century at about 1.1–1.2°C, Fig. 9), while McKibben [255] is allowing global warming to reach 2°C, which we have concluded would be a disaster scenario! This apparently vast difference arises from three major factors.

First, we assumed that reforestation and improved agricultural and forestry practices can suck up the net land use carbon of the past. We estimate net land use emissions as 100 GtC, while M2009 have land use emissions almost twice that large (~180 GtC). We argue elsewhere (see section 14 in Supporting Information of [54]) that the commonly employed net land use estimates [256] are about a factor of two larger than the net land use carbon that is most consistent with observed CO_2 history. However, we need not resolve that long-standing controversy here. The point is that, to make the M2009 study equivalent to ours, negative land use emissions must be included in the 21st century equal to earlier positive land use emissions.

Second, we have assumed that future net change of non-CO_2 forcings will be zero, while M2009 have included significant non-CO_2 forcings. In recent years non-CO_2 GHGs have provided about 20% of the increase of total GHG climate forcing.

Third, our calculations are for a single fast-feedback equilibrium climate sensitivity, 3°C for doubled CO_2, which we infer from paleoclimate data. M2009 use a range of climate sensitivities to compute a probability distribution function for expected warming, and then McKibben [255] selects the carbon emission limit that keeps 80% of the probability distribution below 2°C.

The third factor is a matter of methodology, but one to be borne in mind. Regarding the first two factors, it may be argued that our scenario is optimistic. That is true, but both goals, extracting 100 GtC from the atmosphere via improved forestry and agricultural practices (with possibly some assistance from CCS technology) and limiting additional net change of non-CO_2 forcings to zero, are feasible and probably much easier than the principal task of limiting additional fossil fuel emissions to 130 GtC.

We noted above that reforestation and improving agricultural and forestry practices that store more carbon in the soil make sense for other reasons. Also that task is made easier by the excess CO_2 in the air today, which causes vegetation to take up CO_2 more efficiently. Indeed, this may be the reason that net land use emissions seem to be less than is often assumed.

As for the non-CO_2 forcings, it is noteworthy that greenhouse gases controlled by the Montreal Protocol are now decreasing, and recent agreement has been achieved to use the Montreal Protocol to phase out production of some additional greenhouse gases even though those gases do not affect the ozone layer. The most important non-CO_2 forcing is methane, whose increases in turn cause tropospheric ozone and stratospheric water vapor to increase. Fossil fuel use is probably the largest source of methane [1], so if fossil fuel use begins to be phased down, there is good basis to anticipate that all three of these greenhouse gases could decrease, because of the approximate 10-year lifetime of methane.

As for fossil fuel CO_2 emissions, considering the large, long-lived fossil fuel infrastructure in place, the science is telling us that policy should be set to reduce emissions as rapidly as possible. The most fundamental implication is the need for an across-the-board rising fee on fossil fuel emissions in order to allow true free market competition from non-fossil energy sources. We note that biospheric storage should not be allowed to offset further fossil fuel emissions. Most fossil fuel carbon will remain in the climate system more than 100,000 years, so it is essential to limit the emission of fossil fuel carbon. It will be necessary to have incentives to restore biospheric carbon, but these must be accompanied by decreased fossil fuel emissions.

A crucial point to note is that the three tasks [limiting fossil fuel CO_2 emissions, limiting (and reversing) land use emissions, limiting (and reversing) growth of non-CO_2 forcings] are interactive and reinforcing. In mathematical terms, the problem is non-linear. As one of these climate forcings increases, it increases the others. The good news is that, as one of them decreases, it tends to decrease the others. In order to bestow upon future generations a planet like the one we received, we need to win on all three counts, and by far the most important is rapid phasedown of fossil fuel emissions.

It is distressing that, despite the clarity and imminence of the danger of continued high fossil fuel emissions, governments continue to allow and even encourage pursuit of ever more fossil fuels. Recognition of this reality and perceptions of what is "politically feasible" may partially account for acceptance of targets for global warming and carbon emissions that are well into the range of "dangerous human-made interference" with climate. Although there is merit in simply chronicling what is happening, there is still opportunity for humanity to exercise free will. Thus our objective is to define what the science indicates is needed, not to assess political feasibility. Further, it is not obvious to us that there are physical or economic limitations that prohibit fossil fuel emission targets far lower than 1000 GtC, even targets closer to 500 GtC. Indeed, we suggest that rapid transition off fossil fuels would have numerous near-term and long-term social benefits, including improved human health and outstanding potential for job creation.

A world summit on climate change will be held at United Nations Headquarters in September 2014 as a preliminary to negotiation of a new climate treaty in Paris in late 2015. If this treaty is analogous to the 1997 Kyoto Protocol [257], based on national targets for emission reductions and cap-and-trade-with-offsets emissions trading mechanisms, climate deterioration and gross intergenerational injustice will be practically guaranteed. The palpable danger that such an approach is conceivable is suggested by examination of proposed climate policies of even the most forward-looking of nations. Norway, which along with the other Scandinavian countries has been among the most ambitious and successful of all nations in reducing its emissions, nevertheless approves expanded oil drilling in the Arctic and development of tar sands as a majority owner of Statoil [258–259]. Emissions

foreseen by the Energy Perspectives of Statoil [259], if they occur, would approach or exceed 1000 GtC and cause dramatic climate change that would run out of control of future generations. If, in contrast, leading nations agree in 2015 to have internal rising fees on carbon with border duties on products from nations without a carbon fee, a foundation would be established for phaseover to carbon free energies and stable climate.

Supporting Information

Table S1
(ODS)

Table S2
(ODS)

Table S3
(ODS)

Text S1
(DOC)

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Author Contributions

Conceived and designed the experiments: JH PK MS. Performed the experiments: MS PK. Wrote the paper: JH. Wrote the first draft: JH. All authors made numerous critiques and suggested specific wording and references: JH PK MS VM-D FA DJB PJH OHG SLH CP JR EJR JS PS KS LVS KvS JCZ. Especially: PK MS VM-D.

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Atmospheric Chemistry and Physics Discussions

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Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2 °C global warming is highly dangerous

J. Hansen[1], M. Sato[1], P. Hearty[2], R. Ruedy[3,4], M. Kelley[3,4], V. Masson-Delmotte[5], G. Russell[4], G. Tselioudis[4], J. Cao[6], E. Rignot[7,8], I. Velicogna[8,7], E. Kandiano[9], K. von Schuckmann[10], P. Kharecha[1,4], A. N. Legrande[4], M. Bauer[11], and K.-W. Lo[3,4]

[1]Climate Science, Awareness and Solutions, Columbia University Earth Institute, New York, NY 10115, USA
[2]Department of Environmental Studies, University of North Carolina at Wilmington, North Carolina 28403, USA
[3]Trinnovium LLC, New York, NY 10025, USA
[4]NASA Goddard Institute for Space Studies, 2880 Broadway, New York, NY 10025, USA
[5]Institut Pierre Simon Laplace, Laboratoire des Sciences du Climat et de l'Environnement (CEA-CNRS-UVSQ), Gif-sur-Yvette, France

[6]Key Lab of Aerosol Chemistry & Physics, Institute of Earth Environment, Chinese Academy of Sciences, Xi'an 710075, China
[7]Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California, 91109, USA
[8]Department of Earth System Science, University of California, Irvine, California, 92697, USA
[9]GEOMAR, Helmholtz Centre for Ocean Research, Wischhofstrasse 1–3, Kiel 24148, Germany
[10]Mediterranean Institute of Oceanography, University of Toulon, La Garde, France
[11]Department of Applied Physics and Applied Mathematics, Columbia University, New York, NY, 10027, USA

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Correspondence to: J. Hansen (jeh1@columbia.edu)

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Abstract

There is evidence of ice melt, sea level rise to +5–9 m, and extreme storms in the prior interglacial period that was less than 1 °C warmer than today. Human-made climate forcing is stronger and more rapid than paleo forcings, but much can be learned by combining insights from paleoclimate, climate modeling, and on-going observations. We argue that ice sheets in contact with the ocean are vulnerable to non-linear disintegration in response to ocean warming, and we posit that ice sheet mass loss can be approximated by a doubling time up to sea level rise of at least several meters. Doubling times of 10, 20 or 40 years yield sea level rise of several meters in 50, 100 or 200 years. Paleoclimate data reveal that subsurface ocean warming causes ice shelf melt and ice sheet discharge. Our climate model exposes amplifying feedbacks in the Southern Ocean that slow Antarctic bottom water formation and increase ocean temperature near ice shelf grounding lines, while cooling the surface ocean and increasing sea ice cover and water column stability. Ocean surface cooling, in the North Atlantic as well as the Southern Ocean, increases tropospheric horizontal temperature gradients, eddy kinetic energy and baroclinicity, which drive more powerful storms. We focus attention on the Southern Ocean's role in affecting atmospheric CO_2 amount, which in turn is a tight control knob on global climate. The millennial (500–2000 year) time scale of deep ocean ventilation affects the time scale for natural CO_2 change, thus the time scale for paleo global climate, ice sheet and sea level changes. This millennial carbon cycle time scale should not be misinterpreted as the ice sheet time scale for response to a rapid human-made climate forcing. Recent ice sheet melt rates have a doubling time near the lower end of the 10–40 year range. We conclude that 2 °C global warming above the preindustrial level, which would spur more ice shelf melt, is highly dangerous. Earth's energy imbalance, which must be eliminated to stabilize climate, provides a crucial metric.

1 Introduction

Humanity is rapidly extracting and burning fossil fuels without full understanding of the consequences. Current assessments place emphasis on practical effects such as increasing extremes of heat waves, droughts, heavy rainfall, floods, and encroaching seas (IPCC, 2014; USNCA, 2014). These assessments and our recent study (Hansen et al., 2013a) conclude that there is an urgency to slow carbon dioxide (CO_2) emissions, because the longevity of the carbon in the climate system (Archer, 2005) and persistence of the induced warming (Solomon et al., 2010) may lock in unavoidable highly undesirable consequences.

Despite these warnings, global CO_2 emissions continue to increase as fossil fuels remain the primary energy source. The argument is made that it is economically and morally responsible to continue fossil fuel use for the sake of raising living standards, with expectation that humanity can adapt to climate change and find ways to minimize effects via advanced technologies.

We suggest that this viewpoint fails to appreciate the nature of the threat posed by ice sheet instability and sea level rise. If the ocean continues to accumulate heat and increase melting of marine-terminating ice shelves of Antarctica and Greenland, a point will be reached at which it is impossible to avoid large scale ice sheet disintegration with sea level rise of at least several meters. The economic and social cost of losing functionality of all coastal cities is practically incalculable. We suggest that a strategic approach relying on adaptation to such consequences is unacceptable to most of humanity, so it is important to understand this threat as soon as possible.

We examine events late in the last interglacial period warmer than today, called Marine Isotope Stage (MIS) 5e in studies of ocean sediment cores, Eemian in European climate studies, and sometimes Sangamonian in American literature (see Sect. 5 for timescale diagram of Marine Isotope Stages). Accurately known changes of Earth's astronomical configuration altered the seasonal and geographical distribution of incoming radiation during the Eemian. Resulting global warming was due to feedbacks that am-

plified the orbital forcing. While the Eemian is not an analog of future warming, it is useful for investigating climate feedbacks, the response of polar ice sheets to polar warming, and the interplay between ocean circulation and ice sheet melt.

Our study relies on a large body of research by the scientific community. After introducing evidence concerning late Eemian climate change, we analyze relevant climate processes in three stages. First we carry our IPCC-like climate simulations, but with growing freshwater sources in the North Atlantic and Southern Oceans. Second we use paleoclimate data to extract information on key processes identified by the modeling. Third we use modern data to show that these processes are already spurring climate change today.

2 Evidence concerning Eemian climate

We first discuss geologic evidence of late-Eemian sea level rise and storms. We then discuss ocean core data that help define a rapid cooling event in the North Atlantic that marks the initial descent from interglacial conditions toward global ice age conditions. This rapid end-Eemian cooling occurs at ∼ 118 ky b2k in ocean cores with uncertainty ∼ 2 ky, and is identified by Chapman and Shackleton (1999) as cold event C26.

C26 is the cold phase of Dansgaard–Oeschger climate oscillation D–O 26 in the NGRIP (North Greenland Ice Core Project) ice core (NGRIP, 2004). C26 begins with a sharp cooling at 119.14 ky b2k on the GICC05modelext time scale (Rasmussen et al., 2014). The GICC05 time scale is based on annual layer counting in Greenland ice cores for the last 60 ky and on an ice flow-model extension for earlier times. An alternative time scale is provided by Antarctic ice core chronology AICC2012 (Bazin et al., 2013; Veres et al., 2013) on which Greenland ice core records have been synchronized via global markers such as oscillations of atmospheric CH_4 amount. C26 on Greenland is at 116.72 ky b2k on the AICC2012 time scale. Figure S1 in the Supplement shows the difference between GICC05 and AICC2012 times scales versus time.

This age uncertainty for C26 is consistent with the ice core 2σ error estimate of 3.2 ky at Eemian time (Bazin et al., 2013). Despite this absolute age uncertainty, we can use Greenland data synchronized to the AICC2012 time scale to determine the relative timing of Greenland and Antarctic climate changes (Sect. 5) to an accuracy of a few decades (Bazin et al., 2013).

2.1 Eemian sea level

Eemian sea level is of special interest because Eemian climate was at most ∼ 2 °C warmer than pre-industrial climate, thus at most ∼ 1 °C warmer than today. Indeed, based on multiple data and model sources Masson-Delmotte et al. (2013) suggest that peak Eemian temperature was only a few tenths of a degree warmer than today. The Eemian period thus provides an indication of sea level change that can be expected if global temperature reaches and maintains a level moderately higher than today. Eemian sea level reached heights several meters above today's level (Chen et al., 1991; Neumann and Hearty, 1996; Hearty et al., 2007; Kopp et al., 2009; Dutton and Lambeck, 2012; O'Leary et al., 2013). Although climate forcings were weak and changed slowly during the Eemian, there were probably instances in the Eemian with sea level change of the order of 1 m century^{-1} (Rohling et al., 2008; W. Thompson et al., 2011; Blanchon et al., 2009).

Hearty et al. (2007) used shoreline stratigraphy, field information, and geochronological data from 15 sites around the world to construct a composite curve of Eemian sea level change. Their reconstruction has sea level rising in the early Eemian to +2–3 m ("+" indicates above today's sea level). Mid-Eemian sea level may have fallen a few meters to a level near today's sea level. Sea level rose rapidly in the late Eemian when it cut multiple bioerosional notches in older limestone in the Bahamas and elsewhere at +6–9 m. These brief upward shifts of sea level were interpreted as evidence of rapid ice melt events.

This sea level behavior may be surprising at first glance, and it is easy to question specific details because of the difficulties in sea level reconstructions, including the

effect of regional glacio-isostatic adjustment (GIA) of Earth's crust as ice sheets grow and decay. Indeed, rapid late-Eemian sea level rise is unexpected, because seasonal insolation anomalies favored growth of Northern Hemisphere ice at that time. However, the basic conclusion that arises from global studies is a sea level elevation difference of 3–5 m between late and early Eemian. We will show in the remainder of this paper that there is now substantial supporting evidence for these sea level change features and a rational interpretation.

Assessed chronology of sea level change depends on ages estimated for fossil corals. The analytic uncertainty of uranium radioactive decay (U-series) ages is about 1 ky (Edwards et al., 2003; Scholz and Mangini, 2007), but often undetectable diagenetic effects can increase the error (Bard et al., 1992; Thompson and Goldstein, 2005). The growth position of corals is a good, though not comprehensive, indicator of sea level, because sea level had to be higher than the reef at the time of coral growth. However, some corals grow at a range of depths, which adds uncertainty. Furthermore, if sea level rises too fast, corals tend to "give up" or founder, only recording minimum sea level (Neumann and MacIntyre, 1985), and if sea level falls corals are exposed, die, and thus stop recording sea level. Mobile carbonate sediments that mantle limestone platforms such as Bermuda and the Bahamas record rapid sea level change effectively, because the sediments respond and cement quickly, thus preserving sea level change evidence.

Hearty and Kindler (1993), White et al. (1998) and Wilson et al. (1998) describe evidence in fossil Bahamian reefs of a mid-Eemian regressive-transgressive cycle (sea level fall and rise). They estimated a sea level fall from +4 m to approximately today's level, and then a rise to at least +6 m. U-series dating defined the period of fall and rise as a maximum of 1500 years covering ~ 125 to 124 ky b2k, and the high stand lasting until ~ 119 ky b2k. Such rapid sea level change requires ice sheet growth and melt, regional lithospheric adjustment, or both.

Blanchon et al. (2009) used a sequence of coral reef crests from northeast Yucatan peninsula, Mexico, to investigate sea level change with a higher temporal precision

than possible with U-series dating alone. They used coral reef "back-stepping", i.e., the fact that the location of coral reef building moves shoreward as sea level rises, to infer sea level change. They found that in the latter half of the Eemian there was a point at which sea level jumped by 2–3 m within an "ecological" period, i.e., within several decades. From U-series dating they estimated that this period of rapid sea level rise occurred at about 121 ky b2k. W. Thompson et al. (2011) reexamined Eemian coral reef data from the Bahamas with a method that corrected uranium-thorium ages for diagenic disturbances. They confirmed a mid-Eemian sea level minimum, putting sea level at +4 m at 123 ky b2k, at +6 m at 119 ky b2k, and at 0 m at some time in between, again noting that coral reefs only record minimum sea level.

Despite general consistency among these studies, considerable uncertainty remains about details of Eemian sea level change. Sources of uncertainty include post-depositional effects of GIA and local tectonics. Global models of GIA of Earth's crust to loading and unloading of ice sheets are used increasingly to improve assessments of past sea level change. Although GIA models contain uncertain parameters, they provide a useful indication of possible displacement of geological sea level indicators. O'Leary et al. (2013) provide a new perspective on Eemian sea level change using over 100 well-dated U-series coral reefs at 28 sites along the 1400 km west coast of Australia and incorporating GIA corrections on regional sea level. In agreement with Hearty et al. (2007), their analyses suggest that sea level was relatively stable at 3–4 m in most of the Eemian, followed by a rapid (< 1000 yr) late-Eemian sea level rise to about +9 m. U-series dating of the corals has the sea level rise begin at 119 ky b2k and peak sea level at 118.1 ± 1.4 ky b2k. This dating of peak sea level is consistent with the estimate of Hearty and Neumann (2001) of ~ 118 ky b2k as the time of rapid climate changes and extreme storminess.

End-Eemian sea level rise would seem to be a paradox, because orbital forcing then favored growth of Northern Hemisphere ice sheets. We will find evidence, however, that the sea level rise and increased storminess are consistent, and likely related to events in the Southern Ocean.

2.2 Evidence of end-Eemian storms in Bahamas and Bermuda

Late-Eemian sea level rise was followed by rapid sea level fall at the end of MIS 5e (Neumann and Hearty, 1996; Stirling et al., 1998; McCulloch and Esat, 2000; Lambeck and Chappell, 2001; Lea et al., 2002). Geologic data suggest that this sea level oscillation was accompanied by increased temperature gradients and storminess in the North Atlantic region. Here we summarize evidence for end-Eemian storminess, based mainly on geological studies of Neumann and Hearty (1996), Hearty (1997), Hearty et al. (1998), Hearty and Neumann (2001) and Hearty et al. (2007) in Bermuda and the Bahamas. In following sections we examine data from ocean sediment cores relevant to climate events in this period and then make global climate simulations, which help us suggest causal connections among end-Eemian events.

The Bahama Banks are low-lying carbonate platforms that are exposed during glacials and largely flooded during interglacial high stands. From a tectonic perspective, the platforms are relatively stable, but may have experienced minor GIA effects. When flooded during MIS 5e sea level rise, enormous volumes of aragonitic oolitic grains were generated across the shallow high energy banks, shoals, ridges, and dunes, where storm deposits indurated rapidly upon subaerial exposure, preserving rock evidence of brief, high-energy events. The preserved stratigraphic, sedimentary and geomorphic features attest to the energy of the late-Eemian Atlantic Ocean and point to a turbulent end-Eemian transition.

In the Bahama Islands, extensive oolitic sand ridges with a distinctive landward-pointing V-shape are common, each standing in relief across several kilometers of low area (Hearty et al., 1998). Termed “chevron ridges” from their characteristic V-shape, these beach ridges are found on broad, low lying platforms or ramps throughout the Atlantic-facing, deep-water margins of the Bahamas. Hearty et al. (1998) examined 35 areas with chevron ridges across the Bahamas, which all point in a southwest direction (S65° W) with no apparent relation to the variable configuration of the coastline.

The lightly indurated ooid sand ridges are several kilometers long and appear to have originated from the action of long-period waves from a northeasterly Atlantic source. The chevron ridges contain bands of beach fenestrae, formed by air bubbles trapped in fine ooid sand inundated by water and quickly indurated. The internal sedimentary structures including the beach fenestrae and scour structures (Tormey, 2015) show that the chevrons were rapidly emplaced by water rather than wind (Hearty et al., 1998). These landforms were deposited near the end of a sea level high stand, when sea level was just beginning to fall, otherwise they would have been reworked subsequently by stable or rising seas. Some chevrons contain multiple smaller ridges “nested” in a seaward direction (Hearty et al., 1998), providing further evidence that sea level was falling fast enough to strand and preserve older chevrons as distinct landforms.

Fine-grained carbonate ooids cement rapidly, sometimes within decades to a century, if left immobile (Taft et al., 1968; Curran et al., 2008). Additional evidence of the rapid emplacement of the sand ridges is inferred from burial of large trees and fronds in living positions (Neumann and Hearty, 1996; Hearty and Olson, 2011). Fenestrae are abundant primarily in the youngest 5e beds throughout the eastern margin of the Bahamas.

Older ridges adjacent to the chevron ridges have wave runup deposits that reach heights nearly 40 m above present sea level, far above the reach of a quiescent 5e sea surface. Such elevated beach fenestrae are considered to result from runup of very large waves (Wanless and Dravis, 1989). These stratigraphically youngest deposits on the shore-parallel ridges are 1-5 m thick fenestrae-filled seaward-sloping tabular beds of stage 5e age that mantle older MIS 5e dune deposits (Neumann and Moore, 1975; Chen at al., 1991; Neumann and Hearty, 1996; Tormey, 2015). Runup beds reach more than a kilometer from the present coast, mantling the eastern flanks of stage 5e ridges (Hearty et al., 1998). Bain and Kindler (1994) suggested the fenestrae could be rain-generated, but the fenestrae at high elevations are widespread and exclusive to the late 5e deposits. They are not commonly found in older dune ridges (Hearty et al., 1998).

Enormous boulders tossed onto an older Pleistocene landscape (Hearty, 1997; Hearty et al., 1998; Hearty and Neumann, 2001) provide a metric of powerful waves at the end of stage 5e. Giant displaced boulders (Fig. 1) were deposited in north Eleuthera, Bahamas near chevron ridges and runup deposits (Hearty, 1997). The boulders are composed of recrystallized oolitic-peloidal limestone of MIS 9 or 11 age (300–400 ky; Kindler and Hearty, 1996; Hearty, 1998). The boulders rest on oolitic sediments and fossils typical of MIS 5e, and thus were deposited after most of the interglacial had passed. The maximum age of boulder emplacement is ~ 115–120 ky based on their stratigraphy and association with regressive stage 5e marine, eolian and fossil land snail (*Cerion*) deposits (Hearty, 1997; Hearty et al., 1998). Hearty (1997) reasoned that the boulders were emplaced during the latest substage 5e highstand, while sea level remained high, because even larger waves would have been required at times of lower sea level during MIS sub-stages 5c and 5a in order to lift the boulders over the cliffs.

The boulders must have been transported to their present position by waves, as two of the largest ones (Fig. 1) are located on the crest of the island's ridge, eliminating the possibility that they were moved downward by gravity (Hearty, 1998) or are the karstic remnants of some ancient landscape. A tsunami conceivably deposited the boulders, but the area is not near a tectonic plate boundary. The coincidence of a tsunami at the end-Eemian moment is improbable given the absence of evidence of tsunamis at other times in the Bahamas and the lack of evidence of tsunamis on the Atlantic Coastal Plain of the United States. The proximity of run-up deposits and nested chevron ridges across a broad front of Bahamian islands is clear evidence of a sustained series of high-energy wave events.

The remarkable size of the boulders in north Eleuthera becomes more comprehensible upon realization that numerous boulders larger than 10 m^3 have been thrown up on Eleuthera Island by storms during the Holocene (Hearty, 1997). The mass and volume of the Holocene boulders (the largest ~ 90 m^3, Table 4 of Hearty, 1997) are about 10× smaller than the MIS 5e boulders (Table 2 of Hearty, 1997). Hearty (1998) notes that the

large 5e and Holocene boulders are all located at the apex of a narrowing horseshoe-shaped submerged embayment (Fig. 2 of Hearty, 1997). Long period ocean waves are funneled into this embayment, generating huge surge and splash even today as they impact the cliffs near the Glass Window Bridge.

Movement of these sediments, including chevrons, run-up deposits and boulders, required a potent sustained energy source. Anticipating our interpretation in terms of powerful storms driven by an unusually warm tropical ocean and strong zonal temperature gradients in the North Atlantic, we must ask whether there should not be evidence of comparable end-Eemian storms in Bermuda. Indeed, there are seaward sloping planar beds rising to about +20 m along several kilometers of the north coast of Bermuda (Land et al., 1967; Vacher and Rowe, 1997; Hearty et al., 1998). These beds, from the latest stage 5e, are filled with beach fenestrae in platy grains and thick air-filled laminations, in marked contrast to older stage 5 sedimentary structures that underlie them (Hearty et al., 1998). Meter-scale, subtidal cross beds comprise the seaward facies of the elevated beach beds, reflecting an interval of exceptional wave energy on the normally tranquil, shallow and broad north shore platform of Bermuda.

Given the geologic evidence of high seas and storminess from Bermuda and the Bahamas, Hearty and Neumann (2001) suggested "Steeper pressure, temperature, and moisture gradients adjacent to warm tropical waters could presumably spawn larger and more frequent cyclonic storms in the North Atlantic than those seen today." We now seek further evidence related to the question of whether powerful end-Eemian storms in the North Atlantic may have dispersed long-period, well-organized waves to the southwest.

2.3 End-Eemian evidence from North Atlantic sediment cores

Sediment cores from multiple locations provide information not only on ocean temperature and circulation changes (Fig. 2), but also changes on ice sheet destabilization inferred from ice rafted debris. Comparison of data from different sites is affected by inaccuracy in absolute dating and use of different age models. Dating of sediments is

usually based on tuning to the time scale of Earth orbital variations (Martinson et al., 1987) or "wiggle-matching" to another record (Sirocko et al., 2005), which limits accuracy to several ky. Temporal resolution is limited by bioturbation of sediments; thus resolution varies with core location and climate (Keigwin and Jones, 1994). For example, high deposition rates during ice ages at the Bermuda Rise yield a resolution of a few decades, but low sedimentation rates during the Eemian yield a resolution of a few centuries (Lehman et al., 2002). Lateral transport of sedimentary material prior to deposition complicates data interpretation and can introduce uncertainty, as argued specifically regarding data from the Bermuda Rise (Ohkouchi et al., 2002; Engelbrecht and Sachs, 2005).

Adkins et al. (1997) analyzed sediment core (MD95-2036, 34° N, 58° W) from the Bermuda Rise using an age model based on Martinson et al. (1987) orbital tuning with the MIS stage 5/6 transition set at 131 ky b2k and the stage 5d/5e transition at 114 ky b2k. They found that oxygen isotope δ^{18}O of planktonic (near-surface dwelling) foraminifera and benthic (deep ocean) foraminifera both attain full interglacial values at ~ 128 ky b2k and remain nearly constant for ~ 10 ky (their Fig. 2). Adkins et al. (1997) infer that: "Late within isotope stage 5e (~ 118 ky b2k), there is a rapid shift in oceanic conditions in the western North Atlantic. . . " They find in the sediments at that point an abrupt increase of clays indicative of enhanced land-based glacier melt and an increase of high nutrient "southern source waters". The latter change implies a shutdown or diminution of NADW formation that allows Antarctic Bottom Water (AABW) to push into the deep North Atlantic Ocean (Duplessy et al., 1988; Govin et al., 2009). Adkins et al. (1997) continue: "The rapid deep and surface hydrographic changes found in this core mark the end of the peak interglacial and the beginning of climate deterioration towards the semi-glacial stage 5d. Before and immediately after this event, signaling the impeding end of stage 5e, deep-water chemistry is similar to modern NADW." This last sentence refers to a temporary rebound to near interglacial conditions. In Sect. 5 we use accurately synchronized Greenland and Antarctic ice cores, which also reveal

this temporary end-Eemian climate rebound, to interpret the glacial inception and its relation to ice melt and late-Eemian sea level rise.

Ice rafted debris (IRD) found in ocean cores provides a useful climate diagnostic tool (Heinrich, 1988; Hemming, 2004). Massive ice rafting ("Heinrich") events are often associated with decreased NADW production and shutdown or slowdown of the Atlantic Meridional Overturning Circulation (AMOC) (Broecker, 2002; Barrieiro et al., 2008; Srokosz et al., 2012). However, ice rafting occurs on a continuum of scales, and significant IRD is found in the cold phase of all the 24 Dansgaard–Oeschger (D–O) climate oscillations first identified in Greenland ice cores (Dansgaard et al., 1993). D–O events exhibit rapid warming on Greenland of at least several degrees within a few decades or less, followed by cooling over a longer period. Chapman and Shackleton (1999) found IRD events in the NEAP18K core for all D–O events (C19–C24) within the core interval that they studied, and they also labeled two additional events (C25 and C26). C26 did not produce identifiable IRD at the NEAP18K site, but it was added to the series because of its strong surface cooling.

Lehman et al. (2002) quantify the C26 cooling event using the same Bermuda Rise core (MD95-2036) and age model as Adkins et al. (1997). Based on the alkenone paleo-temperature technique (Sachs and Lehman, 1999), Lehman et al. (2002) find a sharp sea surface temperature (SST) decrease of ~ 3 °C (their Fig. 1) at ~ 118 ky BP, coinciding with the end-Eemian shoulder of the benthic δ^{18}O plateau that defines stage 5e in the deep ocean. The SST partially recovered after several centuries, but C26 marked the start of a long slide into the depths of stage 5d cold, as ice sheets grew and sea level fell ~ 50 m in 10 ky (Lambeck and Chappell, 2001; Rohling et al., 2009). Lehman et al. (2002) wiggle-match the MD95-2036 and NEAP18K cores, finding a simple adjustment to the age model of Chapman and Shackleton (1999) that maximizes correlation of the benthic δ^{18}O records with the Adkins et al. (1997) δ^{18}O record. Specifically, they adjust the NEAP time scale by +4 ky before the MIS 5b δ^{18}O minimum and by +2 ky after it, which places C26 cooling at 118 ky b2k in both records.

They give preference to the Adkins et al. (1997) age scale because it employs a ^{230}Th-based time scale between 100 and 130 ky b2k.

We do not assert that the end-Eemian C-26 cooling was necessarily at 118 ky b2k, but we suggest that the strong rapid cooling observed in several sediment cores in this region of the subtropical and midlatitude North Atlantic Drift at about this time were all probably the same event. Such a large cooling lasting for centuries would not likely be confined to a small region. The dating models in several other studies place the date of the end-Eemian shoulder of the deep ocean δ^{18}O and an accompanying surface cooling event in the range 116–118 ky b2k.

Kandiano et al. (2004) and Bauch and Kandiano (2007) analyze core M23414 (53° N, 17° W), west of Ireland, finding a major SST end-Eemian cooling that they identify as C26 and place at 117 ky b2k. The 1 ky change in the timing of this event compared with Lehman et al. (2002), is due to a minor change in the age model, specifically, Bauch and Kandiano say: "The original age model of MD95-2036 (Lehman et al., 2002) has been adjusted to our core M23414 by alignment of the 4 per mil level in the benthic δ^{18}O records (at 130 ka in M23414) and the prominent C24 event in both cores." Bauch and Erlenkeuser (2008) and H. Bauch et al. (2012) examine ocean cores along the North Atlantic Current including its continuation into the Nordic seas. They find that in the Greenland-Iceland-Norwegian (GIN) Sea, unlike middle latitudes, the Eemian was warmest near the end of the interglacial period. The age model employed by Bauch and Erlenkeuser (2008) has the Eemian about 2 ky younger than the Adkins et al. (1997) age model, Bauch and Erlenkeuser (2008) having the benthic δ^{18}O plateau at ~ 116–124 ky BP (their Fig. 6). Rapid cooling they illustrate there at ~ 116.6 ky BP for core M23071 on the Voring Plateau (67° N, 3° E) likely corresponds to the C26 end-Eemian cooling event.

Identification of end-Eemian cooling in ocean cores is hampered by the fact that Eemian North Atlantic climate was more variable than in the Holocene (Fronval and Jansen, 1996). There were at least three cooling events within the Eemian, each with minor increases in IRD, which are labeled C27, C27a and C27b by Oppo et al. (2006);

see their Fig. 2 for core site ODP-980 in the eastern North Atlantic (55° N, 15° W) near Ireland. High (sub-centennial) resolution cores in the Eirik drift region (MD03-2664, 57° N,49° W) near the southern tip of Greenland reveal an event with rapid cooling accompanied by reduction in NADW production (Irvali et al., 2012; Galaasen et al., 2014), which they place at ~ 117 ky b2k. However, their age scale has the benthic δ^{18}O shoulder at ~ 115 ky b2k (Fig. S1 in the Supplement, Galaasen et al., 2014), so that event may have been C27b with C26 being stronger cooling that occurred thereafter.

2.4 Eemian timing consistency with insolation anomalies

Glacial-interglacial climate cycles are affected by insolation change, as shown persuasively by Hays et al. (1976) and discussed in Sect. 5.1. Each "termination" (Broecker, 1984) of glacial conditions in the past several hundred thousand years coincided with a large positive warm-season insolation anomaly at the latitude of North American and Eurasian ice sheets (Raymo, 1997; Paillard, 2001). The explanation is that positive summer insolation anomalies (negative in winter) favor increased summer melting and reduced winter snowfall, thus shrinking ice sheets.

Termination timing is predicted better by high Northern Hemisphere late spring (April–May–June) insolation than by summer anomalies. For example, Raymo (1997) places Terminations I and II (preceding the Holocene and Eemian) midpoints at 13.5 and 128–131 ky b2k. Late spring insolation maxima are at 13.2 and 129.5 ky b2k (Fig. 4a). The AICC2012 ice core chronology (Bazin et al., 2013) places Termination II at 128.5 ky b2k, with 2σ uncertainty 3.2 ky. Late spring irradiance maximizes warm-season ice melt by producing the earliest feasible warm-season ice sheet darkening via snow melt and snow recrystallization (Hansen et al., 2007b).

Late Eemian sea level rise is seemingly a paradox, because glacial-interglacial sea level change is mainly a result of the growth and decay of Northern Hemisphere ice sheets. Northern warm-season insolation anomalies were negative and declining in the latter part of the Eemian (Fig. 3a), so Northern Hemisphere ice sheets should have been growing. We suggest that the explanation for a mid-Eemian sea level minimum is

a substantial late-Eemian collapse of the Antarctic ice sheet facilitated by the positive warm-season insolation anomaly on Antarctica and the Southern Ocean during the late Eemian (Fig. 3b).

Persuasive presentation of this interpretation requires analysis of relevant climate mechanisms with a global model as well as a detailed discussion of paleoclimate data. We will show that these analyses in turn help to explain ongoing climate change today, with implications for continuing climate change this century.

3 Simulations of 1850–2300 climate change

We make simulations for 1850–2300 with radiative forcings that were used for IPCC (2007, 2013) studies. This allows comparison with simulations made for prior studies.

3.1 Climate model

Simulations are made with an improved version of a coarse-resolution model that allows long runs at low cost, GISS (Goddard Institute for Space Studies) model E-R. The atmosphere model is the documented modelE (Schmidt et al., 2006). The ocean is based on the Russell et al. (1995) model that conserves water and salt mass, has a free surface with divergent flow, uses a linear upstream scheme for advection, allows flow through 12 sub-resolution straits, has background diffusivity $0.3\,\mathrm{cm^2\,s^{-1}}$, $4^\circ \times 5^\circ$ resolution and 13 layers that increase in thickness with depth.

However, the ocean model includes simple but significant changes, compared with the version documented in simulations by Miller et al. (2014). First, an error in the calculation of neutral surfaces in the Gent–McWilliams (GM, Gent and McWilliams, 1990) mesoscale eddy parameterization was corrected; the resulting increased slope of neutral surfaces provides proper leverage to the restratification process and correctly orients eddy stirring along those surfaces.

Second, the calculation of eddy diffusivity K_{meso} for GM following Visbeck et al. (1997) was simplified to use a length scale independent of the density structure (J. Marshall, personal communication, 2014):

$$K_{\mathrm{meso}} = C/[T_{\mathrm{eady}} \times f(\mathrm{latitude})] \quad (1)$$

where $C = (27.9\,\mathrm{km})^2$, Eady growth rate $1/T_{\mathrm{eady}} = \{|S \times N|\}$, S is the neutral surface slope, N the Brunt–Vaisala frequency, $\{\,\}$ signifies averaging over the upper D meters of ocean depth, $D = \min(\max(\mathrm{depth}, 400\,\mathrm{m}), 1000\,\mathrm{m})$, and $f(\mathrm{latitude}) = \max(0.1, \sin(|\,\mathrm{latitude}\,|))$ to qualitatively mimic the larger values of the Rossby radius of deformation at low latitudes. These choices for K_{meso}, whose simplicity is congruent with the use of a depth-independent eddy diffusivity and the use of $1/T_{\mathrm{eady}}$ as a metric of eddy energy, result in the zonal average diffusivity shown in Fig. 4.

Third, the so-called nonlocal terms in the KPP mixing parameterization (Large et al., 1994) were activated. All of these modifications tend to increase the ocean stratification, and in particular the Southern Ocean state is improved by the GM modifications. However, as is apparent in Fig. 4, drift in the Southern Ocean state leads to a modest reduction of the eddy diffusivities over the first 500 years of spin-up. Overall realism of the ocean circulation is improved, but significant model deficiencies remain, as we will describe.

The simulated Atlantic Meridional Overturning Circulation (AMOC) has maximum flux that varies within the range ~ 14–18 Sv in the model control run (Figs. 5 and 6). AMOC strength in recent observations is 17.5 ± 1.6 Sv (Baringer et al., 2013; Srokosz et al., 2012), based on eight years (2004–2011) data for an in situ mooring array (Rayner et al., 2011; Johns et al., 2011).

Ocean model control run initial conditions are climatology for temperature and salinity (Levitus and Boyer, 1994; Levitus et al., 1994); atmospheric composition is that of 1880 (Hansen et al., 2011). Overall model drift from control run initial conditions is moderate (see Fig. S2 for planetary energy imbalance and global temperature), but there is drift in the North Atlantic circulation. The AMOC circulation cell initially is confined to the

upper 3 km at all latitudes (1st century in Figs. 5 and 6), but by the 5th century the cell reaches deeper at high latitudes.

Atmospheric and surface climate in the present model is similar to the documented modelE-R, but because of changes to the ocean model we provide several diagnostics in the Supplement. A notable flaw in the simulated surface climate is the unrealistic double precipitation maximum in the tropical Pacific (Fig. S3). This double ITCZ (intertropical convergence zone) occurs in many models and is related to the difficulty of producing realistic stratus clouds in the Eastern Tropical Pacific. Another flaw is unrealistic hemispheric sea ice, with too much sea ice in the Northern Hemisphere and too little in the Southern Hemisphere (Figs. S4 and S5). Excessive Northern Hemisphere sea ice might be caused by deficient poleward heat transport in the Atlantic Ocean (Fig. S6). However, the AMOC has realistic strength and Atlantic meridional heat transport is only slightly below observations at high latitudes (Fig. S6). Thus we suspect that the problem may lie in sea ice parameterizations or deficient dynamical transport of ice out of the Arctic. The deficient Southern Hemisphere sea ice, at least in part, is likely related to excessive poleward (southward) transport of heat by the simulated global ocean (Fig. S6), which is related to deficient northward transport of heat in the modeled Atlantic Ocean (Fig. S6).

A key characteristic of the model and the real world is the response time: how fast does the surface temperature adjust to a climate forcing, i.e., an imposed perturbation of the planet's energy balance? ModelE-R response is about 40 % in five years (Fig. 7) and 60 % in 100 years, with the remainder requiring many centuries. Hansen et al. (2011) concluded that most ocean models, including modelE-R, mix a surface temperature perturbation downward too efficiently and thus have a slower surface response than the real world. The basis for this conclusion was empirical analysis using climate response functions, with 50, 75 and 90 % response at year 100 for climate simulations (Hansen et al., 2011). Earth's measured energy imbalance in recent years and global temperature change in the past century revealed that the response function with

75 % response in 100 years provided a much better fit with observations than the other choices.

Durack et al. (2012) compared observations of how rapidly surface salinity changes are mixed into the deeper ocean with the large number of global models in the CMIP3 (Climate Model Intercomparison Project), reaching a similar conclusion, that the models mix too rapidly.

Our present ocean model has a faster response on 10–75 year time scales than the old model (Fig. 7), but the change is small. Although the climate response time in our model is comparable to that in many other ocean models (Hansen et al., 2011), we believe that it is likely slower than the response in the real world on time scales of a few decades and longer. A too slow surface response could result from excessive small scale mixing. We will suggest, after the studies below, that excessive mixing has other consequences, e.g., causing the effect of freshwater stratification on slowing AABW formation and growth of Antarctic sea ice cover to occur 1–2 decades later than in the real world. Similarly, excessive mixing may make the AMOC in the model less sensitive to freshwater forcing than the real world AMOC.

3.2 Experiment definition: exponentially increasing fresh water

Freshwater injection is specified as 360 Gt yr^{-1} (1 mm sea level) in 2003–2015, then growing with 5, 10 or 20 year doubling time (Fig. 8). Injection ends when input to global sea level reaches 1 or 5 m. The sharp cut-off aids separation of immediate forcing effects and feedbacks.

We do not argue for this specific input function, but we suggest that rapid meltwater increase is likely if GHGs continue to grow rapidly. Greenland and Antarctica have outlet glaciers occupying canyons with bedrock below sea level well back into the ice sheet (Fretwell et al., 2013; Morlighem et al., 2014; Pollard et al., 2015). Feedbacks, including ice sheet darkening due to surface melt (Hansen et al., 2007b; Robinson et al., 2012; Tedesco et al., 2013; Box et al., 2012) and lowering and thus warming of the near-coastal ice sheet surface, make increasing ice melt likely. Paleoclimate

data reveal instances of sea level rise of several meters in a century (Fairbanks, 1989; Deschamps et al., 2012). Those cases involved ice sheets at lower latitudes, but 21st century climate forcing is larger and increasing much more rapidly.

Radiative forcings are those of Hansen et al. (2007c), based on data through 2003 and IPCC scenario A1B for later GHGs. A1B is an intermediate IPCC scenario over the century, but on the high side early this century (Fig. 2, Hansen et al., 2007c). We add freshwater to the North Atlantic (ocean area within 52–72° N and 15° E–65° N) or Southern Ocean (ocean south of 60° S), or equally divided between the two oceans. Ice sheet discharge (icebergs plus meltwater) is mixed as fresh water with mean temperature −15 °C into top three ocean layers (Fig. S7).

3.3 Simulated surface temperature and energy balance

We present surface temperature and planetary energy balance first, thus providing a global overview. Then we examine changes in ocean circulation and compare results with prior studies.

Temperature change in 2065, 2080 and 2096 for 10 year doubling time (Fig. 9) should be thought of as results when sea level rise reaches 0.6, 1.7 and 5 m, because the dates depend on initial freshwater flux. Actual current freshwater flux may be about a factor of four higher than assumed in these initial runs, as we will discuss, and thus effects may occur ∼ 20 years earlier. A sea level rise of 5 m in a century is about the most extreme in the paleo record (Fairbanks, 1989; Deschamps et al., 2012), but the assumed 21st century climate forcing is also more rapidly growing than any known natural forcing.

Meltwater injected on the North Atlantic has larger initial impact, but Southern Hemisphere ice melt has a greater global effect for larger melt as the effectiveness of more meltwater in the North Atlantic begins to decline. The global effect is large long before sea level rise of 5 m is reached. Meltwater reduces global warming about half by the time sea level rise reaches 1.7 m. Cooling due to ice melt more than eliminates A1B warming in large areas of the globe.

The large cooling effect of ice melt does not decrease much as the ice melting rate varies between doubling times of 5, 10 or 20 years (Fig. 10a). In other words, the cumulative ice sheet melt, rather than the rate of ice melt, largely determines the climate impact for the range of melt rates covered by 5, 10 and 20 year doubling times. Thus if ice sheet loss occurs even to an extent of 1.7 m sea level rise (Fig. 10b), a large impact on climate and climate change is predicted.

Greater global cooling occurs for freshwater injected on the Southern Ocean, but the cooling lasts much longer for North Atlantic injection (Fig. 10a). That persistent cooling, mainly at Northern Hemisphere middle and high latitudes (Fig. S8), is a consequence of the sensitivity, hysteresis effects, and long recovery time of the AMOC (Stocker and Wright, 1991; Rahmstorf, 1995 and earlier studies referenced therein). AMOC changes are described below.

When freshwater injection on the Southern Ocean is halted, global temperature jumps back within two decades to the value it would have had without any freshwater addition (Fig. 10a). Quick recovery is consistent with the Southern Ocean-centric picture of the global overturning circulation (Fig. 4, Talley, 2013), as the Southern Meridional Overturning Circulation (SMOC), driven by AABW formation, responds to change of the vertical stability of the ocean column near Antarctica (see Sect. 4) and the ocean mixed layer and sea ice have limited thermal inertia.

Global cooling due to ice melt causes a large increase in Earth's energy imbalance (Fig. 10b), adding about $+2\,W\,m^{-2}$, which is larger than the imbalance caused by increasing GHGs. Thus, although the cold fresh water from ice sheet disintegration provides a negative feedback on regional and global surface temperature, it increases the planet's energy imbalance, thus providing more energy for ice melt (Hansen, 2005). This added energy is pumped into the ocean.

Increased downward energy flux at the top of the atmosphere is not located in the regions cooled by ice melt. On the contrary, those regions suffer a large reduction of net incoming energy (Fig. 11a). The regional energy reduction is a consequence of increased cloud cover (Fig. 11b) in response to the colder ocean surface. However,

the colder ocean surface reduces upward radiative, sensible and latent heat fluxes, thus causing a large ($\sim 50\,W\,m^{-2}$) increase of energy into the North Atlantic and a substantial but smaller flux into the Southern Ocean (Fig. 11c).

Below we conclude that the principal mechanism by which this ocean heat increases ice melt is via its effect on ice shelves. Discussion requires examination of how the freshwater injections alter the ocean circulation and internal ocean temperature.

3.4 Simulated AMOC

Broecker's articulation of likely effects of freshwater outbursts in the North Atlantic on ocean circulation and global climate (Broecker, 1990; Broecker et al., 1990) spurred quantitative studies with idealized ocean models (Stocker and Wright, 1991) and global atmosphere-ocean models (Manabe and Stouffer, 1995; Rahmstorf 1995, 1996). Scores of modeling studies have since been carried out, many reviewed by Barreiro et al. (2008), and observing systems are being developed to monitor modern changes in the AMOC (Carton and Hakkinen, 2011).

Our climate simulations in this section are 5 member ensembles of runs initiated at 25 year intervals at years 901–1001 of the control run. We chose this part of the control run because the planet is then in energy balance (Fig. S2), although by that time model drift had altered the slow deep ocean circulation. Some model drift away from initial climatological conditions is inevitable, as all models are imperfect, and we carry out the experiments with cognizance of model limitations. However, there is strong incentive to seek basic improvements in representation of physical processes to reduce drift in future versions of the model.

GHGs alone (scenario A1B) slow AMOC by the early 21st century (Fig. 12), but variability among individual runs (Fig. S9) would make definitive detection difficult at present. Freshwater injected onto the North Atlantic or in both hemispheres shuts down the AMOC (Fig. 12, right side). GHG amounts are fixed after 2100 and ice melt is zero, but after two centuries of stable climate forcing the AMOC has not recovered to its

earlier state. This slow recovery was found in the earliest simulations by Manabe and Stouffer (1994) and Rahmstorf (1995, 1996).

Freshwater injection already has a large impact when ice melt is a fraction of 1 m of sea level. By the time sea level rise reaches 59 cm (2065 in the present scenarios), when fresh water flux is 0.48 Sv, the impact on AMOC is already large, consistent with the substantial surface cooling in the North Atlantic (Fig. 9).

3.5 Comparison with prior simulations

AMOC sensitivity to GHG forcing has been examined extensively based on IPCC studies. Schmittner et al. (2005) found that AMOC weakened 25 ± 25 % by the end of the 21st century in 28 simulations of 9 different models forced by the A1B emission scenario. Gregory et al. (2005) found 10–50 % AMOC weakening in 11 models for CO_2 quadrupling ($1\,\%\,yr^{-1}$ increase for 140 years), with largest decreases in models with strong AMOCs. Weaver et al. (2007) found a 15–31 % AMOC weakening for CO_2 quadrupling in a single model for 17 climate states differing in initial GHG amount. AMOC in our model weakens 30 % between 1990–2000 and 2090–2100, the period used by Schmittner et al. (2005), for A1B forcing (Fig. S9). Thus our model is more sensitive than the average, but within the range of other models, a conclusion that continues to be valid in comparison with 10 CMIP5 models (Cheng et al., 2013).

AMOC sensitivity to freshwater forcing has not been compared as systematically among models. Several studies find little impact of Greenland melt on AMOC (Huybrechts et al., 2002; Jungclaus et al., 2006; Vizcaino et al., 2008) while others find substantial North Atlantic cooling (Fichefet et al., 2003; Swingedouw et al., 2007; Hu et al., 2009, 2011). Studies with little impact calculated or assumed small ice sheet melt rates, e.g., Greenland contributed only 4 cm of sea level rise in the 21st century in the ice sheet model of Huybrechts et al. (2002). Fichefet et al. (2003), using nearly the same atmosphere-ocean model as Huybrechts et al. (2002) but a more responsive ice sheet model, found AMOC weakening from 20 to 13 Sv late in the 21st century, but separate contributions of ice melt and GHGs to AMOC slowdown were not defined.

Hu et al. (2009, 2011) use the A1B scenario and freshwater from Greenland starting at 1 mm sea level per year increasing 7 % yr^{-1}, similar to our 10 year doubling case. Hu et al. keep the melt rate constant after it reaches 0.3 Sv (in 2050), yielding 1.65 m sea level rise in 2100 and 4.2 m in 2200. Global warming found by Hu et al. (2009, 2010) for scenario A1B resembles our result but is 20–30 % smaller (compare Fig. 2b of Hu et al., 2009 to our Fig. 9), and cooling they obtain from the freshwater flux is moderately less than that in our model. AMOC is slowed about one-third by the latter 21st century in the Hu et al. (2011) 7 % yr^{-1} experiment, comparable to our result.

General consistency holds for other quantities, such as changes of precipitation. Our model yields southward shifting of the Inter-Tropical Convergence Zone (ITCZ) and intensification of the subtropical dry region with increasing GHGs (Fig. S10), as has been reported in modeling studies of Swingedouw et al. (2007, 2009) and others (IPCC, 2013). These effects are intensified by ice melt and cooling in the North Atlantic region (Fig. S10).

A recent 5-model study (Swingedouw et al., 2014) finds a small effect on AMOC for 0.1 Sv Greenland freshwater flux added in 2050 to simulations with a strong GHG forcing. Our larger response is likely due, at least in part, to our freshwater flux reaching several tenths of a Sv.

Freshwater sensitivity in our model is similar to an earlier version of the model used to simulate the 8.2 ky b2k freshwater event associated with demise of the Hudson Bay ice dome (LeGrande et al., 2006). The ∼ 50 % AMOC slowdown in that model, in response to forcings of 2.5–5 Sv years indicated by geologic and paleohydraulic studies (e.g., Clarke et al, 2004), is consistent with indications from isotope-enabled analyses of the 8.2 ky event (LeGrande and Schmidt, 2008) and sediment records from the northwest Atlantic (Kleiven et al., 2008). The 1–2 century AMOC recovery time in numerical experiments (LeGrande and Schmidt, 2008) seems consistent with the 160 year duration of the 8.2 ky cooling event (Rasmussen et al., 2013).

3.6 Storm-related model diagnostics

Ice melt in the North Atlantic creates a substantial increment toward higher sea level pressure in the North Atlantic region in all seasons (Fig. 13). In the summer the added surface pressure strengthens and moves northward the Bermuda high pressure system (Fig. S3). Circulation around the high pressure creates strong prevailing northeasterly winds in the North Atlantic at the latitudes of Bermuda and the Bahamas. A1B climate forcing alone (top row of Fig. S11) has only a small impact on the winds, but cold meltwater in the North Atlantic causes a strengthening and poleward shift of the high pressure.

The high pressure in the model is located further east than appropriate for producing the fastest possible winds at the Bahamas. Our coarse resolution (4° × 5°) model, which slightly misplaces the pressure maximum for today's climate, may be partly responsible for the displacement. However, the location of high pressure also depends meltwater placement, which we spread uniformly over all longitudes in the North Atlantic between 65° W and 15° E and on specific location of ocean currents and surface temperature during the Eemian.

Our results at least imply that strong cooling in the North Atlantic from AMOC shutdown does create higher wind speed. It would be useful to carry out more detailed studies with higher resolution climate models including the most realistic possible distribution of meltwater.

The increment in seasonal mean wind speed of the northeasterlies relative to preindustrial conditions is as much as 10–20 %. Such a percentage increase of wind speed in a storm translates into an increase of storm power dissipation by a factor ∼ 1.4–2, because wind power dissipation is proportional to the cube of wind speed (Emanuel, 1987, 2005). However, our simulated changes refer to seasonal mean winds averaged over large grid-boxes, not individual storms.

A blocking high pressure system in the North Atlantic creating consistent strong northeasterly flow would provide wave action that may have contributed to the chevron

ridge formation in the Bahamas and Bermuda. This blocking high pressure system could contribute to powerful storm impacts in another way. In combination with the warm tropical conditions that existed in the late Eemian (Cortijo et al., 1999), and are expected in the future if GHGs continue to increase, this blocking high pressure could create a preferred alley for tropical storm tracks.

We assumed, in discussing the relevance of these experiments to Eemian climate, that effects of freshwater injection dominate over changing GHG amount, as seems likely because of the large freshwater effect on SSTs and sea level pressure. However, Eemian CO_2 was actually almost constant at ~275 ppm (Luthi et al., 2008). Thus, to isolate effects better, we now carry out simulations with fixed GHG amount, which helps clarify important feedback processes.

3.7 Pure freshwater experiments

Our pure freshwater experiments are 5 member ensembles starting at years 1001, 1101, 1201, 1301, and 1401 of the control run. Each experiment ran 300 years. Freshwater flux in the initial decade averaged 180 $km^3\,yr^{-1}$ (0.5 mm sea level) in the hemisphere with ice melt and increased with a 10 year doubling time. Freshwater input is terminated when it reaches 0.5 m sea level rise per hemisphere for three 5-member ensembles: two ensembles with injection in the individual hemispheres and one ensemble with input in both hemispheres (1 m total sea level rise). Three additional ensembles were obtained by continuing freshwater injection until hemispheric sea level contributions reached 2.5 m. Here we provide a few model diagnostics central to discussions that follow. Additional results are provided in Figs. S12–S14.

The AMOC shuts down for Northern Hemisphere freshwater input yielding 2.5 m sea level rise (Fig. 14). By year 300, more than 200 years after cessation of all freshwater input, AMOC is still far from full recovery for this large freshwater input. On the other hand, freshwater input of 0.5 m does not cause full shutdown, and AMOC recovery occurs in less than a century.

Global temperature change (Fig. 15) reflects the fundamentally different impact of freshwater forcings of 0.5 and 2.5 m. The response also differs greatly depending on the hemisphere of the freshwater input. The case with freshwater forcing in both hemispheres is shown only in the Supplement because, to a good approximation, the response is simply the sum of the responses to the individual hemispheric forcings (see Figs. S12–S14). The sum of responses to hemispheric forcings moderately exceeds the response to global forcing.

Global cooling continues for centuries for the case with freshwater forcing sufficient to shut down the AMOC (Fig. 15). If the forcing is only 0.5 m of sea level, the temperature recovers in a few decades. However, the freshwater forcing required to reach the tipping point of AMOC shutdown may be less in the real world than in our model, as discussed below. Global cooling due to freshwater input on the Southern Ocean recovers in a few years after freshwater input ceases (Fig. 15), for both the smaller (0.5 m of sea level) and larger (2.5 m) freshwater forcings.

Injection of a large amount of surface freshwater in either hemisphere has a notable impact on heat uptake by the ocean and the internal ocean heat distribution (Fig. 16). Despite continuous injection of a large amount of very cold (−15 °C) water in these pure freshwater experiments, substantial portions of the ocean interior become warmer. Tropical and Southern Hemisphere warming is the well-known effect of reduced heat transport to northern latitudes in response to the AMOC shutdown (Rahmstorf, 1996; Barreiro et al., 2008).

However, deep warming in the Southern Ocean may have greater consequences. Warming is maximum at grounding line depths (~1–2 km) of Antarctic ice shelves (Rignot and Jacobs, 2002). Ice shelves near their grounding lines (Fig. 13 of Jenkins and Doake, 1991) are sensitive to temperature of the proximate ocean, with ice shelf melting increasing 1 m per year for each 0.1 °C temperature increase (Rignot and Jacobs, 2002). The foot of an ice shelf provides most of the restraining force that ice shelves exert on landward ice (Fig. 14 of Jenkins and Doake, 1991), making ice near the grounding line the buttress of the buttress. Pritchard et al. (2012) deduce from

satellite altimetry that ice shelf melt has primary control of Antarctic ice sheet mass loss.

Thus we examine our simulations in more detail (Fig. 17). The pure freshwater experiments add 5 mm sea level in the first decade (requiring an initial 0.346 mm yr^{-1} for 10 year doubling), 10 mm in the second decade, and so on (Fig. 17a). Cumulative freshwater injection reaches 0.5 m in year 68 and 2.5 m in year 90.

AABW formation is reduced ~20 % by year 68 and ~50 % by year 90 (Fig. 17b). When freshwater injection ceases, AABW formation rapidly regains full strength, in contrast to the long delay in reestablishing NADW formation after AMOC shutdown. The response time of the Southern Ocean mixed layer dictates the recovery time for AABW formation. Thus rapid recovery also applies to ocean temperature at depths of ice shelf grounding lines (Fig. 17c).

The rapid response of the SMOC (within a decade) to a change of the density of the Southern Ocean mixed layer implies that the rate of freshwater addition to the mixed layer is the driving factor. We will argue below that our model, because of excessive small scale mixing, probably understates the mixed layer and SMOC sensitivities to freshwater flux change, and in a later section we present evidence that the real world is responding more quickly than the model.

Sea ice cover, accurately monitored from satellites since the late 1970s, is a key diagnostic of the ocean surface layer. Increasing sea ice cover, we show below, is a powerful feedback that amplifies ice shelf melt. Freshwater flux has little effect on our simulated Northern Hemisphere sea ice until the 7th decade of freshwater growth (Fig. 17d), but Southern Hemisphere sea ice is more sensitive, with substantial response in the 5th decade and large response in the 6th decade.

Is 5th decade freshwater flux (2880 Gt yr^{-1}) of relevance to today's world? Yes, we will conclude, the Southern Ocean is already experiencing at least "5th decade" freshwater forcing. We explain the basis of that conclusion below, and then make a climate simulation for the 21st century with more realistic forcings than in our prior simulations.

4 Simulations to 2100 with modified (more realistic) forcings

Recent data imply that current ice melt is larger than assumed in our 1850–2300 climate simulations. Thus we make an additional simulation and use the opportunity to make minor improvements in the radiative forcing.

4.1 Advanced (earlier) freshwater injection

Atmosphere-ocean climate models, including ours, commonly include a fixed freshwater flux from the Greenland and Antarctic ice sheets to the ocean. This flux is chosen to balance snow accumulation in the model's control run, with the rationale that approximate balance is expected between net accumulation and mass loss including icebergs and ice shelf melting. Global warming creates a mass imbalance that we want to investigate. Ice sheet models can calculate the imbalance, but it is unclear how reliably ice sheet models simulate ice sheet disintegration. We forgo ice sheet modeling, instead adding a growing freshwater amount to polar oceans with alternative growth rates and initial freshwater amount estimated from available data.

Change of freshwater flux on the ocean in a warming world with shrinking ice sheets consists of two terms, Term 1 being net ice melt and Term 2 being change of P-E (precipitation minus evaporation) over the relevant ocean. Term 1 includes land based ice mass loss, which can be detected by satellite gravity measurements, loss of ice shelves, and net sea ice mass change. Term 2 is calculated in a climate model forced by changing atmospheric composition, but it is not included in our pure freshwater experiments that have no global warming.

IPCC (2013, Chapter 4) estimated land ice loss in Antarctica that increased from 30 Gt yr^{-1} in 1992–2001 to 147 Gt yr^{-1} in 2002–2011 and in Greenland from 34 to 215 Gt yr^{-1}, with uncertainties discussed by IPCC (2013). Gravity satellite data suggest Greenland ice sheet mass loss ~300–400 Gt yr^{-1} in the past few years (Barletta et al., 2013). A newer analysis of gravity data for 2003–2013 (Velicogna et al., 2014),

discussed in more detail in Sect. 6, finds a Greenland mass loss $280 \pm 58\,\mathrm{Gt\,yr^{-1}}$ and Antarctic mass loss $67 \pm 44\,\mathrm{Gt\,yr^{-1}}$.

One estimate of net ice loss from Antarctica, including ice shelves, is obtained by surveying and adding the mass flux from all ice shelves and comparing this freshwater mass loss with the freshwater mass gain from the continental surface mass budget. Rignot et al. (2013) and Depoorter et al. (2013) independently assessed the freshwater mass fluxes from Antarctic ice shelves. Their respective estimates for the basal melt are 1500 ± 237 and $1454 \pm 174\,\mathrm{Gt\,yr^{-1}}$. Their respective estimates for calving are 1265 ± 139 and $1321 \pm 144\,\mathrm{Gt\,yr^{-1}}$.

This estimated freshwater loss via the ice shelves ($\sim 2800\,\mathrm{Gt\,yr^{-1}}$) is larger than freshwater gain by the Antarctic surface. Vaughan et al. (1999) estimated the net surface mass balance of the continent as +1811 and $+2288\,\mathrm{Gt\,yr^{-1}}$ including precipitation on ice shelves. IPCC (2013) estimates the net Antarctic surface mass balance as $+1983 \pm 122\,\mathrm{Gt\,yr^{-1}}$ excluding ice shelves. Thus comparison of continental freshwater input with ice shelf output suggests a net export of freshwater to the Southern Ocean of several hundred $\mathrm{Gt\,yr^{-1}}$ in recent years. However, substantial uncertainty exists in the difference between these two large numbers.

A remarkable independent evaluation has recently been achieved by Rye et al. (2014) using satellite measured changes of sea level around Antarctica in the period 1992–2011. Sea level along the Antarctic coast rose $2\,\mathrm{mm\,yr^{-1}}$ faster than the regional mean sea level rise in the Southern Ocean south of 50° S, an effect that they conclude is almost entirely a steric adjustment caused by accelerating freshwater discharge from Antarctica. They conclude that an excess freshwater input of $430 \pm 230\,\mathrm{Gt\,yr^{-1}}$, above the rate needed to maintain a steady ocean salinity, is required. Rye et al. (2014) note that these values constitute a lower bound for the actual excess discharge above a "steady salinity" rate, because numerous in situ data, discussed below, indicate that freshening began earlier than 1992.

Term 2, change of P-E over the Southern Ocean relative to its pre-industrial amount, is large in all climate simulations (IPCC, 2013). In our ensemble of runs (using observed GHGs for 1850–2003 and scenario A1B thereafter) the increase of P-E in the decade 2011–2020, relative to the control run, was in the range 3500 to $4000\,\mathrm{Gt\,yr^{-1}}$, as mean precipitation over the Southern Ocean increased $\sim 35\,\mathrm{mm\,yr^{-1}}$ and evaporation decreased $\sim 3\,\mathrm{mm\,yr^{-1}}$.

Increasing ice melt and increasing P-E are climate feedbacks, their growth in recent decades driven by global warming. Our pure freshwater simulations indicate that their sum, at least $4000\,\mathrm{Gt\,yr^{-1}}$, is sufficient to affect ocean circulation, sea ice cover, and surface temperature, which can spur other climate feedbacks. We investigate these feedbacks via climate simulations using improved estimates of freshwater flux from ice melt. P-E is computed by the model.

We take freshwater injection to be $720\,\mathrm{Gt\,yr^{-1}}$ from Antarctica and $360\,\mathrm{Gt\,yr^{-1}}$ in the North Atlantic in 2011, with injection rates at earlier and later times defined by assumption of a 10 year doubling time. Resulting mean freshwater injection around Antarctica in 1992–2011 is $\sim 400\,\mathrm{Gt\,yr^{-1}}$, similar to the estimate of Rye et al. (2014). A recent estimate of $310 \pm 74\,\mathrm{km^3}$ volume loss of floating Antarctic ice shelves in 2003–2012 (Paolo et al., 2015) is not inconsistent, as the radar altimeter data employed for ice shelves does not include contributions from the ice sheet or fast ice tongues at the ice shelf grounding line. Greenland ice sheet mass loss provides most of the assumed $360\,\mathrm{Gt\,yr^{-1}}$ freshwater, and this would be supplemented by shrinking ice shelves (Rignot and Steffen, 2008) and small ice caps in the North Atlantic and west of Greenland (Ohmura, 2009) that are losing mass (Abdalati et al., 2004; Bahr et al., 2009).

We add the freshwater around Antarctica at coastal grid boxes (Fig. S15) guided by the data of Rignot et al. (2013) and Depoorter et al. (2013), the flux in the western hemisphere from the Weddell Sea to the Ross Sea being about three times larger than for the rest of the coastline. Specified freshwater flux around Greenland is similar on the east and west coasts, and small along the north coast (Fig. S15).

4.2 Modified radiative forcings

Actual GHG forcing has grown slower than scenario A1B, because growth of CH_4 and minor gases declined after IPCC scenarios were defined (Fig. 5, Hansen et al., 2013c, update at http://www.columbia.edu/~mhs119/GHGs/). As a simple improvement we decreased the A1B CH_4 scenario during 2003–2013 such that subsequent CH_4 is reduced 100 ppb, thus decreasing the radiative forcing $\sim 0.05\,W\,m^{-2}$.

Stratospheric aerosol forcing to 2014 uses the data set of Sato et al. (1993) as updated at http://www.columbia.edu/~mhs119/StratAer/. Future years have constant aerosol optical depth 0.0052 yielding effective forcing $-0.12\,W\,m^{-2}$, implemented by using fixed 1997 aerosol data. Tropospheric aerosol growth is assumed to slow smoothly, leveling out at $-2\,W\,m^{-2}$ in 2100. Future solar forcing is assumed to have an 11 year cycle with amplitude $0.25\,W\,m^{-2}$. Net forcing exceeds $5\,W\,m^{-2}$ by the end of the 21st century, about three times the current forcing (Fig. 18).

4.3 Climate simulations with modified forcings

Global temperature has a peak at +1.2 °C in the 2040s for the modified forcings (Fig. 19). Ice melt cooling is advanced as global ice melt reaches 1 m of sea level in 2060, 1/3 from Greenland and 2/3 from Antarctica. Actual sea level rise could be less than 1 m, depending on the portion of melt from ice shelves (which has little effect on sea level), but contributions from ocean thermal expansion and mountain glacier melt would probably make global mean sea level rise at least of the order of 1 m.

Global temperature rise resumes in the 2060s after total cessation of the freshwater injection. However, termination of freshwater injection is imposed only for the sake of analyzing climate mechanisms, not with expectation that a sudden halt of ice sheet disintegration is realistic.

Global temperature becomes an unreliable diagnostic of planetary condition as the ice melt rate increases. Global energy imbalance (Fig. 19b) is a more meaningful measure of planetary status as well as an estimate of the climate forcing change required

to stabilize climate. Our calculated present energy imbalance of $\sim 0.8\,W\,m^{-2}$ (Fig. 19b) is larger than the observed $0.58 \pm 0.15\,W\,m^{-2}$ during 2005–2010 (Hansen et al., 2011). The discrepancy is likely accounted for by excessive ocean heat uptake at low latitudes in our model, a problem related to the model's slow surface response time (Fig. 7) that may be caused by excessive small scale ocean mixing.

Large scale regional cooling occurs in the North Atlantic and Southern Oceans by mid-century (Fig. 20) for 10 year doubling of freshwater injection. A 20 year doubling places similar cooling near the end of this century, 40 years earlier than in our prior simulations (Fig. 10), as the factor of four increase of current freshwater from Antarctica is a 40 year advance.

The critical issue is whether human-spurred ice sheet mass loss can be approximated as an exponential process during the next few decades. Such nonlinear behavior depends upon amplifying feedbacks, which, indeed, our climate simulations reveal in the Southern Ocean.

4.4 Southern Ocean feedbacks

Amplifying feedbacks in the Southern Ocean and atmosphere contribute to dramatic climate change in our simulations (Fig. 20). We first summarize the feedbacks to identify processes that must be simulated well to draw valid conclusions. While recognizing the complexity of the global ocean circulation (Lozier, 2012; Lumpkin and Speer, 2007; Marshall and Speer, 2012; Munk and Wunsch, 1998; Orsi et al., 1999; Sheen et al., 2014; Talley, 2013; Wunsch and Ferrari, 2004), we use a simple two-dimensional representation to discuss the feedbacks.

Climate change includes slowdown of AABW formation, indeed shutdown by midcentury if freshwater injection increases with a doubling time as short as 10 years (Fig. 21). Implications of AABW shutdown are so great that we must ask whether the mechanisms are simulated with sufficient realism in our climate model, which has coarse resolution and relevant deficiencies that we have noted. After discussing the feedbacks

here, we examine how well the processes are included in our model (Sect. 4.5). Paleoclimate data (Sect. 5) provides much insight about these processes and modern observations (Sect. 7) show that these feedbacks are already underway.

Large-scale climate processes affecting ice sheets are sketched in Fig. 22. The role of the ocean circulation in the global energy and carbon cycles is captured to a useful extent by the two-dimensional (zonal mean) overturning circulation featuring deep water (NADW) and bottom water (AABW) formation in the polar regions. Marshall and Speer (2012) discuss the circulation based in part on tracer data and analyses by Lumpkin and Speer (2007). Talley (2013) extends the discussion with diagrams clarifying the role of the Pacific and Indian Oceans.

Wunsch (2002) emphasizes that the ocean circulation is driven primarily by atmospheric winds and secondarily by tidal stirring. The energy drawing deep water toward the surface in the Southern Ocean (Fig. 22) is provided by strong circumpolar westerly winds. This complex global thermohaline circulation can be altered by natural and human-made forcings, including freshwater injection from ice sheets, which stimulate powerful feedback processes.

A key feedback concerns the effect of cold freshwater injection on ocean temperature at ice shelf grounding lines. In our "pure freshwater" simulations the freshwater added to the Southern Ocean acts as a lid that reduces ventilation of ocean heat to the atmosphere and space. Warming is largest at depths near ice shelf grounding lines, the portion of the ice shelf that provides most of the restraining force that limits the rate of ice sheet discharge to the ocean (Fig. 14 of Jenkins and Doake, 1991). Melting at ice shelf grounding lines in West Antarctica and Wilkes Basin in East Antarctica has potential to result in rapid, nonlinear sea level rise because these basins have retrograde beds (beds sloping inland), a configuration with potential for unstable grounding line retreat and substantial ice sheet disintegration (Mercer, 1978), as discussed further below. Multiple submarine valleys make much of the Greenland ice sheet vulnerable to thermal forcing by a warming ocean (Morlighem et al., 2014), but with a few exceptions

(Khan et al., 2014) the valleys are prograde and thus rapid nonlinear growth of ice melt is not likely.

Another feedback occurs via the effect of surface and atmospheric cooling on precipitation and evaporation over the Southern Ocean. In climate simulations that do not include increasing freshwater injection in the Southern Ocean (IPCC, 2013), it is found that snowfall on Antarctica increases substantially in the 21st century, thus providing a negative term to sea level change. Frieler et al. (2015) assert that 35 global climate models are consistent in showing that a warming climate will yield increasing Antarctic snow accumulation, but this paleo "affirmation" refers to slowly changing climate in quasi-equilibrium with ocean boundary conditions. In our experiments with growing freshwater injection the increasing sea ice cover and cooling of the Southern Ocean surface and atmosphere cause the increased precipitation to occur over the Southern Ocean, rather than over Antarctica. This feedback not only reduces any increase of snowfall over Antarctica, it also provides a large freshening term to the surface of the Southern Ocean, thus magnifying the direct freshening effect from increasing ice sheet melt.

4.5 Model's ability to simulate these feedbacks

Realistic representation of these feedbacks places requirements on both the atmosphere and ocean components of our climate model. We discuss first the atmosphere, then the ocean.

There are two main requirements on the atmospheric model. First, it must simulate well P-E and changes of P-E, because of its importance for ocean circulation and the amplifying feedback in the Southern Ocean. Precise verification of P-E is difficult to attain, but the ultimate model requirement is that it produce realistic sea surface salinity (SSS) patterns and ongoing changes.

Simulated P-E (Fig. S16b) agrees well with meteorological reanalysis (Fig. 3.4b, IPCC, 2013). Simulated global sea surface salinity (SSS) patterns (Fig. S16a) agree well with global ocean surface salinity patterns (Antonov et al., 2010 and Fig. 3.4a,

IPCC, 2013). SSS trends in our simulation (Fig. S16c), with the Pacific on average becoming fresher while most of the Atlantic and the subtropics in the Southern Hemisphere become saltier, are consistent with observed salinity trends (Durack and Wijffels, 2010). Recent freshening of the Southern Ocean in our simulation is somewhat less than in observed data (IPCC, Figs. 3.4c and 3.4d), implying that the amplifying feedback may be *under*estimated in our simulation. A likely reason for that is discussed below in conjunction with observed sea ice change.

The second requirement is that the atmospheric model simulate well winds and their changes, because these drive the ocean. Thus the model must simulate well atmospheric pressure patterns and changes in response to climate forcings. A test is provided by observed changes of the Southern Annular Mode (SAM), with a decrease of surface pressure near Antarctica and a small increase at mid-latitudes (Marshall, 2003) that D. Thompson et al. (2011) relate to stratospheric ozone loss and increasing GHGs. Our climate forcing (Fig. 18) includes ozone change (Fig. 2, Hansen et al., 2007a) with stratospheric ozone depletion in 1979–1997 and constant ozone thereafter. Our model produces a trend toward the high index polarity of SAM (Fig. S17) similar to observations, although perhaps a slightly smaller change than observed (compare Fig. S17 with Fig. 3 of Marshall, 2003). SAM continues to increase in our model after ozone stabilizes (Fig. S17), suggesting that GHGs may provide a larger portion of the SAM response in our model than in the model study of D. Thompson et al. (2011). It would not be surprising if the stratospheric dynamical response to ozone change were weak in our model, given the coarse resolution and simplified representation of atmospheric drag and dynamical effects in the stratosphere (Hansen et al., 2007a), but that is not a major concern for our present purposes.

The ocean model must be able to simulate realistically the ocean's overturning circulation and its response to forcings including freshwater additions. Heuze et al. (2013, 2015) point out that simulated deep convection in the Southern Ocean is unrealistic in most models, with AABW formation occurring in the open ocean where it rarely occurs in nature. Our present ocean model contains significant improvements (see Sect. 3.1)

compared to the GISS E2-R model that Heuze et al. include in their comparisons. Thus we show (Fig. 23) the maximum mixed layer depth in winter (February in the Northern Hemisphere and August in the Southern Hemisphere) using the same criterion as Heuze et al. to define the mixed layer depth, i.e., the layers with a density difference from the ocean surface layer less than 0.03 kg m^{-3}.

Southern Ocean mixing in the model reaches a depth of ~ 500 m in a wide belt near 60° S stretching west from the southern tip of South America, with similar depths south of Australia. These open ocean mixed layer depths compare favorably with observations shown in Fig. 2a of Heuze et al. (2015), based on data of de Boyer Montegut et al. (2004). There is no open ocean deep convection in our model.

Deep convection occurs only along the coast of Antarctica (Fig. 23). Coastal grid boxes on the continental shelf are a realistic location for AABW formation. Orsi et al. (1999) suggest that most AABW is formed on shelves around the Weddell-Enderby Basin (60 %) and shelves of the Adelie-Wilkes Coast and Ross Sea (40 %). Our model produces mixing down to the shelf in those locations (Fig. 23b), but also on the Amery Ice Shelf near the location where Ohshima et al. (2013) identified AABW production, which they term Cape Darnley Bottom Water.

However, with our coarse 4° × 5° stair step to the ocean bottom the AABW cannot readily slide down the slope to the ocean floor. As a result, the denser water from the shelf mixes into the open ocean grid boxes, making our modeled Southern Ocean less stratified than the real world (cf. temporal drift of Southern Ocean salinity in Fig. S18), because the denser water must move several degrees of latitude horizontally before it can move deeper. Nevertheless, our Southern Ocean is sufficiently stratified to avoid the unrealistic open ocean convection that infects many models (Heuze et al., 2013).

Orsi et al. (1999) estimate the AABW formation rate in several ways, obtaining values in the range 8–12 Sv, larger than our modeled 5–6 Sv (Fig. 21). However, as in most models (Heuze et al., 2015) our SMOC diagnostic (Fig. 21) is the mean (Eulerian) circulation, i.e., excluding eddy-induced transport. Rerun of a 20 year segment of our control run to save eddy-induced changes reveals an increase of SMOC at 72° S by 1–

2 Sv, with negligible change at middle and low latitudes, making our simulated transport close to the range estimated by Orsi et al. (1999).

We conclude that the climate model can potentially simulate Southern Ocean feedbacks that magnify the effect of freshwater injection onto the Southern Ocean: the P-E feedback that wrenches global-warming-enhanced water vapor from the air before it reaches the Antarctic continent and the AABW slowdown that traps deep ocean heat, leaving that heat at levels where it accelerates ice shelf melting. Indeed, we will argue that both of these feedbacks are probably underestimated in our current model.

The model seems less capable in Northern Hemisphere polar regions. Deep convection today is believed to occur mainly in the Greenland-Iceland-Norwegian (GIN) Sea and at the southern end of Baffin Bay (Fig. 2b, Heuze et al., 2015). In our model, perhaps because of excessive sea ice in those regions, open ocean deep convection occurs to the southeast of the southern tip of Greenland and at less deep grid boxes between that location and the United Kingdom (Fig. 23). Mixing reaching the ocean floor on the Siberian Coast in our model (Fig. 23) may be realistic, as coastal polynya are observed on the Siberian continental shelf (D. Bauch et al., 2012). However, the winter mixed layer on the Alaska south coast is unrealistically deep (Fig. 23). These model limitations must be kept in mind in interpreting simulated Northern Hemisphere climate change.

5 Implications of paleoclimate data

Paleoclimate data are essential for understanding the major climate feedbacks. Processes of special importance are: (1) the role of the Southern Ocean in ventilating the deep ocean, affecting CO_2 control of global temperature, and (2) the role of subsurface ocean warming in ice shelf melt, affecting ice sheet disintegration and sea level rise.

5.1 Paleoclimate context

Major glacial-interglacial climate oscillations are spurred by periodic variation of seasonal and geographical insolation (Hays et al., 1976). Insolation anomalies are caused by slow changes of the eccentricity of Earth's orbit, tilt of Earth's spin axis, and precession of the equinoxes, thus the day of year at which Earth is closest to the Sun, with dominant periodicities near 100 000, 40 000 and 20 000 years (Berger, 1978). These periods emerge in long climate records, yet a large fraction of climate variability at any site is stochastic (Wunsch, 2004; Lisiecki and Raymo, 2005). Such behavior is expected for a weakly-forced system characterized by amplifying feedbacks, complex dynamics, and multiple sources of inertia with a range of time scales.

Large glacial-interglacial climate change and stochastic variability are a result of two strong amplifying feedbacks, surface albedo and atmospheric CO_2. Orbit-induced insolation anomalies, per se, cause a climate forcing, i.e., an Earth energy imbalance, only of order 0.1 W m^{-2}, but the persistent regional insolation anomalies spur changes of ice sheet size and GHGs. The albedo and GHG changes arise as slow climate feedbacks, but they are the forcings that maintain a quasi-equilibrium climate state nearly in global radiative balance. Glacial-interglacial albedo and greenhouse forcings are each $\sim$3 W m^{-2} (Fig. 24e, f)[1]. These forcings fully account for glacial-interglacial global temperature change with a climate sensitivity 0.5–1 °C per W m^{-2} (Hansen et al., 2008; Masson-Delmotte et al., 2010; Palaeosens, 2012).

The insolation anomaly peaking at 129.5 ky b2k (Fig. 24a) succeeded in removing ice sheets from North America and Eurasia and in driving atmospheric CO_2 up to

[1]Other parts of Fig. 24 are discussed later, but they are most informative if aligned together. In interpreting Fig. 24, note that long-lived greenhouse gas amounts in ice cores have global relevance, but ice core temperatures are local to Greenland and Antarctica. Also, because our analysis does not depend on absolute temperature, we do not need to convert the temperature proxy, $\delta^{18}O$, into an estimated absolute temperature. We include CH_4 and N_2O in the total GHG climate forcing, but we do not discuss the reasons for CH_4 and N_2O variability (see Schilt et al., 2010), because CO_2 provides $\sim$80 % of the GHG forcing.

~285 ppm, as discussed below. However, smaller climate oscillations within the last glacial cycle are also instructive about ice feedbacks. Some of these oscillations are related to weak insolation anomalies and all are affected by predominately amplifying climate feedbacks.

Insolation anomalies peaking at 107 and 86 ky b2k (Fig. 24a) led to ~40 m sea level rises at rates exceeding 1 m century^{-1} (Stirling et al., 1998; Cutler et al., 2003) in early MIS 5c and 5a (Fig. 24f), but CO_2 did not rise above 250 ppm and interglacial status was not achieved. CO_2 then continued on a 100 ky decline until ~18 ky b2k. Sea level continued its long decline, in concert with CO_2, reaching a minimum at least 120 m below today's sea level (Peltier and Fairbanks, 2006; Lambeck et al., 2014).

Progress achieved by the paleoclimate and oceanographic research communities allows interpretation of the role of the Southern Ocean in the tight relationship between CO_2 and temperature, as well as discussion of the role of subsurface ocean warming in sea level rise. Both topics are needed to interpret end-Eemian climate change and ongoing climate change.

5.2 Southern Ocean and atmospheric CO_2

Reduced atmospheric CO_2 in glacial times, at least in substantial part, results from increased stratification of the Southern Ocean that reduces ventilation of the deep ocean (Toggweiler, 1999; Anderson et al., 2009; Skinner et al., 2010; Tschumi et al., 2011; Burke and Robinson, 2012; Schmitt et al., 2012; Marcott et al., 2014). Today the average "age" of deep water, i.e., the time since it left the ocean surface, is ~1000 years (DeVries and Primeau, 2011), but it was more than twice that old during the last glacial maximum (Skinner et al., 2010). The Southern Ocean dominates exchange between the deep ocean and atmosphere because ~80 % of deep water resurfaces in the Southern Ocean (Lumpkin and Speer, 2007), as westerly circumpolar winds and surface flow draw up deep water (Talley, 2013).

Mechanisms causing more rapid deep ocean ventilation during interglacials include warmer Antarctic climate that increases heat flux into the ocean and buoyancy mixing

that supports upwelling (Watson and Garabato, 2006), poleward shift of the westerlies (Toggweiler et al., 2006), and reduced sea ice (Keeling and Stephens, 2001). Fischer et al. (2010) question whether the latitudinal shift of westerlies is an important contributor; however, the basic point is the empirical fact that a warmer interglacial Southern Ocean produces faster ventilation of the deep ocean via a combination of mechanisms.

Poor ocean ventilation in glacial periods allows carbon to be sequestered via the "biological pump", the rain of organic matter from the surface ocean that affects burial of calcium carbonate in sediments (Sigman and Boyle, 2000). Dust-borne iron fertilization of the biological pump (Martin and Fitzwater, 1988) contributes to millennial and full glacial CO_2 drawdown (Martinez-Garcia et al., 2014). In concert, global cooling drives the simple "solubility pump", as the temperature dependence of CO_2 solubility increases dissolved inorganic carbon (Raven and Falkowski, 1999). The increased acidity of deep water makes it more corrosive to carbonate sediments, thus increasing ocean alkalinity and further lowering atmospheric CO_2 (Boyle, 1988).

Much remains to be learned about glacial-interglacial carbon cycle mechanisms. Carbon isotopes indicate that increased deep ocean ventilation during deglaciation from the last ice age caused a 30–35 ppm CO_2 increase within 2000 years (Schmitt et al., 2012; Tschumi et al., 2011). However, AMOC changes are associated with at least two rapid CO_2 increases of about 10 ppm, as revealed by a high resolution West Antarctic ice core (Marcott et al., 2014). Another indication of possible Atlantic involvement in the carbon cycle is the change of the North Atlantic's Western Boundary Undercurrent during the transition to full glacial conditions at ~70 ky b2k when CO_2 dropped below 200 ppm (Fig. 24); the flow became stronger in the upper 2 km while the deeper circulation weakened (Thornalley et al., 2013). No doubt the terrestrial biosphere also contributes to atmospheric CO_2 change (Archer et al., 2000; Sigman and Boyle, 2000; Kohler et al., 2005; Menviel et al., 2012; Fischer et al., 2015). Nevertheless, it is reasonably clear that sequestration of CO_2 in the glacial ocean is the largest cause of glacial-interglacial CO_2 change, and ocean ventilation occurs mainly via the Southern Ocean.

Southern Ocean ventilation, as the dominant cause of atmospheric CO_2 change, helps explain temperature-CO_2 leads and lags. Temperature and CO_2 rises are almost congruent at ice age terminations (Masson-Delmotte, 2010; Pedro et al., 2012; Parrenin et al., 2013). Southern Ocean temperature is expected to lead, spurring deep ocean ventilation and atmospheric CO_2 increase, with global temperature following. Termination I is dated best and Shakun et al. (2012) have reconstructed global temperature then, finding evidence for this expected order of events.

Correlation of $\delta^{18}O$ and CO_2 over the past 140 ky (Fig. 24c) is 84.4 % with CO_2 lagging by 760 years. For the period 100–20 ky b2k, which excludes the two terminations, the correlation is 77.5 % with CO_2 lagging by 1040 years. Briefer lag for the longer period and longer lag during glacial inception are consistent with the rapid deep ocean ventilation that occurs at terminations.

5.3 CO_2 as climate control knob

CO_2 is the principal determinant of Earth's climate state, the "control knob" that sets global mean temperature (Lacis et al., 2010, 2013). The degree of control is shown by comparison of CO_2 amount with Antarctic temperature for the past 800 000 years (Fig. 25a). Control should be even tighter for global temperature than for Antarctic temperature, because of regional anomalies such as Antarctic temperature overshoot at terminations (Masson-Delmotte, 2006, 2010), but global data are not available.[2]

[2]The tight fit of CO_2 and Antarctic temperature (Fig. 25a) implies an equilibrium Antarctic sensitivity 20 °C for 2× CO_2 (4 W m^{-2}) forcing (200 → 300 ppm forcing is ∼ 2.3 W m^{-2}, Table 1 of Hansen et al., 2000), thus 10 °C global climate sensitivity (Antarctic temperature change is ∼ twice global change) with CO_2 taken as the ultimate control knob, i.e., if snow/ice area and other GHGs are taken to be slaves to CO_2-driven climate change. This implies a conventional climate sensitivity of 4 °C for 2× CO_2, as GHG and albedo forcings are similar for glacial-to-interglacial climate change and non-CO_2 GHGs account for ∼ 20 % of the GHG forcing. The inferred sensitivity is reduced to 2.5–3 °C for 2× CO_2 if, as some studies suggest, global mean

The CO_2 dial must be turned to ∼ 260 ppm to achieve a Holocene-level interglacial. CO_2 ∼ 250 ppm was sufficient for quasi-interglacials in the period 800–450 ky b2k, with sea level 10–25 m lower than in the Holocene (Fig. S18 of Hansen et al., 2008). Interglacials with CO_2 ∼ 280 ppm, i.e., the Eemian and Holsteinian (∼ 400 ky b2k), were warmer than the Holocene and had sea level at least several meters higher than today.

CO_2 and albedo change are closely congruent over the last 800 000 years (Fig. S18 of Hansen et al., 2008). GHG and albedo forcings, which are both amplifying feedbacks that boost each other, are each of amplitude ∼ 3 W m^{-2}. So why do we say that CO_2 is the control knob?

First, CO_2, in addition to being a slow climate feedback, changes independently of climate. Natural CO_2 change includes increase to ∼ 1000 ppm about 50 million years ago (Zachos et al., 2001) as a result of plate tectonics, specifically volcanic emissions associated with movement of the Indian plate across the Tethys Ocean and collision with Asia (Kent and Muttoni, 2008). Humankind, mainly by burning fossil fuels, also moves the CO_2 control knob.

Second, CO_2 is more recalcitrant than snow and ice, i.e., its response time is longer. CO_2 inserted into the climate system, by humans or plate tectonics, remains in the climate system of order 100 000 years before full removal by weathering (Archer, 2005). Even CO_2 exchange between the atmosphere (where it affects climate) and ocean has a lag of the order a millennium (Fig. 24). In contrast, correlations of paleo temperatures and sea level show that lag of sea level change behind temperature is of order a century, not a millennium (Grant et al., 2012).

We suggest that limitations on the speed of ice volume (thus sea level) changes in the paleo record are more a consequence of the pace of orbital changes and CO_2 changes, as opposed to being a result of lethargic ice physics. "Fast" changes of CO_2 have been identified, e.g., an increase of ∼ 10 ppm in about a century at ∼ 39.6 ky b2k (Ahn et al., 2012) and three increases of 10–15 ppm each within 1–2 centuries during

glacial-interglacial temperature change is only about one-third of the Antarctic temperature change (Palaeosens, 2012; Hansen et al., 2013b).

the deglaciation following the last ice age (Marcott et al., 2014), but the magnitude of these CO_2 increases is not sufficient to provide a good empirical test of ice sheet sensitivity to the CO_2 forcing.

Supremacy of SMOC, the Southern Ocean meridional overturning circulation, in affecting the CO_2 control knob and thus glacial-interglacial change is contrary to the idea that AMOC is a prime driver that flips global climate between quasi-stable glacial and interglacial states, yet AMOC retains a significant role. AMOC can affect CO_2 via the volume and residence time of NADW, but its largest effect is probably via its impact on the Southern Ocean. When AMOC is not shut down it cools the Southern Hemisphere, transferring heat from the Southern to the Northern Hemisphere at a rate ~ 1 petawatt, which is $\sim 4\,W\,m^{-2}$ averaged over a hemisphere (Crowley, 1992). However, the Southern Ocean slowly warms when AMOC shuts (or slows) down; the response time is of the order of 1000 years because of the Southern Ocean's large thermal inertia (Stocker and Johnson, 2003). These mechanisms largely account for the nature of the "bipolar seesaw" (Broecker, 1998; Stocker, 1998; Stenni et al., 2011; Landais et al., 2015), including the lag between AMOC slowdown and Antarctic warming.

5.4 Dansgaard–Oeschger events and subsurface ocean warming

The magnitude and rapidity of Greenland climate change during Dansgaard–Oeschger events would deter prediction of human-made climate effects, if D–O events remained a mystery. Instead, however, enough is now understood about D–O events that they provide insight related to the vulnerability of ice shelves and ice sheets, including the role of subsurface ocean warming.

Broecker (2000) inferred from the rapidity of D–O warmings that a reduction of sea ice cover was probably involved. Li et al. (2005, 2010) modeling showed that removal of Nordic Seas ice cover is needed to yield the magnitude of observed Greenland warming. The spatial gradient of D–O warming, with smaller warming in northwest Greenland, agrees with that picture (Guillevic et al., 2013; Buizert et al., 2014). Such sea ice change is consistent with changes in deuterium excess in Greenland ice cores at

D–O transitions, which indicate shifts of Greenland moisture source regions (Masson-Delmotte et al., 2005; Jouzel et al., 2007).

Fluckiger et al. (2006), Alvarez-Solas et al. (2010, 2011, 2013) and Marcott et al. (2011) noted modern and paleo data that point to ocean-ice shelf interaction as key to the ice discharge of accompanying Heinrich events, and they used a range of models to support this interpretation and overturn earlier suggestions of a central role for ice sheets via binge-purge oscillations (MacAyeal, 1993) or outburst flooding from subglacial reservoirs (Alley et al., 2006). Shaffer et al. (2004) and Petersen et al. (2013) conclude that subsurface ocean warming in the North Atlantic takes place during the stadial (cold) phase of all D–O events, and eventually this subsurface warming leads to ice shelf collapse or retreat, ice rafting, sea level rise, and sea ice changes. Rasmussen et al. (2003) examined ocean cores from the southeast Labrador Sea and found that for all 11 Heinrich events "... the icy surface water was overlying a relatively warm, poorly ventilated and nutrient rich intermediate water mass to a water depth of at least 1251 m." Collapse of a Greenland ice shelf fronting the Jakoshavn ice stream during the Younger Dryas cold event has been documented (Rinterknecht et al., 2014), apparently due to subsurface warming beneath the ice shelf leading to rapid discharge of icebergs.

Some D–O details are uncertain, e.g., the relation between changing sea ice cover and changing location of deep water formation (Rahmstorf, 1994) and whether an ice shelf between Greenland and Iceland contributed to the sea ice variability (Petersen et al., 2013). However, ocean-ice interactions emerge as key mechanisms, spurred by subsurface ocean warming, as ocean stratification slows but does not stop northward heat transport by AMOC.

We consider a specific D–O event for the sake of discussing mechanisms. D–O 22 cold phase, labeled C22 in ocean cores and coinciding with Heinrich H8 (Fig. 24), occurred as Northern Hemisphere insolation was rising (Fig. 24a). The North Atlantic surface was cooled by rapid ice discharge; sea level rose more than 40 m, a rate exceeding 1.6 m per century (Cutler et al., 2003). Ice discharge kept the North Atlantic

highly stratified, slowing AMOC. Antarctic warming from a slowed AMOC increases almost linearly with the length of the D–O cold phase (Fig. 3, EPICA Community Members, 2006; Fig. 6, Capron et al., 2010) because of the Southern Ocean's large heat capacity (Stocker and Johnson, 2003). Antarctic warming, aided by the 2500 year D–O 22 event, spurred SMOC enough to raise atmospheric CO_2 40 ppm (Fig. 24c).

As the Antarctic warmed, ocean heat transport to the North Atlantic would have increased, with most heat carried at depths below the surface layer. When the North Atlantic became warm enough at depth, stratification of cold fresh surface water eventually could not be maintained. The warming breakthrough may have included change of NADW formation location (Rahmstorf, 1994) or just large movement of the polar front. Surface warming east of Greenland removed most sea ice and Greenland warmed $\sim 10\,^{\circ}$C (Capron et al., 2010). As the warm phase of D–O 21 began, AMOC was pumping heat from the Antarctic into the Nordic seas and Earth must have been slightly out of energy balance, cooling to space, so both Antarctica and Greenland slowly cooled. Once the North Atlantic had cooled enough, sea formed east of Greenland again, ice sheets and ice shelves grew, sea level fell, and the polar front moved southward.

Sea level rise associated with D–O events covers a wide range. Sea level increases as large as ~ 40 m were associated with large insolation forcings at 107 and 86 ky b2k (Fig. 24). However, rapid sea level change occurred even when forcing was weak. Roche et al. (2004) conclude from analyses of δ^{18}O that H4, at a time of little insolation forcing (~ 40 ky b2k, Fig. 24), produced 1.9 ± 1.1 m sea level rise over 250 ± 150 years. Sea level rise as great as 10–15 m occurred in conjunction with some other D–O events during 65–30 ky b2k (Lambeck and Chappell, 2001; Yokoyama et al., 2001; Chappell, 2002).

Questions about possible D–O periodicity and external forcing were raised by a seeming 1470 year periodicity (Schulz, 2002). However, improved dating indicates that such periodicity is an artifact of ice core chronologies and not statistically significant (Ditlevsen et al., 2007) and inspection of Fig. 24b reveals a broad range of time scales. Instead, the data imply a climate system that responds sensitively to even weak forc-

ings and stochastic variability, both of which can spur amplifying feedbacks with a range of characteristic response times.

Two conclusions are especially germane. First, subsurface ocean warming is an effective mechanism for destabilizing ice shelves and thus the ice sheets buttressed by the ice shelves. Second, large rapid sea level rise can occur as a result of melting ice shelves.

However, ice shelves probably were more extensive during glacial times. So are today's ice sheets much more stable? The need to understand ice sheet vulnerability focuses attention on end-Eemian events, when ice sheets were comparable in size to today's ice sheets.

5.5 End-Eemian climate and sea level change

Termination II, ushering in the Eemian, was spurred by a late spring 60° N insolation anomaly peaking at $+45\,\mathrm{W\,m^{-2}}$ at 129.5 ky b2k (Fig. 24a), the largest anomaly in at least the past 425 ky (Fig. 3, Hansen et al., 2007b). CO_2 and albedo forcings were mutually reinforcing. CO_2 began to rise before Antarctic δ^{18}O, as deglaciation and warming began in the Northern Hemisphere. Most of the total CO_2 rise was presumably from deep ocean ventilation in the Southern Ocean, aided by meltwater that slowed the AMOC and thus helped to warm the Southern Ocean.

The northern insolation anomaly fell rapidly, becoming negative at 123.8 ky b2k (Fig. 24a). Northern Hemisphere ice sheets must have increased intermittently while Southern Hemisphere ice was still declining, consistent with minor, growing ice rafting events C27, C27a, C27b and C26 and a sea level minimum during 125–121 ky b2k (Sec 2.1). High Eemian climate variability in the Antarctic (Pol et al., 2014) was likely a result of the see-saw relation with North Atlantic events.

CO_2 (Fig. 24c) remained at ~ 270 ppm for almost 15 ky as the positive insolation anomaly on the Southern Ocean (Fig. 24a) kept the deep ocean ventilated. Sea level in the Red Sea analysis (Grant et al., 2012) shown in Fig. 24f seems to be in decline through the Eemian, but that must be a combination of dating and sea level error, as

numerous sea level analyses cited in Sect. 2.1 and others (e.g., Chen at al., 1991; Stirling et al., 1998; Cutler et al., 2003), indicate high sea level throughout the Eemian and allow a possible late-Eemian maximum. Chen et al. (1991), using a U-series dating with 2σ uncertainty ± 1.5 ky, found that the Eemian sea level high stand began between 132 and 129 ky b2k, lasted for 12 ky, and was followed by rapid sea level fall.

We assume that C26, the sharp cooling at 116.72 ky b2k in the NGRIP ice on the AICC2012 time scale, marks the end of fully interglacial Eemian conditions, described as 5e sensu stricto by Bauch and Erlenkeuser (2008). δ^{18}O in Antarctica was approaching a relative minimum (−46.7 per mil at EDML, see Fig. S19 for detail) and CO_2 was slowly declining at 263 ppm. In the next 300 years δ^{18}O increased to −45.2 and CO_2 increased by 13 ppm with lag ∼ 1500 years, which we interpret as see-saw warming of the Southern Ocean in response to the C26-induced AMOC slowdown and resulting increased SMOC ventilation of CO_2.

Freshwater causing the C26 AMOC shutdown could not have been Greenland surface melt. Greenland was already 2000 years into a long cooling trend and the northern insolation anomaly was in the deepest minimum of the last 150 ky (Fig. 24a). Instead C26 was one event in a series, preceded by C27b and followed by C25, each a result of subsurface North Atlantic warming that melted ice shelves, causing ice sheets to discharge ice. Chapman and Shackleton (1999) did not find IRD from C26 in the mid-Atlantic, but Carlson et al. (2008) found a sharp increase in sediments near the southern tip of Greenland that they identified with C26.

We suggest that the Southern Hemisphere was the source for brief late-Eemian sea level rise. The positive warm-season insolation anomaly on the Southern Ocean and AMOC slowdown due to C26 added to Southern Ocean heat, causing ice shelf melt, ice sheet discharge, and sea level rise. Rapid Antarctica ice loss would cool the Southern Ocean and increase sea ice cover, which may have left telltale evidence in ice cores. Indeed, Masson-Delmotte et al. (2011) suggest that abrupt changes of δ^{18}O in the EDML and TALDICE ice cores (those most proximal to the coast) indicate a change in moisture origin, likely due to increased sea ice. Further analysis of Antarctic

data for the late Eemian might help pinpoint the melting and help assess vulnerability of Antarctic ice sheets to ocean warming, but this likely will require higher resolution models with more realistic sea ice distribution and seasonal change than our present model produces.

Terrestrial records in Northern Europe reveal rapid end-Eemian cooling. Sirocko et al. (2005) find cooling of 3 °C in summer and 5–10 °C in winter in southern Germany, annual layering in a dry Eifel maar lake revealing a 468 year period of aridity, dust storms, bushfires, and a decline of thermophilous trees. Similar cooling is found at other German sites and La Grande Pile in France (Kuhl and Litt, 2003). Authors in both cases interpret the changes as due to a southward shift of the polar front in the North Atlantic corresponding to C26. Cooling of this magnitude in northern Europe and increased aridity are found by Brayshaw et al. (2009) and Jackson et al. (2015) in simulations with high resolution climate models forced by AMOC shutdown.

While reiterating dating uncertainties, we note that the cool period with reduced NADW formation identified in recent high resolution ocean core studies for Eirik Drift site MD03-2664 (Fig. 3) near Greenland (Irvali et al., 2012; Galaasen et al., 2014) at ∼ 117 ky b2k has length similar to the 468 year cold stormy period found in a German lake core (Sirocko et al., 2005). The Eirik core data show a brief return to near-Eemian conditions and then a slow decline, similar to the oscillation in the NGRIP ice core at 116.72 ky b2k on the AICC2012 time scale.

The principal site of NADW formation may have moved from the GIN Seas to just south of Greenland at end of the Eemian. Southward shift of NADW formation and the polar front is consistent with the sudden, large end-Eemian cooling in the North Atlantic and northern Europe, while cooling in Southern European was delayed by a few millennia (Brauer et al., 2007). Thus end-Eemian mid-latitude climate was characterized by an increased zonal temperature gradient, an important ingredient for strengthening storms.

6 Impact of ice melt on storms

We can draw some conclusions about the effect of ice melt on winds and severe weather, despite limitations of our current climate model. Principal model limitations are its coarse resolution and unrealistic location of Northern Hemisphere deep water formation, this latter problem being likely related to the model's excessive Northern Hemisphere sea ice cover.

Despite these caveats, we have shown that the model realistically simulates zonal changes of sea level pressure in response to climate forcings. Specifically, the model yields a realistic trend to the positive phase of the Southern Annular Mode (SAM) in response to decrease of stratospheric ozone and increase of other GHGs (Fig. S17).

The modeled response of atmospheric pressure to the cooling effect of ice melt is large scale, tending to be of a zonal nature that should be handled by our model resolution. Freshwater injection onto the North Atlantic and Southern Oceans causes increase of sea level pressure at middle latitudes and decrease at polar latitudes (Figs. 13, S11). These pressure changes have implications for the strength of prevailing winds and for severe weather.

The robust increase of high pressure in the North Atlantic strengthens prevailing northeasterly winds blowing onto the Bahamas (Fig. 13). The Eemian-age chevron beach structures with consistent southwesterly direction throughout windward shores in the Bahamas (Sect. 2.2), with wave runup deposits at elevations as much as 20–40 m above today's sea level and reaching as far as a few kilometers inland, must have been formed by massive storms in the direction of the prevailing winds. Consistent increase of wind speed in the appropriate direction would contribute to creation of long wavelength, deep ocean waves that can scour the ocean floor as they reach the shallow near-shore region. The most extreme events probably required the combined effect of these increased prevailing winds and tropical storms, the latter nurtured by the unusually warm tropical sea surface temperatures in the late Eemian and guided by the strong prevailing winds. On theoretical grounds, it is known that the higher low

latitude sea surface temperatures of the late Eemian (Cortijo et al., 1999) would favor more powerful tropical storms (Emanuel, 1987). The zonal temperature gradient, warmer tropics and cooler high latitudes, was enhanced by low obliquity of Earth's spin axis in the late Eemian. Empirical evidence for intense Eemian storms includes standing forests of 8–10 m trees that were rapidly buried in shelf sand and preserved on Bermuda at elevations several meters above sea level (Hearty and Olson, 2011), as well as other evidence discussed in Sect. 2.2. The late Eemian is typically associated with a massive flux of oolitic shelf sediments mobilized in the offshore shelf environment and further transported by intense winds into enormous land-based dunes that dominate a majority of modern landscapes of the Bahamas archipelago (Hearty and Neumann, 2001).

Shutdown or substantial slowdown of the AMOC, besides possibly contributing to extreme end-Eemian events, will cause a more general increase of severe weather. This is shown by the change of zonal mean temperature and eddy kinetic energy in our simulations with and without ice melt (Fig. 26). Without ice melt, surface warming is largest in the Arctic (Fig. 26, left), resulting in a decrease of lower tropospheric eddy energy. However, the surface cooling from ice melt increases surface and lower tropospheric temperature gradients, and in stark contrast to the case without ice melt, there is a large increase of mid-latitude eddy energy throughout the midlatitude troposphere. The increase of zonal-mean midlatitude baroclinicity that we find (Fig. 26) is in agreement with the localized, N. Atlantic-centered increases in baroclinicity found in the higher resolution simulations of Jackson et al. (2015) and Brayshaw et al. (2009).

Increased baroclinicity produced by a stronger temperature gradient provides energy for more severe weather events. Many of the most memorable and devastating storms in eastern North America and western Europe, popularly known as superstorms, have been winter cyclonic storms, though sometimes occurring in late fall or early spring, that generate near-hurricane force winds and often large amounts of snowfall (Chapter 11, Hansen, 2009). Continued warming of low latitude oceans in coming decades will provide more water vapor to strengthen such storms. If this tropical warming is com-

bined with a cooler North Atlantic Ocean from AMOC slowdown and an increase in midlatitude eddy energy (Fig. 26), we can anticipate more severe baroclinic storms. Increased high pressure due to cooler high latitude ocean (Fig. 13) can make blocking situations more extreme, with a steeper pressure gradient between the storm's low pressure center and the blocking high, thus driving stronger North Atlantic storms.

Large freshwater injection on the North Atlantic Ocean has a different impact on winds than freshwater injection on the Southern Ocean (Fig. 13). In the Southern Ocean the increased meridional temperature gradient increases the strength of the westerlies in all seasons at all longitudes. In the North Atlantic Ocean the increase of sea level pressure in the winter slows the westerlies (Fig. 13). Thus instead of a strong zonal wind that keeps cold polar air locked in the Arctic, there is a tendency for more cold air outbreaks to middle latitudes.

7 Modern data

7.1 Southern Ocean

The Southern Ocean, as the gateway to the global deep ocean, has exerted a powerful control over glacial/interglacial climate. However, the Southern Ocean's control over the Antarctic ice sheet, and thus global sea level, will be of greater concern to humanity.

Our model, due to moderately excessive mixing, may be less sensitive to freshwater forcing than the real world. Yet the model (Fig. 27a) indicates that a slowing of Antarctic Bottom Water Formation should already be underway, a conclusion consistent with transient tracer observations in the Weddell Sea by Huhn et al. (2013), which reveal a 15–21 % reduction in the ventilation of Weddell Sea Bottom Water and Weddell Sea Deep Water over the period 1984–2008.

The Southern Ocean has significant control on release of ocean heat to space. In an extreme case, polynyas form in the dead of Antarctic winter, as upwelling warm water melts the sea ice and raises the air temperature by tens of degrees, increasing

thermal radiation to space, thus serving as a valve that releases ocean heat. Today, as surface meltwater stabilizes the vertical water column, that valve is being partially closed. de Lavergne et al. (2014) relate the absence of large open ocean polynyas in recent decades to surface freshening.

Release of heat to the atmosphere and space, which occurs without the need for large open ocean polynyas, is slowed by increasing sea ice cover in response to increasing ice shelf melt (Bintanja et al., 2013). Schmidtko et al. (2014) and Roemmich et al. (2015) document changes in the Southern Ocean in recent decades, especially warming of Circumpolar Deep Water (CDW), which they and others (Jacobs et al., 2011; Rignot et al., 2013) note is the likely cause of increased ice shelf melt. Observations of ocean surface freshening and freshening of the water column (Rintoul, 2007; Jacobs and Giulivi, 2010) and deep ocean warming (Johnson et al., 2007; Purkey and Johnson, 2013) leave little doubt that these processes are occurring.

Loss of ice shelves that buttress the ice sheets potentially can lead to large sea level rise (Mercer, 1978). The ocean depths with largest warming in response to surface freshening (Fig. 16) encompass ice shelf grounding lines that exert the strongest restraining force (Jenkins and Doake, 1991). The impact of warming CDW varies among ice shelves because of unique geometries and proximity to the CDW current, but eventually a warming ocean will likely affect them all. As ice shelves weaken and ice sheet discharge increases the process is self-amplifying via the increasing freshwater discharge.

Weber et al. (2014) used ocean cores near Antarctica to study the deglacial evolution of the Antarctic ice sheet following the last glacial maximum. They identified eight episodes of large iceberg flux, with the largest flux occurring ~ 14 600 years ago, providing evidence of an Antarctic contribution to Meltwater Pulse 1A, when sea level rose an average of 3–5 m century^{-1} for a few centuries (Fairbanks, 1989). Ice sheets today may not have as much vulnerable ice as they had during the ice age. On the other hand, CO_2 and the global climate forcing are increasing much more rapidly today, and heat is being pumped into the ocean at a high rate via the resulting positive (incoming)

planetary energy imbalance (Hansen et al., 2011; Roemmich et al., 2015) providing ample energy to spur increasing ice melt.

7.2 Surface change today

Ocean surface cooling near Antarctica is emerging now (Fig. 28) and is large by mid-century (Fig. 20) in our simulations. The modeled sea ice increase is delayed relative to observations (Fig. 27b) for reasons noted below. However, freshwater effects already dominate over direct effects of O_3 and other GHGs. D. Thompson et al. (2011) suggested that O_3 depletion may account for Antarctic sea ice growth, but Sigmond and Fyfe (2014) found that all CMIP5 models yield decreasing sea ice in response to observed changes of O_3 and other GHGs. Ferreira et al. (2015) show that O_3 depletion yields a short time scale sea ice increase that is soon overtaken by warming and sea ice decrease with realistic GHG forcing. We conclude that these models are missing the dominant driver of change on the Southern Ocean: freshwater input.

Delay of our modeled sea ice increase relative to observations is probably related to difficulty in maintaining vertical stratification (Fig. S18), which in turn is a result of excess small scale mixing from a large background diapycnal diffusivity ($0.3\,cm^2\,s^{-1}$) used to damp numerical noise, and the noise itself. Also sea ice increase occurred earlier in our experiments with freshwater spread over a broad area rather than being placed only in coastal gridboxes. In the real world half of the freshwater is calving (icebergs) that float some distance before melting, which may increase the effectiveness of the freshwater flux.

Depoorter et al. (2012) show that the proportion of calving varies strongly with location (see their Fig. 1). The Weddell and Ross Sea regions have large freshwater flux that is mainly icebergs. In contrast, the large Amundsen- Bellingshausen freshwater flux is mainly basal melt. This distinctive spatial variation may help account for observed sea ice increasing in the Weddell and Ross Seas, while decreasing in the Amundsen and Bellingshausen Seas. Note also that the Weddell Sea and Ross Sea sectors are respectively the regions where the EDML and TALDICE Antarctic ice cores

are suggestive of expanding sea ice (Masson-Delmotte et al., 2011) at end-Eemian time.

Observations and our model concur in showing a "global warming hole" near the southern tip of Greenland. Drijfhout et al. (2012) find this feature in most models and conclude that it is a precursor of a weakening AMOC. Freshwater injection in our model makes this feature stronger. We note that this feature creates a blocking situation (Fig. 13) that may have consequences such as directing winter cold air outbreaks southward in Eastern North America. This and possible influence on weather patterns in late spring that initiate melt season conditions should be investigated with models that include the most realistic distribution of Greenland freshwater input (e.g., Fig. 1 of Velicogna et al., 2014) as well as melt from ice shelves and small ice caps.

7.3 Ice sheet mass loss and sea level rise

The fundamental question we raise is whether ice sheet melt in response to rapid global warming will be nonlinear and better characterized by a doubling time for its rate of change or whether more linear processes dominate. Hansen (2005, 2007) argued on heuristic grounds that ice sheet disintegration is likely to be nonlinear if climate forcings continue to grow, and that sea level rise of several meters is possible on a time scale of the order of a century. Given current ice sheet melt rates, a 20 year doubling rate produces multi-meter sea level rise in a century, while 10 and 40 year doubling times require 50 and 200 years, respectively.

The IPCC (2013) report increased estimates of sea level rise compared to prior IPCC reports, but scenarios they discuss are close to linear responses to the assumed rising climate forcing. The most extreme climate forcing (RCP8.5, 936 ppm CO_2 in 2100 and GHG forcing $8.5\,W\,m^{-2}$) is estimated to produce 0.74 m sea level rise in 2100 relative to the 1986–2005 mean sea level, with the "likely" range of uncertainty 0.52–0.98 m. IPCC (2013) also discusses semi-empirical estimates of sea level rise, which yield ~ 0.7–1.5 m for the RCP8.5 scenario, but preference is given to the model-based estimate of 0.52–0.98 m.

Empirical analyses are needed if we doubt the realism of ice sheet models, but semi-empirical analyses lumping multiple processes together may yield a result that is too linear. Sea level rises as a warming ocean expands, as water storage on continents changes (e.g., in aquifers and behind dams), and as glaciers, small ice caps, and the Greenland and Antarctic ice sheets melt. We must isolate the ice sheet contribution, because only the ice sheets threaten multi-meter sea level rise.

Hay et al. (2015) reanalyzed tide-gauge data for 1901–1990 in a probabilistic framework, including isostatic adjustment at each station, finding global sea level rise $1.2 \pm 0.2\,\mathrm{mm\,yr^{-1}}$. Prior tide gauge analyses of $1.6–1.9\,\mathrm{mm\,yr^{-1}}$ were inconsistent with estimates for each process, which did not add up to such a large value (IPCC, 2013). The reduced 20th century sea level rise alters perceptions of near-linear sea level rise (Fig. 13.3, IPCC, 2013). For example, Fig. 29 compares satellite altimetry data for 1993-2015 with 20th century sea level change, the latter obtained by multiplying a tide gauge analysis (Church and White, 2011) by the factor (0.78) required to yield sea level rise $1.2\,\mathrm{mm\,yr^{-1}}$ for 1901–1990. Different tide gauge analyses could alter the shape of this curve, but the trend toward earlier times must be toward zero due to near-constancy of millennial sea level (IPCC, 2013).

Figure 29 reveals an accelerating sea level rise, but it includes the effect of all processes affecting sea level and thus may understate the growth rate for ice sheet melt. Recent analysis of satellite gravity measurements (Velicogna et al., 2014) finds Greenland's mass loss in 2003–2013 to be $280 \pm 58\,\mathrm{Gt\,yr^{-1}}$,[3] with mass loss accelerating by $25.4 \pm 1.2\,\mathrm{Gt\,yr^{-2}}$, and Antarctic mass loss $67 \pm 44\,\mathrm{Gt\,yr^{-1}}$ accelerating by $11 \pm 4\,\mathrm{Gt\,yr^{-2}}$ (Fig. S20). Their analysis, which is the source of the quantitative mass

[3]For comparison, our assumed freshwater injection of $360\,\mathrm{Gt\,yr^{-1}}$ in 2011 with 10 year doubling yields an average mass loss $292\,\mathrm{Gt\,yr^{-1}}$ for 2003–2013. Further, Velicogna et al. (2014) find an ice mass loss of $74 \pm 7\,\mathrm{Gt\,yr^{-1}}$ from nearby Canadian glaciers and ice caps with acceleration $10 \pm 2\,\mathrm{Gt\,yr^{-2}}$, and there is an unknown freshwater input from melting ice shelves. Thus our assumed Northern Hemisphere meltwater was conservative.

changes in the remainder of this section, is especially useful because it breaks down the mass changes on Greenland and Antarctica into several regions.

Reliability of the inferred mass loss in 2003–2013 is supported by comparison to surface mass balance studies in regions with little contribution from ice dynamics (Velicogna et al., 2014). Mass loss accelerations over 1992–2011 obtained via the mass budget method (Rignot et al., 2011) for Greenland ($21.9 \pm 1\,\mathrm{Gt\,yr^{-2}}$) and Antarctica ($14.5 \pm 2\,\mathrm{Gt\,yr^{-2}}$) are similar to results from gravity analysis for 2003–2013. A third approach, based on satellite radar altimetry, is consistent with the other two for mass loss from Greenland and West Antarctica (Shepherd et al., 2012), including the Amundsen Sea sector, which is the dominant contributor to Antarctic ice mass loss (Sutterley et al., 2014). Differences among techniques exist in East Antarctica, but mass changes there are small (Shepherd et al., 2012).

Mass loss acceleration for Greenland implies a doubling time of order 10 years, but this high rate may not continue. Greenland mass loss in 2003–2013 was affected by a tendency in 2007–2012 for summer high pressure over Greenland that contributed to melt acceleration (Fettweis, 2013; Bellflamme et al., 2015), especially in 2012 (Hanna et al., 2013). Extreme 2012 melt was associated an "atmospheric river" of warm moist air (Neff et al., 2014), a rare meteorological situation not representative of near-term expectations. Yet extreme events are a combination of slow climate change and infrequent weather patterns, and additional and more summer extreme events can be anticipated if global warming continues (Hansen et al., 2012).

The Antarctic situation, in contrast, is more threatening than suggested by continental mass loss. Net mass loss combines mass loss via ice streams and regions of net snow accumulation. Queen Maud Land is gaining $63 \pm 6\,\mathrm{Gt\,yr^{-1}}$, accelerating $15 \pm 1\,\mathrm{Gt\,yr^{-2}}$, but this mass gain may be temporary. Our simulations with increasing freshwater input indicate that circum-Antarctic cooling and sea ice increase eventually will limit precipitation reaching the continent.

Amundsen Sea glaciers are a gateway to West Antarctic ice with potential for several meters of sea level. Mass loss of the Amundsen Sea sector was $116 \pm 6\,\mathrm{Gt\,yr^{-1}}$ in

2003–2013, growing 13 ± 2 Gt yr^{-2} (Velicogna et al., 2014; Rignot et al., 2014; Sutterley et al., 2014).

Totten glacier in East Antarctica fronts the Aurora Subglacial Basin, which has the potential for ~ 6.7 m of sea level (Greenbaum et al., 2015). Williams et al. (2011) find that warm modified Circumpolar Deep Water is penetrating the continental shelf near Totten beneath colder surface layers. Details of how warmer water reaches the ice shelf are uncertain (Khazendar et al., 2013), but, as in West Antarctica, the inland sloping trough connecting the ocean with the main ice shelf cavity (Greenbaum et al., 2015) makes Totten glacier susceptible to unstable retreat (Goldberg et al., 2009). Cook glacier, further east in East Antarctica, also rests on a submarine inland-sloping bed and fronts ice equivalent to 3–4 m of sea level. The Velicogna et al. (2014) analysis of gravity data for 2003–2013 finds the Totten sector of East Antarctica losing 17 ± 4 Gt yr^{-1}, with the loss accelerating by 4 ± 1 Gt yr^{-2}, and the Victoria/Wilkes sector including Cook glacier losing 16 ± 5 Gt yr^{-1}, with a small deceleration (2 ± 1 Gt yr^{-2}).

Ice mass losses from Greenland, West Antarctica and Totten/Aurora basin in East Antarctica are growing nonlinearly with doubling times of order 10 years. Continued exponential growth at that rate seems unlikely for Greenland, and reduced mass loss in the past two years (Fig. S20) is consistent with a slower growth of the mass loss rate for Greenland. However, if GHGs continue to grow, the amplifying feedbacks in the Southern Ocean, including expanded sea ice and SMOC slowdown likely will continue to grow and facilitate increasing Antarctic mass loss.

7.4 The Anthropocene

The Anthropocene (Crutzen and Stoermer, 2000), the era in which humans have contributed to global climate change, is usually assumed to have begun in the past few centuries. Ruddiman (2003) suggested that it began earlier, with deforestation affecting CO_2 about 8000 years ago. Southern Ocean feedbacks considered in our present paper are relevant to that discussion.

Ruddiman (2003) assumed that 40 ppm of human-made CO_2 was needed to explain a 20 ppm CO_2 increase in the Holocene (Fig. 24c), because CO_2 decreased ~ 20 ppm, on average, during several prior interglacials. Such a large human source should have left an imprint on $\delta^{13}CO_2$ that is not observed in ice core CO_2 (Elsig et al., 2009). Ruddiman (2013) suggests that ^{13}C was taken up in peat formation, but the required peat formation would be large and no persuasive evidence has been presented to support such a dominant role for peat in the glacial carbon cycle.

We suggest that Ruddiman overestimated the anthropogenic CO_2 needed to prevent decline of Antarctic temperature. The CO_2 decline in interglacial periods is a climate feedback: declining Southern Ocean temperature slows the ventilation of the deep ocean, thus sequestering CO_2. Avoidance of the cooling and CO_2 decline requires only human-made CO_2 forcing large enough to counteract the weak natural forcing trend, not the larger feedback-driven CO_2 changes in prior interglacials, because, if the natural forcings are counteracted, the feedback does not occur. The required human-made contribution to atmospheric CO_2 would seem to be at most ~ 20 ppm, but less if human-made CO_2 increased deep ocean ventilation. The smaller requirement on the human source and the low $\delta^{13}C$ content of deep-ocean CO_2 make the Ruddiman hypothesis more plausible, but recent carbon cycle models (Kleinen et al., 2015) have been able to capture CO_2 changes in the Holocene and earlier interglacials without an anthropogenic source.

Even if the Anthropocene began millennia ago, a fundamentally different phase, a Hyper-Anthropocene, was initiated by explosive 20th century growth of fossil fuel use. Human-made climate forcings now overwhelm natural forcings. CO_2, at 400 ppm in 2015, is off the scale in Fig. 24c. CO_2 climate forcing is a reasonable approximation of the net human forcing, because forcing by other GHGs tends to offset negative human forcings, mainly aerosols (IPCC, 2013). Most of the forcing growth occurred in the past several decades, and two-thirds of the 0.9 °C global warming (since 1850) has occurred since 1975 (update of Hansen et al., 2010, available at http://www.columbia.edu/~mhs119/Temperature/).

Our analysis paints a different picture than IPCC (2013) for how this Hyper-Anthropocene phase is likely to proceed if GHG emissions grow at a rate that continues to pump energy at a high rate into the ocean. We conclude that multi-meter sea level rise would become practically unavoidable. Social disruption and economic consequences of such large sea level rise could be devastating. It is not difficult to imagine that conflicts arising from forced migrations and economic collapse might make the planet ungovernable, threatening the fabric of civilization.

This image of our planet with accelerating meltwater includes growing climate chaos and storminess, as meltwater causes cooling around Antarctica and in the North Atlantic while the tropics and subtropics continue to warm. Rising seas and more powerful storms together are especially threatening, providing strong incentive to phase down CO_2 emissions rapidly.

8 Summary implications

Humanity faces near certainty of eventual sea level rise of at least Eemian proportions, 5–9 m, if fossil fuel emissions continue on a business-as-usual course, e.g., IPCC scenario A1B that has $CO_2 \sim 700$ ppm in 2100 (Fig. S21). It is unlikely that coastal cities or low-lying areas such as Bangladesh, European lowlands, and large portions of the United States eastern coast and northeast China plains (Fig. S22) could be protected against such large sea level rise.

Rapid large sea level rise may begin sooner than generally assumed. Amplifying feedbacks, including slowdown of SMOC and cooling of the near-Antarctic ocean surface with increasing sea ice, may spur nonlinear growth of Antarctic ice sheet mass loss. Deep submarine valleys in West Antarctica and the Wilkes Basin of East Antarctica, each with access to ice amounting to several meters of sea level, provide gateways to the ocean. If the Southern Ocean forcing (subsurface warming) of the Antarctic ice sheets continues to grow, it likely will become impossible to avoid sea level rise of several meters, with the largest uncertainty being how rapidly it will occur.

The Greenland ice sheet does not have as much ice subject to rapid nonlinear disintegration, so the speed at which it adds to 21st century sea level rise may be limited. However, even a slower Greenland ice sheet response is expected to be faster than carbon cycle or ocean thermal recovery times. Therefore, if climate forcing continues to grow rapidly, amplifying feedbacks will assure large eventual mass loss. Also with present growth of freshwater injection from Greenland, in combination with increasing North Atlantic precipitation, we already may be on the verge of substantial North Atlantic climate disruption.

Storms conjoin with sea level rise to cause the most devastating coastal damage. End-Eemian and projected 21st century conditions are similar in having warm tropics and increased freshwater injection. Our simulations imply increasing storm strengths for such situations, as a stronger temperature gradient caused by ice melt increases baroclinicity and provides energy for more severe weather events. A strengthened Bermuda High in the warm season increases prevailing northeasterlies that can help account for stronger end-Eemian storms. Weakened cold season sea level pressure south of Greenland favors occurrence of atmospheric blocking that can increase wintertime Arctic cold air intrusions into northern midlatitudes.

Effects of freshwater injection and resulting ocean stratification are occurring sooner in the real world than in our model. We suggest that this is an effect of excessive small scale mixing in our model that limits stratification, a problem that may exist in other models (Hansen et al., 2011). We encourage similar simulations with other models, with special attention to the model's ability to maintain realistic stratification and perturbations. This issue may be addressed in our model with increased vertical resolution, more accurate finite differencing method in ocean dynamics that reduces noise, and use of a smaller background diffusivity.

There are many other practical impacts of continued high fossil fuel emissions via climate change and ocean acidification, including irreplaceable loss of many species, as reviewed elsewhere (IPCC, 2013, 2014; Hansen et al., 2013a). However, sea level rise sets the lowest limit on allowable human-made climate forcing and CO_2, because of the

extreme sensitivity of sea level to ocean warming and the devastating economic and humanitarian impacts of a multi-meter sea level rise. Ice sheet response time is shorter than the time for natural geologic processes to remove CO_2 from the climate system, so there is no morally defensible excuse to delay phase-out of fossil fuel emissions as rapidly as possible.

We conclude that the 2 °C global warming "guardrail", affirmed in the Copenhagen Accord (2009), does not provide safety, as such warming would likely yield sea level rise of several meters along with numerous other severely disruptive consequences for human society and ecosystems. The Eemian, less than 2 °C warmer than pre-industrial Earth, itself provides a clear indication of the danger, even though the orbital drive for Eemian warming differed from today's human-made climate forcing. Ongoing changes in the Southern Ocean, while global warming is less than 1 °C, provide a strong warning, as observed changes tend to confirm the mechanisms amplifying change. Predicted effects, such as cooling of the surface ocean around Antarctica, are occurring even faster than modeled.

Our finding of global cooling from ice melt calls into question whether global temperature is the most fundamental metric for global climate in the 21st century. The first order requirement to stabilize climate is to remove Earth's energy imbalance, which is now about $+0.6\,W\,m^{-2}$, more energy coming in than going out. If other forcings are unchanged, removing this imbalance requires reducing atmospheric CO_2 from ~400 to ~350 ppm (Hansen et al., 2008, 2013a).

The message that the climate science delivers to policymakers, instead of defining a safe "guardrail", is that fossil fuel CO_2 emissions must be reduced as rapidly as practical. Hansen et al. (2013a) conclude that this implies a need for a rising carbon fee or tax, an approach that has the potential to be near-global, as opposed to national caps or goals for emission reductions. Although a carbon fee is the sine qua non for phasing out emissions, the urgency of slowing emissions also implies other needs including widespread technical cooperation in clean energy technologies (Hansen et al., 2013a).

The task of achieving a reduction of atmospheric CO_2 is formidable, but not impossible. Rapid transition to abundant affordable carbon-free electricity is the core requirement, as that would also permit production of net-zero-carbon liquid fuels from electricity. The rate at which CO_2 emissions must be reduced is about $6\,\%\,yr^{-1}$ to reach 350 ppm atmospheric CO_2 by about 2100, under the assumption that improved agricultural and forestry practices could sequester 100 GtC (Hansen et al., 2013a). The amount of CO_2 fossil fuel emissions taken up by the ocean, soil and biosphere has continued to increase (Fig. S23), thus providing hope that it may be possible to sequester more than 100 GtC. Improved understanding of the carbon cycle and non-CO_2 forcings are needed, but it is clear that the essential requirement is to begin to phase down fossil fuel CO_2 emissions rapidly. It is also clear that continued high emissions are likely to lock-in continued global energy imbalance, ocean warming, ice sheet disintegration, and large sea level rise, which young people and future generations would not be able to avoid. Given the inertia of the climate and energy systems, and the grave threat posed by continued high emissions, the matter is urgent and calls for emergency cooperation among nations.

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Discussion Paper | Discussion Paper | Discussion Paper | Discussion Paper |



Figure 1. Two boulders (#1 and #2 of Hearty, 1997) on coastal ridge of North Eleuthera Island, Bahamas. Scale: person in both photos = 1.6 m. Estimated weight of largest boulder (#1, on left) is ~2300 tons.

Discussion Paper | Discussion Paper | Discussion Paper | Discussion Paper |

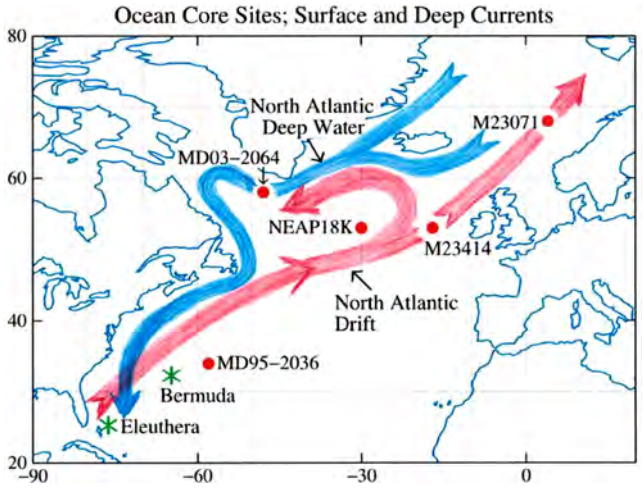


Figure 2. Ocean and ice core sites and simplified sketch of upper ocean North Atlantic Current and North Atlantic Deep Water return flow. In interglacial periods the North Atlantic Current extends further north, allowing the Greenland-Iceland-Norwegian Sea to become an important source of deepwater formation.

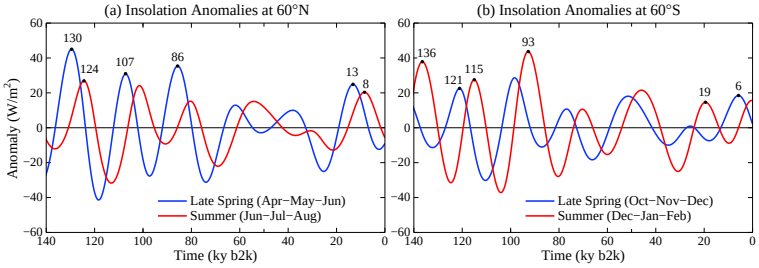


Figure 3. Summer (Jun–Jul–Aug) and late spring (Apr–May–Jun) insolation anomalies at 60° N and summer (Dec–Jan–Feb) and late spring (Oct–Nov–Dec) anomalies at 60° S.

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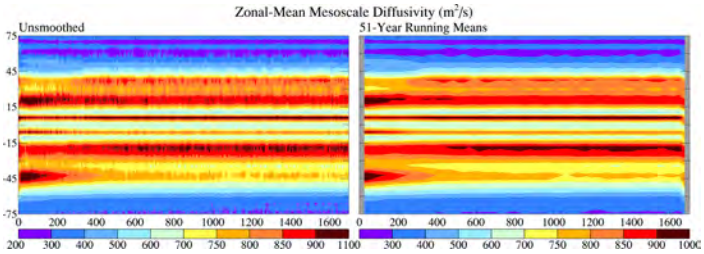


Figure 4. Control run zonal-mean mesoscale diffusivity versus time in 1700 year control run.

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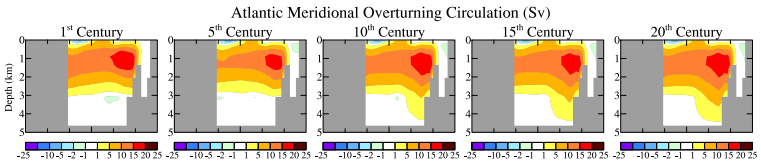


Figure 5. Atlantic Ocean mass stream function for the control run in its 1st, 5th, 10th, 15th and 20th centuries.

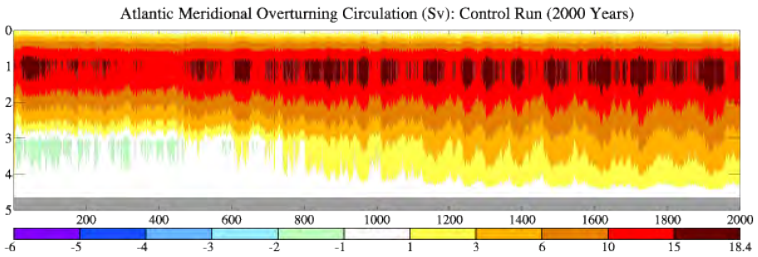


Figure 6. Annual mean Atlantic Ocean mass stream function at 28° N in the model control run.

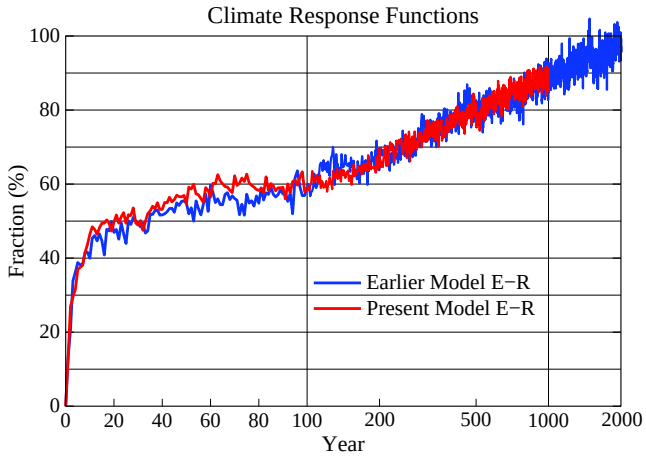


Figure 7. Climate response function, $R(t)$, i.e., the fraction of equilibriums surface temperature response for GISS model E-R based on a 2000 year control run (Hansen et al., 2007a). Forcing was instant CO_2 doubling with fixed ice sheets, vegetation distribution, and other long-lived GHGs.

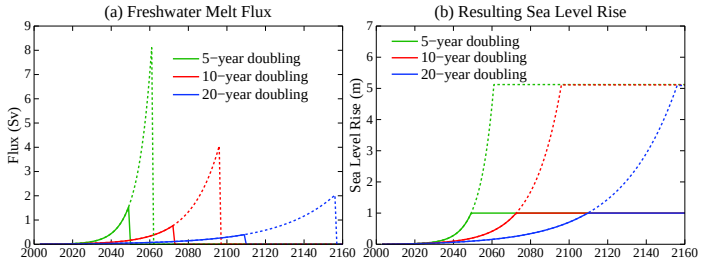


Figure 8. (a) total fresh water flux added in North Atlantic and Southern Oceans, **(b)** resulting sea level rise. Solid lines for 1 m sea level rise, dotted for 5 m. One Sverdrup (Sv) is $10^6\,m^3\,s^{-1}$, which is $\sim 3 \times 10^4\,Gt\,yr^{-1}$.

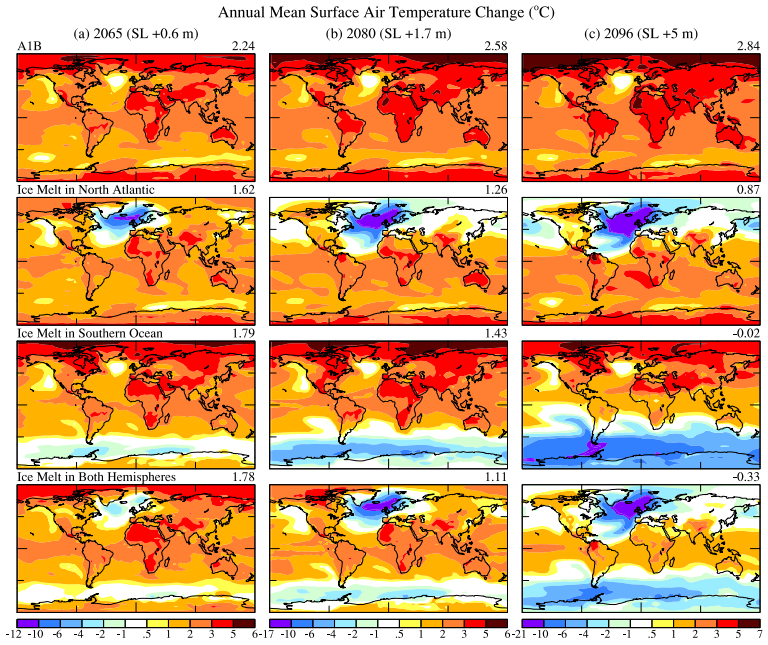


Figure 9. Surface air temperature relative to 1880–1920 in **(a)** 2065, **(b)** 2080, and **(c)** 2096. Top row is IPCC scenario A1B. Ice melt with 10 year doubling is added in other scenarios.

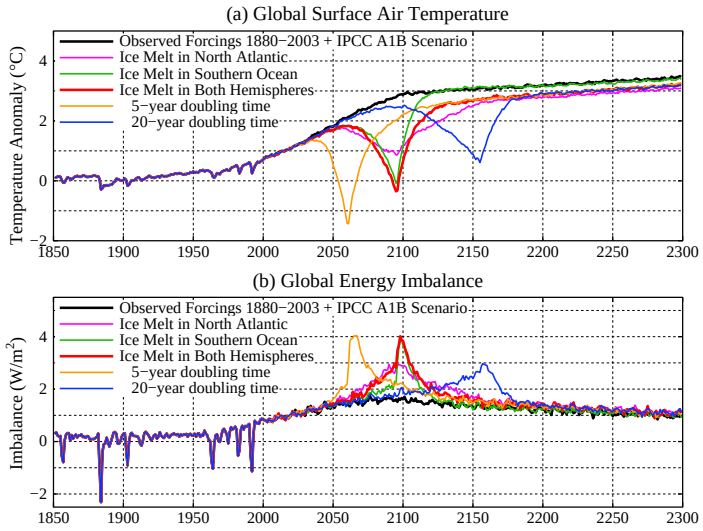


Figure 10. (a) Surface air temperature relative to 1880–1920 for several scenarios. **(b)** Global energy imbalance for the same scenarios.

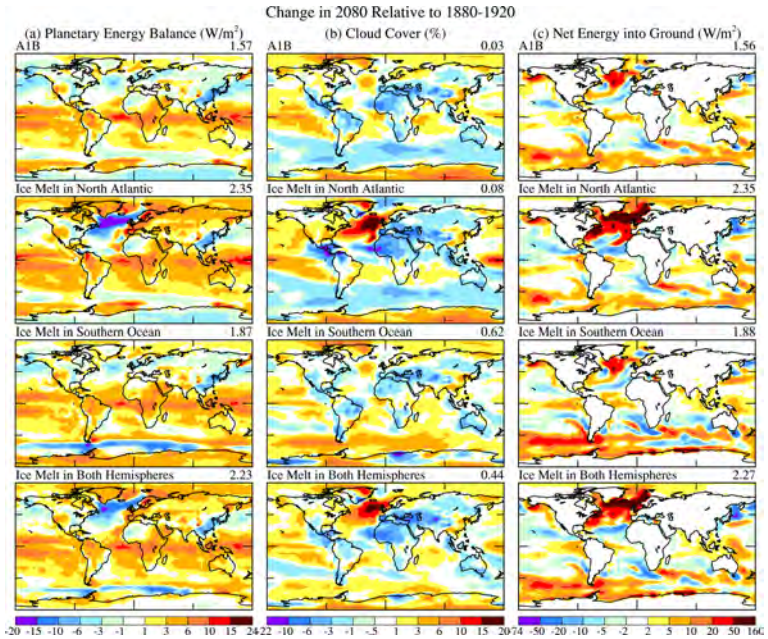


Figure 11. Change in 2078–2082, relative to 1880–1920, of the annual mean **(a)** planetary energy balance, **(b)** cloud cover, and **(c)** net energy into the ground, for the same four scenarios as in Fig. 9.

Discussion Paper | Discussion Paper | Discussion Paper | Discussion Paper |

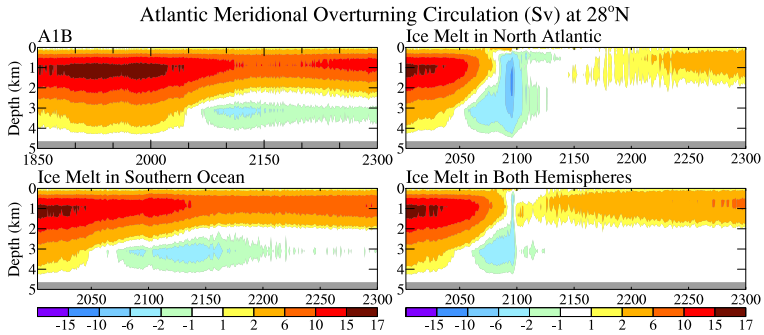


Figure 12. Ensemble-mean AMOC at 28° N versus time for the same four scenarios as in Fig. 9, with ice melt reaching 5 m at the end of the 21st century in the three experiments with ice melt.

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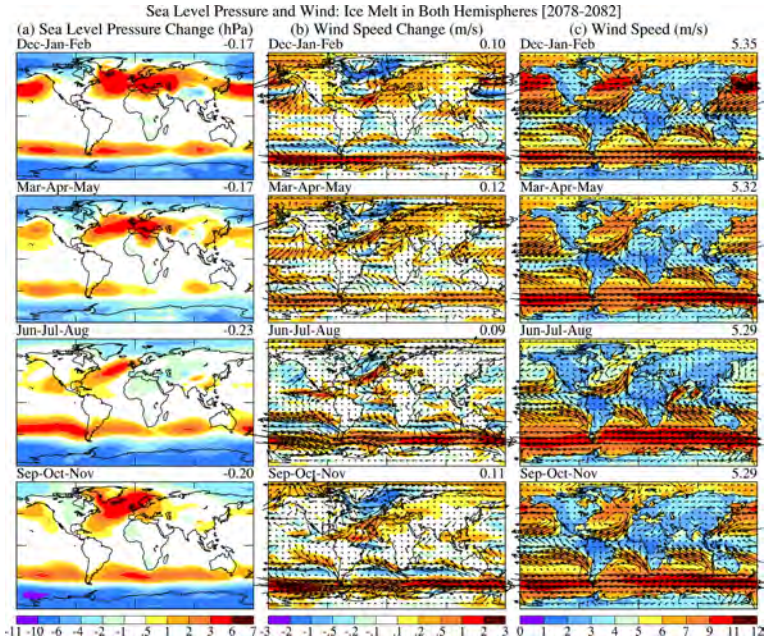


Figure 13. Change of seasonal mean **(a)** sea level pressure and **(b)** wind speed in 2078–2082 relative to 1880–1920, and **(c)** the wind speed itself, all for the scenario with ice melt in both hemispheres.

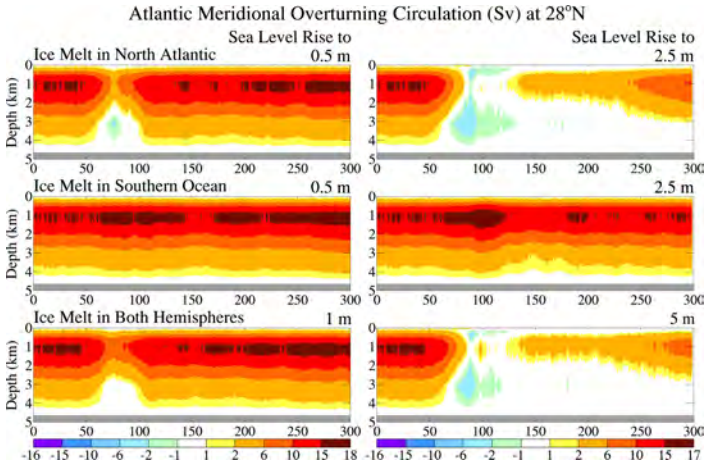


Figure 14. Ensemble-mean AMOC at 28° N versus time for six pure freshwater forcing experiments.

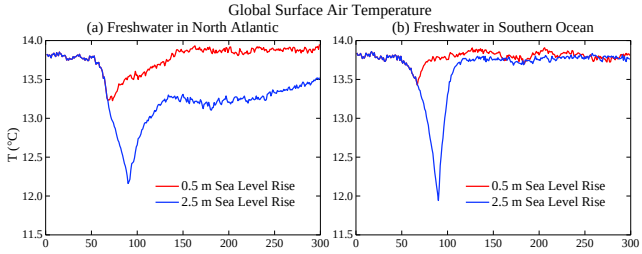


Figure 15. Ensemble-mean global surface air temperature for experiments (years on *x* axis) with freshwater forcing in either the North Atlantic Ocean (left) or the Southern Ocean (right).

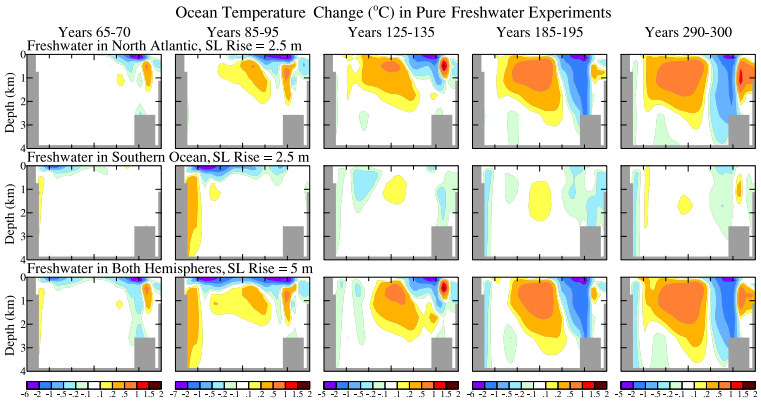


Figure 16. Change of ocean temperature relative to control run due to freshwater input that reaches 2.5 m of global sea level in a hemisphere (thus 5 m sea level rise in the bottom row).

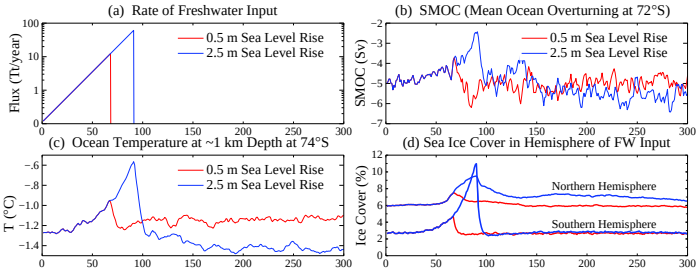


Figure 17. (a) Freshwater input to Southern Ocean (1 Tt = 1000 $km^3\,yr^{-1}$). **(b, c, d)** Simulated overturning strength (Sv) of AABW cell at 72° S, temperature at depth 1.13 km at 74° S, and hemispheric sea ice cover.

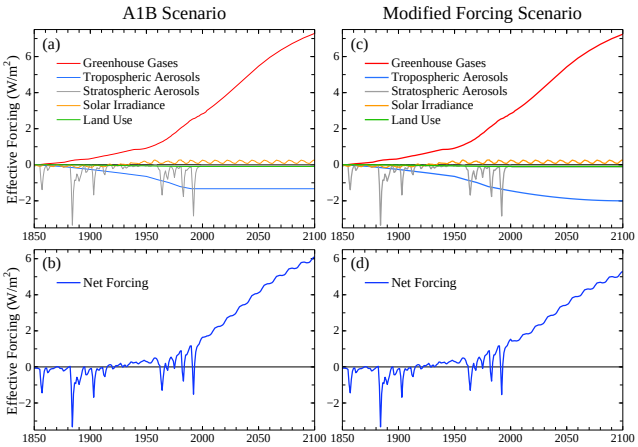


Figure 18. Effective global climate forcings in our climate simulations relative to values in 1850.

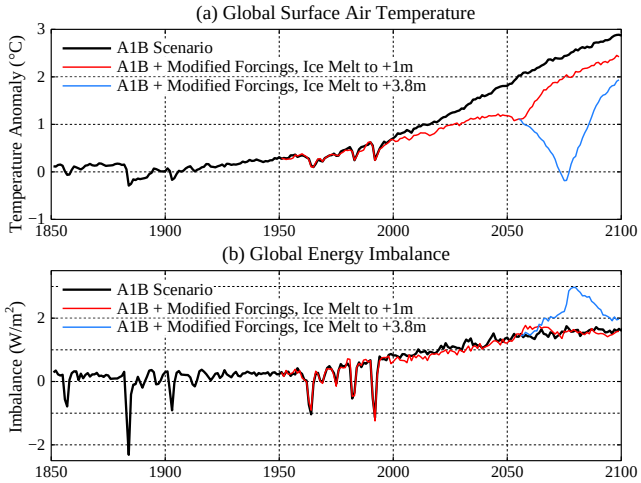


Figure 19. Surface air temperature change relative to 1880–1920 **(a)** and global energy imbalance **(b)** for the modified forcing scenario including cases with global ice melt allowed to reach 1 and 3.8 m.

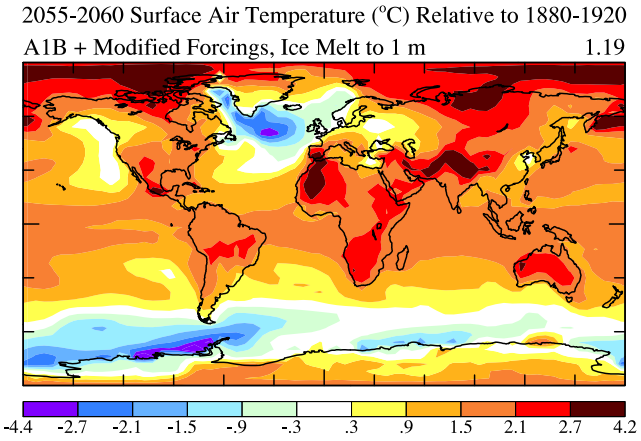


Figure 20. Surface air temperature change relative to 1880–1920 in 2055–2060 with the modified forcings.

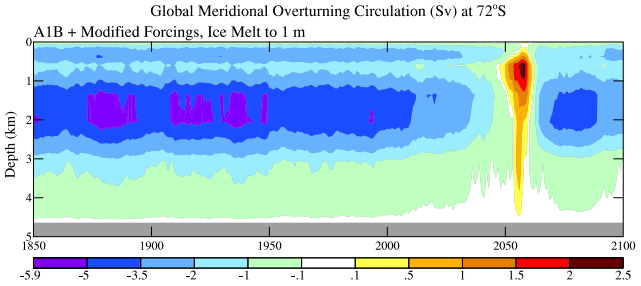


Figure 21. SMOC, ocean overturning strength at 72° S, including only the mean (Eularian) transport (Sect. 4.5). This is the average of a 5-member model ensemble for the modified forcing including advanced ice melt (720 Gt yr^{-1} from Antarctica in 2011) and 10 year doubling.

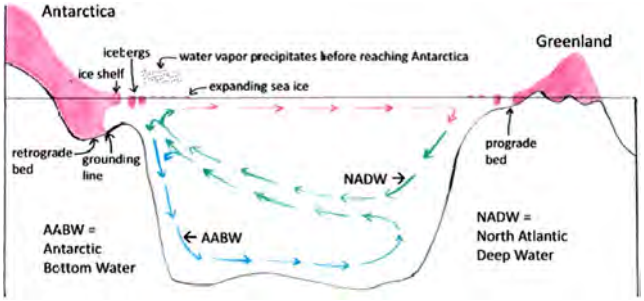


Figure 22. Schematic of stratification and precipitation amplifying feedbacks. Stratification: increased freshwater/iceberg flux increases ocean vertical stratification, reduces AABW formation, traps NADW heat, thus increasing ice shelf melting. Precipitation: increased freshwater/iceberg flux cools ocean mixed layer, increases sea ice area, causing increase of precipitation that falls before it reaches Antarctica, adding to ocean surface freshening and reducing ice sheet growth. A substantial amount of ice in West Antarctica and the Wilkes Basin, East Antarctica is vulnerable because of the reduced stability of retrograde beds.

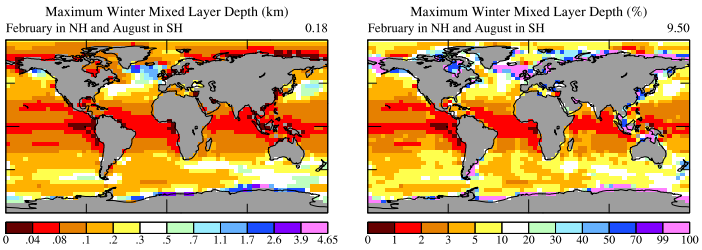
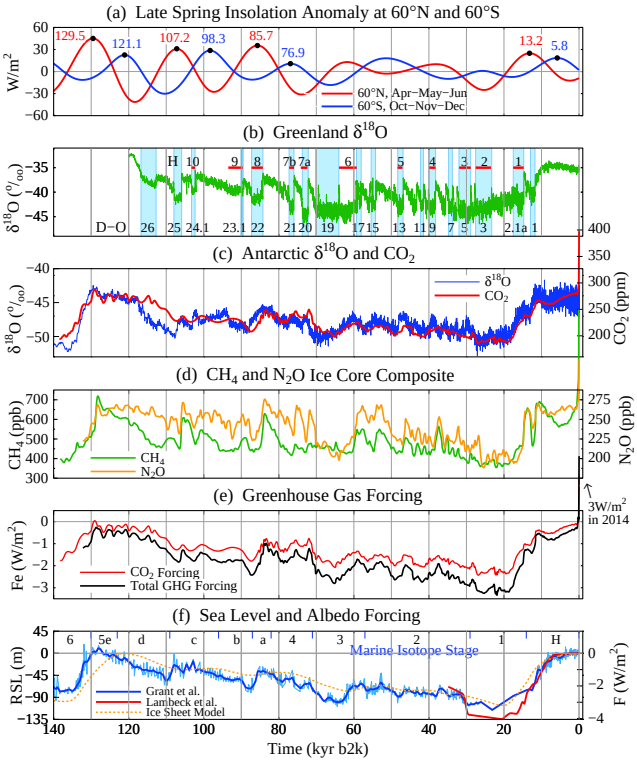


Figure 23. Maximum mixed layer depth (in km, left, and % of ocean depth, right) in February (Northern Hemisphere) and August (Southern Hemisphere) using the mixed layer definition of Heuze et al. (2013).



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Figure 24. (a) Late spring insolation anomalies relative to the mean for the past million years, **(b)** $\delta^{18}O_{ice}$ of composite Greenland ice cores (Rassmussen et al., 2014) with Heinrich events of Guillevic et al. (2014), **(c, d)** $\delta^{18}O_{ice}$ of EDML Antarctic ice core (Ruth et al., 2007), multi-ice core CO_2, CH_4, and N_2O based on spline fit with 1000 year cut-off (Schilt et al., 2010), scales are such that CO_2 and $\delta^{18}O$ means coincide and standard deviations have the same magnitude, **(e)** GHG forcings from equations in Table 1 of Hansen et al. (2000), but with the CO_2, CH_4, and N_2O forcings multiplied by factors 1.024, 1.60, and 1.074, respectively, to account for each forcing's "efficacy" (Hansen et al., 2005), with CH_4 including factor 1.4 to account for indirect effect on ozone and stratospheric water vapor, **(f)** sea level data from Grant et al. (2012) and Lambeck et al. (2014) and ice sheet model results from de Boer et al. (2010). Marine isotope stage boundaries from Lisiecki and Raymo (2005). **(b–e)** are on AICC2012 time scale (Bazin et al., 2013),

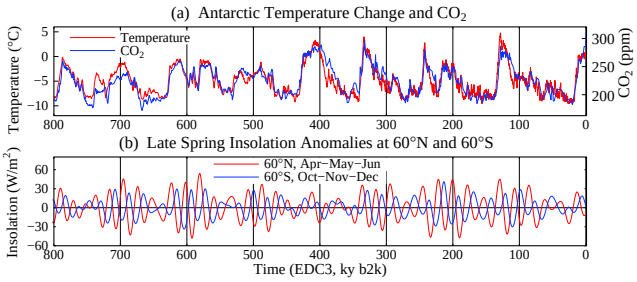


Figure 25. (a) Antarctic (Dome C) temperature relative to last 10 ky (Jouzel et al., 2007) on AICC2012 time scale and CO_2 amount (Luthi et al., 2008). Temperature scale is such that standard deviation of T and CO_2 are equal, yielding ΔT (°C) = 0.114 ΔCO_2 (ppm), **(b)** Late Spring insolation anomalies at 60° N and 60° S.

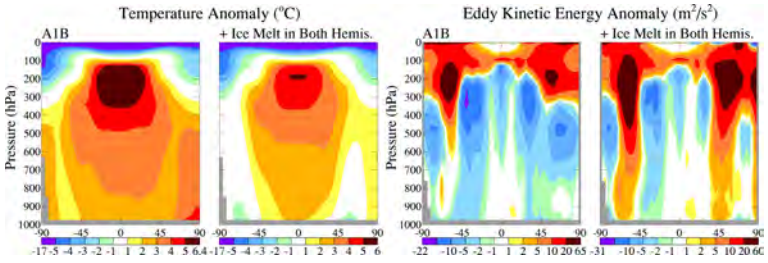


Figure 26. Simulated zonal mean temperature and eddy kinetic energy in 2078–2082 relative to 1880–1920 base period for A1B scenario and A1B plus 2.5 m ice melt in each hemisphere (simulations of Sect. 3).

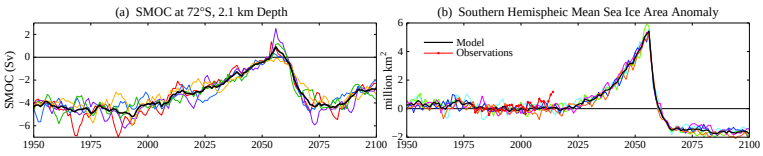


Figure 27. (a) SMOC, the global meridional overturning circulation at 72° S, in climate model runs including freshwater injection around Antarctica at a rate 720 Gt yr^{-1} in 2011, increasing with a 10 year doubling time, and half that amount around Greenland. SMOC diagnostic includes only the mean (Eulerian) term. **(b)** Annual-mean Southern Hemisphere sea ice area anomaly (relative to 1979–2000) in the five runs.

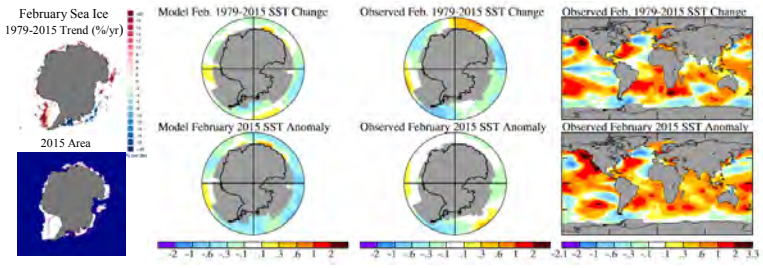


Figure 28. Observed February sea ice extent (left); modeled and observed SST near Antarctica and global. Upper: 1979–2015 change based on local linear trend. Lower: 2015 anomaly relative to 1951–1980. Sea ice data is update of Fetterer et al. (2002), temperature data is update of Hansen et al. (2010).

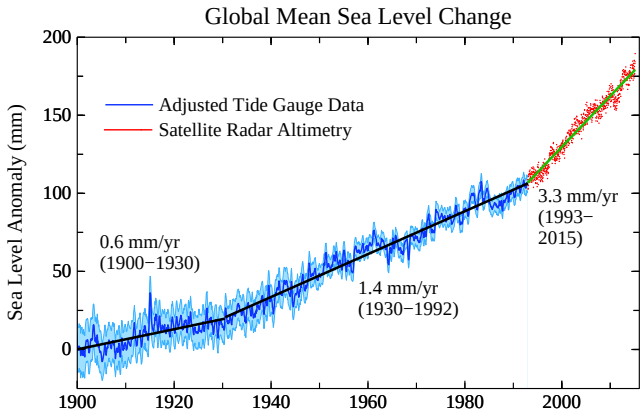


Figure 29. Sea level change based on satellite altimetry data (Nerem et al., 2010, updated at http://sealevel.colorado.edu) and tide gauge data (Church and White, 2011) with the latter change rate multiplied by 0.78, as required to yield a mean 1901–1990 change rate 1.2 mm yr^{-1} (Hay et al., 2015).

Exhibit 3

District court's opinion and order granting leave to amend,
ECF No. 540 (June 1, 2023)

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA, *et al.*,

Defendants.

Civ. No. 6:15-cv-01517-AA

OPINION AND ORDER

AIKEN, District Judge:

In this civil rights action, plaintiffs—a group of young people between the ages of eight and nineteen when this lawsuit was filed and "future generations" through their guardian Dr. James Hansen—allege injury from the devastation of climate change and contend that the Constitution guarantees the right to a stable climate system capable of sustaining human life. Plaintiffs maintain that federal defendants have continued to permit, authorize, and subsidize fossil fuel extraction and consumption, despite knowledge that those actions cause catastrophic global warming. This case returns to this Court on remand from the Ninth Circuit Court of Appeals, where plaintiffs demonstrated their "injury in fact" was "fairly traceable" to federal defendants' actions—two of three requirements necessary to establish

standing under Article III. However, the Ninth Circuit reversed with instructions to dismiss plaintiffs' case, holding that plaintiffs failed to demonstrate "redressability"—the third, final requirement to establish Article III standing. The Ninth Circuit determined that plaintiffs did not "surmount the remaining hurdle" to prove that the relief they seek is within the power of an Article III court to provide. *Juliana v. United States*, 947 F.3d 1159, 1171 (9th Cir. 2020). After that court's decision, plaintiffs moved to amend, notifying this Court of an intervening change in controlling law, *Uzuegbunam v. Preczewski*, ___U.S.___, 141 S. Ct. 792 (2021), asserting abrogation of the Ninth Circuit's ruling on redressability. Now, plaintiffs contend that permitting amendment will allow plaintiffs to clear the hurdle the Ninth Circuit identified, so that the case may proceed to a decision on the merits. For the reasons explained, this Court grants plaintiffs' motion for leave to file a second amended complaint. (Doc. 462).

BACKGROUND

In August 2015, plaintiffs brought this action asserting that the federal government has known for decades that carbon dioxide pollution was causing catastrophic climate change and that large-scale emission reduction was necessary to protect plaintiffs' constitutional right to a climate system capable of sustaining human life. (Doc. 7 at 51). As the Ninth Circuit recognized, plaintiffs provided compelling evidence, largely undisputed by federal defendants, that "leaves little basis for denying that climate change is occurring at an increasingly rapid pace." *Juliana*, 947 F.3d at 1166. The substantial evidentiary record supports that since the dawn of the Industrial Age, atmospheric carbon dioxide has "skyrocketed to levels

not seen for almost three million years," with an astonishingly rapid increase in the last forty years. *Id*. at 1166. The Ninth Circuit summarized what plaintiffs' expert evidence establishes: that this unprecedented rise stems from fossil fuel combustion and will "wreak havoc on the Earth's climate if unchecked." *Id*. The problem is approaching "the point of no return," the court stated, finding that the record conclusively demonstrated that the federal government has long understood the risks of fossil fuel use. *See id*. (cataloguing, as early as 1965, urgent warnings and reports from government officials imploring swift nationwide action to reduce carbon emissions before it was too late).

In their first amended complaint, filed in the District Court for the District of Oregon, plaintiffs alleged violations of their substantive rights under the Due Process Clause of the Fifth Amendment; the Fifth Amendment right to equal protection of the law; the Ninth Amendment; and the public trust doctrine. (Doc. 7). Plaintiffs also sought several forms of declaratory relief and an injunction ordering federal defendants to implement a plan to "phase out fossil fuel emissions and draw down excess atmospheric [carbon dioxide]." *Id*. at 94-95.

Federal defendants moved to dismiss for lack of standing, failure to state a cognizable constitutional claim, and failure to state a claim on a public trust theory. (Doc. 27). Adopting the findings and recommendation of Federal Magistrate Judge Thomas Coffin, this Court denied federal defendants' motion, concluding that plaintiffs had standing to sue, raised justiciable questions, and had stated a claim for infringement of a Fifth Amendment due process right:

> In this opinion, this Court simply holds that where a complaint alleges governmental action is affirmatively and substantially damaging the climate system in a way that will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem, it states a claim for a due process violation[.] To hold otherwise would be to say that the Constitution affords no protection against a government's knowing decision to poison the air its citizens breathe or the water its citizens drink. Plaintiffs have adequately alleged infringement of a fundamental right.

Juliana v. United States, 217 F. Supp. 3d 1224, 1250 (D. Or. 2016), *rev'd and remanded*, 947 F.3d 1159 (9th Cir. 2020).

At that stage of litigation, this Court also determined that plaintiffs had stated a viable due process claim arising from federal defendants' failure to regulate third-party emissions and had stated a public trust claim grounded in the Fifth and the Ninth Amendments. *Id*. at 1252, 1259.

Federal defendants moved to certify to the Ninth Circuit for interlocutory appeal[1] this Court's order denying federal defendants' motion to dismiss. Doc. 120. This Court denied the motion to certify. (Doc. 172). Federal defendants petitioned the Ninth Circuit for Writ of Mandamus, contending that this Court's opinion and order denying their motion to dismiss was based on clear error. (Doc. 177). The Ninth Circuit denied the petition, concluding mandamus relief was unwarranted at that stage of litigation, when plaintiffs' claims could be "narrowed" in further proceedings. *See In re United States*, 884 F.3d 830, 833 (9th Cir. 2018).

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[1] A request for permissive interlocutory appeal is governed by 28 U.S.C. § 1292(b), which permits a district court to certify an interlocutory order for immediate appeal if the court is of the opinion that such order: (1) involves a controlling question of law; (2) as to which there is substantial ground for difference of opinion; and (3) that an immediate appeal from the order may materially advance the ultimate termination of the litigation.

Federal defendants then filed several motions so aimed at narrowing plaintiffs' claims, including motions for judgment on the pleadings, doc. 195; a protective order barring discovery, doc. 196; and for summary judgment, doc. 207. This Court denied defendants' motion for a protective order. (Doc. 212). But this Court granted in part and denied in part federal defendants' motions for judgment on the pleadings and for summary judgment, dismissing plaintiffs' Ninth Amendment claim, dismissing the President as a defendant, and narrowing plaintiffs' equal protection claim to a fundamental rights theory. *Juliana v. United States*, 339 F. Supp. 3d 1062 1103 (D. Or. 2018), *rev'd and remanded*, 947 F.3d 1159 (9th Cir. 2020).

Federal defendants unsuccessfully petitioned for mandamus in the Ninth Circuit and twice sought, and were twice denied, a stay of proceedings by the United States Supreme Court. Ultimately, the Ninth Circuit, on November 8, 2018, issued an order inviting this Court to certify for interlocutory review its orders on federal defendants' dispositive motions. *United States v. U.S. Dist. Court for the Dist.* of Or., No. 18-73014. Shortly thereafter, the Ninth Circuit granted federal defendants' petition to appeal.

On interlocutory appeal of this Court's certified orders denying federal defendants' motions for dismissal, judgment on the pleadings, and summary judgment, the Ninth Circuit agreed with this Court's determination that plaintiffs had presented adequate evidence at the pre-trial stage to show particularized, concrete injuries to legally protected interests. That court recounted evidence that one plaintiff was "forced to leave her home because of water scarcity, separating her from relatives on the Navajo Reservation[,]" and another "had to evacuate his coastal

home multiple times because of flooding." *Id*. at 1168. The Ninth Circuit also determined that this Court correctly found plaintiffs had presented sufficient evidence that their alleged injuries are fairly traceable to federal defendants' conduct, citing among its findings that plaintiffs' injuries "are caused by carbon emissions from fossil fuel production, extraction, and transportation" and that federal subsidies "have increased those emissions," with about 25% of fossil fuels extracted in the United States "coming from federal waters and lands," an activity requiring federal government authorization. *Id*. at 1169. The court held, however reluctantly, that plaintiffs failed to show their alleged injuries were substantially likely to be redressed by any order from an Article III court and that plaintiffs therefore lacked standing to bring suit. *Id*. at 1171.

In so holding, the court stated, "There is much to recommend the adoption of a comprehensive scheme to decrease fossil fuel emissions and combat climate change, both as a policy matter in general and a matter of national survival in particular," however, such was "beyond the power of an Article III court to order, design, supervise, or implement." *Id*. at 1171. Ultimately, based on its redressability holding alone, the Ninth Circuit reversed the certified orders of this Court and remanded the case with instructions to dismiss for lack of Article III standing. *Id*. at 1175.

After the Ninth Circuit issued its interlocutory opinion, plaintiffs notified this Court of what they identified as an intervening case in the United States Supreme Court which held that the award of nominal damages was "a form of declaratory relief in a legal system with no general declaratory judgment act" and that a "request for nominal damages alone satisfies the redressability element of standing where a

plaintiff's claim is based on a completed violation of a legal right." *Uzuegbunam*, 141 S. Ct. at 798, 802. Writing for the majority, Justice Thomas explained that, even where a single dollar cannot provide full redress, the ability "to effectuate a *partial remedy*" satisfies the redressability requirement. *Id.* at 801 (quoting *Church of Scientology of Cal. v. United States*, 506 U.S. 9, 13 (1992) (emphasis added).

Plaintiffs contend that the Supreme Court's holding constitutes—as Chief Justice Roberts noted in his dissent—an "expansion of the judicial power" under Article III. *Uzuegbunam*, 141 S. Ct. at 806 (Roberts, C. J. dissenting). According to plaintiffs, the Ninth Circuit was skeptical, but did not decide whether declaratory relief alone would satisfy redressability, where such relief only partially redresses injury. Plaintiffs assert that they should be granted leave to amend to replead factual allegations demonstrating that relief under the under the Declaratory Judgment Act, 28 U.S.C. § 2201, is sufficient to allege redressability, even where a declaration effectuates a partial remedy, as stated in *Uzuegbunam,* which the Ninth Circuit did not have the chance to consider.

LEGAL STANDARD

Federal Rule of Civil Procedure Rule 15 allows a party to amend its pleading "with the opposing party's written consent or the court's leave." The rule instructs that "[t]he court should freely give leave when justice so requires." Fed. R. Civ. P. 15(a)(2). Trial courts have discretion in deciding whether to grant leave to amend, but "[i]n exercising this discretion, a court must be guided by the underlying purpose of Rule 15 to facilitate decision on the merits, rather than on the pleadings or technicalities." *United States v. Webb*, 655 F.2d 977, 979 (9th Cir. 1981) (citing *Conley*

v. Gibson, 355 U.S. 41, 47-48 (1957)). The judicial policy of Rule 15 favoring amendments should be applied with "extreme liberality." *Id.* (citing *Rosenberg Brothers & Co. v. Arnold*, 283 F.2d 406 (9th Cir. 1960) (per curiam). Leave to amend should be granted freely "even if a plaintiff's claims have previously been dismissed." *Hampton v. Steen*, No. 2:12-CV-00470-AA, 2017 WL 11573592, at *2 (D. Or. Nov. 13, 2017) (citing *Lipton v. Pathogenesis Corp.*, 284 F.3d 1027, 1039 (9th Cir. 2002)).

Courts consider four factors when determining whether leave to amend should be granted: 1) prejudice to the opposing party; 2) bad faith; 3) futility of amendment; and 4) undue delay. *Foman v. Davis*, 371 U.S. 178, 182 (1962); *see also Eminence Cap., LLC v. Aspeon, Inc.*, 316 F.3d 1048, 1052 (9th Cir. 2003). Not all factors are equal and only when prejudice or bad faith is shown should leave to amend be denied. *Howey v. United States*, 481 F.2d 1187, 1190-91 (9th Cir. 1973). Leave to amend should not be denied based only on delay, *id.*, particularly when that delay is not caused by the party seeking amendment.

A court may deny leave to amend if the proposed amendment is futile or would be subject to dismissal. *Carrico v. City & Cnty. of San Francisco*, 656 F.3d 1002, 1008 (9th Cir.2011). An amendment is "futile" if the complaint could not be saved by amendment. *United States v. Corinthian Colleges*, 655 F.3d 984, 995 (9th Cir.2011). The court must determine whether the deficiencies in the pleadings "can be cured with additional allegations that are consistent with the challenged pleading and that do not contradict the allegations in the original complaint." *Id.* (quotation marks omitted). A party should be allowed to test his claim on the merits rather than on a motion to amend unless it appears beyond doubt that the proposed amended pleading

would be subject to dismissal. *Roth v. Garcia Marquez*, 942 F.2d 617, 629 (9th Cir.1991).

DISCUSSION

I. Ninth Circuit Mandate Permits Court to Consider Motion to Amend

In its interlocutory opinion, the Ninth Circuit remanded the case to this Court with instructions to dismiss. Plaintiffs maintain that the Ninth Circuit did not state in its instructions whether dismissal was with or without leave to amend, and therefore, this Court should freely grant leave to do so. Federal defendants assert that this Court must dismiss according to the rule of mandate and because any amendment would be futile.[2]

Under the "rule of mandate," a lower court is unquestionably obligated to "execute the terms of a mandate." *United States v. Kellington*, 217 F.3d 1084, 1092 (9th Cir. 2000). Compliance with the rule of mandate "preserv[es] the hierarchical structure of the court system," *Thrasher*, 483 F.3d at 982, and thus constitutes a basic feature of the rule of law in an appellate scheme. But while "the mandate of an appellate court forecloses the lower court from reconsidering matters determined in the appellate court, it 'leaves to the district court any issue not expressly or impliedly

[2] There is no material dispute between the parties whether plaintiffs' amendments are in bad faith, prejudicial to defendants, or unduly delayed. Having considered those factors, this Court finds that none bar plaintiffs' request to amend.

disposed of on appeal.'" *Nguyen v. United States*, 792 F.2d 1500, 1502 (9th Cir. 1986) (quoting *Stevens v. F/V Bonnie Doon*, 731 F.2d 1433, 1435 (9th Cir. 1984)).

"Absent a mandate which explicitly directs to the contrary, a district court upon remand can permit the plaintiff to file additional pleadings ...." *San Francisco Herring Ass'n v. Dep't of the Interior*, 946 F.3d 564, 574 (9th Cir. 2019) (quoting *Nguyen,* 792 F.2d at 1502; *see also Sierra Club v. Penfold*, 857 F.2d 1307, 1312 (9th Cir. 1988). When mandate in the prior appeal did not expressly address the possibility of amendment and did not indicate a clear intent to deny amendment seeking to raise new issues not decided by the prior appeal, that prior opinion did not purport "to shut the courthouse doors." *San Francisco Herring Ass'n*, 946 F.3d at 574 (citing *Nguyen*, 792 F.2d at 1503).

In *San Francisco Herring Ass'n*, the Ninth Circuit discussed its issuance of a mandate in a prior appeal, which vacated the district court's order entering summary judgment in the defendants' favor and directed the district court to dismiss the complaint. *See San Francisco Herring Ass'n v. U.S. Dep't of Interior*, 683 F. App'x 579, 581 (9th Cir. 2017) (vacating judgment and remanding case with instructions to dismiss for lack of subject matter jurisdiction). On remand, the district court allowed the plaintiff to seek leave to file a second amended complaint. The Ninth Circuit determined the district court correctly found that the mandate to dismiss did not prevent the plaintiff from seeking leave to re-plead. *San Francisco Herring Ass'n*, 946 F.3d 574. The court reasoned that in instructing to dismiss, it had been silent on whether the dismissal should be with or without leave to amend and did not preclude the plaintiff from filing new allegations. *Id.* at 572-574.

Here, this Court does not take lightly its responsibility under the rule of mandate. Rather, it considers plaintiffs' new factual allegations under the Declaratory Judgment Act, and amended request for relief in light of intervening recent precedent, to be a new issue that, while discussed, was not decided by the Ninth Circuit in the interlocutory appeal. Nor did the mandate expressly state that plaintiffs could not amend to replead their case—particularly where the opinion found a narrow deficiency with plaintiffs' pleadings on redressability. This Court therefore does not interpret the Ninth Circuit's instructions as mandating it "to shut the courthouse doors" on plaintiffs' case where they present newly amended allegations. *San Francisco Herring Ass'n*, 946 F.3d at 574.

II. Amendment is Not Futile

A. The Interlocutory Opinion

The Ninth Circuit recited the established rule that, to demonstrate Article III redressability, plaintiffs must show that the relief they seek is both (1) substantially likely to redress their injuries; and (2) within the district court's power to award. *Juliana,* 947 F.3d at 1170. Redress need not be guaranteed, but it must be more than "merely speculative." *Id*. (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992).

Here, applying the above rule, the Ninth Circuit stated that a declaration alone is not relief "substantially likely to mitigate [plaintiffs'] asserted concrete injuries." *Juliana*, 947 F.3d at 1170. The court considered whether partial redress suffices to prove the first redressability prong, concluding that it likely does not, because even

if plaintiffs obtained the sought relief and federal defendants ceased promoting fossil fuel, such would only ameliorate, rather than "solve global climate change." *Id. at* 1171.

Even so, the court did not decide that plaintiffs had failed to prove the first prong of redressability: the court stated, "[w]e are therefore skeptical that the first redressability prong is satisfied. But even *assuming that it is*, [plaintiffs] do not surmount the remaining hurdle—establishing that the specific relief they seek is within the power of an Article III court." *Juliana,* 947 F.3d at 1171. (emphasis added).

In addressing whether plaintiffs had proved the second prong, the court identified the "specific relief" plaintiffs sought was an injunction requiring federal defendants not only to cease permitting, authorizing, and subsidizing fossil fuel, but also to prepare a plan, subject to judicial monitoring, to draw down harmful emissions. That specific relief, the court determined, was not within the power of an Article III court to award. *Id*. The court explained that for the district court to "order, design, supervise, or implement" plaintiffs' requested remedial plan, any effective plan would require a "host of complex policy decisions" entrusted under constitutional separation of powers to the executive and legislative branches. *Id.* In essence, the court found plaintiffs' injuries beyond redress because, in its view, plaintiffs' requested relief requires the district court to evaluate "competing policy considerations" and supervise implementation over many years. *Id*. at 1171–73

Summarizing what the court did—and did not—identify as the legal defects in plaintiffs' case, the court did not decide whether plaintiffs' requested declaratory

relief failed or satisfied the redressability requirement for standing, and did not consider that issue under *Uzuegbunam* or the Declaratory Judgment Act. Rather, the court resolved that plaintiffs failed to demonstrate redressability on grounds that plaintiffs' requested remedial and injunctive relief was beyond the power of an Article III court to provide. The court was also silent on whether dismissal was to be with or without leave to amend.

B. Plaintiffs' Proposed Amendments

Plaintiffs assert that their proposed amendments cure the defects the Ninth Circuit identified and that they should be given opportunity to amend. Plaintiffs explain that the amended allegations demonstrate that relief under the Declaratory Judgment Act alone would be substantially likely to provide partial redress of asserted and ongoing concrete injuries, and that partial redress is sufficient, even if further relief is later found unavailable.

Plaintiffs also amended their factual allegations directly linking how a declaratory judgment alone will redress of plaintiffs' individual ongoing injuries. (*See* doc. 514-2 ¶¶ 19-A, 22-A, 30-A, 34-A, 39-A, 43-A, 46-A, 49-A, 52-A, 56-A, 59-A, 62-A, 64-A, 67-A, 70-A, 72-A, 76-A, 80-A, 85-A, 88-A, 90-A.). Plaintiffs assert that declaratory relief is within a court's Article III power to provide. Plaintiffs also omitted the "specific relief" the Ninth Circuit majority found to be outside Article III authority to award. Among other deletions, plaintiffs eliminated their requests for this Court to order federal defendants to prepare and implement a remedial plan and prepare a list of U.S. CO_2 emissions. Plaintiffs also omitted their request for this Court to monitor and enforce the remedial plan.

Plaintiffs' Second Amended Complaint thus requests this Court to: (1) declare that the United States' national energy system violates and continues to violate the Fifth Amendment of the U.S. Constitution and Plaintiffs' constitutional rights to substantive due process and equal protection of the law; (2) enter a judgment declaring the United States' national energy system has violated and continues to violate the public trust doctrine; and (3) enter a judgment declaring that § 201 of the Energy Policy Act has violated and continues to violate the Fifth Amendment of the U.S. Constitution and plaintiffs' constitutional rights to substantive due process and equal protection of the law.

While declaratory relief was part of plaintiffs' prayer in the operative complaint, plaintiffs did not cite *Uzuegbunam*—recent authority affirming that partial declaratory relief satisfies redressability for purposes of Article III standing. Plaintiffs contend that they should be granted leave to amend based on the Supreme Court's holding that a request for nominal damages alone (a form of declaratory relief) satisfies the redressability element necessary for Article III standing, where the plaintiff's claim is based on a completed violation of a legal right, and the plaintiff establishes the first two elements of standing. *Uzuegbunam*, 141 S. Ct. at 801–02.

C. *Plaintiffs' Amended Pleadings Satisfy Redressability*

This Court adamantly agrees with the Ninth Circuit that its ability to provide redress is animated by two inquiries, one of efficacy and one of power. *Juliana*, 947 F.3d at 1169. Plaintiffs' proposed amendments allege that a declaration under the Declaratory Judgment Act is substantially likely to remediate their ongoing injuries, and that such relief is within this Court's power to award.

1. Declaratory Relief Alone is Substantially Likely to Redress Injury

The court can grant declaratory relief in the first instance and later consider further necessary or proper relief, if warranted, under the Declaratory Judgment Act. 28 U.S.C. §§ 2201, *et seq*. "In a case of actual controversy within its jurisdiction, [ ] any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such." 28 U.S.C. § 2201. "Further necessary or proper relief based on a declaratory judgment or decree may be granted, after reasonable notice and hearing, against any adverse party whose rights have been determined by such judgment." 28 U.S.C. § 2202.

The Supreme Court has long recognized that declaratory judgment actions can provide redressability, even where relief obtained is a declaratory judgment alone. Well-known cases involve the census, *Franklin v. Massachusetts*, 505 U.S. 788, 803 (1992), and *Utah v. Evans,* 536 U.S. 452 (2002).

In each of the census cases, a state objected to the way the Census Bureau counted people and sued government officials. In *Franklin v. Massachusetts*, the Supreme Court stated, "For purposes of establishing standing," it did not need to decide whether injunctive relief against was appropriate where "the injury alleged is likely to be redressed by declaratory relief" and the court could "assume it is substantially likely that the President and other executive and congressional officials would abide by an authoritative interpretation of the census statute and

constitutional provision by the District Court." 505 U.S. at 803.

In *Utah v. Evans*, the Supreme Court referenced *Franklin*, explaining that, in terms of its "standing" precedent, declaratory relief affects a change in legal status, and the practical consequence of that change would "amount to a significant increase in the likelihood that the plaintiff would obtain relief that directly redresses the injury suffered." 536 U.S. 452 (2002).

Similarly, the Supreme Court has determined that a plaintiff had standing to sue the Nuclear Regulatory Commission for a declaration that the Price-Anderson Act, which limited the liability of nuclear power companies, was unconstitutional. *Duke Power Co. v. Carolina Envtl. Study Grp., Inc.*, 438 U.S. 59, 81 (1978).

Other cases recognized the role of declaratory relief in resolving constitutional cases. *See, e.g.*, *Evers v. Dwyer*, 358 U.S. 202, 202-04 (1958) (ongoing governmental enforcement of segregation laws created actual controversy for declaratory judgment); *Powell v. McCormack*, 395 U.S. 486, 499 (1969) ("A court may grant declaratory relief even though it chooses not to issue an injunction or mandamus.").

Finally, the Supreme Court held that, for the purpose of Article III standing, nominal damages—a form of declaratory relief—provide the necessary redress for a completed violation of a legal right, even where the underlying unlawful conduct had ceased. *Uzuegbunam*, 141 S. Ct. 792, 802. *Uzuegbunam* illustrates that when a plaintiff shows a completed violation of a legal right, as plaintiffs have shown here, standing survives, even when relief is nominal or trivial.

Here, this Court notes that, in its determination of standing, the Ninth Circuit was "skeptical" that declaratory relief alone would remediate plaintiffs' injuries,

Juliana, 947 F.3d at 1171. The court noted that even if all plaintiffs' requests for relief were granted against federal defendants, such would not solve the problem of climate change entirely. But for redressability under Article III standing, plaintiffs need not allege that a declaration alone would solve their every ill. To plead a justiciable case, a court need only evaluate "whether the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgment." *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 (2007) (quoting *Md. Cas. Co. v. Pac. Coal & Oil Co.*, 312 U.S. 270, 273 (1941). There is nothing in § 2201 preventing a court from granting declaratory relief even if it is the only relief awarded.

In light of that determination, by pleading a claim under § 2201, plaintiffs establish that the text of the statute itself resolves the uncertainty posed by the Ninth Circuit, given that plaintiffs have established an active case and controversy showing injury and causation. Section 2201 also provides that declaratory relief may be granted "whether or not further relief is or could be sought." *Id.* Under the statute, the relief plaintiffs seek fits like a glove, where plaintiffs request consideration of declaratory relief independently of other forms of relief, such as an injunction. *See Steffel v. Thompson*, 415 U.S. 452, 475, (1974) (stating in a different context that "regardless of whether injunctive relief may be appropriate, federal declaratory relief is not precluded."). This Court finds that plaintiffs' proposed amendments are not futile: a declaration that federal defendants' energy policies violate plaintiffs' constitutional rights would itself be significant relief.

2. Redress is Within Power of Article III Courts

It is a foundational doctrine that when government conduct catastrophically harms American citizens, the judiciary is constitutionally required to perform its independent role and determine whether the challenged conduct, not exclusively committed to any branch by the Constitution, is unconstitutional. *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 176–78 (1803). The judicial role in cases like this is to apply constitutional law, declare rights, and declare the government's responsibilities. No other branch of government can perform this function because the "judicial Power" is exclusively in the hands of Article III courts. U.S. Const. Art. III, § 1. The issue before this Court now is not to determine what relief, specifically, is in its power to provide. This Court need only decide whether plaintiffs' amendments—alleging that declaratory relief is within an Article III court's power to award— "would be subject to dismissal." *Carrico,* 656 F.3d 1002.

The Declaratory Judgment Act authorizes this Court's determination in its embrace of both constitutional and prudential concerns where the text is "deliberately cast in terms of permissive, rather than mandatory, authority." *Pub. Serv. Comm'n of Utah v. Wycoff Co.*, 344 U.S. 237, 250 (1952) (J. Reed, concurring). The Act gives "federal courts competence to make a declaration of rights." *Pub. Affairs Associates v. Rickover*, 369 U.S. 111, 112 (1962). The Supreme Court has found it "consistent with the statute . . . to vest district courts with discretion in the first instance, because facts bearing on the usefulness of the declaratory judgment remedy, and the fitness of the case for resolution, are peculiarly within their grasp." *MedImmune, Inc. v. Genentech, Inc.,* 549 U.S. 118, 136 (2007).

Here, plaintiffs seek declaratory relief that "the United States' national energy system that creates the harmful conditions described herein has violated and continues to violate the Fifth Amendment of the U.S. Constitution and Plaintiffs' constitutional rights to substantive due process and equal protection of the law." (Doc. 514-1 ¶ 1). This relief is squarely within the constitutional and statutory power of Article III courts to grant. Such relief would at least partially, and perhaps wholly, redress plaintiffs' ongoing injuries caused by federal defendants' ongoing policies and practices. Last, but not least, the declaration that plaintiffs seek would by itself guide the independent actions of the other branches of our government and cures the standing deficiencies identified by the Ninth Circuit. This Court finds that the complaint can be saved by amendment. *See Corinthian Colleges*, 655 F.3d at 995.

CONCLUSION

For the reasons stated above, plaintiffs' Motion to File a Second Amended Complaint, doc. 462, is GRANTED.

IT IS SO ORDERED.

Dated this 1st day of June 2023.

/s/Ann Aiken

Ann Aiken
United States District Judge

Exhibit 4

Ninth Circuit decision, No. 18-36082 (Jan. 17, 2020)

FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

KELSEY CASCADIA ROSE JULIANA; XIUHTEZCATL TONATIUH M., through his Guardian Tamara Roske-Martinez; ALEXANDER LOZNAK; JACOB LEBEL; ZEALAND B., through his Guardian Kimberly Pash-Bell; AVERY M., through her Guardian Holly McRae; SAHARA V., through her Guardian Toa Aguilar; KIRAN ISAAC OOMMEN; TIA MARIE HATTON; ISAAC V., through his Guardian Pamela Vergun; MIKO V., through her Guardian Pamel Vergun; HAZEL V., through her Guardian Margo Van Ummerson; SOPHIE K., through her Guardian Dr. James Hansen; JAIME B., through her Guardian Jamescita Peshlakai; JOURNEY Z., through his Guardian Erika Schneider; VICTORIA B., through her Guardian Daisy Calderon; NATHANIEL B., through his Guardian Sharon Baring; AJI P., through his Guardian Helaina Piper; LEVI D., through his Guardian Leigh-Ann Draheim; JAYDEN F., through her Guardian Cherri Foytlin; NICHOLAS V., through his Guardian Marie Venner; EARTH GUARDIANS, a	No. 18-36082 D.C. No. 6:15-cv-01517-AA OPINION

nonprofit organization; FUTURE GENERATIONS, through their Guardian Dr. James Hansen,
Plaintiffs-Appellees,

v.

UNITED STATES OF AMERICA; MARY B. NEUMAYR, in her capacity as Chairman of Council on Environmental Quality; MICK MULVANEY, in his official capacity as Director of the Office of Management and the Budget; KELVIN K. DROEGEMEIR, in his official capacity as Director of the Office of Science and Technology Policy; DAN BROUILLETTE, in his official capacity as Secretary of Energy; U.S. DEPARTMENT OF THE INTERIOR; DAVID L. BERNHARDT, in his official capacity as Secretary of Interior; U.S. DEPARTMENT OF TRANSPORTATION; ELAINE L. CHAO, in her official capacity as Secretary of Transportation; UNITED STATES DEPARTMENT OF AGRICULTURE; SONNY PERDUE, in his official capacity as Secretary of Agriculture; UNITED STATES DEPARTMENT OF COMMERCE; WILBUR ROSS, in his official capacity as Secretary of Commerce; UNITED STATES DEPARTMENT OF DEFENSE; MARK T.

ESPER, in his official capacity as Secretary of Defense; UNITED STATES DEPARTMENT OF STATE; MICHAEL R. POMPEO, in his official capacity as Secretary of State; ANDREW WHEELER, in his official capacity as Administrator of the EPA; OFFICE OF THE PRESIDENT OF THE UNITED STATES; U.S. ENVIRONMENTAL PROTECTION AGENCY; U.S. DEPARTMENT OF ENERGY; DONALD J. TRUMP, in his official capacity as President of the United States,

Defendants-Appellants.

Appeal from the United States District Court
for the District of Oregon
Ann L. Aiken, District Judge, Presiding

Argued and Submitted June 4, 2019
Portland, Oregon

Filed January 17, 2020

Before: Mary H. Murguia and Andrew D. Hurwitz, Circuit Judges, and Josephine L. Staton,* District Judge.

Opinion by Judge Hurwitz;
Dissent by Judge Staton

* The Honorable Josephine L. Staton, United States District Judge for the Central District of California, sitting by designation.

SUMMARY**

Climate Change / Standing

The panel reversed the district court's interlocutory orders in an action brought by an environmental organization and individual plaintiffs against the federal government, alleging climate-change related injuries to the plaintiffs caused by the federal government continuing to "permit, authorize, and subsidize" fossil fuel; and remanded to the district court with instructions to dismiss for lack of Article III standing.

Some plaintiffs claimed psychological harms, others impairment to recreational interests, others exacerbated medical conditions, and others damage to property. Plaintiffs alleged violations of their constitutional rights, and sought declaratory relief and an injunction ordering the government to implement a plan to "phase out fossil fuel emissions and draw down excess atmospheric [carbon dioxide]."

The panel held that: the record left little basis for denying that climate change was occurring at an increasingly rapid pace; copious expert evidence established that the unprecedented rise in atmospheric carbon dioxide levels stemmed from fossil fuel combustion and will wreak havoc on the Earth's climate if unchecked; the record conclusively established that the federal government has long understood the risks of fossil fuel use and increasing carbon dioxide emissions; and the record established that the government's

** This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

contribution to climate change was not simply a result of inaction.

The panel rejected the government's argument that plaintiffs' claims must proceed, if at all, under the Administrative Procedure Act ("APA"). The panel held that because the APA only allows challenges to discrete agency decisions, the plaintiffs could not effectively pursue their constitutional claims – whatever their merits – under that statute.

The panel considered the three requirements for whether plaintiffs had Article III standing to pursue their constitutional claims. First, the panel held that the district court correctly found that plaintiffs claimed concrete and particularized injuries. Second, the panel held that the district court properly found the Article III causation requirement satisfied for purposes of summary judgment because there was at least a genuine factual dispute as to whether a host of federal policies were a "substantial factor" in causing the plaintiffs' injuries. Third, the panel held that plaintiffs' claimed injuries were not redressable by an Article III court. Specifically, the panel held that it was beyond the power of an Article III court to order, design, supervise, or implement the plaintiffs' requested remedial plan where any effective plan would necessarily require a host of complex policy decisions entrusted to the wisdom and discretion of the executive and legislative branches.

The panel reluctantly concluded that the plaintiffs' case must be made to the political branches or to the electorate at large.

District Judge Staton dissented, and would affirm the district court. Judge Staton wrote that plaintiffs brought suit to enforce the most basic structural principal embedded in

our system of liberty: that the Constitution does not condone the Nation's willful destruction. She would hold that plaintiffs have standing to challenge the government's conduct, have articulated claims under the Constitution, and have presented sufficient evidence to press those claims at trial.

COUNSEL

Jeffrey Bossert Clark (argued), Assistant Attorney General; Andrew C. Mergen, Sommer H. Engels, and Robert J. Lundman, Attorneys; Eric Grant, Deputy Assistant Attorney General; Environment and Natural Resources Division, United States Department of Justice, Washington, D.C.; for Defendants-Appellants.

Julia A. Olson (argued), Wild Earth Advocates, Eugene, Oregon; Philip L. Gregory, Gregory Law Group, Redwood City, California; Andrew K. Rodgers, Law Offices of Andrea K. Rodgers, Seattle, Washington; for Plaintiffs-Appellees.

Theodore Hadzi-Antich and Ryan D. Walters, Texas Public Policy Foundation, Austin, Texas, for Amici Curiae Nuckels Oil Co., Inc. DBA Merit Oil Company; Libety Packing Company, LLC; Western States Trucking Association; and National Federation of Independent Business Small Business Legal Center.

Richard K. Eichstaedt, University Legal Assistance, Spokane, Washington, for Amici Curiae Eco-Justice Ministries; Interfaith Moral Action on Climate; General Synod of the United Church of Christ; Temple Beth Israel of Eugene, Oregon; National Advocacy Center of the Sisters of the Good Shepherd; Leadership Counsel of the Sisters Servants of the Immaculate Heart of Mary of Monroe, Michigan; Sisters of Mercy of the Americas' Institute Leadership Team; GreenFaith; Leadership Team of the Sisters of Providence of Saint-Mary-of-the-Woods Indiana; Leadership Conference of Women Religious; Climate Change Task Force of the Sisters of Providence of Saint-Mary-of-the-Woods; Quaker Earthcare Witness; Colorado

Interfaith Power and Light; and the Congregation of Our Lady of Charity of the Good Shepherd, U.S. Provinces.

Dr. Curtis FJ Doebbler, Law Office of Dr. Curtis FJ Doebbler, San Antonio, Texas; D. Inder Comar, Comar LLP, San Francisco, California; for Amici Curiae International Lawyers for International Law.

Wendy B. Jacobs, Director; Shaun A. Goho, Deputy Director; Emmett Environmental Law & Policy Clinic, Harvard Law School, Cambridge, Massachusetts; for Amici Curiae Public Health Experts, Public Health Organizations, and Doctors.

David Bookbinder, Niskanen Center, Washington, D.C., for Amicus Curiae Niskanen Center.

Courtney B. Johnson, Crag Law Center, Portland, Oregon, for Amici Curiae League of Women Voters of the United States and League of Women Voters of Oregon.

Oday Salim, Environmental Law & Sustainability Clinic; Julian D. Mortensen and David M. Uhlmann, Professors; Alexander Chafetz, law student; University of Michigan Law School, Ann Arbor, Michigan; for Amicus Curiae Sunrise Movement Education Fund.

Zachary B. Corrigan, Food & Water Watch, Inc., Washington, D.C., for Amici Curiae Food & Water Watch, Inc.; Friends of the Earth – US; and Greenpeace, Inc.

Patti Goldman, Earthjustice, Seattle, Washington; Sarah H. Burt, Earthjustice, San Francisco, California; for Amici Curiae EarthRights International, Center for Biological

Diversity, Defenders of Wildlife, and Union of Concerned Scientists.

David Hunter and William John Snape III, American University, Washington College of Law, Washington, D.C., for Amici Curiae International Environmental Law and Environmental Law Alliance Worldwide—US.

Timothy M. Bechtold, Bechtold Law Firm PLLC, Missoula, Montana, for Amici Curiae Members of the United States Congress.

Rachael Paschal Osborn, Vashon, Washington, for Amici Curiae Environmental History Professors.

Thomas J. Beers, Beers Law Offices, Seeley Lake, Montana; Irma S. Russell, Professor, and Edward A. Smith, Missouri Chair in Law, the Constitution, and Society, University of Missouri-Kansas City School of Law, Kansas City, Missouri; W. Warren H. Binford Professor or Law & Director, Clinical Law Program, Willamette University, Salem, Oregon; for Amicus Curiae Zero Hour on Behalf of Approximately 32,340 Children and Young People.

Helen H. Kang, Environmental Law and Justice Clinic, Golden Gate University School of Law, San Francisco, California; James R. May and Erin Daly, Dignity Rights Project, Delaware Law School, Wilmington, Delaware; for Amici Curiae Law Professors.

Toby J. Marshall, Terrell Marshall Law Group PLLC, Seattle, Washington, for Amici Curiae Guayaki Sustainable Rainforest Products, Inc.; Royal Blue Organics; Organically Grown Company; Bliss Unlimited, LLC, dba Coconut Bliss; Hummingbird Wholesale; Aspen Skiing Company, LLC;

Protect Our Winters; National Ski Areas Association; Snowsports Industries America; and American Sustainable Business Council.

Alejandra Núñez and Andres Restrepo, Sierra Club, Washington, D.C.; Joanne Spalding, Sierra Club, Oakland, California; for Amicus Curiae Sierra Club.

OPINION

HURWITZ, Circuit Judge:

In the mid-1960s, a popular song warned that we were "on the eve of destruction."[1] The plaintiffs in this case have presented compelling evidence that climate change has brought that eve nearer. A substantial evidentiary record documents that the federal government has long promoted fossil fuel use despite knowing that it can cause catastrophic climate change, and that failure to change existing policy may hasten an environmental apocalypse.

The plaintiffs claim that the government has violated their constitutional rights, including a claimed right under the Due Process Clause of the Fifth Amendment to a "climate system capable of sustaining human life." The central issue before us is whether, even assuming such a broad constitutional right exists, an Article III court can provide the plaintiffs the redress they seek—an order requiring the government to develop a plan to "phase out fossil fuel emissions and draw down excess atmospheric CO2." Reluctantly, we conclude that such relief is beyond our constitutional power. Rather, the plaintiffs' impressive case for redress must be presented to the political branches of government.

I.

The plaintiffs are twenty-one young citizens, an environmental organization, and a "representative of future generations." Their original complaint named as defendants

[1] Barry McGuire, *Eve of Destruction*, *on* Eve of Destruction (Dunhill Records, 1965).

the President, the United States, and federal agencies (collectively, "the government"). The operative complaint accuses the government of continuing to "permit, authorize, and subsidize" fossil fuel use despite long being aware of its risks, thereby causing various climate-change related injuries to the plaintiffs. Some plaintiffs claim psychological harm, others impairment to recreational interests, others exacerbated medical conditions, and others damage to property. The complaint asserts violations of: (1) the plaintiffs' substantive rights under the Due Process Clause of the Fifth Amendment; (2) the plaintiffs' rights under the Fifth Amendment to equal protection of the law; (3) the plaintiffs' rights under the Ninth Amendment; and (4) the public trust doctrine. The plaintiffs seek declaratory relief and an injunction ordering the government to implement a plan to "phase out fossil fuel emissions and draw down excess atmospheric [carbon dioxide]."[2]

The district court denied the government's motion to dismiss, concluding that the plaintiffs had standing to sue, raised justiciable questions, and stated a claim for infringement of a Fifth Amendment due process right to a "climate system capable of sustaining human life." The court defined that right as one to be free from catastrophic climate change that "will cause human deaths, shorten human lifespans, result in widespread damage to property, threaten human food sources, and dramatically alter the planet's ecosystem." The court also concluded that the

[2] The plaintiffs also assert that section 201 of the Energy Policy Act of 1992, Pub. L. No. 102-486, § 201, 106 Stat. 2776, 2866 (codified at 15 U.S.C. § 717b(c)), which requires expedited authorization for certain natural gas imports and exports "without modification or delay," is unconstitutional on its face and as applied. The plaintiffs also challenge DOE/FE Order No. 3041, which authorizes exports of liquefied natural gas from the proposed Jordan Cove terminal in Coos Bay, Oregon.

plaintiffs had stated a viable "danger-creation due process claim" arising from the government's failure to regulate third-party emissions. Finally, the court held that the plaintiffs had stated a public trust claim grounded in the Fifth and the Ninth Amendments.

The government unsuccessfully sought a writ of mandamus. *In re United States*, 884 F.3d 830, 837–38 (9th Cir. 2018). Shortly thereafter, the Supreme Court denied the government's motion for a stay of proceedings. *United States v. U.S. Dist. Court for Dist. of Or.*, 139 S. Ct. 1 (2018). Although finding the stay request "premature," the Court noted that the "breadth of respondents' claims is striking . . . and the justiciability of those claims presents substantial grounds for difference of opinion." *Id.*

The government then moved for summary judgment and judgment on the pleadings. The district court granted summary judgment on the Ninth Amendment claim, dismissed the President as a defendant, and dismissed the equal protection claim in part.[3] But the court otherwise denied the government's motions, again holding that the plaintiffs had standing to sue and finding that they had presented sufficient evidence to survive summary judgment. The court also rejected the government's argument that the plaintiffs' exclusive remedy was under the Administrative Procedure Act ("APA"), 5 U.S.C. § 702 *et seq.*

The district court initially declined the government's request to certify those orders for interlocutory appeal. But, while considering a second mandamus petition from the government, we invited the district court to revisit

[3] The court found that age is not a suspect class, but allowed the equal protection claim to proceed on a fundamental rights theory.

certification, noting the Supreme Court's justiciability concerns. *United States v. U.S. Dist. Court for the Dist. of Or.*, No. 18-73014, Dkt. 3; *see In re United States*, 139 S. Ct. 452, 453 (2018) (reiterating justiciability concerns in denying a subsequent stay application from the government). The district court then reluctantly certified the orders denying the motions for interlocutory appeal under 28 U.S.C. § 1292(b) and stayed the proceedings, while "stand[ing] by its prior rulings . . . as well as its belief that this case would be better served by further factual development at trial." *Juliana v. United States*, No. 6:15-cv-01517-AA, 2018 WL 6303774, at *3 (D. Or. Nov. 21, 2018). We granted the government's petition for permission to appeal.

II.

The plaintiffs have compiled an extensive record, which at this stage in the litigation we take in the light most favorable to their claims. *See Plumhoff v. Rickard*, 572 U.S. 765, 768 (2014). The record leaves little basis for denying that climate change is occurring at an increasingly rapid pace. It documents that since the dawn of the Industrial Age, atmospheric carbon dioxide has skyrocketed to levels not seen for almost three million years. For hundreds of thousands of years, average carbon concentration fluctuated between 180 and 280 parts per million. Today, it is over 410 parts per million and climbing. Although carbon levels rose gradually after the last Ice Age, the most recent surge has occurred more than 100 times faster; half of that increase has come in the last forty years.

Copious expert evidence establishes that this unprecedented rise stems from fossil fuel combustion and will wreak havoc on the Earth's climate if unchecked. Temperatures have already risen 0.9 degrees Celsius above

pre-industrial levels and may rise more than 6 degrees Celsius by the end of the century. The hottest years on record all fall within this decade, and each year since 1997 has been hotter than the previous average. This extreme heat is melting polar ice caps and may cause sea levels to rise 15 to 30 feet by 2100. The problem is approaching "the point of no return." Absent some action, the destabilizing climate will bury cities, spawn life-threatening natural disasters, and jeopardize critical food and water supplies.

The record also conclusively establishes that the federal government has long understood the risks of fossil fuel use and increasing carbon dioxide emissions. As early as 1965, the Johnson Administration cautioned that fossil fuel emissions threatened significant changes to climate, global temperatures, sea levels, and other stratospheric properties. In 1983, an Environmental Protection Agency ("EPA") report projected an increase of 2 degrees Celsius by 2040, warning that a "wait and see" carbon emissions policy was extremely risky. And, in the 1990s, the EPA implored the government to act before it was too late. Nonetheless, by 2014, U.S. fossil fuel emissions had climbed to 5.4 billion metric tons, up substantially from 1965. This growth shows no signs of abating. From 2008 to 2017, domestic petroleum and natural gas production increased by nearly 60%, and the country is now expanding oil and gas extraction four times faster than any other nation.

The record also establishes that the government's contribution to climate change is not simply a result of inaction. The government affirmatively promotes fossil fuel use in a host of ways, including beneficial tax provisions, permits for imports and exports, subsidies for domestic and

overseas projects, and leases for fuel extraction on federal land.[4]

A.

The government by and large has not disputed the factual premises of the plaintiffs' claims. But it first argues that those claims must proceed, if at all, under the APA. We reject that argument. The plaintiffs do not claim that any individual agency action exceeds statutory authorization or, taken alone, is arbitrary and capricious. *See* 5 U.S.C. § 706(2)(A), (C). Rather, they contend that the totality of various government actions contributes to the deprivation of constitutionally protected rights. Because the APA only allows challenges to discrete agency decisions, *see Lujan v. Nat'l Wildlife Fed'n*, 497 U.S. 871, 890–91 (1990), the plaintiffs cannot effectively pursue their constitutional claims—whatever their merits—under that statute.

The defendants argue that the APA's "comprehensive remedial scheme" for challenging the constitutionality of agency actions implicitly bars the plaintiffs' freestanding constitutional claims. But, even if some constitutional challenges to agency action must proceed through the APA, forcing all constitutional claims to follow its strictures would

[4] The programs and policies identified by the plaintiffs include: (1) the Bureau of Land Management's authorization of leases for 107 coal tracts and 95,000 oil and gas wells; (2) the Export-Import Bank's provision of $14.8 billion for overseas petroleum projects; (3) the Department of Energy's approval of over 2 million barrels of crude oil imports; (4) the Department of Agriculture's approval of timber cutting on federal land; (5) the undervaluing of royalty rates for federal leasing; (6) tax subsidies for purchasing fuel-inefficient sport-utility vehicles; (7) the "intangible drilling costs" and "percentage depletion allowance" tax code provisions, 26 U.S.C. §§ 263(c), 613; and (8) the government's use of fossil fuels to power its own buildings and vehicles.

bar plaintiffs from challenging violations of constitutional rights in the absence of a discrete agency action that caused the violation. *See Sierra Club v. Trump*, 929 F.3d 670, 694, 696 (9th Cir. 2019) (stating that plaintiffs could "bring their challenge through an equitable action to enjoin unconstitutional official conduct, or under the judicial review provisions of the [APA]"); *Navajo Nation v. Dep't of the Interior*, 876 F.3d 1144, 1172 (9th Cir. 2017) (holding "that the second sentence of § 702 waives sovereign immunity broadly for all causes of action that meet its terms, while § 704's 'final agency action' limitation applies only to APA claims"). Because denying "any judicial forum for a colorable constitutional claim" presents a "serious constitutional question," Congress's intent through a statute to do so must be clear. *See Webster v. Doe*, 486 U.S. 592, 603 (1988) (quoting *Bowen v. Mich. Acad. of Family Physicians*, 476 U.S. 667, 681 n.12 (1986)); *see also Allen v. Milas*, 896 F.3d 1094, 1108 (9th Cir. 2018) ("After *Webster*, we have assumed that the courts will be open to review of constitutional claims, even if they are closed to other claims."). Nothing in the APA evinces such an intent.[5] Whatever the merits of the plaintiffs' claims, they may proceed independently of the review procedures mandated by the APA. *See Sierra Club*, 929 F.3d at 698–99 ("Any constitutional challenge that Plaintiffs may advance under the APA would exist regardless of whether they could also assert an APA claim . . . . [C]laims challenging agency

[5] The government relies upon *Armstrong v. Exceptional Child Center, Inc.*, 575 U.S. 320, 328–29 (2015), and *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 74–76 (1996), both of which held that statutory remedial schemes implicitly barred freestanding equitable claims. Neither case, however, involved claims by the plaintiffs that the federal government was violating their constitutional rights. *See Armstrong*, 575 U.S. at 323–24 (claiming that state officials had violated a federal statute); *Seminole Tribe*, 517 U.S. at 51–52 (same).

actions—particularly constitutional claims—may exist wholly apart from the APA."); *Navajo Nation*, 876 F.3d at 1170 (explaining that certain constitutional challenges to agency action are "not grounded in the APA").

B.

The government also argues that the plaintiffs lack Article III standing to pursue their constitutional claims. To have standing under Article III, a plaintiff must have (1) a concrete and particularized injury that (2) is caused by the challenged conduct and (3) is likely redressable by a favorable judicial decision. *See Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 180–81 (2000); *Jewel v. NSA*, 673 F.3d 902, 908 (9th Cir. 2011). A plaintiff need only establish a genuine dispute as to these requirements to survive summary judgment. *See Cent. Delta Water Agency v. United States*, 306 F.3d 938, 947 (9th Cir. 2002).

1.

The district court correctly found the injury requirement met. At least some plaintiffs claim concrete and particularized injuries. Jaime B., for example, claims that she was forced to leave her home because of water scarcity, separating her from relatives on the Navajo Reservation. *See Trump v. Hawaii*, 138 S. Ct. 2392, 2416 (2018) (finding separation from relatives to be a concrete injury). Levi D. had to evacuate his coastal home multiple times because of flooding. *See Maya v. Centex Corp.*, 658 F.3d 1060, 1070–71 (9th Cir. 2011) (finding diminution in home property value to be a concrete injury). These injuries are not simply "'conjectural' or 'hypothetical;'" at least some of the plaintiffs have presented evidence that climate change is affecting them now in concrete ways and will continue to do

so unless checked. *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 (1992) (quoting *Whitmore v. Arkansas*, 495 U.S. 149, 155 (1990)); *cf. Ctr. for Biological Diversity v. U.S. Dep't of Interior*, 563 F.3d 466, 478 (D.C. Cir. 2009) (finding no standing because plaintiffs could "only aver that any significant adverse effects of climate change 'may' occur at some point in the future").

The government argues that the plaintiffs' alleged injuries are not particularized because climate change affects everyone. But, "it does not matter how many persons have been injured" if the plaintiffs' injuries are "concrete and personal." *Massachusetts v. EPA*, 549 U.S. 497, 517 (2007) (quoting *Lujan*, 504 U.S. at 581 (Kennedy, J., concurring)); *see also Novak v. United States*, 795 F.3d 1012, 1018 (9th Cir. 2015) ("[T]he fact that a harm is widely shared does not necessarily render it a generalized grievance.") (alteration in original) (quoting *Jewel*, 673 F.3d at 909). And, the Article III injury requirement is met if only one plaintiff has suffered concrete harm. *See Hawaii*, 138 S. Ct. at 2416; *Town of Chester, N.Y. v. Laroe Estates, Inc.*, 137 S. Ct. 1645, 1651 (2017) ("At least one plaintiff must have standing to seek each form of relief requested in the complaint. . . . For all relief sought, there must be a litigant with standing.").

2.

The district court also correctly found the Article III causation requirement satisfied for purposes of summary judgment. Causation can be established "even if there are multiple links in the chain," *Mendia v. Garcia*, 768 F.3d 1009, 1012 (9th Cir. 2014), as long as the chain is not "hypothetical or tenuous," *Maya*, 658 F.3d at 1070 (quoting *Nat'l Audubon Soc'y, Inc. v. Davis*, 307 F.3d 835, 849 (9th Cir. 2002), *amended on denial of reh'g*, 312 F.3d 416 (9th Cir. 2002)). The causal chain here is sufficiently established.

The plaintiffs' alleged injuries are caused by carbon emissions from fossil fuel production, extraction, and transportation. A significant portion of those emissions occur in this country; the United States accounted for over 25% of worldwide emissions from 1850 to 2012, and currently accounts for about 15%. *See Massachusetts*, 549 U.S. at 524–25 (finding that emissions amounting to about 6% of the worldwide total showed cause of alleged injury "by any standard"). And, the plaintiffs' evidence shows that federal subsidies and leases have increased those emissions. About 25% of fossil fuels extracted in the United States come from federal waters and lands, an activity that requires authorization from the federal government. *See* 30 U.S.C. §§ 181–196 (establishing legal framework governing the disposition of fossil fuels on federal land), § 201 (authorizing the Secretary of the Interior to lease land for coal mining).

Relying on *Washington Environmental Council v. Bellon*, 732 F.3d 1131, 1141–46 (9th Cir. 2013), the government argues that the causal chain is too attenuated because it depends in part on the independent actions of third parties. *Bellon* held that the causal chain between local agencies' failure to regulate five oil refineries and the plaintiffs' climate-change related injuries was "too tenuous to support standing" because the refineries had a "scientifically indiscernible" impact on climate change. *Id.* at 1143–44. But the plaintiffs here do not contend that their injuries were caused by a few isolated agency decisions. Rather, they blame a host of federal policies, from subsidies to drilling permits, spanning "over 50 years," and direct actions by the government. There is at least a genuine factual dispute as to whether those policies were a "substantial factor" in causing the plaintiffs' injuries. *Mendia*, 768 F.3d at 1013 (quoting *Tozzi v. U.S. Dep't of*

Health & Human Servs., 271 F.3d 301, 308 (D.C. Cir. 2001)).

3.

The more difficult question is whether the plaintiffs' claimed injuries are redressable by an Article III court. In analyzing that question, we start by stressing what the plaintiffs do and do not assert. They do not claim that the government has violated a statute or a regulation. They do not assert the denial of a procedural right. Nor do they seek damages under the Federal Tort Claims Act, 28 U.S.C. § 2671 *et seq.* Rather, their sole claim is that the government has deprived them of a substantive constitutional right to a "climate system capable of sustaining human life," and they seek remedial declaratory and injunctive relief.

Reasonable jurists can disagree about whether the asserted constitutional right exists. *Compare Clean Air Council v. United States*, 362 F. Supp. 3d 237, 250–53 (E.D. Pa. 2019) (finding no constitutional right), *with Juliana*, 217 F. Supp. 3d at 1248–50; *see also In re United States*, 139 S. Ct. at 453 (reiterating "that the 'striking' breadth of plaintiffs' below claims 'presents substantial grounds for difference of opinion'"). In analyzing redressability, however, we assume its existence. *See M.S. v. Brown*, 902 F.3d 1076, 1083 (9th Cir. 2018). But that merely begins our analysis, because "not all meritorious legal claims are redressable in federal court." *Id.* To establish Article III redressability, the plaintiffs must show that the relief they seek is both (1) substantially likely to redress their injuries; and (2) within the district court's power to award. *Id.* Redress need not be guaranteed, but it must be more than "merely speculative." *Id.* (quoting *Lujan*, 504 U.S. at 561).

The plaintiffs first seek a declaration that the government is violating the Constitution. But that relief alone is not substantially likely to mitigate the plaintiffs' asserted concrete injuries. A declaration, although undoubtedly likely to benefit the plaintiffs psychologically, is unlikely by itself to remediate their alleged injuries absent further court action. *See Clean Air Council*, 362 F. Supp. 3d at 246, 249; *Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 107 (1998) ("By the mere bringing of his suit, *every* plaintiff demonstrates his belief that a favorable judgment will make him happier. But although a suitor may derive great comfort and joy from the fact that the United States Treasury is not cheated, that a wrongdoer gets his just deserts, or that the Nation's laws are faithfully enforced, that psychic satisfaction is not an acceptable Article III remedy because it does not redress a cognizable Article III injury."); *see also Friends of the Earth*, 528 U.S. at 185 ("[A] plaintiff must demonstrate standing separately for each form of relief sought.").

The crux of the plaintiffs' requested remedy is an injunction requiring the government not only to cease permitting, authorizing, and subsidizing fossil fuel use, but also to prepare a plan subject to judicial approval to draw down harmful emissions. The plaintiffs thus seek not only to enjoin the Executive from exercising discretionary authority expressly granted by Congress, *see, e.g.*, 30 U.S.C. § 201 (authorizing the Secretary of the Interior to lease land for coal mining), but also to enjoin Congress from exercising power expressly granted by the Constitution over public lands, *see* U.S. Const. art. IV, § 3, cl. 2 ("The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States.").

As an initial matter, we note that although the plaintiffs contended at oral argument that they challenge only affirmative activities by the government, an order simply enjoining those activities will not, according to their own experts' opinions, suffice to stop catastrophic climate change or even ameliorate their injuries.[6] The plaintiffs' experts opine that the federal government's leases and subsidies have contributed to global carbon emissions. But they do not show that even the total elimination of the challenged programs would halt the growth of carbon dioxide levels in the atmosphere, let alone decrease that growth. Nor does any expert contend that elimination of the challenged pro-carbon fuels programs would by itself prevent further injury to the plaintiffs. Rather, the record shows that many of the emissions causing climate change happened decades ago or come from foreign and non-governmental sources.

Indeed, the plaintiffs' experts make plain that reducing the global consequences of climate change demands much more than cessation of the government's promotion of fossil fuels. Rather, these experts opine that such a result calls for no less than a fundamental transformation of this country's energy system, if not that of the industrialized world. One expert opines that atmospheric carbon reductions must come "largely via reforestation," and include rapid and immediate decreases in emissions from many sources. "[L]eisurely reductions of one of two percent per year," he explains, "will not suffice." Another expert has opined that although the required emissions reductions are "technically feasible," they can be achieved only through a comprehensive plan for "nearly complete decarbonization" that includes both an "unprecedently rapid build out" of renewable energy and a

[6] The operative complaint, however, also seems to challenge the government's inaction.

"sustained commitment to infrastructure transformation over decades." And, that commitment, another expert emphasizes, must include everything from energy efficient lighting to improved public transportation to hydrogen-powered aircraft.

The plaintiffs concede that their requested relief will not alone solve global climate change, but they assert that their "injuries would be to some extent ameliorated." Relying on *Massachusetts v. EPA*, the district court apparently found the redressability requirement satisfied because the requested relief would likely slow or reduce emissions. *See* 549 U.S. at 525–26. That case, however, involved a procedural right that the State of Massachusetts was allowed to assert "without meeting all the normal standards for redressability;" in that context, the Court found redressability because "there [was] some possibility that the requested relief [would] prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant." *Id.* at 517–18, 525–26 (quoting *Lujan*, 504 U.S. at 572 n.7). The plaintiffs here do not assert a procedural right, but rather a substantive due process claim.[7]

[7] The dissent reads *Massachusetts* to hold that "a perceptible reduction in the advance of climate change is sufficient to redress a plaintiff's climate change-induced harms." Diss. at 47. But *Massachusetts* "permitted a State to challenge EPA's refusal to regulate greenhouse gas emissions," *Am. Elec. Power Co., Inc. v. Connecticut*, 564 U.S. 410, 420 (2011), finding that as a sovereign it was "entitled to special solicitude in [the] standing analysis," *Ariz. State Legislature v. Ariz. Indep. Redistricting Comm'n*, 135 S. Ct. 2652, 2664 n.10 (2015) (quoting *Massachusetts*, 549 U.S. at 520). Here, in contrast, the plaintiffs are not sovereigns, and a substantive right, not a procedural one, is at issue. *See Massachusetts*, 549 U.S. at 517–21, 525–26; *see also Lujan*, 504 U.S. at 572 n.7 ("There is this much truth to the assertion that 'procedural rights' are special: The person who has been accorded a

We are therefore skeptical that the first redressability prong is satisfied. But even assuming that it is, the plaintiffs do not surmount the remaining hurdle—establishing that the specific relief they seek is within the power of an Article III court. There is much to recommend the adoption of a comprehensive scheme to decrease fossil fuel emissions and combat climate change, both as a policy matter in general and a matter of national survival in particular. But it is beyond the power of an Article III court to order, design, supervise, or implement the plaintiffs' requested remedial plan. As the opinions of their experts make plain, any effective plan would necessarily require a host of complex policy decisions entrusted, for better or worse, to the wisdom and discretion of the executive and legislative branches. *See Brown*, 902 F.3d at 1086 (finding the plaintiff's requested declaration requiring the government to issue driver cards "incompatible with democratic principles embedded in the structure of the Constitution"). These decisions range, for example, from determining how much to invest in public transit to how quickly to transition to renewable energy, and plainly require consideration of "competing social, political, and economic forces," which must be made by the People's "elected representatives, rather than by federal judges interpreting the basic charter of Government for the entire country." *Collins v. City of Harker Heights*, 503 U.S. 115, 128–29 (1992); *see Lujan*, 504 U.S. at 559–60 ("[S]eparation of powers depends largely upon common understanding of what activities are appropriate to legislatures, to executives, and to courts.").

procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy.").

The plaintiffs argue that the district court need not itself make policy decisions, because if their general request for a remedial plan is granted, the political branches can decide what policies will best "phase out fossil fuel emissions and draw down excess atmospheric CO2." To be sure, in some circumstances, courts may order broad injunctive relief while leaving the "details of implementation" to the government's discretion. *Brown v. Plata*, 563 U.S. 493, 537–38 (2011). But, even under such a scenario, the plaintiffs' request for a remedial plan would subsequently require the judiciary to pass judgment on the sufficiency of the government's response to the order, which necessarily would entail a broad range of policymaking. And inevitably, this kind of plan will demand action not only by the Executive, but also by Congress. Absent court intervention, the political branches might conclude—however inappropriately in the plaintiffs' view—that economic or defense considerations called for continuation of the very programs challenged in this suit, or a less robust approach to addressing climate change than the plaintiffs believe is necessary. "But we cannot substitute our own assessment for the Executive's [or Legislature's] predictive judgments on such matters, all of which 'are delicate, complex, and involve large elements of prophecy.'" *Hawaii*, 138 S. Ct. at 2421 (quoting *Chi. & S. Air Lines, Inc. v. Waterman S.S. Corp.*, 333 U.S. 103, 111 (1948)). And, given the complexity and long-lasting nature of global climate change, the court would be required to supervise the government's compliance with any suggested plan for many decades. *See Nat. Res. Def. Council, Inc. v. EPA*, 966 F.2d 1292, 1300 (9th Cir. 1992) ("Injunctive relief could involve

extraordinary supervision by this court. . . . [and] may be inappropriate where it requires constant supervision.").[8]

As the Supreme Court recently explained, "a constitutional directive or legal standards" must guide the courts' exercise of equitable power. *Rucho v. Common Cause*, 139 S. Ct. 2484, 2508 (2019). *Rucho* found partisan gerrymandering claims presented political questions beyond the reach of Article III courts. *Id.* at 2506–07. The Court did not deny extreme partisan gerrymandering can violate the Constitution. *See id.* at 2506; *id.* at 2514–15 (Kagan, J., dissenting). But, it concluded that there was no "limited and precise" standard discernible in the Constitution for redressing the asserted violation. *Id.* at 2500. The Court

[8] However belatedly, the political branches are currently debating such action. Many resolutions and plans have been introduced in Congress, ranging from discrete measures to encourage clean energy innovation to the "Green New Deal" and comprehensive proposals for taxing carbon and transitioning all sectors of the economy away from fossil fuels. *See, e.g.*, H.R. Res. 109, 116th Cong. (2019); S.J. Res. 8, 116th Cong. (2019); Enhancing Fossil Fuel Energy Carbon Technology Act, S. 1201, 116th Cong. (2019); Climate Action Now Act, H.R. 9, 116th Cong. (2019); Methane Waste Prevention Act, H.R. 2711, 116th Cong. (2019); Clean Energy Standard Act, S. 1359, 116th Cong. (2019); National Climate Bank Act, S. 2057, 116th Cong. (2019); Carbon Pollution Transparency Act, S. 1745, 116th Cong. (2019); Leading Infrastructure for Tomorrow's America Act, H.R. 2741, 116th Cong. (2019); Buy Clean Transparency Act, S. 1864, 116th Cong. (2019); Carbon Capture Modernization Act, H.R. 1796, 116th Cong. (2019); Challenges & Prizes for Climate Act, H.R. 3100, 116th Cong. (2019); Energy Innovation and Carbon Dividend Act, H.R. 763, 116th Cong. (2019); Climate Risk Disclosure Act, S. 2075, 116th Cong. (2019); Clean Energy for America Act, S. 1288, 116th Cong. (2019). The proposed legislation, consistent with the opinions of the plaintiffs' experts, envisions that tackling this global problem involves the exercise of discretion, trade-offs, international cooperation, private-sector partnerships, and other value judgments ill-suited for an Article III court.

rejected the plaintiffs' proposed standard because unlike the one-person, one-vote rule in vote dilution cases, it was not "relatively easy to administer as a matter of math." *Id.* at 2501.

Rucho reaffirmed that redressability questions implicate the separation of powers, noting that federal courts "have no commission to allocate political power and influence" without standards to guide in the exercise of such authority. *See id.* at 2506–07, 2508. Absent those standards, federal judicial power could be "unlimited in scope and duration," and would inject "the unelected and politically unaccountable branch of the Federal Government [into] assuming such an extraordinary and unprecedented role." *Id.* at 2507; *see also Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 125 (2014) (noting the "separation-of-powers principles underlying" standing doctrine); *Brown*, 902 F.3d at 1087 (stating that "in the context of Article III standing, . . . federal courts must respect their 'proper—and properly limited—role . . . in a democratic society'" (quoting *Gill v. Whitford*, 138 S. Ct. 1916, 1929 (2018)). Because "it is axiomatic that 'the Constitution contemplates that democracy is the appropriate process for change,'" *Brown*, 902 F.3d at 1087 (quoting *Obergefell v. Hodges*, 135 S. Ct. 2584, 2605 (2015)), some questions—even those existential in nature—are the province of the political branches. The Court found in *Rucho* that a proposed standard involving a mathematical comparison to a baseline election map is too difficult for the judiciary to manage. *See* 139 S. Ct. at 2500–02. It is impossible to reach a different conclusion here.

The plaintiffs' experts opine that atmospheric carbon levels of 350 parts per million are necessary to stabilize the global climate. But, even accepting those opinions as valid,

they do not suggest how an order from this Court can achieve that level, other than by ordering the government to develop a plan. Although the plaintiffs' invitation to get the ball rolling by simply ordering the promulgation of a plan is beguiling, it ignores that an Article III court will thereafter be required to determine whether the plan is sufficient to remediate the claimed constitutional violation of the plaintiffs' right to a "climate system capable of sustaining human life." We doubt that any such plan can be supervised or enforced by an Article III court. And, in the end, any plan is only as good as the court's power to enforce it.

C.

Our dissenting colleague quite correctly notes the gravity of the plaintiffs' evidence; we differ only as to whether an Article III court can provide their requested redress. In suggesting that we can, the dissent reframes the plaintiffs' claimed constitutional right variously as an entitlement to "the country's perpetuity," Diss. at 35–37, 39, or as one to freedom from "the amount of fossil-fuel emissions that will irreparably devastate our Nation," *id.* at 57. But if such broad constitutional rights exist, we doubt that the plaintiffs would have Article III standing to enforce them. Their alleged individual injuries do not flow from a violation of these claimed rights. Indeed, any injury from the dissolution of the Republic would be felt by all citizens equally, and thus would not constitute the kind of discrete and particularized injury necessary for Article III standing. *See Friends of the Earth*, 528 U.S. at 180–81. A suit for a violation of these reframed rights, like one for a violation of the Guarantee Clause, would also plainly be nonjusticiable. *See, e.g.*, *Rucho*, 139 S. Ct. at 2506 ("This Court has several times concluded, however, that the Guarantee Clause does not provide the basis for a justiciable claim.") (citing *Pac. States*

Tel. & Tel. Co. v. Oregon, 223 U.S. 118, 149 (1912)); *Luther v. Borden*, 48 U.S. 1, 36–37, 39 (1849).

More importantly, the dissent offers no metrics for judicial determination of the level of climate change that would cause "the willful dissolution of the Republic," Diss. at 40, nor for measuring a constitutionally acceptable "perceptible reduction in the advance of climate change," *id.* at 47. Contrary to the dissent, we cannot find Article III redressability requirements satisfied simply because a court order might "postpone[] the day when remedial measures become insufficiently effective." *Id.* at 46; *see Brown*, 902 F.3d at 1083 ("If, however, a favorable judicial decision would not require the defendant to redress the plaintiff's claimed injury, the plaintiff cannot demonstrate redressability[.]"). Indeed, as the dissent recognizes, a guarantee against government conduct that might threaten the Union—whether from political gerrymandering, nuclear proliferation, Executive misconduct, or climate change—has traditionally been viewed by Article III courts as "not separately enforceable." *Id.* at 39. Nor has the Supreme Court recognized "the perpetuity principle" as a basis for interjecting the judicial branch into the policy-making purview of the political branches. *See id.* at 42.

Contrary to the dissent, we do not "throw up [our] hands" by concluding that the plaintiffs' claims are nonjusticiable. *Id.* at 33. Rather, we recognize that "Article III protects liberty not only through its role in implementing the separation of powers, but also by specifying the defining characteristics of Article III judges." *Stern v. Marshall*, 564 U.S. 462, 483 (2011). Not every problem posing a threat—even a clear and present danger—to the American Experiment can be solved by federal judges. As Judge Cardozo once aptly warned, a judicial commission does not

confer the power of "a knight-errant, roaming at will in pursuit of his own ideal of beauty or of goodness;" rather, we are bound "to exercise a discretion informed by tradition, methodized by analogy, disciplined by system.'" Benjamin N. Cardozo, *The Nature of the Judicial Process* 141 (1921).[9]

The dissent correctly notes that the political branches of government have to date been largely deaf to the pleas of the plaintiffs and other similarly situated individuals. But, although inaction by the Executive and Congress may affect the form of judicial relief ordered when there is Article III standing, it cannot bring otherwise nonjusticiable claims within the province of federal courts. *See Rucho*, 139 S. Ct. at 2507–08; *Gill*, 138 S. Ct. at 1929 ("'Failure of political will does not justify unconstitutional remedies.' . . . Our power as judges . . . rests not on the default of politically accountable officers, but is instead grounded in and limited by the necessity of resolving, according to legal principles, a plaintiff's particular claim of legal right." (quoting *Clinton v. City of New York*, 524 U.S. 417, 449 (1998) (Kennedy, J., concurring))); *Brown*, 902 F.3d at 1087 ("The *absence* of a law, however, has never been held to constitute a 'substantive result' subject to judicial review[.]").

The plaintiffs have made a compelling case that action is needed; it will be increasingly difficult in light of that record

[9] Contrary to the dissent, we do not find this to be a political question, although that doctrine's factors often overlap with redressability concerns. Diss. at 51–61; *Republic of Marshall Islands v. United States*, 865 F.3d 1187, 1192 (9th Cir. 2017) ("Whether examined under the . . . the redressability prong of standing, or the political question doctrine, the analysis stems from the same separation-of-powers principle—enforcement of this treaty provision is not committed to the judicial branch. Although these are distinct doctrines . . . there is significant overlap.").

for the political branches to deny that climate change is occurring, that the government has had a role in causing it, and that our elected officials have a moral responsibility to seek solutions. We do not dispute that the broad judicial relief the plaintiffs seek could well goad the political branches into action. Diss. at 45–46, 49–50, 57–61. We reluctantly conclude, however, that the plaintiffs' case must be made to the political branches or to the electorate at large, the latter of which can change the composition of the political branches through the ballot box. That the other branches may have abdicated their responsibility to remediate the problem does not confer on Article III courts, no matter how well-intentioned, the ability to step into their shoes.

III.

For the reasons above, we reverse the certified orders of the district court and remand this case to the district court with instructions to dismiss for lack of Article III standing.[10]

REVERSED.

STATON, District Judge, dissenting:

In these proceedings, the government accepts as fact that the United States has reached a tipping point crying out for a concerted response—yet presses ahead toward calamity. It is as if an asteroid were barreling toward Earth and the government decided to shut down our only defenses.

[10] The plaintiffs' motion for an injunction pending appeal, Dkt. 21, is **DENIED**. Their motions for judicial notice, Dkts. 134, 149, are **GRANTED**.

Seeking to quash this suit, the government bluntly insists that it has the absolute and unreviewable power to destroy the Nation.

My colleagues throw up their hands, concluding that this case presents nothing fit for the Judiciary. On a fundamental point, we agree: No case can singlehandedly prevent the catastrophic effects of climate change predicted by the government and scientists. But a federal court need not manage all of the delicate foreign relations and regulatory minutiae implicated by climate change to offer real relief, and the mere fact that this suit cannot alone halt climate change does not mean that it presents no claim suitable for judicial resolution.

Plaintiffs bring suit to enforce the most basic structural principle embedded in our system of ordered liberty: that the Constitution does not condone the Nation's willful destruction. So viewed, plaintiffs' claims adhere to a judicially administrable standard. And considering plaintiffs seek no less than to forestall the Nation's demise, even a partial and temporary reprieve would constitute meaningful redress. Such relief, much like the desegregation orders and statewide prison injunctions the Supreme Court has sanctioned, would vindicate plaintiffs' constitutional rights without exceeding the Judiciary's province. For these reasons, I respectfully dissent.[1]

[1] I agree with the majority that plaintiffs need not bring their claims under the APA. *See Franklin v. Massachusetts*, 505 U.S. 788, 801 (1992); *Webster v. Doe*, 486 U.S. 592, 603–04 (1988).

I.

As the majority recognizes, and the government does not contest, carbon dioxide ("CO_2") and other greenhouse gas ("GHG") emissions created by burning fossil fuels are devastating the planet. Maj. Op. at 14–15. According to one of plaintiffs' experts, the inevitable result, absent immediate action, is "an inhospitable future . . . marked by rising seas, coastal city functionality loss, mass migrations, resource wars, food shortages, heat waves, mega-storms, soil depletion and desiccation, freshwater shortage, public health system collapse, and the extinction of increasing numbers of species." Even government scientists[2] project that, given current warming trends, sea levels will rise two feet by 2050, nearly four feet by 2070, over eight feet by 2100, 18 feet by 2150, and over 31 feet by 2200. To put that in perspective, a three-foot sea level rise will make two million American homes uninhabitable; a rise of approximately 20 feet will result in the total loss of Miami, New Orleans, and other coastal cities. So, as described by plaintiffs' experts, the injuries experienced by plaintiffs are the first small wave in an oncoming tsunami—now visible on the horizon of the not-so-distant future—that will destroy the United States as we currently know it.

What sets this harm apart from all others is not just its magnitude, but its irreversibility. The devastation might look and feel somewhat different if future generations could simply pick up the pieces and restore the Nation. But plaintiffs' experts speak of a certain level of global warming as "locking in" this catastrophic damage. Put more starkly by plaintiffs' expert, Dr. Harold R. Wanless, "[a]tmospheric

[2] NOAA, Technical Rep. NOS CO-OPS 083, Global and Regional Sea Level Rise Scenarios for the United States 23 (Jan. 2017).

warming will continue for some 30 years after we stop putting more greenhouse gasses into the atmosphere. But that warmed atmosphere will continue warming the ocean for centuries, and the accumulating heat in the oceans *will persist for millennia*" (emphasis added). Indeed, another of plaintiffs' experts echoes, "[t]he fact that GHGs dissipate very slowly from the atmosphere . . . and that the costs of taking CO_2 out of the atmosphere through non-biological carbon capture and storage are very high means that *the consequences of GHG emissions should be viewed as effectively irreversible*" (emphasis added). In other words, "[g]iven the self-reinforcing nature of climate change," the tipping point may well have arrived, and we may be rapidly approaching the point of no return.

Despite countless studies over the last half century warning of the catastrophic consequences of anthropogenic greenhouse gas emissions, many of which the government conducted, the government not only failed to act but also "affirmatively promote[d] fossil fuel use in a host of ways." Maj. Op. at 15. According to plaintiffs' evidence, our nation is crumbling—at our government's own hand—into a wasteland. In short, the government has directly facilitated an existential crisis to the country's perpetuity.[3]

II.

In tossing this suit for want of standing, the majority concedes that the children and young adults who brought suit have presented enough to proceed to trial on the first two aspects of the inquiry (injury in fact and traceability). But

[3] My asteroid analogy would therefore be more accurate if I posited a scenario in which the government itself accelerated the asteroid towards the earth before shutting down our defenses.

the majority provides two-and-a-half reasons for concluding that plaintiffs' injuries are not redressable. After detailing its "skeptic[ism]" that the relief sought could "suffice to stop catastrophic climate change or even ameliorate [plaintiffs'] injuries[,]" Maj. Op. at 23–25, the majority concludes that, at any rate, a court would lack any power to award it. In the majority's view, the relief sought is too great and unsusceptible to a judicially administrable standard.

To explain why I disagree, I first step back to define the interest at issue. While standing operates as a threshold issue distinct from the merits of the claim, "it often turns on the nature and source of the claim asserted." *Warth v. Seldin*, 422 U.S. 490, 500 (1975). And, unlike the majority, I believe the government has more than just a nebulous "moral responsibility" to preserve the Nation. Maj. Op. at 31–32.

A.

The Constitution protects the right to "life, liberty, and property, to free speech, a free press, [and] freedom of worship and assembly." *W. Virginia State Bd. of Educ. v. Barnette*, 319 U.S. 624, 638 (1943). Through "reasoned judgment," the Supreme Court has recognized that the Due Process Clause, enshrined in the Fifth and Fourteenth Amendments, also safeguards certain "interests of the person so fundamental that the [government] must accord them its respect." *Obergefell v. Hodges*, 135 S. Ct. 2584, 2598 (2015). These include the right to marry, *Loving v. Virginia*, 388 U.S. 1, 12 (1967), to maintain a family and rear children, *M.L.B. v. S.L.J.*, 519 U.S. 102, 116 (1996), and to pursue an occupation of one's choosing, *Schware v. Bd. of Bar Exam.*, 353 U.S. 232, 238–39 (1957). As fundamental rights, these "may not be submitted to vote; they depend on the outcome of no elections." *Lucas v. Forty-Fourth Gen. Assembly*,

377 U.S. 713, 736 (1964) (quoting *Barnette*, 319 U.S. at 638).

Some rights serve as the necessary predicate for others; their fundamentality therefore derives, at least in part, from the necessity to preserve other fundamental constitutional protections. *Cf., e.g.*, *Timbs v. Indiana*, 139 S. Ct. 682, 689 (2019) (deeming a right fundamental because its deprivation would "undermine other constitutional liberties"). For example, the right to vote "is of the essence of a democratic society, and any restrictions on that right strike at the heart of representative government." *Reynolds v. Sims*, 377 U.S. 533, 555 (1964). Because it is "preservative of all rights," the Supreme Court has long regarded suffrage "as a fundamental political right." *Yick Wo v. Hopkins*, 118 U.S. 356, 370 (1886). This holds true even though the right to vote receives imperfect express protection in the Constitution itself: While several amendments proscribe the denial or abridgement of suffrage based on certain characteristics, the Constitution does not guarantee the right to vote *ab initio*. *See* U.S. Const. amends. XV, XIX, XXIV, XXVI; *cf.* U.S. Const. art. I, § 4, cl. 1.

Much like the right to vote, the perpetuity of the Republic occupies a central role in our constitutional structure as a "guardian of all other rights," *Plyler v. Doe*, 457 U.S. 202, 217 n.15 (1982). "Civil liberties, as guaranteed by the Constitution, imply the existence of an organized society . . . ." *Cox v. New Hampshire*, 312 U.S. 569, 574 (1941); *see also The Ku Klux Cases*, 110 U.S. 651, 657–68 (1884). And, of course, in our system, that organized society consists of the Union. Without it, all the liberties protected by the Constitution to live the good life are meaningless.

This observation is hardly novel. After securing independence, George Washington recognized that "the destiny of unborn millions" rested on the fate of the new Nation, cautioning that "whatever measures have a tendency to dissolve the Union, or contribute to violate or lessen the Sovereign Authority, ought to be considered as hostile to the Liberty and Independency of America[.]" President George Washington, Circular Letter of Farewell to the Army (June 8, 1783). Without the Republic's preservation, Washington warned, "there is a natural and necessary progression, from the extreme of anarchy to the extreme of Tyranny; and that arbitrary power is most easily established on the ruins of Liberty abused to licentiousness." *Id.*

When the Articles of the Confederation proved ill-fitting to the task of safeguarding the Union, the framers formed the Constitutional Convention with "the great object" of "preserv[ing] and perpetuat[ing]" the Union, for they believed that "the prosperity of America depended on its Union." The Federalist No. 2, at 19 (John Jay) (E. H. Scott ed., 1898); *see also* Letter from James Madison to Thomas Jefferson (Oct. 24, 1787)[4] ("It appeared to be the sincere and unanimous wish of the Convention to cherish and preserve the Union of the States."). In pressing New York to ratify the Constitution, Alexander Hamilton spoke of the gravity of the occasion: "The subject speaks its own importance; comprehending in its consequences nothing less than the existence of the Union, the safety and welfare of the parts of which it is composed—the fate of an empire, in many respects the most interesting in the world." The Federalist No. 1, at 11 (Alexander Hamilton) (E. H. Scott ed., 1898). In light of this animating principle, it is fitting that the

[4] Available at https://founders.archives.gov/documents/Jefferson/01-12-02-0274.

Preamble declares that the Constitution is intended to secure "the Blessings of Liberty" not just for one generation, but for all future generations—our "Posterity."

The Constitution's structure reflects this perpetuity principle. *See Alden v. Maine*, 527 U.S. 706, 713 (1999) (examining how "[v]arious textual provisions of the Constitution assume" a structural principle). In taking the Presidential Oath, the Executive must vow to "preserve, protect and defend the Constitution of the United States," U.S. Const. art. II, § 1, cl. 8, and the Take Care Clause obliges the President to "take Care that the Laws be faithfully executed," U.S. Const. art. II, § 3. Likewise, though generally not separately enforceable, Article IV, Section 4 provides that the "United States shall guarantee to every State in this Union a Republican Form of Government, and shall protect each of them against Invasion; and . . . against domestic Violence." U.S. Const. art. IV, § 4; *see also New York v. United States*, 505 U.S. 144, 184–85 (1992).

Less than a century after the country's founding, the perpetuity principle undergirding the Constitution met its greatest challenge. Faced with the South's secession, President Lincoln reaffirmed that the Constitution did not countenance its own destruction. "[T]he Union of these States is perpetual[,]" he reasoned in his First Inaugural Address, because "[p]erpetuity is implied, if not expressed, in the fundamental law of all national governments. It is safe to assert that no government proper ever had a provision in its organic law for its own termination." President Abraham Lincoln, First Inaugural Address (Mar. 4, 1861). In justifying this constitutional principle, Lincoln drew from history, observing that "[t]he Union is much older than the Constitution." *Id.* He reminded his fellow citizens, "one of

the declared objects for ordaining and establishing the Constitution was 'to form a *more perfect* Union.'" *Id.* (emphasis added) (quoting U.S. Const. pmbl.). While secession manifested the existential threat most apparently contemplated by the Founders—political dissolution of the Union—the underlying principle applies equally to its physical destruction.

This perpetuity principle does not amount to "a right to live in a contaminant-free, healthy environment." *Guertin v. Michigan*, 912 F.3d 907, 922 (6th Cir. 2019). To be sure, the stakes can be quite high in environmental disputes, as pollution causes tens of thousands of premature deaths each year, not to mention disability and diminished quality of life.[5] Many abhor living in a polluted environment, and some pay with their lives. But mine-run environmental concerns "involve a host of policy choices that must be made by . . . elected representatives, rather than by federal judges interpreting the basic charter of government[.]" *Collins v. City of Harker Heights*, 503 U.S. 115, 129 (1992). The perpetuity principle is not an environmental right at all, and it does not task the courts with determining the optimal level of environmental regulation; rather, it prohibits only the willful dissolution of the Republic.[6]

[5] *See, e.g.*, Andrew L. Goodkind et al., *Fine-Scale Damage Estimates of Particulate Matter Air Pollution Reveal Opportunities for Location-Specific Mitigation of Emissions*, *in* 116 Proceedings of the National Academy of Sciences 8775, 8779 (2019) (estimating that fine particulate matter caused 107,000 premature deaths in 2011).

[6] Unwilling to acknowledge that the very nature of the climate crisis places this case in a category of one, the government argues that "the Constitution does not provide judicial remedies for every social and economic ill." For support, the government cites *Lindsey v. Normet*,

That the principle is structural and implicit in our constitutional system does not render it any less enforceable. To the contrary, our Supreme Court has recognized that "[t]here are many [] constitutional doctrines that are not spelled out in the Constitution" but are nonetheless enforceable as "historically rooted principle[s] embedded in the text and structure of the Constitution." *Franchise Tax Bd. of California v. Hyatt*, 139 S. Ct. 1485, 1498–99 (2019). For instance, the Constitution does not in express terms provide for judicial review, *Marbury v. Madison*, 5 U.S. 137, 176–77 (1803); sovereign immunity (outside of the Eleventh Amendment's explicit restriction), *Alden*, 527 U.S. at 735–36; the anticommandeering doctrine, *Murphy v. NCAA*, 138 S. Ct. 1461, 1477 (2018); or the regimented tiers of scrutiny applicable to many constitutional rights, *see, e.g.*, *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 641–42 (1994). Yet these doctrines, as well as many other implicit principles, have become firmly entrenched in our constitutional landscape. And, in an otherwise justiciable case, a private litigant may seek to vindicate such structural principles, for they "protect the individual as well" as the Nation. *See Bond v. United States*, 564 U.S. 211, 222, 225–26 (2011); *INS. v. Chadha*, 462 U.S. 919, 935–36 (1983).

In *Hyatt*, for instance, the Supreme Court held that a state could not be sued in another state's courts without its consent. Although nothing in the text of the Constitution expressly forbids such suits, the Court concluded that they

405 U.S. 56, 74 (1972), which held Oregon's wrongful detainer statute governing landlord/tenant disputes constitutional. The perpetuity principle, however, cabins the right and avoids any slippery slope. While the principle's goal is to preserve the most fundamental individual rights to life, liberty, and property, it is not triggered absent an existential threat to the country arising from a "point of no return" that is, at least in part, of the government's own making.

contravened "the 'implicit ordering of relationships within the federal system necessary to make the Constitution a workable governing charter and to give each provision within that document the full effect intended by the Framers.'" *Hyatt*, 139 S. Ct. at 1492 (quoting *Nevada v. Hall*, 440 U.S. 410, 433 (1979) (Rehnquist, J., dissenting)). So too here.

Nor can the perpetuity principle be rejected simply because the Court has not yet had occasion to enforce it as a limitation on government conduct. Only over time, as the Nation confronts new challenges, are constitutional principles tested. For instance, courts did not recognize the anticommandeering doctrine until the 1970s because "[f]ederal commandeering of state governments [was] such a novel phenomenon." *Printz v. United States*, 521 U.S. 898, 925 (1997). And the Court did not recognize that cell-site data fell within the Fourth Amendment until 2018. In so holding, the Court rejected "a 'mechanical interpretation' of the Fourth Amendment" because "technology has enhanced the Government's capacity to encroach upon areas normally guarded from inquisitive eyes[.]" *Carpenter v. United States*, 138 S. Ct. 2206, 2214 (2018). Thus, it should come as no surprise that the Constitution's commitment to perpetuity only now faces judicial scrutiny, for never before has the United States confronted an existential threat that has not only gone unremedied but is actively backed by the government.

The mere fact that we have alternative means to enforce a principle, such as voting, does not diminish its constitutional stature. Americans can vindicate federalism, separation of powers, equal protection, and voting rights through the ballot box as well, but that does not mean these constitutional guarantees are not independently enforceable.

By its very nature, the Constitution "withdraw[s] certain subjects from the vicissitudes of political controversy, to place them beyond the reach of majorities and officials and to establish them as legal principles to be applied by the courts." *Barnette*, 319 U.S. at 638. When fundamental rights are at stake, individuals "need not await legislative action." *Obergefell*, 135 S. Ct. at 2605.

Indeed, in this *sui generis* circumstance, waiting is not an option. Those alive today are at perhaps the singular point in history where society (1) is scientifically aware of the impending climate crisis, and (2) can avoid the point of no return. And while democracy affords citizens the right "to debate so they can learn and decide and then, through the political process, act in concert to try to shape the course of their own times[,]" *id.* (quoting *Schuette v. Coalition to Defend Affirmative Action*, 572 U.S. 291, 312 (2014)), that process cannot override the laws of nature. Or, more colloquially, we can't shut the stable door after the horse has bolted.

As the last fifty years have made clear, telling plaintiffs that they must vindicate their right to a habitable United States through the political branches will rightfully be perceived as telling them they have no recourse. The political branches must often realize constitutional principles, but in a justiciable case or controversy, courts serve as the ultimate backstop. To this issue, I turn next.

B.

Of course, "it is not the role of courts, but that of the political branches, to shape the institutions of government in such fashion as to comply with the laws and the Constitution." *Lewis v. Casey*, 518 U.S. 343, 349 (1996). So federal courts are not free to address *every* grievance.

"Whether a party has a sufficient stake in an otherwise justiciable controversy to obtain judicial resolution of that controversy is what has traditionally been referred to as the question of standing to sue." *Sierra Club v. Morton*, 405 U.S. 727, 731–32 (1972). Standing is "a doctrine rooted in the traditional understanding of a case or controversy," developed to "ensure that federal courts do not exceed their authority as it has been traditionally understood." *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016).

A case is fit for judicial determination only if the plaintiff has: "(1) suffered an injury in fact, (2) that is fairly traceable to the challenged conduct of the defendant, and (3) that is likely to be redressed by a favorable judicial decision." *Id.* (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992); then citing *Friends of the Earth, Inc. v. Laidlaw Envtl. Serv. (TOC), Inc.*, 528 U.S. 167, 180–81 (2000)). As to the first two elements, my colleagues and I agree: Plaintiffs present adequate evidence at this pre-trial stage to show particularized, concrete injuries to legally-protected interests, and they present further evidence to raise genuine disputes as to whether those injuries—at least in substantial part—are fairly traceable to the government's conduct at issue. *See* Maj. Op. at 18–21. Because I find that plaintiffs have also established the third prong for standing, redressability, I conclude that plaintiffs' legal stake in this action suffices to invoke the adjudicative powers of the federal bench.

1.

"Redressability" concerns whether a federal court is capable of vindicating a plaintiff's legal rights. I agree with the majority that our ability to provide redress is animated by two inquiries, one of efficacy and one of power. Maj. Op. at 21 (citing *M.S. v. Brown*, 902 F.3d 1076, 1083 (9th Cir.

2018)). First, as a causal matter, is a court order likely to actually remediate the plaintiffs' injury? If so, does the judiciary have the constitutional authority to levy such an order? *Id.*

Addressing the first question, my colleagues are skeptical that curtailing the government's facilitation of fossil-fuel extraction and combustion will ameliorate the plaintiffs' harms. *See* Maj. Op. at 22–25. I am not, as the nature of the injury at stake informs the effectiveness of the remedy. *See Warth*, 422 U.S. at 500.

As described above, the right at issue is not to be entirely free from any climate change. Rather, plaintiffs have a constitutional right to be free from *irreversible and catastrophic climate change*. Plaintiffs have begun to feel certain concrete manifestations of this violation, ripening their case for litigation, but such prefatory harms are just the first barbs of an *ongoing* injury flowing from an *ongoing* violation of plaintiffs' rights. The bulk of the injury is yet to come. Therefore, practical redressability is not measured by our ability to stop climate change in its tracks and immediately undo the injuries that plaintiffs suffer today—an admittedly tall order; it is instead measured by our ability to curb by some meaningful degree what the record shows to be an otherwise inevitable march to the point of no return. Hence, the injury at issue is not climate change writ large; it is climate change beyond the threshold point of no return. As we approach that threshold, the significance of every emissions reduction is magnified.

The majority portrays any relief we can offer as just a drop in the bucket. *See* Maj. Op. at 22–25. In a previous generation, perhaps that characterization would carry the day and we would hold ourselves impotent to address plaintiffs' injuries. But we are perilously close to an overflowing

bucket. These final drops matter. *A lot.* Properly framed, a court order—even one that merely postpones the day when remedial measures become insufficiently effective—would likely have a real impact on preventing the impending cataclysm. Accordingly, I conclude that the court could do something to help the plaintiffs before us.

And "something" is all that standing requires. In *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court explicitly held that a non-negligible reduction in emissions—there, by regulating vehicles emissions—satisfied the redressability requirement of Article III standing:

> While it may be true that regulating motor-vehicle emissions will not by itself *reverse* global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to *slow* or *reduce* it. Because of the enormity of the potential consequences associated with manmade climate change, the fact that the effectiveness of a remedy might be delayed during the (relatively short) time it takes for a new motor-vehicle fleet to replace an older one is essentially irrelevant. Nor is it dispositive that developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century: A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.
>
> . . . .

> . . . The risk of catastrophic harm, though remote, is nevertheless real.

Id. at 525–26 (internal citation omitted).

In other words, under Article III, a perceptible reduction in the advance of climate change is sufficient to redress a plaintiff's climate change-induced harms. Full stop. The majority dismisses this precedent because *Massachusetts v. EPA* involved a procedural harm, whereas plaintiffs here assert a purely substantive right. Maj. Op. at 24. But this difference in posture does not affect the outcome.

While the redressability requirement is relaxed in the procedural context, that does not mean (1) we must engage in a similarly relaxed analysis whenever we invoke *Massachusetts v. EPA* or (2) we cannot rely on *Massachusetts v. EPA*'s substantive examination of the relationship between government action and the course of climate change. Accordingly, here, we do not consider the likelihood that plaintiffs will prevail in any newly-awarded agency procedure, nor whether granting access to that procedure will redress plaintiffs' injury. *Cf. Massachusetts v. EPA*, 549 U.S. at 517–18; *Lujan*, 504 U.S. at 572 n.7. Rather, we assume plaintiffs *will* prevail—removing the procedural link from the causal chain—and we resume our traditional analysis to determine whether the desired outcome would in fact redress plaintiffs' harms.[7] In

[7] The presence of a procedural right is more critical when determining whether the first and second elements of standing are present. This is especially true where Congress has "define[d] injuries and articulate[d] chains of causation that will give rise to a case or controversy where none existed before" by conferring procedural rights that give certain persons a "stake" in an injury that is otherwise not their own. *Spokeo*, 136 S. Ct. at 1549 (quoting *Lujan*, 504 U.S. at 580

Massachusetts v. EPA, the remaining substantive inquiry was whether reducing emissions from fossil-fuel combustion would likely ameliorate climate change-induced injuries despite the global nature of climate change (regardless of whether renewed procedures were themselves likely to mandate such lessening). The Supreme Court unambiguously answered that question in the affirmative. That holding squarely applies to the instant facts,[8] rendering the absence of a procedural right here irrelevant.[9]

(Kennedy, J., concurring)). But who seeks to vindicate an injury is irrelevant to the question of whether a court has the tools to relieve that injury.

[8] Indeed, the majority has already acknowledged as much in finding plaintiffs' injuries traceable to the government's misconduct because the traceability and redressability inquiries are largely coextensive. *See* Maj. Op. at 19–21; *see also Wash. Envtl. Council v. Bellon*, 732 F.3d 1131, 1146 (2013) ("The Supreme Court has clarified that the 'fairly traceable' and 'redressability' components for standing overlap and are 'two facets of a single causation requirement.' The two are distinct insofar as causality examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief.") (internal citation omitted). Here, where the requested relief is simply to stop the ongoing misconduct, the inquiries are nearly identical. *Cf. Allen v. Wright*, 468 U.S. 737, 753 n.19 (1984) ("[I]t is important to keep the inquiries separate" where "the relief requested goes well beyond the violation of law alleged."), *abrogated on other grounds by Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118 (2014); *see also infra* Part II.B.3.

[9] Nor am I persuaded that *Massachusetts v. EPA* is distinguishable because of the relaxed standing requirements and "special solicitude" in cases brought by a state against the United States. *Massachusetts v. EPA*, 549 U.S. at 517–20. When *Massachusetts v. EPA* was decided, more than a decade ago, there was uncertainty and skepticism as to whether an individual could state a sufficiently definite climate change-induced

2.

The majority laments that it cannot step into the shoes of the political branches, *see* Maj. Op. at 32, but appears ready to yield even if those branches walk the Nation over a cliff. This deference-to-a-fault promotes separation of powers to the detriment of our countervailing constitutional mandate to intervene where the political branches run afoul of our foundational principles. Our tripartite system of government is often and aptly described as one of "checks and balances." The doctrine of standing preserves *balance* among the branches by keeping separate questions of general governance and those of specific legal entitlement. But the doctrine of judicial review compels federal courts to fashion and effectuate relief to right legal wrongs, even when—as frequently happens—it requires that we instruct the other branches as to the constitutional limitations on their power. Indeed, sometimes "the [judicial and governance] roles briefly and partially coincide when a court, in granting relief against actual harm that has been suffered, . . . orders the alteration of an institutional organization or procedure that causes the harm." *Lewis*, 518 U.S. at 350; *cf. Valley Forge Christian Coll. v. Ams. United for Separation of Church & State, Inc.*, 454 U.S. 464, 474 (1982) ("Proper regard for the

harm based on gradually warming air temperatures and rising seas. But the Supreme Court sidestepped such questions of the *concreteness* of the plaintiffs' injuries by finding that "[Massachusetts's] stake in the outcome of this case is sufficiently concrete to warrant the exercise of federal judicial power." *Id.* at 519. Here and now, the plaintiffs submit *undisputed scientific evidence* that their distinct and discrete injuries are caused by climate change brought about by emissions from fossil-fuel combustion. They need not rely on the "special solicitude," *id.* at 520, of a state to be heard. Regardless, any distinction would go to the concreteness or particularity of plaintiffs' injuries and not to the issue of redressability.

complex nature of our constitutional structure requires neither that the Judicial Branch shrink from a confrontation with the other two coequal branches of the Federal Government, nor that it hospitably accept for adjudication claims of constitutional violation by other branches of government where the claimant has not suffered cognizable injury."). In my view, this Court must confront and reconcile this tension before deciding that thorny questions of standing preclude review in this case. And faithful application of our history and precedents reveals that a failure to do so leads to the wrong result.

Taking the long (but essential) way around, I begin first by acknowledging explicitly what the majority does not mention: our history plainly establishes an ambient presumption of judicial review to which separation-of-powers concerns provide a rebuttal under limited circumstances. Few would contest that "[i]t is emphatically the province and duty of the judicial department" to curb acts of the political branches that contravene those fundamental tenets of American life so dear as to be constitutionalized and thus removed from political whims. *See Marbury*, 5 U.S. at 177–78. This presumptive authority entails commensurate power to grant appropriate redress, as recognized in *Marbury*, "which effectively place[s] upon those who would deny the existence of an effective legal remedy the burden of showing why their case was special." *Ziglar v. Abbasi*, 137 S. Ct. 1843, 1874 (2017) (Breyer, J., dissenting). That is, "there must be something 'peculiar' (*i.e.*, special) about a case that warrants 'excluding the injured party from legal redress and placing it within that class of cases which come under the description of *damnum absque injuria*—a loss without an injury.'" *Id.* (cleaned up) (quoting *Marbury*, 5 U.S. at 163–64). In sum, although it is the plaintiffs' burden to establish injury in fact, causation,

and redressability, it is the government's burden to establish why this otherwise-justiciable controversy implicates grander separation-of-powers concerns not already captured by those requirements. We do not otherwise abdicate our duty to enforce constitutional rights.

Without explicitly laying this groundwork, the majority nonetheless suggests that this case is "special"—and beyond our redress—because plaintiffs' requested relief requires (1) the messy business of evaluating competing policy considerations to steer the government away from fossil fuels and (2) the intimidating task of supervising implementation over many years, if not decades. *See* Maj. Op. at 25–27. I admit these are daunting tasks, but we are constitutionally empowered to undertake them. There is no justiciability exception for cases of great complexity and magnitude.

3.

I readily concede that courts must on occasion refrain from answering those questions that are truly reserved for the political branches, even where core constitutional precepts are implicated. This deference is known as the "political question doctrine," and its applicability is governed by a well-worn multifactor test that counsels judicial deference where there is:

> [1] a textually demonstrable constitutional commitment of the issue to a coordinate political department; or [2] a lack of judicially discoverable and manageable standards for resolving it; or [3] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or [4] the

> impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or [5] an unusual need for unquestioning adherence to a political decision already made; or [6] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker v. Carr, 369 U.S. 186, 217 (1962); *see also Zivotofsky ex rel. Zivotofsky v. Clinton*, 566 U.S. 189, 195–201 (2012) (discussing and applying *Baker* factors); *Vieth v. Jubelirer*, 541 U.S. 267, 277–90 (2004) (same); *Nixon v. United States*, 506 U.S. 224, 228–38 (1993) (same); *Chadha*, 462 U.S. at 940–43 (same).[10] In some sense, these factors are frontloaded in significance. "We have characterized the first three factors as 'constitutional limitations of a court's jurisdiction' and the other three factors as 'prudential considerations.'" *Republic of Marshall Islands v. United States*, 865 F.3d 1187, 1200 (9th Cir. 2017) (quoting *Corrie*

[10] The political question doctrine was first conceived in *Marbury*. *See Marbury*, 5 U.S. at 165–66 ("By the constitution of the United States, the President is invested with certain important political powers, in the exercise of which he is to use his own discretion, and is accountable only to his country in his political character, and to his own conscience."). The modern incarnation of the doctrine has existed relatively unaltered since its exposition in *Baker* in 1962. Although the majority disclaims the applicability of the political question doctrine, *see* Maj. Op. at 31, n.9, the opinion's references to the lack of discernable standards and its reliance on *Rucho v. Common Cause*, 139 S. Ct. 2484 (2019), as a basis for finding this case nonjusticiable blur any meaningful distinction between the doctrines of standing and political question.

v. Caterpillar, Inc., 503 F.3d 974, 981 (9th Cir. 2007)).[11] Moreover, "we have recognized that the first two are likely the most important." *Marshall Islands*, 865 F.3d at 1200 (citing *Alperin v. Vatican Bank*, 410 F.3d 532, 545 (9th Cir. 2005)). Yet, we have also recognized that the inquiry is highly case-specific, the factors "often collaps[e] into one another[,]" and any one factor of sufficient weight is enough to render a case unfit for judicial determination. *See Marshall Islands*, 865 F.3d at 1200 (first alteration in original) (quoting *Alperin*, 410 F.3d at 544). Regardless of any intra-factor flexibility and flow, however, there is a clear mandate to apply the political question doctrine both shrewdly and sparingly.

> Unless one of these formulations is inextricable from the case at bar, there should be no dismissal for non-justiciability on the ground of a political question's presence. The doctrine of which we treat is one of 'political questions,' not one of 'political cases.' The courts cannot reject as 'no law suit' a bona fide controversy as to whether

[11] The six *Baker* factors have been characterized as "reflect[ing] three distinct justifications for withholding judgment on the merits of a dispute." *Zivotofsky v. Clinton*, 566 U.S. at 203 (Sotomayor, J., concurring). Under the first *Baker* factor, "abstention is warranted because the court lacks authority to resolve" "issue[s] whose resolution is textually committed to a coordinate political department[.]" *Id.* Under the second and third factors, abstention is warranted in "circumstances in which a dispute calls for decisionmaking beyond courts' competence[.]" *Id.* Under the final three factors, abstention is warranted where "prudence . . . counsel[s] against a court's resolution of an issue presented." *Id.* at 204.

> some action denominated 'political' exceeds constitutional authority.

Baker, 369 U.S. at 217; *see also Corrie*, 503 F.3d at 982 ("We will not find a political question 'merely because [a] decision may have significant political overtones.'") (quoting *Japan Whaling Ass'n v. Am. Cetacean Soc'y*, 478U.S. 221, 230 (1986)). Rather, when detecting the presence of a "political question," courts must make a "discriminating inquiry into the precise facts and posture of the particular case" and refrain from "resolution by any semantic cataloguing." *Baker*, 369 U.S. at 217.

Here, confronted by difficult questions on the constitutionality of *policy*, the majority creates a minefield of *politics* en route to concluding that we cannot adjudicate this suit. And the majority's map for navigating that minefield is *Rucho v. Common Cause*, 139 S. Ct. 2484 (2019), an inapposite case about gerrymandering. My colleagues conclude that climate change is too political for the judiciary to touch by likening it to the process of political representatives drawing political maps to elect other political representatives. I vehemently disagree.

The government does not address on appeal the district judge's reasoning that the first, third, fourth, fifth and sixth *Baker* factors do not apply here. Neither does the majority rely on any of these factors in its analysis. In relevant part, I find the opinion below both thorough and well-reasoned, and I adopt its conclusions. I note, however, that the absence of the first *Baker* factor—whether the Constitution textually delegates the relevant subject matter to another branch—is especially conspicuous. As the district judge described, courts invoke this factor only where the Constitution makes an unambiguous commitment of responsibility to one branch

of government. Very few cases turn on this factor, and almost all that do pertain to two areas of constitutional authority: foreign policy and legislative proceedings. *See, e.g.*, *Marshall Islands*, 865 F.3d at 1200–01 (treaty enforcement); *Corrie*, 503 F.3d at 983 (military aid); *Nixon*, 506 U.S. at 234 (impeachment proceedings); *see also Davis v. Passman*, 442 U.S. 228, 235 n.11 (1979) ("[J]udicial review of congressional employment decisions is constitutionally limited only by the reach of the Speech or Debate Clause[,] . . . [which is] a paradigm example of a textually demonstrable constitutional commitment of [an] issue to a coordinate political department.") (internal quotation marks omitted); *Zivotofsky ex rel. Zivotofsky v. Kerry*, 135 S. Ct. 2076, 2086 (2015) ("The text and structure of the Constitution grant the President the power to recognize foreign nations and governments.").

Since this matter has been under submission, the Supreme Court cordoned off an additional area from judicial review based in part on a textual commitment to another branch: partisan gerrymandering. *See Rucho*, 139 S. Ct. at 2494–96.[12] Obviously, the Constitution does not explicitly address climate change. But neither does climate change *implicitly* fall within a recognized political-question area. As the district judge described, the questions of energy

[12] *Rucho* does not turn exclusively on the first *Baker* factor and acknowledges that there are some areas of districting that courts may police, notwithstanding the Elections Clause's "assign[ment] to state legislatures the power to prescribe the 'Times, Places and Manner of holding Elections' for Members of Congress, while giving Congress the power to 'make or alter' any such regulations." *Rucho*, 139 S. Ct. at 2495. Instead, *Rucho* holds that a combination of the text (as illuminated by historical practice) and absence of clear judicial standards precludes judicial review of excessively partisan gerrymanders. *See infra* Part II.B.4.

policy at stake here may have rippling effects on foreign policy considerations, but that is not enough to wholly exempt the subject matter from our review. *See Juliana v. United States*, 217 F. Supp. 3d 1224, 1238 (D. Or. 2016) ("[U]nlike the decisions to go to war, take action to keep a particular foreign leader in power, or give aid to another country, climate change policy is not *inherently*, or even primarily, a foreign policy decision."); *see also Baker*, 369 U.S. at 211 ("[I]t is error to suppose that every case or controversy which touches foreign relations lies beyond judicial cognizance.").

Without endorsement from the constitutional text, the majority's theory is grounded exclusively in the second *Baker* factor: a (supposed) lack of clear judicial standards for shaping relief. Relying heavily on *Rucho*, the majority contends that we cannot formulate standards (1) to determine what relief "is sufficient to remediate the claimed constitutional violation" or (2) to "supervise[] or enforce[]" such relief. Maj. Op. at 29.

The first point is a red herring. Plaintiffs submit ample evidence that there is a discernable "tipping point" at which the government's conduct turns from facilitating mere pollution to inducing an unstoppable cataclysm in violation of plaintiffs' rights. Indeed, the majority itself cites plaintiffs' evidence that "atmospheric carbon levels of 350 parts per million are necessary to stabilize the climate." *Id.* at 24. This clear line stands in stark contrast to *Rucho*, which held that—even assuming an excessively partisan gerrymander was unconstitutional—no standards exist by which to determine *when a rights violation has even occurred*. There, "[t]he central problem [wa]s not determining whether a jurisdiction has engaged in partisan gerrymandering. It [wa]s determining when political

gerrymandering has gone too far." *Rucho*, 139 S. Ct. at 2497 (internal quotation marks omitted); *see also id.* at 2498 ("[T]he question is one of degree: How to provide a standard for deciding how much partisan dominance is too much.") (internal quotation marks omitted); *id.* at 2499 ("If federal courts are to . . . adjudicat[e] partisan gerrymandering claims, they must be armed with a standard that can reliably differentiate unconstitutional from constitutional political gerrymandering.") (internal quotation marks and citation omitted).

Here, the right at issue is fundamentally one of a discernable standard: the amount of fossil-fuel emissions that will irreparably devastate our Nation. That amount can be established by scientific evidence like that proffered by the plaintiffs. Moreover, we need not *definitively* determine that standard today. Rather, we need conclude only that plaintiffs have submitted sufficient evidence to create a genuine dispute as to whether such an amount can possibly be determined as a matter of scientific fact. Plaintiffs easily clear this bar. Of course, plaintiffs will have to carry their burden of proof to establish this fact in order to prevail at trial, but that issue is not before us. We must not get ahead of ourselves.

The procedural posture of this case also informs the question of oversight and enforcement. It appears the majority's real concerns lie not in the judiciary's ability to draw a line between lawful and unlawful conduct, but in our ability to equitably walk the government back from that line without wholly subverting the authority of our coequal branches. My colleagues take great issue with plaintiffs' request for a "plan" to reduce fossil-fuel emissions. I am not so concerned. At this stage, we need not promise plaintiffs the moon (or, more apropos, the earth in a habitable state).

For purposes of standing, we need hold only that the trial court could fashion some sort of meaningful relief should plaintiffs prevail on the merits.[13]

Nor would any such remedial "plan" necessarily require the courts to muck around in policymaking to an impermissible degree; the *scope* and *number* of policies a court would have to reform to provide relief is irrelevant to the second *Baker* factor, which asks only if there are judicially discernable standards to guide that reformation. Indeed, our history is no stranger to widespread, programmatic changes in government functions ushered in by the judiciary's commitment to requiring adherence to the Constitution. Upholding the Constitution's prohibition on cruel and unusual punishment, for example, the Court ordered the overhaul of prisons in the Nation's most populous state. *See Brown v. Plata*, 563 U.S. 493, 511 (2011) ("Courts may not allow constitutional violations to continue simply because a remedy would involve intrusion into the realm of prison administration.") And in its finest hour, the Court mandated the racial integration of every public school—state and federal—in the Nation, vindicating the Constitution's guarantee of equal protection under the law.[14] *See Brown v. Bd. of Educ.* (*Brown I*), 347 U.S. 483

[13] It is possible, of course, that the district court ultimately concludes that it is unable to provide meaningful redress based on the facts proved at trial, but trial has not yet occurred. Our present occasion is to decide only whether plaintiffs have raised a genuine dispute as to the judiciary's ability to provide meaningful redress under *any* subset of the facts at issue today. *See* Maj. Op. at 18 (citing *Cent. Delta Water Agency v. United States*, 306 F.3d 938, 947 (9th Cir. 2002)).

[14] In contrast, we are haunted by the days we declined to curtail the government's approval of invidious discrimination in public life, *see Plessy v. Ferguson*, 163 U.S. 537, 559 (1896) (Harlan, J., dissenting)

(1954); *Bolling v. Sharpe*, 347 U.S. 497 (1954). In the school desegregation cases, the Supreme Court was explicitly unconcerned with the fact that crafting relief would require individualized review of thousands of state and local policies that facilitated segregation. Rather, a unanimous Court held that the judiciary could work to dissemble segregation over time while remaining cognizant of the many public interests at stake:

> To effectuate [the plaintiffs'] interest[s] may call for elimination of a variety of obstacles in making the transition to school systems operated in accordance with the constitutional principles set forth in [*Brown I*]. Courts of equity may properly take into account the public interest in the elimination of such obstacles in a systematic and effective manner. But it should go without saying that the vitality of these constitutional principles cannot be allowed to yield simply because of disagreement with them.
>
> . . . [T]he courts may find that additional time is necessary to carry out the ruling in an effective manner. The burden rests upon the defendants to establish that such time is necessary in the public interest and is consistent with good faith compliance at the

("[T]he judgment this day rendered will, in time, prove to be quite as pernicious as the decision made by this tribunal in the Dred Scott Case."), and neglected to free thousands of innocents prejudicially interned by their own government without cause, *see Trump v. Hawaii*, 138 S. Ct. 2392, 2423 (2018) ("*Korematsu* was gravely wrong the day it was decided[.]").

> earliest practicable date. To that end, the courts may consider problems related to administration, arising from the physical condition of the school plant, the school transportation system, personnel, revision of school districts and attendance areas into compact units to achieve a system of determining admission to the public schools on a nonracial basis, and revision of local laws and regulations which may be necessary in solving the foregoing problems.

Brown v. Bd. of Educ. (*Brown II*), 349 U.S. 294, 300–01 (1955).

As we are all too aware, it took decades to even partially realize *Brown*'s promise, but the slow churn of constitutional vindication did not dissuade the *Brown* Court, and it should not dissuade us here. Plaintiffs' request for a "plan" is neither novel nor judicially incognizable. Rather, consistent with our historical practices, their request is a recognition that remedying decades of institutionalized violations may take some time. Here, too, decelerating from our path toward cataclysm will undoubtedly require "elimination of a variety of obstacles." Those obstacles may be great in number, novelty, and magnitude, but there is no indication that they are devoid of discernable standards. Busing mandates, facilities allocation, and district-drawing were all "complex policy decisions" faced by post-*Brown* trial courts, *see* Maj. Op. at 25, and I have no doubt that disentangling the government from promotion of fossil fuels will take an equally deft judicial hand. Mere complexity, however, does not put the issue out of the courts' reach. Neither the government nor the majority has articulated why

the courts could not weigh scientific and prudential considerations—as we often do—to put the government on a path to constitutional compliance.

The majority also expresses concern that any remedial plan would require us to compel "the adoption of a comprehensive scheme to decrease fossil fuel emissions and combat climate change[.]" *Id.* at 25. Even if the operative complaint is fairly read as requesting an affirmative scheme to address *all* drivers of climate change, however caused, *see id.* at 23 n.6., such an overbroad request does not doom our ability to redress those drivers implicated by the conduct at issue here. Courts routinely grant plaintiffs less than the full gamut of requested relief, and our inability to compel legislation that addresses emissions beyond the scope of this case—such as those purely in the private sphere or within the control of foreign governments—speaks nothing to our ability to enjoin the government from exercising its discretion in violation of plaintiffs' constitutional rights.

4.

In sum, resolution of this action requires answers only to scientific questions, not political ones. And plaintiffs have put forth sufficient evidence demonstrating their entitlement to have those questions addressed at trial in a court of law.

As discussed above, the majority reaches the opposite conclusion not by marching purposefully through the *Baker* factors, which carve out a narrow set of nonjusticiable *political* cases, but instead by broadly invoking *Rucho* in a manner that would cull from our dockets any case that presents administrative issues "too difficult for the judiciary to manage." Maj. Op. at 28. That simply is not the test. Difficult questions are not necessarily political questions and, beyond reaching the wrong conclusion in this case, the

majority's application of *Rucho* threatens to eviscerate judicial review in a swath of complicated but plainly apolitical contexts.

Rucho's limitations should be apparent on the face of that opinion. *Rucho* addresses the political process itself, namely whether the metastasis of partisan politics has unconstitutionally invaded the drawing of political districts within states. Indeed, the *Rucho* opinion characterizes the issue before it as a request for the Court to reallocate political power between the major parties. *Rucho*, 139 S. Ct. at 2502, 2507, 2508. *Baker* factors aside, *Rucho* surely confronts fundamentally "political" questions in the common sense of the term. Nothing about climate change, however, is inherently political. The majority is correct that redressing climate change will require consideration of scientific, economic, energy, and other policy factors. But that endeavor does not implicate the way we elect representatives, assign governmental powers, or otherwise structure our polity.

Regardless, we do not limit our jurisdiction based on common parlance. Instead, legal and constitutional principles define the ambit of our authority. In the present case, the *Baker* factors provide the relevant guide and further distinguish *Rucho*. As noted above, *Rucho*'s holding that policing partisan gerrymandering is beyond the courts' competence rests heavily on the first *Baker* factor, *i.e.*, the textual and historical delegation of electoral-district drawing to state legislatures. The *Rucho* Court decided it could not discern mathematical standards to navigate a way out of that particular political thicket. It did not, however, hold that mathematical (or scientific) difficulties in creating appropriate standards divest jurisdiction in *any* context.

Such an expansive reading of *Rucho* would permit the "political question" exception to swallow the rule.

Global warming is certainly an imposing conundrum, but so are diversity in higher education, the intersection between prenatal life and maternal health, the role of religion in civic society, and many other social concerns. *Cf. Regents of the Univ. of Cal. v. Bakke*, 438 U.S. 265, 360 (1978) ("[T]he line between honest and thoughtful appraisal of the effects of past discrimination and paternalistic stereotyping is not so clear[.]"); *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 871 (1992) (stating that *Roe v. Wade*, 410 U.S. 113 (1973), involved the "difficult question" of determining the "weight to be given [the] state interest" in light of the "strength of the woman's [privacy] interest"); *Am. Legion v. Am. Humanist Ass'n*, 139 S. Ct. 2067, 2094 (2019) (Kavanaugh, J., concurring) (noting that determining the constitutionality of a large cross's presence on public land was "difficult because it represents a clash of genuine and important interests"). These issues may not have been considered within the purview of the judicial branch had the Court imported wholesale *Rucho*'s "manageable standards" analysis even in the absence of *Rucho*'s inherently political underpinnings. Beyond the outcome of the instant case, I fear that the majority's holding strikes a powerful blow to our ability to hear important cases of widespread concern.

III.

To be sure, unless there is a constitutional violation, courts should allow the democratic and political processes to perform their functions. And while all would now readily agree that the 91 years between the Emancipation Proclamation and the decision in *Brown v. Board* was too long, determining when a court must step in to protect

fundamental rights is not an exact science. In this case, my colleagues say that time is "never"; I say it is now.

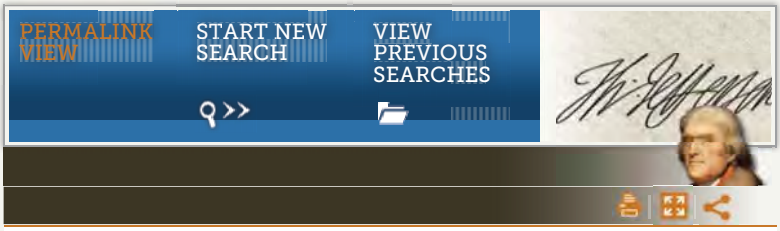
Were we addressing a matter of social injustice, one might sincerely lament any delay, but take solace that "the arc of the moral universe is long, but it bends towards justice."[15] The denial of an individual, constitutional right—though grievous and harmful—can be corrected in the future, even if it takes 91 years. And that possibility provides hope for future generations.

Where is the hope in today's decision? Plaintiffs' claims are based on science, specifically, an impending point of no return. If plaintiffs' fears, backed by the government's *own studies*, prove true, history will not judge us kindly. When the seas envelop our coastal cities, fires and droughts haunt our interiors, and storms ravage everything between, those remaining will ask: Why did so many do so little?

I would hold that plaintiffs have standing to challenge the government's conduct, have articulated claims under the Constitution, and have presented sufficient evidence to press those claims at trial. I would therefore affirm the district court.

With respect, I dissent.

[15] Dr. Martin Luther King, Jr., Remaining Awake Through a Great Revolution, Address at the National Cathedral, Washington, D.C. (Mar. 31, 1968). In coining this language, Dr. King was inspired by an 1853 sermon by abolitionist Theodore Parker. *See* Theodore Parker, *Of Justice and the Conscience*, *in* Ten Sermons of Religion 84–85 (Boston, Crosby, Nichols & Co. 1853).



To Thomas Jefferson from James Madison, 24 October 1787

From James Madison

Dear Sir New York Octr. 24. 1787.

My two last, though written for the two last Packets, have unluckily been delayed till this conveyance. The first of them was sent from Philada. to Commodore Jones in consequence of information that he was certainly to go by the packet then about to sail. Being detained here by his business with Congress, and being unwilling to put the letter into the mail without my approbation, which could not be obtained in time, he detained the letter also. The second was sent from Philada. to Col. Carrington, with a view that it might go by the last packet at all events in case Commodore Jones should meet with further detention here. By ill luck he was out of Town, and did not return till it was too late to make use of the opportunity. Neither of the letters were indeed of much consequence at the time and are still less so now. I let them go forward nevertheless as they may mention some circumstances not at present in my recollection, and as they will prevent a chasm on my part of our correspondence which I have so many motives to cherish by an exact punctuality.

Your favor of June 20. has been already acknowledged. The last packet from France brought me that of August 2d. I have received also by the Mary Capt. Howland the three Boxes for W. H. B. F. and myself. The two first have been duly forwarded. The contents of the last are a valuable addition to former literary remittances and lay me under additional obligations, which I shall always feel more strongly than I express. The articles included for Congress have been delivered and those for the two Universities and for General Washington have been forwarded, as have been the various letters for your friends in Virginia and elsewhere. The parcel of rice referred to in your letter to the Delegates of S. Carolina has met with some accident. No account whatever can be obtained concerning it. It probably was not shipped from France. Ubbo's book I find was not omitted as you seem to have apprehended. The charge for it however is, which I must beg you to supply. The duplicate volume of the Encyclopedie, I left in Virginia, and it is uncertain when I shall have an opportunity of returning it. Your Spanish duplicates will I fear be hardly vendible. I shall make a trial wherever a chance presents itself. A few days ago I received your favor of the 15 of Augst. via L'Orient and Boston. The letters inclosed along with it were immediately sent on to Virga.

You will herewith receive the result of the Convention, which continued its session till the 17th of September. I take the liberty of making some observations on the subject which will help to make up a letter, if they should answer no other purpose.

It appeared to be the sincere and unanimous wish of the Convention to cherish and preserve the Union of the States. No proposition was made, no suggestion was thrown out in favor of a partition of the Empire into two or more Confederacies.

It was generally agreed that the objects of the Union could not be secured by any system founded on the principle of a confederation of sovereign States. A voluntary observance of the federal law by all the members could never be hoped for. A compulsive one could evidently never be reduced to practice, and if it could, involved equal calamities to the innocent and the guilty, the necessity of a military force both obnoxious and dangerous, and in general, a scene resembling much more a civil war, than the administration of a regular Government.

Hence was embraced the alternative of a government which instead of operating, on the States, should operate without their intervention on the individuals composing them: and hence the change in the principle and proportion of representation.

This ground-work being laid, the great objects which presented themselves were 1. to unite a proper energy in the Executive and a proper stability in the Legislative departments, with the essential characters of Republican Government. 2. To draw a line of demarkation which would give to the General Government every power requisite for general purposes, and leave to the States every power which might be most beneficially administered by them. 3. To provide for the different interests of different parts of the Union. 4. To adjust the clashing pretensions of the large and small States. Each of these objects was pregnant with difficulties. The whole of them together formed a task more difficult than can be well conceived by those who were not concerned in the execution of it. Adding to these considerations the natural diversity of human opinions on all new[1] and complicated subjects, it is impossible to consider the degree of concord which ultimately prevailed as less than a miracle.

The first of these objects as it respects the Executive, was peculiarly embarrassing. On the question whether it should consist of a single person, or a plurality of co-ordinate members, on the mode of appointment, on the duration in

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More between these correspondents

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From Madison to Jefferson [9 December 1787]

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plurality of co-ordinate members, on the mode of appointment, on the duration in office, on the degree of power, on the re-eligibility, tedious and reiterated discussions took place. The plurality of co-ordinate members had finally but few advocates. Governour Randolph was at the head of them. The modes of appointment proposed were various, as by the people at large—by electors chosen by the people—by the Executives of the States—by the Congress, some preferring a joint ballot of the two Houses—some a separate concurrent ballot allowing to each a negative on the other house—some a nomination of several canditates by one House, out of whom a choice should be made by the other. Several other modifications were started. The expedient at length adopted seemed to give pretty general satisfaction to the members. As to the duration in office, a few would have preferred a tenure during good behaviour—a considerable number would have done so in case an easy and effectual removal by impeachment could be settled. It was much agitated whether a long term, seven years for example, with a subsequent and perpetual ineligibility, or a short term with a capacity to be re-elected, should be fixed. In favor of the first opinion were urged the danger of a gradual degeneracy of re-elections from time to time, into first a life and then a hereditary tenure, and the favorable effect of an incapacity to be reappointed, on the independent exercise of the Executive authority. On the other side it was contended that the prospect of necessary degradation would discourage the most dignified characters from aspiring to the office, would take away the principal motive to the faithful discharge of its duties the hope of being rewarded with a reappointment would stimulate ambition to violent efforts for holding over the constitutional term, and instead of producing an independent administration, and a firmer defence of the constitutional rights of the department, would render the officer more indifferent to the importance of a place which he would soon be obliged to quit for ever, and more ready to yield to the incroachments of the Legislature of which he might again be a member.—The questions concerning the degree of power turned chiefly on the appointment to offices, and the controul on the Legislature. An *absolute* appointment to all offices—to some offices—to no offices, formed the scale of opinions on the first point. On the second, some contended for an absolute negative, as the only possible mean of reducing to practice, the theory of a free government which forbids[2] a mixture of the Legislative and Executive powers. Others would be content with a revisionary power to be overruled by three fourths of both Houses.[3] It was warmly urged that the judiciary department should be associated in the revision. The idea of some was that a separate revision should be given to the two departments—that if either objected two thirds; if both three fourths,[4] should be necessary to overrule.

In forming the Senate, the great anchor of the Government, the questions as they came within the first object turned mostly on the mode of appointment, and the duration of it. The different modes proposed were, 1. by the House of Representatives, 2. by the Executive, 3 by electors chosen by the people for the purpose, 4. by the State Legislatures. On the point of duration, the propositions descended from good behavior to four years, through the intermediate terms of nine, seven, six and five years. The election of the other branch was first determined to be triennial, and afterwards reduced to biennial.

The second object, the due partition of power between the General and local Governments, was perhaps of all the most nice and difficult. A few contended for an entire abolition of the States. Some for indefinite power of Legislation in the Congress, with a negative on the laws of the States, some for such a power without a negative,[5] some for a limited power of legislation, with such a negative: the majority finally for a limited power without the negative. The question with regard to the Negative underwent repeated discussions, and was finally rejected by a bare majority. As I formerly intimated to you my opinion in favor of this ingredient, I will take this occasion of explaining myself on the subject. [Such a check on the States appears to me necessary 1. to prevent encroachments on the General authority, 2. to prevent instability and injustice in the legislation[6] of the States.

1. Without such a check in the whole over the parts, our system involves the evil of imperia in imperio. If a compleat supremacy some where is not necessary in every Society, a controuling power at least is so, by which the general authority may be defended against encroachments of the subordinate authorities, and by which the latter may be restrained from encroachments on each other.[7] If the supremacy of the British Parliament is not necessary as has been contended,[8] for the harmony of that Empire, it is evident I think that without the royal negative[9] or some equivalent controul, the unity of the system would be[10] destroyed. The want of some such provision seems to have been mortal to the antient Confederacies, and to be the disease of the modern. Of the Lycian Confederacy little is known.[11] That of the Amphyctions is well known to have been rendered of little use whilst it lasted, and in the end to have been destroyed by the predominance of the local over the federal authority.[12] The same observation may be made, on the authority of Polybius, with regard to the Achæan League. The Helvetic System scarcely amounts to a confederacy and is distinguished by too many peculiarities to be a ground of comparison. The case of the United Netherlands is in point. The authority of a Statholder, the influence of a standing army, the common interest in the conquered possessions, the pressure of surrounding danger, the guarantee of foreign powers, are not sufficient to secure the authority and interests of the generality, against the antifederal tendency of the provincial sovereignties.[13] The German Empire is another example. A Hereditary chief with vast independent resources of wealth and power, a federal Diet, with ample parchment authority, a regular Judiciary establishment, the influence of the neighbourhood of great and formidable Nations, have been found unable either to maintain the subordination of the members, or to prevent their mutual contests and encroachments. Still more to the purpose is our own experience both during the war and since the peace. Encroachments of the States on the general authority, sacrifices of national to local interests, interferences of the measures of different States, form a great part of the history of our political system. It may be said that the new Constitution is founded on different principles, and will have a different operation. I admit the difference to be material. It presents

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the aspect rather of a feudal system of republics, if such a phrase may be used,[14] than of a Confederacy of independent States. And what has been the progress and event of the feudal Constitutions? In all of them a continual struggle between the head and the inferior[15] members, until a final victory has been gained in some instances by one, in others, by the other of them. In one respect indeed there is a remarkable variance between the two cases. In the feudal system the sovereign, though limited, was independent; and having no particular sympathy of interests with the great Barons, his ambition had as full play as theirs in the mutual projects of usurpation. In the American Constitution The general authority will be derived entirely from the subordinate authorities.[16] The Senate will represent the States in their political capacity, the other House will represent the people of the States in their individual capacity. The former will be accountable to their constituents at moderate, the latter at short periods. The President also derives his appointment from the States, and is periodically accountable to them. This dependence of the General, on the local authorities seems effectually to guard the latter against any dangerous encroachments of the former: Whilst the latter within their respective limits, will be continually sensible of the abridgment of their power, and be stimulated by ambition to resume the surrendered portion of it. We find the representatives of counties and corporations in the Legislatures of the States, much more disposed to sacrifice the aggregate interest, and even authority, to the local views of their Constituents, than the latter to the former. I mean not by these remarks to insinuate that an esprit de corps will not exist in the national Government, that opportunities may[17] not occur of extending its jurisdiction in some points. I mean only that the danger of encroachments is much greater from the other side, and that the impossibility[18] of dividing powers of legislation, in such a manner, as to be free from different constructions by different interests, or even from ambiguity in the judgment of the impartial, requires some such expedient as I contend for. Many illustrations might be given of this impossibility. How long has it taken to fix, and how imperfectly is yet fixed the legislative power of corporations, though that power is subordinate in the most compleat manner? The line of distinction between the power of regulating trade and that of drawing revenue from it, which was once considered as the barrier of our liberties, was found on fair discussion, to be absolutely undefinable. No distinction seems to be more obvious than that between spiritual and temporal matters. Yet wherever they have been made objects of Legislation, they have clashed and contended with each other, till one or the other has gained the supremacy. Even the boundaries between the Executive, Legislative and Judiciary powers, though in general so strongly marked in themselves, consist in many instances of mere shades of difference. It may be said that the Judicial authority under our new system will[19] keep the States within their proper limits, and supply the place of a negative on their laws. The answer is that it is more convenient to prevent the passage of a law, than to declare it void after it is passed; that this will be particularly the case where the law aggrieves individuals, who may be unable to support an appeal against a State to the supreme Judiciary, that a State which would violate the Legislative rights of the Union, would not be very ready to obey a Judicial decree in support of them, and that a recurrence to force, which in the event of disobedience would be necessary, is[20] an evil which the new Constitution meant to exclude as far as possible.

2. A Constitutional negative on the laws of the States seems equally necessary to secure individuals against encroachments on their rights. The mutability of the laws of the States is found to be a serious evil. The injustice of them has been so frequent and so flagrant as to alarm the most stedfast friends of Republicanism. I am persuaded I do not err in saying that the evils issuing from these sources[21] contributed more to that uneasiness which produced the Convention, and prepared the public mind for a general reform, than those which accrued to our national character and interest from the inadequacy of the Confederation to its immediate objects. A reform therefore which does not make provision for private rights, must be materially defective. The restraints against paper emissions, and violations of contracts are not sufficient. Supposing them to be effectual as far as they go, they are short of the mark. Injustice may be effected by such an infinitude of legislative expedients, that where the disposition exists it can only be controuled by some provision which reaches all cases whatsoever. The partial provision made, supposes the disposition which will evade it. It may be asked how private rights[22] will be more secure under the Guardianship of the General Government than under the State Governments, since they are both founded on the republican principle which refers the ultimate decision to the will of the majority, and are distinguished rather[23] by the extent within which they will operate, than by any material difference in their structure. A full discussion of this question would, if I mistake not, unfold the true principles of Republican Government, and prove in contradiction to the concurrent opinions of theoretical writers, that this form of Government, in order to effect its purposes must operate not within a small but an extensive sphere. I will state some of the ideas which have occurred to me on this subject. Those who contend for a simple Democracy, or a pure republic, actuated by the sense of the majority, and operating within narrow limits, assume or suppose a case which is altogether fictitious. They found their reasoning on the idea, that the people composing the Society enjoy not only an equality of political rights; but that they have all precisely the same interests and the same feelings in every respect.[24] Were this in reality the case, their reasoning would be conclusive. The interest of the majority would be that of the minority also; the decisions could only turn on mere opinion concerning the good of the whole of which the major voice would be the safest criterion; and within a small sphere, this voice could be most easily collected and the public affairs most accurately managed. We know however that no Society[25] ever did or can consist of so homogeneous a mass of Citizens. In the savage State indeed, an approach is made towards it; but in that state little or no Government is necessary. In all civilized Societies, distinctions are various and unavoidable. A distinction of property results from that very protection which a free Government gives to unequal faculties of acquiring it.[26] There will be rich and poor; creditors and debtors; a landed interest, a monied interest, a mercantile interest, a manufacturing interest. These classes may

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again be subdivided according[27] to the different productions of different situations and soils, and according to different branches of commerce and of manufactures. In addition to these natural distinctions, artificial ones[28] will be founded on accidental differences in political, religious and other opinions, or an attachment to the persons of leading individuals. However erroneous or ridiculous these grounds of dissention and faction may appear to the enlightened Statesman, or the benevolent philosopher, the bulk of mankind who are neither Statesmen nor Philosophers, will continue to view[29] them in a different light. It remains then to be enquired whether a majority having any common interest, or feeling any common passion, will find sufficient motives to restrain them from oppressing the minority. An individual is never allowed to be a judge or even a witness in his own cause. If two individuals are under the biass of interest[30] or enmity against a third, the rights of the latter could never be safely referred to the majority of the three. Will two thousand individuals be less apt to oppress one thousand, or two hundred thousand, one hundred thousand? Three motives only can restrain in such cases. 1. A prudent regard to private or partial good, as essentially involved in the general and permanent good of the whole.[31] This ought no doubt to be sufficient of itself. Experience however shews that it has little effect on individuals, and perhaps still less on a collection of individuals, and least of all on a majority with the public authority in their hands. If the former are ready to forget that honesty is the best policy; the last do more. They often proceed on the converse of the maxim: that whatever is politic is honest. 2. Respect for character. This motive is not found sufficient to restrain individuals from injustice, and loses its efficacy in proportion to the number which is to divide the praise or the blame. Besides as it has reference to public opinion, which is that of the majority, the standard is fixed by those whose conduct is to be measured by it. 3. Religion. The inefficacy of this restraint on individuals is well known. The conduct of every popular assembly, acting on oath, the strongest of religious ties, shews that individuals join without remorse in acts against which their consciences would revolt, if proposed to them separately in their closets. When Indeed Religion is kindled into enthusiasm, its force like that of other passions is increased by the sympathy of a multitude. But enthusiasm is only a temporary state of Religion, and whilst it lasts will hardly be seen with pleasure at the helm. Even in its coolest state, it has been much oftener a motive to oppression than a restraint from it. If then there must be different interests and parties in Society; and a majority[32] when united by a common interest or passion can not be restrained from oppressing[33] the minority, what remedy can be found in a republican Government, where the majority must ultimately decide, but that of giving such an extent to its sphere, that no common interest or passion will be likely to unite a majority of the whole number in an unjust pursuit.[34] In a large Society, the people are broken into so many interests and parties, that a common sentiment is less likely to be felt, and the requisite concert[35] less likely to be formed, by a majority of the whole. The same security seems requisite for the civil as for the religious rights of individuals. If the same sect form a majority and have the power, other sects will be sure to be depressed. Divide et impera, the reputed axiom of tyranny, is under certain qualifications, the only policy, by which a republic can be administered on just principles. It must be confessed however that this doctrine can only hold within a sphere of a certain extent. As in too small a sphere oppressive combinations may be too easily formed against the weaker party; so in too extensive a one a defensive concert may be rendered too difficult against the oppression of those entrusted with the administration. The great desideratum in Government is, so to modify the sovereignty as that it may be sufficiently neutral between different parts of the Society to controul one part from invading the rights of another, and at the same time sufficiently controuled itself, from setting up an interest adverse *to* that of the entire Society. In absolute monarchies, the Prince may be tolerably neutral towards different classes of his subjects, but may sacrifice the[36] happiness of all to his personal ambition or avarice. In small republics, the sovereign will is controuled from such a sacrifice of the entire Society, but it is not sufficiently neutral towards the parts composing it. In the extended Republic of the United States, the General Government[37] would hold a pretty even balance between the parties of particular States, and be at the same time sufficiently restrained by its dependence on the community, from betraying its general interests.][38]

Begging pardon for this immoderate digression, I return to the third object abovementioned, the adjustment of the different interests of different parts of the Continent. Some contended for an unlimited power over trade including exports as well as imports, and over slaves as well as other imports; some for such a power, provided the concurrence of two thirds of both Houses were required; some for such a qualification of the power, with an exemption of exports and slaves, others for an exemption of exports only. The result is seen in the Constitution. S. Carolina and Georgia were inflexible on the point of the slaves.

The remaining object, created more embarrassment, and a greater alarm for the issue of the Convention than all the rest put together. The little States insisted on retaining their equality in both branches, unless a compleat abolition of the State Governments should take place; and made an equality in the Senate a sine qua non. The large States on the other hand urged that as the new Government was to be drawn principally from the people immediately and was to operate directly on them, not on the States; and consequently as the States would lose that importance which is now proportioned to the importance of their voluntary compliances with the requisitions of Congress, it was necessary that the representation in both Houses should be in proportion to their size. It ended in the compromise which you will see, but very much to the dissatisfaction of several members from the large States.

It will not escape you that three names only from Virginia are subscribed to the Act. Mr. Wythe did not return after the death of his lady. Docr. MClurg left the Convention some time before the adjournment. The Governour and Col. Mason refused to be parties to it. Mr. Gerry was the only other member who refused. The objections of the Govr. turn principally on the latitude of the general powers, and on the connection established between the President and the Senate. He wished that the

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plan should be proposed to the States with liberty to them to suggest alterations which should all be referred to another general Convention to be[39] incorporated into the plan as far as might be judged expedient. He was not inveterate in his opposition, and grounded his refusal to subscribe pretty much on his unwillingness to commit himself so as not to be at liberty to be governed by further lights on the subject. Col. Mason left Philada. in an exceeding ill humour indeed. A number of little circumstances arising in part from the impatience which prevailed towards the close of the business, conspired to whet his acrimony. He returned to Virginia with a fixed disposition to prevent the adoption of the plan if possible. He considers the want of a Bill of Rights as a fatal objection. His other objections are to the substitution of the Senate in place of an Executive Council and to the powers vested in that body—to the powers of the Judiciary—to the vice President being made President of the Senate—to the smallness of the number of Representatives—to the restriction on the States with regard to ex post facto laws—and most of all probably to the power of regulating trade, by a majority only of each House. He has some other lesser objections. Being now under the necessity of justifying his refusal to sign, he will of course, muster every possible one.[40] His conduct has given great umbrage to the County of Fairfax, and particularly to the Town of Alexandria. He is already instructed to promote in the Assembly the calling a Convention, and will probably be either not deputed to the Convention, or be tied up by express instructions. He did not object in general to the powers vested in the National Government, so much as to the modification. In some respects he admitted that some further powers could have improved the system. He acknowledged in particular that a negative on the State laws, and the appointment of the State Executives ought to be ingredients; but supposed that the public mind would not now bear them and that experience would hereafter produce these amendments.

The final reception which will be given by the people at large to this proposed System can not yet be decided. The Legislature of N. Hampshire was sitting when it reached that State and was well pleased with it. As far as the sense of the people there has been expressed, it is equally favorable. Boston is warm and almost unanimous in embracing[41] it. The impression on the country is not yet known. No symptoms of disapprobation have appeared. The Legislature of that State is now sitting, through which the sense of the people at large will soon be promulged with tolerable certainty. The paper money faction in Rh. Island is hostile. The other party zealously attached to it. Its passage through Connecticut is likely to be very smooth and easy. There seems to be less agitation in this[42] state than any where. The discussion of the subject seems confined to the newspapers. The principal characters are known to be friendly. The Governour's party which has hitherto been the popular and most numerous one, is supposed to be on the opposite side; but considerable reserve is practiced, of which he sets the example. N. Jersey takes the affirmative side of course. Meetings of the people are declaring their approbation, and instructing their representatives. Penna. will be divided. The City of Philada., the Republican party, the Quakers, and most of the Germans espouse the Constitution. Some of the Constitutional leaders, backed by the western Country will oppose. An unlucky ferment on the subject in their assembly just before its late adjournment has irritated both sides, particularly the opposition, and by redoubling the exertions of that party may render the event doubtful. The voice of Maryland I understand from pretty good authority, is, as far as it has been declared, strongly in favor of the Constitution. M. Chase is an enemy, but the Town of Baltimore which he now represents, is warmly attached to it, and will shackle him as far as they can. Mr. Paca will probably be, as usually, in the politics of Chase. My information from Virginia is as yet extremely imperfect. I have a letter from Genl. Washington which speaks favorably of the impression within a circle of some extent, and another from Chancellor Pendleton which expresses his full acceptance of the plan, and the popularity of it in his district. I am told also that Innis and Marshall are patrons of it. In the opposite scale are Mr. James Mercer, Mr. R. H. Lee, Docr. Lee and their connections of course, Mr. M. Page according to Report, and most of the Judges and Bar of the general Court. The part which Mr. Henry will take is unknown here. Much will depend on it. I had taken it for granted from a variety of circumstances that he would be in the opposition, and still think that will be the case. There are reports however which favor a contrary supposition. From the States South of Virginia nothing has been heard. As the deputation from S. Carolina consisted of some of its weightiest characters, who have returned unanimously zealous in favor of the Constitution, it is probable that State will readily embrace it. It is not less probable, that N. Carolina will follow the example unless that of Virginia should counterbalance it. Upon the whole, although, the public mind will not be fully[43] known, nor finally settled for a considerable time, appearances at present augur a more prompt, and general adoption of the plan than could have been well expected.[44]

When the plan came before Congress for their sanction, a very serious effort was made by R. H. Lee and Mr. Dane from Masts. to embarrass it. It was first contended that Congress could not properly give any positive countenance to a measure which had for its object the subversion of the Constitution under which they acted. This ground of attack failing, the former gentleman urged the expediency of sending out the plan with amendments, and proposed a number of them corresponding with the objections of Col. Mason. This experiment had still less effect. In order however to obtain unanimity it was necessary to couch the resolution in very moderate terms.

Mr. Adams has received permission to return with thanks for his services. No provision is made for supplying his place, or keeping up any representation there. Your reappointment for three years will be notified from the office of F. Affairs. It was *made*[45] *without a negative, eight states* being *present. Connecticut however*[46] *put in a blank ticket*, the *sense of* that *state having been declared against embassies. Massachusetts betrayed some scruple* on *like ground*. Every *personal consideration* was *avowed* and I *believe with sincerity* to have *militated against these scruples*. It seems to be understood that letters to and from the foreign Ministers of the U.S. are not free of postage: but that the charge is to be allowed in their accounts.

The exchange of our French for Dutch Creditors has not been countenanced either

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by Congress or the Treasury Board. The paragraph in your last letter to Mr. Jay, on the subject of applying a loan in Holland to the discharge of the pay due to the foreign officers has been referred to the Board since my arrival here. No report has yet been made. But I have little idea that the proposition will be adopted. Such is the state and prospect of our fiscal department that any new loan however small that should now be made, would probably subject us to the reproach of premeditated deception. The balance of Mr. Adams' last loan will be wanted for the interest due in Holland, and with all the income here, will, it is feared, not save our credit in Europe from further wounds. It may well be doubted whether the present Government can be kept alive thro' the ensuing year, or untill the new one may take its place.

Upwards of 100,000 Acres of the surveyed lands of the U.S. have been disposed of in open market. Five million of unsurveyed have been sold by private contract to a N. England Company, at ⅔ of a dollar per acre, payment to be made in the principal of the public securities. A negociation is nearly closed with a N. Jersey Company for two million more on like terms, and another commenced with a Company of this City for four million. Col. Carrington writes more fully on this subject.

You will receive herewith the desired information from Alderman Broome in the case of Mr. Burke. Also the Virga. Bill on crimes and punishments. Sundry alterations having been made in conformity to the sense of the House in its latter stages, it is less accurate and methodical than it ought to have been. To these papers I add a speech of Mr. C. P. on the Mississippi business. It is printed under precautions of secrecy, but surely could not have been properly exposed to so much risk of publication. You will find also among the pamplets and papers I send by Commodore Jones, another printed speech of the same Gentleman. The Musæum Magazine, and Philada. Gazettes, will give you a tolerable idea of the objects of present attention.

The summer crops in the Eastern and Middle States have been extremely plentiful. Southward of Virga. They differ in different places. On the whole I do not know that they are bad in that region. In Virginia the drought has been unprecedented, particularly between the falls of the Rivers and the Mountains. The Crops of Corn are in general alarmingly short. In Orange I find there will be scarcely subsistence for the inhabitants. I have not heard from Albemarle. The crops of Tobacco are every where said to be pretty good in point of quantity, and the quality unusually fine. The crops of wheat were also in general excellent in quality and tolerable in quantity.

Novr. 1. Commodore[47] Jones having preferred another vessel to the packet, has remained here till this time. The interval has produced little necessary to be added to the above. The Legislature of Massts. has it seems taken up the Act of the Convention and have appointed or probably will appoint an early day for its State Convention. There are letters also from Georgia which denote a favorable disposition. I am informed from Richmond that the new Election-law from the Revised Code produced a pretty full House of Delegates, as well as a Senate, on the first day. It had previously had equal effect in producing full meetings of the freeholders for the County elections. A very decided majority of the Assembly is said to be zealous in favor of the New Constitution. The same is said of the Country at large. It appears however that individuals of great weight both within and without the Legislature are opposed to it. A letter I just have from Mr. A. Stuart names Mr. Henry, Genl. Nelson, W. Nelson, the family of Cabells, St. George Tucker, John Taylor and the Judges of the General Court except P. Carrington. The other opponents he described as of too little note to be mentioned, which gives a negative information of the Characters on the other side. All are agreed that the plan must be submitted *to* a Convention.

We hear from Georgia that that State is threatened with a dangerous war with the Creek Indians. The alarm is of so serious a nature, that law-martial has been proclaimed, and they are proceeding to fortify even the Town of Savannah. The idea there is that the Indians derive their motives as well as their means from their Spanish neighbours. Individuals complain also that their fugitive slaves are encouraged by East Florida. The policy of this is explained by supposing that it is considered as a discouragement to the Georgians to form settlements near the Spanish boundaries.

There are but few States on the spot here which will survive the expiration of the federal year; and it is extremely uncertain when a Congress will again be formed. We have not yet heard who are to be in the appointment of Virginia for the next year.

With the most affectionate attachment I remain Dear Sr. Your obed friend & servant,

Js. Madison Jr.

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RC (DLC: TJ Papers); partly in code; with a number of deletions and corrections, most of which were not interlinear and which were evidently made contemporaneously, but two of which, as indicated in notes 42 and 47 below, were clearly made by Madison late in life; endorsed. Tr of an Extract (DLC: Madison Papers); in Madison's hand, in highly abbreviated form (see note 38, below). Tr of an Extract (ViU); at foot of text, in the hand of Nicholas P. Trist: "Copied from the original at Montpellier (V. J. T. & C. J. R. & M. J. R. assisting) by N. P. T. Oct. 1. '34"; endorsed by Trist on verso of last leaf: "Madison James—Oct. 24. 1787 To Thomas Jefferson. Copied from the original at Montpellier, Oct. 1. 1834. N. P. Trist." (See note 44 below). Recorded in SJL as received 19 Dec. 1787. Enclosures: (1) The "information from Alderman Broome" has not been found (see TJ to Madison, 20 Dec. 1787). (2) The "Virga. Bill on crimes and punishments" must have been a printed text showing the alterations that the bill underwent in the legislative session of Oct. 1786, but no such printed text is known to have been made and none is known to be in existence; it is also puzzling that Madison waited until this late date to send any text when the Bill was defeated early in the year (see Madison to TJ, 15 Feb. 1787; see also, Vol. 2: 506, note). (3) The "speech of Mr. C. P. [Charles Pinckney] on the Mississippi business" was that delivered on 16 Aug. 1786 in answer to Jay's speech on 3 Aug. 1786 on the negotiations with Spain; it was printed in broadside form by Congress and it was one of these printed texts that Madison sent to TJ (text of Pinckney's speech is printed in JCC, xxxi, 935 – 48). (4) The other "printed speech by the same gentleman," not

actually enclosed but sent by Jones, was Pinckney's *Observations on the Plan of Government submitted to the Federal Convention, in Philadelphia, on the 28th of May, 1787*, New York, 1787 (Sowerby, No. 3016).

It is not known when or for what purpose Madison made the extract from this letter that is described above and referred to below as the Madison Extract, but it was probably made during TJ's lifetime. Certainly the handwriting is much firmer and less crabbed by age than the alterations made by Madison in the text of the letter that are known to have been added late in life (see notes 42 and 47, below). It is possible, even, that he obtained leave from TJ to make the extract not long after the latter returned from France. The fact that he had made such an extract and retained it may also explain why this letter of his was not kept by him among his own papers along with others that he received after TJ's death.

1. Preceding seven words interlined in substitution for "disagreement of opinion on serious," an alteration probably made contemporaneously.

2. This word written lineally in preference to "requires," deleted, evidently contemporaneously.

3. At this point Madison deleted lineally: "Others would have preferred," an alteration evidently made contemporaneously.

4. Preceding six words interlined and "to the other two" deleted, an alteration evidently made contemporaneously.

5. Preceding eight words interlined, probably contemporaneously.

6. This word written lineally in preference to "laws of," deleted.

7. Preceding three words interlined, perhaps contemporaneously.

8. At this point Madison deleted, evidently contemporaneously, the word "certainly."

9. The Madison Extract reads "prerogative."

10. At this point Madison deleted the word "necessarily," evidently contemporaneously.

11. At this point Madison deleted, evidently contemporaneously: "From that to every new instance it may be [premised?] that."

12. This word written over an erasure, perhaps "jurisdiction," and presumably done contemporaneously.

13. This word interlined in substitution for "legislatures," an alteration perhaps made contemporaneously.

14. The Madison Extract reads "allowed."

15. This word, divided, lies in the right and left margins and may have been added later.

16. This word altered by overwriting, evidently contemporaneously, from "authority."

17. This word altered by overwriting, probably later, from "will."

18. This word interlined, evidently contemporaneously, in substitution for "impossibility and difficulty," deleted.

19. At this point Madison deleted lineally, evidently contemporaneously, the word "preserve."

20. This word altered by overwriting, perhaps contemporaneously, from what appears to read "was."

21. At this point Madison deleted lineally, evidently contemporaneously, "had a greater share in."

22. These two words interlined, perhaps contemporaneously, in substitution for "the public and private faith," deleted.

23. This word interlined, probably contemporaneously, in substitution for "principally," deleted.

24. The Madison Extract reads: "... but that they have precisely and in all respects the same interests and the same feelings."

25. This word interlined, probably contemporaneously, in substitution for "Government," deleted.

26. Preceding five words interlined, perhaps later, in substitution for "private rights," deleted.

27. This passage originally read: "These classes will again be subdivided by," and then was altered by overwriting, evidently contemporaneously, to read as above.

28. These two words interlined, evidently contemporaneously, in substitution for "others," deleted.

29. This word written lineally in preference to "act," deleted, evidently contemporaneously.

30. Preceding seven words interlined, evidently contemporaneously, in substitution for "men have a same interest," deleted.

31. This word written over another that may be "sovereignty" or "majority," an alteration made contemporaneously.

32. These two words interlined, evidently contemporaneously, in substitution for "the predominant party," deleted.

33. This word altered by overwriting, perhaps contemporaneously, from "suppressing."

34. Preceding four words interlined, perhaps contemporaneously.

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35. The Madison Extract reads: “combination.”

36. At this point Madison deleted “general,” evidently contemporaneously.

37. These two words interlined, evidently contemporaneously, in substitution for “authority of the whole.”

38. The text within brackets (supplied) constitutes the whole of the Extract in Madison’s hand, which, however, varies in the following caption and opening sentence: “Extract of a letter to Mr. J—son dated Ocr. 24. 1787.—A negative in the General Government on laws of the States necessary 1. to prevent encroachments on General Government. 2. instability and injustice in state legislation.”

39. At this point the word “adopted” is deleted, evidently contemporaneously.

40. This word interlined, perhaps later, in substitution for “objection,” deleted.

41. This word written over “adopting,” an alteration possibly contemporaneous.

42. Late in life Madison placed an asterisk at this point and interlined “N.York.”

43. This word written over “officially,” an alteration that was probably contemporaneous.

44. The text of the Trist Extract, which begins with the third paragraph of the letter (“You will herewith receive the result of the Convention...” &c), ends at this point.

45. This and subsequent words in italics are written in code and were decoded interlineally by TJ. The Editors have verified his decoding, employing Code No. 9.

46. Madison wrote “74,” the code symbol for “however,” but TJ decoded this as “notwithstanding,” the code symbol for which was “73.”

47. Late in life Madison put an asterisk at this point and wrote “Paul” in the margin opposite.

PERMALINK What’s this?
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To Thomas Jefferson from James Madison, 24 October 1787

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From James Madison

New York Octr. 24. 1787.

My two last, though written for the two last Packets, have unluckily been delayed till this conveyance. The first of them was sent from Philada. to Commodore Jones in consequence of information that he was certainly to go by the packet then about to sail. Being detained here by his business with Congress, and being unwilling to put the letter into the mail without my approbation, which could not be obtained in time, he detained the letter also. The second was sent from Philada. to Col. Carrington, with a view that it might go by the last packet at all events in case Commodore Jones should meet with further detention here. By ill luck he was out of Town, and did not return till it was too late to make use of the opportunity. Neither of the letters were indeed of much consequence at the time and are still less so now. I let them go forward nevertheless as they may mention some circumstances not at present in my recollection, and as they will prevent a chasm on my part of our correspondence which I have so many motives to cherish by an exact punctuality.

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Your favor of June 20. has been already acknowledged. The last packet from France brought me that of August 2d. I have received also by the Mary Capt. Howland the three Boxes for W. H. B. F. and myself. The two first have been duly forwarded. The contents of the last are a valuable addition to former literary remittances and lay me under additional obligations, which I shall always feel more strongly than I express. The articles included for Congress have been delivered and those for the two Universities and for General Washington have been forwarded, as have been the various letters for your friends in Virginia and elsewhere. The parcel of rice referred to in your letter to the Delegates of S. Carolina has met with some accident. No account whatever can be gathered concerning it. It probably was not shipped from France. Ubbo's book I find was not omitted as you seem to have apprehended. The charge for it however is, which I must beg you to supply. The duplicate volume of the Encyclopedie, I left in Virginia, and it is uncertain when I shall have an opportunity of returning it. Your Spanish duplicates will I fear be hardly vendible. I shall make a trial wherever a chance presents itself. A few days ago I received your favor of the 15 of Augst. via L'Orient and Boston. The letters inclosed along with it were immediately sent on to Virga.

You will herewith receive the result of the Convention, which continued its session till the 17th of September. I take the liberty of making some observations on the subject which will help to make up a letter, if they should answer no other purpose.

It appeared to be the sincere and unanimous wish of the Convention to cherish and preserve the Union of the States. No proposition was made, no suggestion was thrown out in favor of a partition of the Empire into two or more Confederacies.

It was generally agreed that the objects of the Union could not be secured by any system founded on the principle of a confederation of sovereign States. A voluntary observance of the federal law by all the members could never be hoped for. A compulsive one could evidently never be reduced to practice, and if it could, involved equal calamities to the innocent and the guilty, the necessity of a military force both obnoxious and dangerous, and in general, a scene resembling much more a civil war, than the administration of a regular Government.

Hence was embraced the alternative of a government which instead of operating, on the States, should operate without their intervention on the individuals composing them: and hence the change in the principle and proportion of representation.

This ground-work being laid, the great objects which presented themselves were 1. to unite a proper energy in the Executive and a proper stability in the Legislative departments, with the essential characters of Republican Government. 2. To draw a line of demarkation which would give to the General Government every power requisite for general purposes, and leave to the States every power which might be most beneficially administered by them. 3. To provide for the different interests of different parts of the Union. 4. To adjust the clashing pretensions of the large and small States. Each of these objects was pregnant with difficulties. The whole of them together formed a task more difficult than can be well conceived by those who were not concerned in the execution of it. Adding to these considerations the natural diversity of human opinions on all new[1] and complicated subjects, it is impossible to consider the degree of concord which ultimately prevailed as less than a miracle.

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The first of these objects as it respects the Executive, was peculiarly embarrassing. On the question whether it should consist of a single person, or a plurality of co-ordinate members, on the mode of appointment, on the duration in office, on the degree of power, on the re-eligibility, tedious and reiterated discussions took place. The plurality of co-ordinate members had finally but few advocates. Governour Randolph was at the head of them. The modes of appointment proposed were various, as by the people at large—by electors chosen by the people—by the Executives of the States—by the Congress, some preferring a joint ballot of the two Houses—some a separate concurrent ballot allowing to each a negative on the other house—some a nomination of several canditates by one House, out of whom a choice should be made by the other. Several other modifications were started. The expedient at length adopted seemed to give pretty general satisfaction to the members. As to the duration in office, a few would have preferred a tenure during good behaviour—a considerable number would have done so in case an easy and effectual removal by

impeachment could be settled. It was much agitated whether a long term, seven years for example, with a subsequent and perpetual ineligibility, or a short term with a capacity to be re-elected, should be fixed. In favor of the first opinion were urged the danger of a gradual degeneracy of re-elections from time to time, into first a life and then a hereditary tenure, and the favorable effect of an incapacity to be reappointed, on the independent exercise of the Executive authority. On the other side it was contended that the prospect of necessary degradation would discourage the most dignified characters from aspiring to the office, would take away the principal motive to the faithful discharge of its duties the hope of being rewarded with a reappointment would stimulate ambition to violent efforts for holding over the constitutional term, and instead of producing an independent administration, and a firmer defence of the constitutional rights of the department, would render the officer more indifferent to the importance of a place which he would soon be obliged to quit for ever, and more ready to yield to the incroachments of the Legislature of which he might again be a member.—The questions concerning the degree of power turned chiefly on the appointment to offices, and the controul on the Legislature. An absolute appointment to all offices—to some offices—to no offices, formed the scale of opinions on the first point. On the second, some contended for an absolute negative, as the only possible mean of reducing to practice, the theory of a free government which forbids2 a mixture of the Legislative and Executive powers. Others would be content with a revisionary power to be overruled by three fourths of both Houses.3 It was warmly urged that the judiciary department should be associated in the revision. The idea of some was that a separate revision should be given to the two departments—that if either objected two thirds; if both three fourths,4 should be necessary to overrule.

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In forming the Senate, the great anchor of the Government, the questions as they came within the first object turned mostly on the mode of appointment, and the duration of it. The different modes proposed were, 1. by the House of Representatives, 2. by the Executive, 3 by electors chosen by the people for the purpose, 4. by the State Legislatures. On the point of duration, the propositions descended from good behavior to four years, through the intermediate terms of nine, seven, six and five years. The election of the other branch was first determined to be triennial, and afterwards reduced to biennial.

The second object, the due partition of power, between the General and local Governments, was perhaps of all, the most nice and difficult. A few contended for an entire abolition of the States; Some for indefinite power of Legislation in the Congress, with a negative on the laws of the States, some for such a power without a negative,5 some for a limited power of legislation, with such a negative: the majority finally for a limited power without the negative. The question with regard to the Negative underwent repeated discussions, and was finally rejected by a bare majority. As I formerly intimated to you my opinion in favor of this ingredient, I will take this occasion of explaining myself on the subject. [Such a check on the States appears to me necessary 1. to prevent encroachments on the General authority, 2. to prevent instability and injustice in the legislation6 of the States.

1. Without such a check in the whole over the parts, our system involves the evil of imperia in imperio. If a compleat supremacy some where is not necessary in every Society, a controuling power at least is so, by which the general authority may be defended against encroachments of the subordinate authorities, and by which the latter may be restrained from encroachments on each other.7 If the supremacy of the British Parliament is not necessary as has been contended,8 for the harmony of that Empire, it is evident I think that without the royal negative9 or some equivalent controul, the unity of the system would be10 destroyed. The want of some such provision seems to have been mortal to the antient Confederacies, and to be the disease of the modern. Of the Lycian Confederacy little is known.11 That of the Amphyctions is well known to have been rendered of little use whilst it lasted, and in the end to have been destroyed by the predominance of the local over the federal authority.12 The same observation may be made, on the authority of Polybius, with regard to the Achæan League. The Helvetic System scarcely amounts to a confederacy and is distinguished by too many peculiarities to be a ground of comparison. The case of the United Netherlands is in point. The authority of a Statholder, the influence of a standing army, the common interest in the conquered possessions, the pressure of surrounding danger, the guarantee of foreign powers, are not sufficient to secure the authority and interests of the generality, against the antifederal tendency of the provincial sovereignties.13 The German Empire is another example. A Hereditary chief with vast independent resources of wealth and power, a federal Diet, with ample parchment authority, a regular Judiciary establishment, the influence of the neighbourhood of great and formidable Nations, have been found unable either to maintain the subordination of the members, or to prevent their mutual contests and encroachments. Still more to the purpose is our own experience both during the war and since the peace. Encroachments of the States on the general authority, sacrifices of national to local interests, interferences of the measures of different States, form a great part of the history of our political system. It may be said that the new Constitution is founded on different principles, and will have a different operation. I admit the difference to be material. It presents the aspect rather of a feudal system of republics, if such a phrase may be used,14 than of a Confederacy of independent States. And what has been the progress and event of the feudal Constitutions? In all of them a continual struggle between the head and the inferior15 members, until a final victory has been gained in some instances by one, in others, by the other of them. In one respect indeed there is a remarkable variance between the two cases. In the feudal system the sovereign, though limited, was independent; and having no particular sympathy of interests with the great Barons, his ambition had as full play as theirs in the mutual projects of usurpation. In the American Constitution The general authority will be derived entirely from the subordinate authorities.16 The Senate will represent the States in their political capacity, the other House will represent the people of the States in their individual capacity. The former will be accountable to their constituents at moderate, the latter at short periods. The President also derives his appointment from the States, and is periodically accountable to them. This dependence of the General, on the local authorities

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seems effectually to guard the latter against any dangerous encroachments of the former: Whilst the latter within their respective limits, will be continually sensible of the abridgment of their power, and be stimulated by ambition to resume the surrendered portion of it. We find the representatives of counties and corporations in the Legislatures of the States, much more disposed to sacrifice the aggregate interest, and even authority, to the local views of their Constituents, than the latter to the former. I mean not by these remarks to insinuate that an esprit de corps will not exist in the national Government, that opportunities may17 not occur of extending its jurisdiction in some points. I mean only that the danger of encroachments is much greater from the other side, and that the impossibility18 of dividing powers of legislation, in such a manner, as to be free from different constructions by different interests, or even from ambiguity in the judgment of the impartial, requires some such expedient as I contend for. Many illustrations might be given of this impossibility. How long has it taken to fix, and how imperfectly is yet fixed the legislative power of corporations, though that power is subordinate in the most compleat manner? The line of distinction between the power of regulating trade and that of drawing revenue from it, which was once considered as the barrier of our liberties, was found on fair discussion, to be absolutely undefinable. No distinction seems to be more obvious than that between spiritual and temporal matters. Yet wherever they have been made objects of Legislation, they have clashed and contended with each other, till one or the other has gained the supremacy. Even the boundaries between the Executive, Legislative and Judiciary powers, though in general so strongly marked in themselves, consist in many instances of mere shades of difference. It may be said that the Judicial authority under our new system will19 keep the States within their proper limits, and supply the place of a negative on their laws. The answer is that it is more convenient to prevent the passage of a law, than to declare it void after it is passed; that this will be particularly the case where the law aggrieves individuals, who may be unable to support an appeal against a State to the supreme Judiciary, that a State which would violate the Legislative rights of the Union, would not be very ready to obey a Judicial decree in support of them, and that a recurrence to force, which in the event of disobedience would be necessary, is20 an evil which the new Constitution meant to exclude as far as possible.

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2. A Constitutional negative on the laws of the States seems equally necessary to secure individuals against encroachments on their rights. The mutability of the laws of the States is found to be a serious evil. The injustice of them has been so frequent and so flagrant as to alarm the most stedfast friends of Republicanism. I am persuaded I do not err in saying that the evils issuing from these sources21 contributed more to that uneasiness which produced the Convention, and prepared the public mind for a general reform, than those which accrued to our national character and interest from the inadequacy of the Confederation to its immediate objects. A reform therefore which does not make provision for private rights, must be materially defective. The restraints against paper emissions, and violations of contracts are not sufficient. Supposing them to be effectual as far as they go, they are short of the mark. Injustice may be effected by such an infinitude of legislative expedients, that

where the disposition exists it can only be controuled by some provision which reaches all cases whatsoever. The partial provision made, supposes the disposition which will evade it. It may be asked how private rights22 will be more secure under the Guardianship of the General Government than under the State Governments, since they are both founded on the republican principle which refers the ultimate decision to the will of the majority, and are distinguished rather23 by the extent within which they will operate, than by any material difference in their structure. A full discussion of this question would, if I mistake not, unfold the true principles of Republican Government, and prove in contradiction to the concurrent opinions of theoretical writers, that this form of Government, in order to effect its purposes must operate not within a small but an extensive sphere. I will state some of the ideas which have occurred to me on this subject. Those who contend for a simple Democracy, or a pure republic, actuated by the sense of the majority, and operating within narrow limits, assume or suppose a case which is altogether fictitious. They found their reasoning on the idea, that the people composing the Society enjoy not only an equality of political rights; but that they have all precisely the same interests and the same feelings in every respect.24 Were this in reality the case, their reasoning would be conclusive. The interest of the majority would be that of the minority also; the decisions could only turn on mere opinion concerning the good of the whole of which the major voice would be the safest criterion; and within a small sphere, this voice could be most easily collected and the public affairs most accurately managed. We know however that no Society25 ever did or can consist of so homogeneous a mass of Citizens. In the savage State indeed, an approach is made towards it; but in that state little or no Government is necessary. In all civilized Societies, distinctions are various and unavoidable. A distinction of property results from that very protection which a free Government gives to unequal faculties of acquiring it.26 There will be rich and poor; creditors and debtors; a landed interest, a monied interest, a mercantile interest, a manufacturing interest. These classes may again be subdivided according27 to the different productions of different situations and soils, and according to different branches of commerce and of manufactures. In addition to these natural distinctions, artificial ones28 will be founded on accidental differences in political, religious and other opinions, or an attachment to the persons of leading individuals. However erroneous or ridiculous these grounds of dissention and faction may appear to the enlightened Statesman, or the benevolent philosopher, the bulk of mankind who are neither Statesmen nor Philosophers, will continue to view29 them in a different light. It remains then to be enquired whether a majority having any common interest, or feeling any common passion, will find sufficient motives to restrain them from oppressing the minority. An individual is never allowed to be a judge or even a witness in his own cause. If two individuals are under the biass of interest30 or enmity against a third, the rights of the latter could never be safely referred to the majority of the three. Will two thousand individuals be less apt to oppress one thousand, or two hundred thousand, one hundred thousand? Three motives only can restrain in such cases. 1. A prudent regard to private or partial good, as essentially involved in the general and permanent good of the whole.31 This ought no doubt to be sufficient of

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itself. Experience however shews that it has little effect on individuals, and perhaps still less on a collection of individuals, and least of all on a majority with the public authority in their hands. If the former are ready to forget that honesty is the best policy; the last do more. They often proceed on the converse of the maxim: that whatever is politic is honest. 2. Respect for character. This motive is not found sufficient to restrain individuals from injustice, and loses its efficacy in proportion to the number which is to divide the praise or the blame. Besides as it has reference to public opinion, which is that of the majority, the standard is fixed by those whose conduct is to be measured by it. 3. Religion. The inefficacy of this restraint on individuals is well known. The conduct of every popular assembly, acting on oath, the strongest of religious ties, shews that individuals join without remorse in acts against which their consciences would revolt, if proposed to them separately in their closets. When Indeed Religion is kindled into enthusiasm, its force like that of other passions is increased by the sympathy of a multitude. But enthusiasm is only a temporary state of Religion, and whilst it lasts will hardly be seen with pleasure at the helm. Even in its coolest state, it has been much oftener a motive to oppression than a restraint from it. If then there must be different interests and parties in Society; and a majority32 when united by a common interest or passion can not be restrained from oppressing33 the minority, what remedy can be found in a republican Government, where the majority must ultimately decide, but that of giving such an extent to its sphere, that no common interest or passion will be likely to unite a majority of the whole number in an unjust pursuit.34 In a large Society, the people are broken into so many interests and parties, that a common sentiment is less likely to be felt, and the requisite concert35 less likely to be formed, by a majority of the whole. The same security seems requisite for the civil as for the religious rights of individuals. If the same sect form a majority and have the power, other sects will be sure to be depressed. Divide et impera, the reprobated axiom of tyranny, is under certain qualifications, the only policy, by which a republic can be administered on just principles. It must be observed however that this doctrine can only hold within a sphere of a mean extent. As in too small a sphere oppressive combinations may be too easily formed against the weaker party; so in too extensive a one a defensive concert may be rendered too difficult against the oppression of those entrusted with the administration. The great desideratum in Government is, so to modify the sovereignty as that it may be sufficiently neutral between different parts of the Society to controul one part from invading the rights of another, and at the same time sufficiently controuled itself, from setting up an interest adverse to that of the entire Society. In absolute monarchies, the Prince may be tolerably neutral towards different classes of his subjects, but may sacrifice the36 happiness of all to his personal ambition or avarice. In small republics, the sovereign will is controuled from such a sacrifice of the entire Society, but it is not sufficiently neutral towards the parts composing it. In the extended Republic of the United States, the General Government37 would hold a pretty even balance between the parties of particular States, and be at the same time sufficiently restrained by its dependence on the community, from betraying its general interests.]38

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Begging pardon for this immoderate digression, I return to the third object abovementioned, the adjustment of the different interests of different parts of the Continent. Some contended for an unlimited power over trade including exports as well as imports, and over slaves as well as other imports; some for such a power, provided the concurrence of two thirds of both Houses were required; some for such a qualification of the power, with an exemption of exports and slaves, others for an exemption of exports only. The result is seen in the Constitution. S. Carolina and Georgia were inflexible on the point of the slaves.

The remaining object, created more embarrassment, and a greater alarm for the issue of the Convention than all the rest put together. The little States insisted on retaining their equality in both branches, unless a compleat abolition of the State Governments should take place; and made an equality in the Senate a sine qua non. The large States on the other hand urged that as the new Government was to be drawn principally from the people immediately and was to operate directly on them, not on the States; and consequently as the States would lose that importance which is now proportioned to the importance of their voluntary compliances with the requisitions of Congress, it was necessary that the representation in both Houses should be in proportion to their size. It ended in the compromise which you will see, but very much to the dissatisfaction of several members from the large States.

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It will not escape you that three names only from Virginia are subscribed to the Act. Mr. Wythe did not return after the death of his lady. Docr. MClurg left the Convention some time before the adjournment. The Governour and Col. Mason refused to be parties to it. Mr. Gerry was the only other member who refused. The objections of the Govr. turn principally on the latitude of the general powers, and on the connection established between the President and the Senate. He wished that the plan should be proposed to the States with liberty to them to suggest alterations which should all be referred to another general Convention to be39 incorporated into the plan as far as might be judged expedient. He was not inveterate in his opposition, and grounded his refusal to subscribe pretty much on his unwillingness to commit himself so as not to be at liberty to be governed by further lights on the subject. Col. Mason left Philada. in an exceeding ill humour indeed. A number of little circumstances arising in part from the impatience which prevailed towards the close of the business, conspired to whet his acrimony. He returned to Virginia with a fixed disposition to prevent the adoption of the plan if possible. He considers the want of a Bill of Rights as a fatal objection. His other objections are to the substitution of the Senate in place of an Executive Council and to the powers vested in that body—to the powers of the Judiciary—to the vice President being made President of the Senate—to the smallness of the number of Representatives—to the restriction on the States with regard to ex post facto laws—and most of all probably to the power of regulating trade, by a majority only of each House. He has some other lesser objections. Being now under the necessity of justifying his refusal to sign, he will of course, muster every possible one.40 His conduct has given great umbrage

to the County of Fairfax, and particularly to the Town of Alexandria. He is already instructed to promote in the Assembly the calling a Convention, and will probably be either not deputed to the Convention, or be tied up by express instructions. He did not object in general to the powers vested in the National Government, so much as to the modification. In some respects he admitted that some further powers could have improved the system. He acknowledged in particular that a negative on the State laws, and the appointment of the State Executives ought to be ingredients; but supposed that the public mind would not now bear them and that experience would hereafter produce these amendments.

The final reception which will be given by the people at large to this proposed System can not yet be decided. The Legislature of N. Hampshire was sitting when it reached that State and was well pleased with it. As far as the sense of the people there has been expressed, it is equally favorable. Boston is warm and almost unanimous in embracing41 it. The impression on the country is not yet known. No symptoms of disapprobation have appeared. The Legislature of that State is now sitting, through which the sense of the people at large will soon be promulged with tolerable certainty. The paper money faction in Rh. Island is hostile. The other party zealously attached to it. Its passage through Connecticut is likely to be very smooth and easy. There seems to be less agitation in this42 state than any where. The discussion of the subject seems confined to the newspapers. The principal characters are known to be friendly. The Governour's party which has hitherto been the popular and most numerous one, is supposed to be on the opposite side; but considerable reserve is practiced, of which he sets the example. N. Jersey takes the affirmative side of course. Meetings of the people are declaring their approbation, and instructing their representatives. Penna. will be divided. The City of Philada., the Republican party, the Quakers, and most of the Germans espouse the Constitution. Some of the Constitutional leaders, backed by the western Country will oppose. An unlucky ferment on the subject in their assembly just before its late adjournment has irritated both sides, particularly the opposition, and by redoubling the exertions of that party may render the event doubtful. The voice of Maryland I understand from pretty good authority, is, as far as it has been declared, strongly in favor of the Constitution. Mr. Chase is an enemy, but the Town of Baltimore which he now represents, is warmly attached to it, and will shackle him as far as they can. Mr. Paca will probably be, as usually, in the politics of Chase. My information from Virginia is as yet extremely imperfect. I have a letter from Genl. Washington which speaks favorably of the impression within a circle of some extent, and another from Chancellor Pendleton which expresses his full acceptance of the plan, and the popularity of it in his district. I am told also that Innis and Marshall are patrons of it. In the opposite scale are Mr. James Mercer, Mr. R. H. Lee, Docr. Lee and their connections of course, Mr. M. Page according to Report, and most of the Judges and Bar of the general Court. The part which Mr. Henry will take is unknown here. Much will depend on it. I had taken it for granted from a variety of circumstances that he would be in the opposition, and still think that will be the case. There are reports however which favor a contrary supposition. From the States South of Virginia nothing has been heard. As the deputation from S. Carolina consisted of some of

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its weightiest characters, who have returned unanimously zealous in favor of the Constitution, it is probable that State will readily embrace it. It is not less probable, that N. Carolina will follow the example unless that of Virginia should counterbalance it. Upon the whole, although, the public mind will not be fully43 known, nor finally settled for a considerable time, appearances at present augur a more prompt, and general adoption of the plan than could have been well expected.44

When the plan came before Congress for their sanction, a very serious effort was made by R. H. Lee and Mr. Dane from Masts. to embarrass it. It was first contended that Congress could not properly give any positive countenance to a measure which had for its object the subversion of the Constitution under which they acted. This ground of attack failing, the former gentleman urged the expediency of sending out the plan with amendments, and proposed a number of them corresponding with the objections of Col. Mason. This experiment had still less effect. In order however to obtain unanimity it was necessary to couch the resolution in very moderate terms.

Mr. Adams has received permission to return with thanks for his services. No provision is made for supplying his place, or keeping up any representation there. Your reappointment for three years will be notified from the office of F. Affairs. It was made without a negative, eight states being present. Connecticut however put in a blank ticket, the sense of that state having been declared against embassies. Massachusetts betrayed some scruple on like ground. Every personal consideration was avowed and I believe with sincerity to have militated against these scruples. It seems to be understood that letters to and from the foreign Ministers of the U.S. are not free of postage: but that the charge is to be allowed in their accounts.

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The exchange of our French for Dutch Creditors has not been countenanced either by Congress or the Treasury Board. The paragraph in your last letter to Mr. Jay, on the subject of applying a loan in Holland to the discharge of the pay due to the foreign officers has been referred to the Board since my arrival here. No report has yet been made. But I have little idea that the proposition will be adopted. Such is the state and prospect of our fiscal department that any new loan however small that should now be made, would probably subject us to the reproach of premeditated deception. The balance of Mr. Adams' last loan will be wanted for the interest due in Holland, and with all the income here, will, it is feared, not save our credit in Europe from further wounds. It may well be doubted whether the present Government can be kept alive thro' the ensuing year, or untill the new one may take its place.

Upwards of 100,000 Acres of the surveyed lands of the U.S. have been disposed of in open market. Five million of unsurveyed have been sold by private contract to a N. England Company, at ⅔ of a dollar per acre, payment to be made in the principal of the public securities. A negociation is nearly closed with a N. Jersey Company for two million more on like terms, and another commenced with a Company of this City for four million. Col.

Carrington writes more fully on this subject.

You will receive herewith the desired information from Alderman Broome in the case of Mr. Burke. Also the Virga. Bill on crimes and punishments. Sundry alterations having been made in conformity to the sense of the House in its latter stages, it is less accurate and methodical than it ought to have been. To these papers I add a speech of Mr. C. P. on the Mississippi business. It is printed under precautions of secrecy, but surely could not have been properly exposed to so much risk of publication. You will find also among the pamplets and papers I send by Commodore Jones, another printed speech of the same Gentleman. The Musæum Magazine, and Philada. Gazettes, will give you a tolerable idea of the objects of present attention.

The summer crops in the Eastern and Middle States have been extremely plentiful. Southward of Virga. They differ in different places. On the whole I do not know that they are bad in that region. In Virginia the drought has been unprecedented, particularly between the falls of the Rivers and the Mountains. The Crops of Corn are in general alarmingly short. In Orange I find there will be scarcely subsistence for the inhabitants. I have not heard from Albemarle. The crops of Tobacco are every where said to be pretty good in point of quantity, and the quality unusually fine. The crops of wheat were also in general excellent in quality and tolerable in quantity.

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Novr. 1. Commodore47 Jones having preferred another vessel to the packet, has remained here till this time. The interval has produced little necessary to be added to the above. The Legislature of Massts. has it seems taken up the Act of the Convention and have appointed or probably will appoint an early day for its State Convention. There are letters also from Georgia which denote a favorable disposition. I am informed from Richmond that the new Election-law from the Revised Code produced a pretty full House of Delegates, as well as a Senate, on the first day. It had previously had equal effect in producing full meetings of the freeholders for the County elections. A very decided majority of the Assembly is said to be zealous in favor of the New Constitution. The same is said of the Country at large. It appears however that individuals of great weight both within and without the Legislature are opposed to it. A letter I just have from Mr. A. Stuart names Mr. Henry, Genl. Nelson, W. Nelson, the family of Cabels, St. George Tucker, John Taylor and the Judges of the General Court except P. Carrington. The other opponents he described as of too little note to be mentioned, which gives a negative information of the Characters on the other side. All are agreed that the plan must be submitted to a Convention.

We hear from Georgia that that State is threatened with a dangerous war with the Creek Indians. The alarm is of so serious a nature, that law-martial has been proclaimed, and they are proceeding to fortify even the Town of Savannah. The idea there is that the Indians derive their motives as well as their means from their Spanish neighbours. Individuals

complain also that their fugitive slaves are encouraged by East Florida. The policy of this is explained by supposing that it is considered as a discouragement to the Georgians to form settlements near the Spanish boundaries.

There are but few States on the spot here which will survive the expiration of the federal year; and it is extremely uncertain when a Congress will again be formed. We have not yet heard who are to be in the appointment of Virginia for the next year.

With the most affectionate attachment I remain Dear Sr. Your obed friend & servant,

Js. Madison Jr.

RC (DLC: TJ Papers); partly in code; with a number of deletions and corrections, most of which were not interlinear and which were evidently made contemporaneously, but two of which, as indicated in notes 42 and 47 below, were clearly made by Madison late in life; endorsed. Tr of an Extract (DLC: Madison Papers); in Madison's hand, in highly abbreviated form (see note 38, below). Tr of an Extract (ViU); at foot of text, in the hand of Nicholas P. Trist: "Copied from the original at Montpellier (V. J. T. & C. J. R. & M. J. R. assisting) by N. P. T. Oct. 1. '34"; endorsed by Trist on verso of last leaf: "Madison James—Oct. 24. 1787 To Thomas Jefferson. Copied from the original at Montpellier, Oct. 1. 1834. N. P. Trist." (See note 44 below). Recorded in SJL as received 19 Dec. 1787. Enclosures: (1) The "information from Alderman Broome" has not been found (see TJ to Madison, 20 Dec. 1787). (2) The "Virga. Bill on crimes and punishments" must have been a printed text showing the alterations that the bill underwent in the legislative session of Oct. 1786, but no such printed text is known to have been made and none is known to be in existence; it is also puzzling that Madison waited until this late date to send any text when the Bill was defeated early in the year (see Madison to TJ, 15 Feb. 1787; see also, Vol. 2: 506, note). (3) The "speech of Mr. C. P. [Charles Pinckney] on the Mississippi business" was that delivered on 16 Aug. 1786 in answer to Jay's speech on 3 Aug. 1786 on the negotiations with Spain; it was printed in broadside form by Congress and it was one of these printed texts that Madison sent to TJ (text of Pinckney's speech is printed in , xxxi, 935 – 48). (4) The other "printed speech by the same gentleman," not actually enclosed but sent by Jones, was Pinckney's Observations on the Plan of Government submitted to the Federal Convention, in Philadelphia, on the 28th of May, 1787, New York, 1787 (No. 3016).

No. 18-36082 archived on January 14, 2020 cited in Juliana v. USA

It is not known when or for what purpose Madison made the extract from this letter that is described above and referred to below as the Madison Extract, but it was probably made during TJ's lifetime. Certainly the handwriting is much firmer and less crabbed by age than the alterations made by Madison in the text of the letter that are known to have been added late in life (see notes 42 and 47, below). It is possible, even, that he obtained leave from TJ to make the extract not long after the latter returned from France. The fact that he had made such an extract and retained it may also explain why this letter of his was not kept by him among his own papers along with others that he received after TJ's death.

1. Preceding seven words interlined in substitution for “disagreement of opinion on serious,” an alteration probably made contemporaneously.

2. This word written lineally in preference to “requires,” deleted, evidently contemporaneously.

3. At this point Madison deleted lineally: “Others would have preferred,” an alteration evidently made contemporaneously.

4. Preceding six words interlined and “to the other two” deleted, an alteration evidently made contemporaneously.

5. Preceding eight words interlined, probably contemporaneously.

6. This word written lineally in preference to “laws of,” deleted.

7. Preceding three words interlined, perhaps contemporaneously.

8. At this point Madison deleted, evidently contemporaneously, the word “certainly.”

9. The Madison Extract reads “prerogative.”

10. At this point Madison deleted the word “necessarily,” evidently contemporaneously.

11. At this point Madison deleted, evidently contemporaneously: “From that to every new instance it may be [premised?] that.”

cited in Juliana v. USA
No. 18-36082 archived on January 14, 2020

12. This word written over an erasure, perhaps “jurisdiction,” and presumably done contemporaneously.

13. This word interlined in substitution for “legislatures,” an alteration perhaps made contemporaneously.

14. The Madison Extract reads “allowed.”

15. This word, divided, lies in the right and left margins and may have been added later.

16. This word altered by overwriting, evidently contemporaneously, from “authority.”

17. This word altered by overwriting, probably later, from “will.”

18. This word interlined, evidently contemporaneously, in substitution for “impossibility and difficulty,” deleted.

19. At this point Madison deleted lineally, evidently contemporaneously, the word “preserve.”

20. This word altered by overwriting, perhaps contemporaneously, from what appears to read “was.”

21. At this point Madison deleted lineally, evidently contemporaneously, “had a greater share in.”

22. These two words interlined, perhaps contemporaneously, in substitution for “the public and private faith,” deleted.

23. This word interlined, probably contemporaneously, in substitution for “principally,” deleted.

24. The Madison Extract reads: “... but that they have precisely and in all respects the same interests and the same feelings.”

25. This word interlined, probably contemporaneously, in substitution for “Government,” deleted.

26. Preceding five words interlined, perhaps later, in substitution for “private rights,” deleted.

27. This passage originally read: “These classes will again be subdivided by,” and then was altered by overwriting, evidently contemporaneously, to read as above.

cited in Juliana v. USA
No. 18-36082 archived on January 14, 2020

28. These two words interlined, evidently contemporaneously, in substitution for “others,” deleted.

29. This word written lineally in preference to “act,” deleted, evidently contemporaneously.

30. Preceding seven words interlined, evidently contemporaneously, in substitution for “men have a same interest,” deleted.

31. This word written over another that may be “sovereignty” or “majority,” an alteration made contemporaneously.

32. These two words interlined, evidently contemporaneously, in substitution for “the predominant party,” deleted.

33. This word altered by overwriting, perhaps contemporaneously, from “suppressing.”

34. Preceding four words interlined, perhaps contemporaneously.

35. The Madison Extract reads: “combination.”

36. At this point Madison deleted “general,” evidently contemporaneously.

37. These two words interlined, evidently contemporaneously, in substitution for “authority of the whole.”

38. The text within brackets (supplied) constitutes the whole of the Extract in Madison’s hand, which, however, varies in the following caption and opening sentence: “Extract of a letter to Mr. J—son dated Ocr. 24. 1787.—A negative in the General Government on laws of the States necessary 1. to prevent encroachments on General Government. 2. instability and injustice in state legislation.”

39. At this point the word “adopted” is deleted, evidently contemporaneously.

40. This word interlined, perhaps later, in substitution for “objection,” deleted.

41. This word written over “adopting,” an alteration possibly contemporaneous.

42. Late in life Madison placed an asterisk at this point and interlined “N.York.”

43. This word written over “officially,” an alteration that was probably contemporaneous.

44. The text of the Trist Extract, which begins with the third paragraph of the letter (“You will herewith receive the result of the Convention…” &c), ends at this point.

45. This and subsequent words in italics are written in code and were decoded interlineally by TJ. The Editors have verified his decoding, employing Code No. 9.

Cited in Juliana v. USA
No. 18-36082 archived on January 14, 2020

46. Madison wrote “74,” the code symbol for “however,” but TJ decoded this as “notwithstanding,” the code symbol for which was “73.”

47. Late in life Madison put an asterisk at this point and wrote “Paul” in the margin opposite.

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https://founders.archives.gov/documents/Jefferson/01-12-02-0274

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United States Court of Appeals for the Ninth Circuit

Office of the Clerk
95 Seventh Street
San Francisco, CA 94103

Information Regarding Judgment and Post-Judgment Proceedings

Judgment

- This Court has filed and entered the attached judgment in your case. Fed. R. App. P. 36. Please note the filed date on the attached decision because all of the dates described below run from that date, not from the date you receive this notice.

Mandate (Fed. R. App. P. 41; 9th Cir. R. 41-1 & -2)

- The mandate will issue 7 days after the expiration of the time for filing a petition for rehearing or 7 days from the denial of a petition for rehearing, unless the Court directs otherwise. To file a motion to stay the mandate, file it electronically via the appellate ECF system or, if you are a pro se litigant or an attorney with an exemption from using appellate ECF, file one original motion on paper.

Petition for Panel Rehearing (Fed. R. App. P. 40; 9th Cir. R. 40-1)
Petition for Rehearing En Banc (Fed. R. App. P. 35; 9th Cir. R. 35-1 to -3)

(1) A. Purpose (Panel Rehearing):

- A party should seek panel rehearing only if one or more of the following grounds exist:
  - ► A material point of fact or law was overlooked in the decision;
  - ► A change in the law occurred after the case was submitted which appears to have been overlooked by the panel; or
  - ► An apparent conflict with another decision of the Court was not addressed in the opinion.
- Do not file a petition for panel rehearing merely to reargue the case.

B. Purpose (Rehearing En Banc)

- A party should seek en banc rehearing only if one or more of the following grounds exist:

- ► Consideration by the full Court is necessary to secure or maintain uniformity of the Court's decisions; or
- ► The proceeding involves a question of exceptional importance; or
- ► The opinion directly conflicts with an existing opinion by another court of appeals or the Supreme Court and substantially affects a rule of national application in which there is an overriding need for national uniformity.

(2) Deadlines for Filing:

- A petition for rehearing may be filed within 14 days after entry of judgment. Fed. R. App. P. 40(a)(1).
- If the United States or an agency or officer thereof is a party in a civil case, the time for filing a petition for rehearing is 45 days after entry of judgment. Fed. R. App. P. 40(a)(1).
- If the mandate has issued, the petition for rehearing should be accompanied by a motion to recall the mandate.
- *See* Advisory Note to 9th Cir. R. 40-1 (petitions must be received on the due date).
- An order to publish a previously unpublished memorandum disposition extends the time to file a petition for rehearing to 14 days after the date of the order of publication or, in all civil cases in which the United States or an agency or officer thereof is a party, 45 days after the date of the order of publication. 9th Cir. R. 40-2.

(3) Statement of Counsel

- A petition should contain an introduction stating that, in counsel's judgment, one or more of the situations described in the "purpose" section above exist. The points to be raised must be stated clearly.

(4) Form & Number of Copies (9th Cir. R. 40-1; Fed. R. App. P. 32(c)(2))

- The petition shall not exceed 15 pages unless it complies with the alternative length limitations of 4,200 words or 390 lines of text.
- The petition must be accompanied by a copy of the panel's decision being challenged.
- An answer, when ordered by the Court, shall comply with the same length limitations as the petition.
- If a pro se litigant elects to file a form brief pursuant to Circuit Rule 28-1, a petition for panel rehearing or for rehearing en banc need not comply with Fed. R. App. P. 32.

- The petition or answer must be accompanied by a Certificate of Compliance found at Form 11, available on our website at www.ca9.uscourts.gov under *Forms.*
- You may file a petition electronically via the appellate ECF system. No paper copies are required unless the Court orders otherwise. If you are a pro se litigant or an attorney exempted from using the appellate ECF system, file one original petition on paper. No additional paper copies are required unless the Court orders otherwise.

Bill of Costs (Fed. R. App. P. 39, 9th Cir. R. 39-1)

- The Bill of Costs must be filed within 14 days after entry of judgment.
- See Form 10 for additional information, available on our website at www.ca9.uscourts.gov under *Forms.*

Attorneys Fees

- Ninth Circuit Rule 39-1 describes the content and due dates for attorneys fees applications.
- All relevant forms are available on our website at www.ca9.uscourts.gov under *Forms* or by telephoning (415) 355-7806.

Petition for a Writ of Certiorari

- Please refer to the Rules of the United States Supreme Court at www.supremecourt.gov

Counsel Listing in Published Opinions

- Please check counsel listing on the attached decision.
- If there are any errors in a published opinion, please send a letter **in writing within 10 days** to:
  - ► Thomson Reuters; 610 Opperman Drive; PO Box 64526; Eagan, MN 55123 (Attn: Jean Green, Senior Publications Coordinator);
  - ► and electronically file a copy of the letter via the appellate ECF system by using "File Correspondence to Court," or if you are an attorney exempted from using the appellate ECF system, mail the Court one copy of the letter.

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

Form 10. Bill of Costs

Instructions for this form: http://www.ca9.uscourts.gov/forms/form10instructions.pdf

9th Cir. Case Number(s)

Case Name

The Clerk is requested to award costs to (*party name(s)*):

I swear under penalty of perjury that the copies for which costs are requested were actually and necessarily produced, and that the requested costs were actually expended.

Signature **Date**

*(use "*s/[typed name]*" to sign electronically-filed documents)*

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Supplemental Brief(s)			$	$
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Exhibit 5

Reporter's transcript of January 19, 2024, status conference,
to be docketed at ECF No. 572 (Jan. 22, 2024)

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA; XIUTHEZCATL TONATIUH M., through his Guardian Tamara Roske-Martinez; et al.,	)	No. 6:15-cv-01517-AA
	)	January 19, 2024
Plaintiffs,	)	Eugene, Oregon
v.	)	
THE UNITED STATES OF AMERICA; et al.,	)	
Defendants.	)	

TRANSCRIPT OF PROCEEDINGS

(Status Conference by teleconference)

BEFORE THE HONORABLE ANN AIKEN

UNITED STATES DISTRICT COURT SENIOR JUDGE

COURT REPORTER:
Kellie M. Humiston, RMR, CRR
(503) 326-8186
Kellie_Humiston@ord.uscourts.gov

A P P E A R A N C E S

FOR THE PLAINTIFFS:
OUR CHILDREN'S TRUST
By: Julia A. Olson
1216 Lincoln Street
Eugene, OR 97401

FOR THE PLAINTIFFS:
OUR CHILDREN'S TRUST
By: Andrea K. Rodgers
3026 NW Esplanade
Seattle, WA 98117

FOR THE PLAINTIFFS:
GREGORY LAW GROUP
By: Philip L. Gregory
1250 Godetia Drive
Redwood City, CA 94062

FOR THE DEFENDANTS:
U.S. DEPARTMENT OF JUSTICE
By: Sean C. Duffy
150 M Street, NE
Washington, DC 20002

FOR THE DEFENDANTS:
U.S. DEPARTMENT OF JUSTICE
By: Frank J. Singer
P.O. Box 7611
Washington, DC 20044-7611

(January 19, 2024, 1:48 p.m.)

P R O C E E D I N G S

THE COURTROOM DEPUTY: Now is the time set for Civil Case Number 15-1517, Juliana, et al. vs. United States of America, et al., for status conference.

If you could please introduce yourselves for the record, beginning with plaintiffs.

MS. OLSON: This is Julia Olson on behalf of the plaintiffs.

MS. RODGERS: This is Andrea Rodgers on behalf of the plaintiffs.

MR. GREGORY: This is Philip Gregory on behalf of the plaintiffs.

MR. DUFFY: This is Sean Duffy on behalf of defendants.

MR. SINGER: This is Frank Singer for the defendants.

THE COURTROOM DEPUTY: I believe that's everyone, Judge. Thank you.

THE COURT: Thank you. Let me just catch up where I think we are. We issued our opinion on the end of December, and I received a request to grant extension to the defendants to allow them extra time to file their answer. I granted that by minute order, and this matter was set for today to address issues going forward, including setting a trial date. Last night, I received a -- filed was a motion for a stay pending a petition

for writ of mandamus.

Let me just recite the following: I live in Eugene, Oregon, and I live in a part of the city that has had no electricity, heat, or power since Sunday, and it was only until yesterday that I was able to come out of my home and go to a place where I have power, charging ability, electricity, and heat.

So I -- since it was filed last night, I have just barely reviewed it. I suspect I'm going to hear from the plaintiffs that they want an opportunity to respond. So that's -- that catches everybody up where we are, but I need to tell you that that's -- I'm not prepared to talk much about this, because I've only received it this morning when I was able to get on the system.

So I guess I'll start with the fact that this has been filed by the defendants. And, Ms. Olson, do you want to tell me how you wish to proceed?

MS. OLSON: Thank you, Your Honor. I'm glad you're in a safe, warm place now. I am compassionate to the experience. It's been similar. So we --

THE COURT: Just -- not to be -- not to be presumptuous, but I have had -- my law clerks have been in as bad or difficult situation given the ice storm out of Portland and have been on and off the system repeatedly. So people just need to know that that's -- they've had -- that's affecting any number

of things, and that's taken into account in terms of how we're going to address issues today.

So please tell me -- I'm sorry to have interrupted, but I just thought in fairness, I wanted you to know the staff -- the many staff who have not been able to do work because they are not able to get out of their homes or have power. So go ahead.

MS. OLSON: Understood, Your Honor.

So three things we hope to achieve today. One is we would like to have a trial date set in early December, and we would propose December 2nd. We will be filing an opposition to the defendants' motion to stay the case pending their petition for writ of mandamus in the Ninth Circuit, and we can file that according to the rules in two weeks, Your Honor. Meanwhile, we also do want to proceed with discovery. And then the third issue that we wanted to discuss was the timing of the Government's filing of the petition for writ of mandamus. So those were our three key items to discuss today.

THE COURT: I think, Mr. Duffy, you said you were going to lead off and be the responding lawyer. So those are the four issues that have been raised, so tell me what your issues are.

MR. DUFFY: Okay. We'll respond to plaintiffs' -- some of their issues setting forth the dates, because I know they have some -- they've just sent us a somewhat detailed schedule that we just received, and we can -- we'll respond to that.

We're -- the first thing we want to discuss, since I

know you haven't had an opportunity to read it, is we have filed a motion for a stay pending the mandamus. And our position right up front is that this case should be stayed pending resolution of that mandamus petition. I don't have much more to add on that.

THE COURT: No. I've had a cursory -- I've had a cursory read of the -- of the motion, but I understand your position.

MR. DUFFY: Okay. And then the second thing, I'll let plaintiffs go first, but just to preview our position, since the parties did confer yesterday and have discussed next steps somewhat, our view is that the -- if no stay is entered, then the United States will file its answer on February 27th. And our -- we would hope that the parties could then confer and discuss -- after they've reviewed the answer, confer and then discuss next steps in the proceeding. So we're not prepared to discuss trial dates.

And those are basically our two main points, but I can respond to some of the points that plaintiffs made as set forth in more detail.

THE COURT: I think her two other questions were discovery proceeding and the timing of your petition for mandamus. Those are the other two questions that you should address.

MR. DUFFY: Okay. So on the timing for the petition for mandamus, the author -- the Office of Solicitor General has

authorized the petition, so we expect that it will be filed expeditiously, but I -- I don't know exactly when.

And then on the discovery, that relates to our previous point, which is that we believe that the parties need to review the answer -- we think there's going to be a lot of substantive submissions in the answer -- identify the disputed issues of material fact, and at that point, we can confer to discuss when plaintiffs are going to submit their expert reports. And then, you know, we can confer, you know, further on the next steps in the proceeding, but we don't think we can get any further than that right now, because we're still in the pleading stage, and we think it's important that the parties take the answer into consideration before we go into setting discovery deadlines so that we have a good sense of a scope of the proceedings.

MS. OLSON: And this is Julia Olson. May I respond to that point about the need to begin discovery presently?

THE COURT: Please.

MS. OLSON: So my understanding from counsel is that they do intend to update some of the answers that were previously filed in their answer to the first amended complaint in addition to answering the new allegations in the second amended complaint, and there may be areas of agreement on many of those facts about the climate crisis and what's happening to the nation and to the plaintiff.

However, even previously with all of those affirmative

answers and agreeing with the plaintiff, there was still -- there was a lot of agreement between the parties on stipulating to facts that we could then present to the Court as part of the stipulation for trial and there were many areas of dispute. And so the experts that prepared reports and were ready to testify back in 2018 are still going to be important at this trial unless the parties come to agreement and stipulations on facts that this Court can rely on in findings of fact.

And so what needs to be done and what we want to begin doing is having our experts supplement the reports that were prepared in 2018. Some of those experts -- one has deceased, others we may not need at this point, and there may be a couple of new experts that we want to bring in, but basically, you know, the bulk of the content is there. We just need to supplement based on the new information that has developed in the field of science and the conduct of the government over the last five or six years as the case has been delayed.

And so we have proposed that the parties do those supplements of expert reports and exchange them on April 30th -- April 15th or April 30th and then we do rebuttal reports in May, a month later. That was our proposal to defendants.

And the other types of discovery that will be conducted will be pretty limited in terms of requests for admissions, maybe very limited number of interrogatories, but we don't expect a lot of written discovery. And so the bulk of discovery will be

expert work and the depositions of the experts, and if defendants wish to depose the plaintiffs again, and then a handful of depositions of government witnesses that they may have testify.

And we think we can do all of this and have dispositive motion practice and motion in limine practice and be ready for trial on December 2nd.

And to that point, Your Honor, we anticipate that plaintiffs' side could put on our affirmative case and also the government cross-examination of witnesses, we would need approximately 20 days. We've calculated 120 hours as sort of the most we would need.

And, again, if the parties are able to come to some stipulated facts and agree on documents that should be admitted into evidence, then we could also reduce the amount of time needed for trial.

MR. DUFFY: Your Honor, this is Sean Duffy. I think our response to that is our -- we believe that we should file the answer before we delve into discovery. The answer to the first amended complaint contains many admissions. Those admissions should narrow the scope of discovery, and we're expecting that the answers to this amended complaint would also contain many admissions.

So our proposal is let's -- let's get to the point where the answer's filed, the parties confer, and then we can come back to the Court with either a joint proposal for the next

steps in discovery or, if necessary, the parties cannot agree with the parties' proposals, but discussing stipulations at this particular point seems premature, because the answer's going to contain a number of admissions, and I think at that point the parties -- the pleadings have closed, the parties can sit down and decide how the case is going to proceed.

And I don't want to get ahead of myself, but one of the proposals it appears plaintiffs are making is that the parties file simultaneous expert reports. We spoke about this yesterday. We don't think that is a good approach and it's not an efficient approach for a number of reasons. It's not a good approach, because the plaintiffs have the burden here and this is a very sprawling case with many experts. The list they sent us today has over 20.

Plaintiffs should file their expert reports, and then we can review those and try to get our experts under contract and then respond to them, and then they can file -- rebuttals can come later. And that's efficient so that the experts are not just talking past each other, but I don't want to get too far ahead of ourselves.

I think -- if there's not going to be a stay in this case, I think the parties need to look at the pleadings carefully. And I -- I didn't get the sense that the plaintiffs -- honestly, the last time, much of the expert testimony that they offered was quite cumulative of the

admissions, and I would hope that we could have a good discussion this time around and narrow the issues, because 20 days of trial presumes a lot of expert testimony and it also presumes a lot of disputed issues, and I believe that those issues will be significantly narrowed by the pleadings.

MS. OLSON: Your Honor, this is Julia again. And the part -- we are more than happy to work with the defendants to narrow issues and stipulate to facts that the Court can rely on after trial and during trial. We can do that.

Our experience over the last eight and a half years is that it has been virtually impossible to come to stipulation about anything in this case.

So we will continue to participate and work collaboratively with defense counsel to do that, we'll look at the answer; however, expert testimony is going to be needed, and so we want to move expeditiously given the long delay in this case and the urgency of the climate crisis and the irreparable harms that continue to accrue to the plaintiff.

And I'll note that in the defendants' document 571 where they have moved for a stay, on page 5, they say that the issues in this case concern prospective harm and that there isn't current harm. And so, I mean, that's just an indication of one of the areas of disagreement that the parties have to which expert testimony is really important.

So we will work with defense counsel once we have the

answer on -- and can narrow the issues that are actually in dispute and that can be stipulated to.

MR. DUFFY: Your Honor --

THE COURT: (Indiscernible).

MR. DUFFY: Your Honor, if I could add one more thing, something I was thinking about. When we previously structured our expert reports, I believe we were before Judge Coffin at the time in 2017, in that case, he ordered the plaintiffs to file their (indiscernible) expert reports on July 5th and July 31st, and then the United States was ordered to identify its experts by September 14 and serve its expert reports by October 13.

That was a framework that more or less worked, and I think it also sort of took account of these factors we've been discussing, having one set of experts responding to the other.

There's also the issue of our contracting process, which takes us a long time. That's just a delay that's built in, getting our experts under contract. And I think -- I thought Judge Coffin was pretty receptive to understanding that. And so that's in ECF 181, that order.

I think that, if we get to this point where we're discussing experts, could serve as a -- like, as a useful template for how we structure this.

THE COURT: Your Honor, this is Philip Gregory. And Mr. Duffy -- I'm sorry to interject, but Mr. Duffy's citing to the 2017 order of Judge Coffin. That's not the order we followed

in 2018 for experts. We followed a subsequent order leading to the October 2018 trial date.

MR. DUFFY: And this is Sean Duffy. I think what we could do is sit down when we have -- when we're further along after we've gotten past the pleadings and we've discussed the scope of discovery that's needed. I think those are conversations, you know, we can have at that time and we can talk about what worked in the past.

MS. OLSON: Your Honor, we would ask that the Court set dates today, because we -- we have tried working with counsel. We had a phone call yesterday to try to talk about dates. Counsel were not willing to talk about dates. And so we would ask that the Court set a schedule to get us to trial, and the plaintiffs will do everything in our power to meet the deadlines set by the Court.

And I think one other thing I would note is while there are some new allegations in the complaint and there is new science and new facts, the heart of this case is the same and there was a tremendous amount of work done to prepare for trial in 2018 by both sides, and so we aren't starting from -- from ground zero here. Everyone is very familiar with the case, the evidence, and the facts of the case over the last eight and a half years. So a lot of updating needs to be done, but it's not nearly the amount of work that was done in prior years. Thank you.

THE COURT: Well, there are some dates that we can address. Ms. Olson, you told me you needed two weeks to respond to the motion for the stay. So that looks to be --

Ms. Kramer, what day would that be that her response is due?

THE COURTROOM DEPUTY: I believe February 1st.

THE COURT: February 1st. And then will there be a reply?

MR. DUFFY: I'm sorry, Your Honor. You're referring to the stay motion that we filed?

THE COURT: Right. Yes. It's first thing first to (indiscernible) --

MR. DUFFY: Yeah. Well, I mean, it depends on what's in the response, but I -- if this mandamus happens quickly, that may, you know, overtake all of this, of course, but I will say, yes, there will likely be a reply, or at least we reserve the right to file a reply.

THE COURT: So, Counsel, that was my exact point, is Ms. Olson is requesting scheduling, when I think we're playing with -- not talking about what's in the room, and that is I suspect, hearing your comment, that there will be an expedited mandamus, that I may not even get the chance to rule on the stay (indiscernible) proceeding, because I will definitely give counsel -- whoever filed the motion and the other counsel an opportunity to respond. So if you proceed directly to filing a

mandamus before I even get to rule on the stay, I guess that's your decision.

It's surprising, because I really expected when you asked for the delay in filing your answer and the Court granted that extension of time, that we were starting on a different path. And it, again, surprises me that in this case after reading, again, the decision in this case, that the Government isn't saying, "I think we should stay the proceedings and go to the table and have some preliminary settlement discussions," which took place, I don't know now, months and years ago, and could make progress in addressing how this case is now postured. So I'm sort of surprised at receiving what I received and how the Government is proceeding.

So that being said, I'm -- again, I go back to this -- you know, I'm giving the plaintiffs a chance to file their response. And if you file the mandamus before I even get to rule on the motion to stay, I -- I guess I heard you say that, I do believe that your answer is due on February 27th. And this discussion may be academic, because you'll file the stay before you have to file the answer, but I'll expect the answer to be filed at this juncture on the 27th.

I will set a status conference thereafter. And I'm taking under advisement the request for the trial date, which I may issue in a minute order.

And the discovery, I believe that everyone knows that

this case has massive discovery that's been accomplished. My office is aware of it, because we have everything and have reviewed everything over the years and have updated information as to what's needed, and that will take some short period of time, and there's no reason that that needs to really be postponed given information available.

Then I'm going to take a look at that, and as well as get the answer filed, have a status conference to hopefully at that juncture have -- there is conferral about how best to proceed both with additional discovery that's needed to be prepared for trial.

This wasn't what I was expecting to discuss today, so I am going to take it under advisement and wait to read the plaintiffs' response, and we'll have to take a close look at the request for the stay.

And I think -- I think I've covered the issues that the plaintiffs asked to be addressed. Did I miss something --

MS. OLSON: Yes, Your Honor.

THE COURT: -- Mr. Duffy or Ms. Olson?

MS. OLSON: That's all for plaintiffs. Thank you, Your Honor.

MR. DUFFY: Yeah. I believe that's all, Your Honor.

THE COURT: And I -- I hear exactly what the comment is. If the Court doesn't even have the opportunity to rule on the stay in the normal course, proceeding on the mandamus

happens, I understand, and that's the choice you've made.

So is there anything else we need to talk about today?

MS. OLSON: No. Thank you, Your Honor.

MR. DUFFY: Thank you, Your Honor. That's all.

THE COURT: Thank you. We're in recess.

(Proceedings adjourned at 2:12 p.m.)

C E R T I F I C A T E

I certify, by signing below, that the foregoing is a true and correct transcript of the record, taken by stenographic means, of the proceedings in the above-entitled cause.

A transcript without an original signature, conformed signature, or digitally signed signature is not certified.

DATED this 22nd day of January 2024.

/s/ Kellie M. Humiston

Kellie M. Humiston, RMR, CRR
Official Court Reporter
Certificates Expire: 9/2024

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Exhibit 6

Declaration of Guillermo A. Montero,
filed in *In re United States*, No. 18A410 (U.S. Oct. 18, 2018)

IN THE SUPREME COURT OF THE UNITED STATES

No. 18A-_____

IN RE UNITED STATES OF AMERICA, ET AL.

DECLARATION OF GUILLERMO A. MONTERO
IN SUPPORT OF APPLICATION FOR A STAY PENDING
DISPOSITION OF A PETITION FOR A WRIT OF MANDAMUS TO THE
UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON
AND ANY FURTHER PROCEEDINGS IN THIS COURT
AND REQUEST FOR AN ADMINISTRATIVE STAY

I, Guillermo A. Montero, do declare and if called upon would testify as follows:

1. I am an assistant chief in the Environment and Natural Resources Division ("ENRD") of the United States Department of Justice, where I have worked since 2004. In that capacity, I supervise the attorneys of record for Defendants in the district court proceedings of the above-captioned action. I have personal knowledge of the statements made herein, as informed by my review of district court filings, information in the ENRD case management system, and information compiled from the ENRD Office of the Comptroller, Expert Witness Unit, and Office of Litigation Support.

2. As of October 17, 2018, ENRD has devoted over 13,000 attorney and paralegal hours defending this case.

3. As of October 17, 2018, ENRD has expended $2,134,141.09 on expert witness invoice payments; $13,333.57 on invoice payments for depositions and transcripts; and $121,611.61 on employee travel expenses.

4. The liability phase of trial in this case will begin on October 29, 2018, and is expected to last approximately 50 calendar days over the course of several months. The district court has scheduled the first two weeks of this phase of trial for October 29 through November 9, 2018.

5. The parties have indicated that they will call 29 expert witnesses during this phase of trial, and as many as 43 lay witnesses, for a total of 72 potential witnesses. The expert witnesses will testify to a broad range of topics, including the impacts of climate change on ocean chemistry, sea level, glaciers, terrestrial ecosystems, and human physical and emotional health, as well as the technical and economic feasibility of transitioning to renewable sources of energy and sequestering carbon from the atmosphere. That proposed testimony is described in 1,156 pages of expert reports and approximately 130 hours of depositions completed as of October 12.

6. Between now and the end of the liability phase of trial, I estimate that ENRD will expend another $5.2 million in expert witness fees, in addition to the following sundry expenses: $198,986.65 for travel-related expenses from October 2018 through

February 2019; $40,000 in transcript, copying, and shipping costs; and $9,600 for a conference room at trial.

7. Primary responsibilities for handling this phase of trial have been assigned to five attorneys and three paralegals. I estimate that each attorney will expend anywhere from 60 to 80 hours per week on this case for the ten weeks I expect trial to be in session, and anywhere from 30 to 40 hours per week on this case when trial is not in session, *viz.*, the weeks of Nov. 12-16, Nov. 19-23, Dec. 17-21, Dec. 24-28, and Dec. 31-Jan. 4. I also estimate that each attorney will work between 10 and 12 hours per day between now and the start of this phase of trial on October 29. Similarly, I estimate that the three paralegals assigned to this trial will expend a combined total of 220 hours per week on this case for the ten weeks I expect trial to be in session, and a combined total of 100 hours per week on this case while trial is not in session. I also estimate that those three paralegals will work a combined 24 hours per day on this case between now and the start of this phase of trial on October 29. Based on the lowest number in each range, and if trial proceeds as expected, I conservatively estimate that ENRD attorneys and paralegals will expend at least 7,300 hours on the liability phase of trial between now and February, 2019.

8. Attached as Exhibit A is a true and correct copy of Plaintiffs' Witness List, which Plaintiffs filed with the district court on October 15, 2018.

9. Attached as Exhibit B is a true and correct copy of Defendants' Witness List, which Defendants filed with the district court on October 15, 2018.

10. Attached as Exhibit C is a true and correct copy of the Exhibit List Plaintiffs served on Defendants on October 12, 2018, with column-widths modified solely for purposes of facilitating printing.

11. Attached as Exhibit D is a true and correct copy of the Exhibit List Defendants served on Plaintiffs on October 12, 2018, with column-widths modified solely for purposes of facilitating printing.

I declare that the foregoing is true and correct. Executed on this 17th day of October, 2018.

GUILLERMO A. MONTERO

Exhibit 7
Supplemental Declaration of Guillermo A. Montero,
ECF No. 571-1 (Jan. 18, 2024)

TODD KIM
Assistant Attorney General
Environment & Natural Resources Division

GUILLERMO A. MONTERO
Assistant Section Chief
SEAN C. DUFFY (NY Bar No. 4103131)
FRANK J. SINGER (CA Bar No. 227459)
Trial Attorneys
Natural Resources Section
150 M Street NE
Washington, DC 20002
(202) 305-0445
sean.c.duffy@usdoj.gov

Attorneys for Defendants

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
EUGENE DIVISION

KELSEY CASCADIA ROSE JULIANA, *et. al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA, *et al.*,

Defendants.

Case No.: 6:15-cv-01517-TC

DECLARATION OF GUILLERMO A. MONTERO IN SUPPORT OF DEFENDANTS' MOTION FOR A STAY PENDING A PETITION FOR A WRIT OF MANDAMUS

I, Guillermo A. Montero, declare and if called upon would testify as follows:

1. I am an assistant chief in the Environment and Natural Resources Division ("ENRD") of the United States Department of Justice, where I have worked since 2004. In that capacity, I supervise the attorneys of record for Defendants in the district court proceedings for the above-captioned action. I have personal knowledge of the statements made herein, as informed by my review of district court filings and information in the ENRD case management system.
2. As articulated in a prior declaration, ENRD had devoted over 13,000 attorney and paralegal hours to its defense of the United States in this case as of October 17, 2018. See ECF No. 391-1 at 42.
3. Based on my review of the case management system, I have determined that ENRD has devoted over 21,000 attorney and paralegal hours to its defense of the United States in this case as of January 18, 2024.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 18th day of January, 2024, in Washington, D.C.

Guillermo A. Montero