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15 **UNITED STATES DISTRICT COURT**
16 **NORTHERN DISTRICT OF CALIFORNIA**

17 ALEC L., et al.,
18 Plaintiffs,
19 vs.
20 LISA P. JACKSON, et al.
21 Defendants.

Case No. C11-02203 EMC

**PLAINTIFFS' NOTICE OF MOTION
AND MOTION FOR PRELIMINARY
INJUNCTION AND MEMORANDUM
OF POINTS AND AUTHORITIES IN
SUPPORT THEREOF**

Date: November 21, 2011
Time: 2:00 p.m.
Place: Courtroom 5, 17th Floor

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 13 *United States v. Mass. Mar. Acad.*, 762 F.2d 142, 147 (1st Cir. 1985).....23
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23 2 William Blackstone, *Commentaries on the Laws of England* 4 (1766).....11
 24 Charles L. Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV.
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 26 Douglas L. Grant, *Underpinnings of the Public Trust Doctrine: Lessons from Illinois Central*
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 27 Justinian, *Institutes*, 1.2.1, 2.1.1 (T. Sandars trans. 1st Am. ed. 1876).....11
 28 Karl S. Coplan, *Public Trust Limits on Greenhouse Gas Trading Schemes: A Sustainable Middle*

1 *Ground*, 35 Colum. J. Envtl. L. 287, 315 (2010) 11

2 Mary Christina Wood, *Advancing the Sovereign Trust of Government to Safeguard the*

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5 R. Abrams, *Walking the Beach to the Core of Sovereignty*, 40 U. Mich. J.L. Reform 861, 861

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7 S. Rep. No. 95-740, at 1 (1978), *reprinted in* 1978 U.S.C.C.A.N. 1386 17

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NOTICE OF MOTION AND MOTION

PLEASE TAKE NOTICE THAT at 2:00 p.m. on November 21, 2011, or as soon thereafter as counsel may be heard, in the courtroom of the Honorable Edward M. Chen, located on the 17th Floor of the Federal Courthouse at 450 Golden Gate Avenue, San Francisco, California, Plaintiffs will move for a preliminary injunction pursuant to Fed. R. Civ. Proc. 65.

Plaintiffs seek a preliminary injunction requiring Defendants, and each of them, on or before March 19, 2012 to submit a Climate Recovery Plan to this Court setting forth the means to implement the necessary emissions reductions by January 1, 2013 to meet the following reduction trajectory: (1) not allowing United States carbon dioxide (“CO₂”) emissions to exceed levels existing as of September 1, 2011; and (2) prohibiting significant deviation from the benchmark mitigation scenario of a minimum 6% annual CO₂ reduction trajectory to return atmospheric CO₂ levels to 350 ppm by December 31, 2099. This motion is made on the grounds that immediate and irreparable harm will result to Plaintiffs, the public, and our Nation’s essential natural resources in the absence of immediate injunctive relief. This motion is supported by the accompanying Memorandum and Declarations from Plaintiffs and from renowned experts around the world.

1 **MEMORANDUM OF POINTS AND AUTHORITIES**

2 **INTRODUCTION**

3 “The State has an interest independent of and behind the titles of its citizens, in all the earth
4 and air within its domain.” *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 237 (1907).

5 “The power or control lodged in the State, resulting from this common ownership, is to be
6 exercised, like all other powers of government, as a trust for the benefit of the people.” *Geer v.*
7 *Connecticut*, 161 U.S. 519, 534 (1896).

8 Under the Public Trust Doctrine, our federal government has an unalienable duty to protect
9 essential natural resources as a public trust. An atmospheric emergency threatens these natural
10 resources. Because of the urgent need for action, and consistent with its obligation under the Public
11 Trust Doctrine, our federal government must protect our Country’s natural resources by developing
12 a Climate Recovery Plan setting forth the means to implement the necessary emissions reductions
13 by January 1, 2013.

14 Plaintiffs are confident this Court understands this defining moment for our children. The
15 necessary balance of our Nation’s atmosphere is now precariously close to “tipping points” which
16 science concludes, if reached, will make warming, and the resulting harms and losses, irreparable
17 and irreversible. The increasing temperatures from human-induced climate change already threaten
18 our Nation’s water resources, cause more frequent heat waves, flooding and wildfires, increase
19 extreme weather events, kill coral reefs and other sensitive species, increase illness from insect-
20 borne diseases, and threaten our national and economic security.

21 Averting a human-made climate crisis should be a matter of carbon science, not carbon
22 politics. The supporting evidence overwhelming concludes rapid reduction of greenhouse gas
23 emissions is required to stop these catastrophic consequences. To regain the necessary balance and
24 prevent more harm, our Country’s atmosphere, now above 390 parts per million (“ppm”) of carbon
25 dioxide, must be restored to an equilibrium of less than 350 ppm carbon dioxide by the end of this
26 century to prevent any sustained heating beyond 1° C (1.8° F). Our Nation’s best experts deem a
27 temperature increase beyond that would be catastrophic. The window of opportunity to stop the
28 warming and preserve our Nation is limited and gets smaller each year. Meanwhile, the harms

1 continue to worsen and certain permanent losses are becoming unavoidable. The responsibility to
2 protect our Country's atmosphere rests squarely on the shoulders of the federal government. It has
3 the power, the duty, and the means to fulfill its public trust responsibility.

4 Plaintiffs, as beneficiaries of the public trust, are already being harmed by climate change
5 and the harms they suffer will only worsen without the relief sought here. This Court should apply
6 the Public Trust Doctrine to prevent the irreparable harm resulting from the degradation of the
7 atmosphere as a safe natural resource.

8 **FACTUAL BACKGROUND**

9 **I. Our Nation's Atmospheric Imbalance and Climate Emergency**

10 All of Earth's climate systems (the atmosphere, land, and ocean) are unequivocally warming
11 as a result of greenhouse gas emissions ("GHGs") from burning fossil fuels and land use changes
12 like deforestation and industrial agriculture. Dec. of Pushker Kharecha, Ph.D. ("Kharecha Dec."),
13 ¶¶3-12; Dec. of Kevin Trenberth, Ph.D. ("Trenberth Dec."), ¶ 4. This warming occurs as a result of
14 increasing concentrations of GHGs in the atmosphere, resulting in Earth retaining, or trapping,
15 more heat and less heat radiating out to space. Over the industrial era, humans have caused a 40%
16 increase in atmospheric levels of carbon dioxide: 80% from fossil fuel burning and 20% from land
17 use changes. Kharecha Dec., ¶11. "Together these human activities have increased CO₂ from its
18 preindustrial value of about 280 ppm to its current value of about 390 ppm," an unprecedented rise
19 in CO₂ during the past 800,000 years. *Id.*; Dec. of Ove Hoegh-Guldberg, Ph.D. ("Hoegh-Guldberg
20 Dec."), ¶18. With only 4.5% of the world's population, the United States is responsible for 28% of
21 the world's CO₂ emissions which have led to these high and unsafe levels of atmospheric CO₂. Dec.
22 of Sivan Kartha, Ph.D. ("Kartha Dec."), ¶¶4-5. Current global heating, caused by this energy
23 imbalance, is significantly and adversely impacting our Nation's climate. Kharecha Dec., ¶¶7, 14-
24 21. The human-caused imbalance and resulting harms will worsen in the absence of immediate,
25 significant measures to reduce emissions, especially carbon dioxide. Kharecha Dec., ¶¶11, 21.

26 During the 12,000 years in which human civilization developed (the Holocene Epoch),
27 Earth's atmospheric levels of GHGs, like CO₂, were just the right balance to maintain the climate
28 we have enjoyed, resulting in relatively stable coastlines, sea levels, and average temperatures. Dec.

1 of Camille Parmesan, Ph.D. (“Parmesan Dec.”), ¶16. In contrast to daily *ambient* temperatures,
2 which can easily vary as much as 15° F, the average global surface temperature had remained
3 relatively stable for the last 12,000 years. Dec. of Julia A. Olson (“Olson Dec.”), Ex. M at 17 (EPA,
4 *Tech. Support Doc. for Endangerment Findings*). Even seemingly small changes in global average
5 temperatures have enormous impacts. The amount of climate change we are experiencing in a
6 single year from increasing levels of atmospheric CO₂ has historically occurred over hundreds of
7 years. Hoegh-Guldberg Dec., ¶18. Eight of the ten warmest years during the period of instrumental
8 records occurred since 2001. Olson Dec., Ex. M at ES-1-2, 29; Kharacha Dec., ¶¶3, 10-11.

9 Although much excess CO₂ is naturally absorbed by oceans and by plants (chiefly forests),
10 the huge increase of GHG concentrations resulting from human activities has greatly lessened that
11 ability and has detrimentally altered Earth’s ability to maintain the delicate balance of the energy it
12 receives from the sun and radiates back into space. Olson Dec., Ex. M at 17. We not only continue
13 to add GHGs into the atmosphere at a rate that outpaces their removal through natural processes,
14 (*Id.* at ES-2, 16; Kharecha Dec., ¶ 7), but CO₂ has a millennial-scale atmospheric lifetime.
15 Kharecha Dec., ¶10. Thus, a substantial portion of every ton of CO₂ emitted by humans today
16 persists in the atmosphere for as long as one hundred years or more. *See* Olson Dec., Ex. M at 16.

17 The energy imbalance and the inertia of Earth’s climate system also means there is “in-the-
18 pipeline” warming we are not yet experiencing. Kharecha Dec., ¶7, Hoegh-Guldberg Dec., ¶19. As
19 we emit more GHGs into the atmosphere, we commit our Nation to even more heating, greater
20 imbalance, and additional irreparable harm in the future.

21 **II. The Resulting Harm to Our Nation’s Natural Resources and Human Health and Safety**

22 This energy imbalance and climate instability is harming human health and the health of our
23 natural resources and threatens the habitability of our Country for humans and countless other
24 species. Kharecha Dec., ¶¶7, 12, 14-21. According to Defendant EPA, “greenhouse gases in the
25 atmosphere may reasonably be anticipated both to endanger the public health and to endanger the
26 public welfare of current and future generations.” Olson Dec., Ex. M at 17. Defendant Department
27 of the Interior agrees: “[c]limate change is affecting every corner of the American continent.” Olson
28 Dec., Ex. C at 1.

1 **A. Warming Oceans, Ocean Acidification, and Coral Reefs Dying**

2 Our oceans have gained a massive amount of heat from this energy imbalance and are
3 suffering from acidification due to absorbing excess CO₂. Kharecha Dec., ¶3; Hoegh-Guldberg
4 Dec., ¶¶7, 12, 17; Trenberth Dec., ¶4; Olson Dec., Ex. M at 103. These changes have caused mass
5 coral bleaching and mortality and an adverse impact on coral calcification. *Id.* “Further increases
6 in carbon dioxide and other greenhouse gases beyond current levels will accelerate these losses and
7 will drive coral reefs beyond known thresholds for mass coral bleaching and mortality . . . the
8 current climate is already dangerous for coral reefs.” Hoegh-Guldberg Dec., ¶7. Mass coral
9 bleaching is likely to become more frequent and intense and the biodiversity of reefs will diminish,
10 leading to multiple species extinctions. *Id.*, ¶¶30-31, 35. These harms jeopardize the enormous
11 benefits of coral reefs to our Nation, including economic benefits, protection of water quality,
12 coastal protection, production of sand for beaches, and other ecosystem services. *Id.*, ¶10.

13 **B. Floods, Drought, Less Snow, and Increased Weather Extremes and Events**

14 Measurements from around the world show weather-related extremes have increased in
15 severity, frequency, duration, and geographic extent in recent decades. Kharecha Dec., ¶18. Most
16 concerning among these extremes are droughts, floods, wildfires, heat waves, and large storms, and
17 consequent threats to human health, food and water supply, and natural ecosystems. *Id.*; *see also*
18 Dec. of Steven Running, Ph.D. (“Running Dec.”), ¶¶8-11.

19 Human-induced energy imbalance has a direct effect on changes in precipitation and heavy
20 rains. Trenberth Dec., ¶¶4-5; Kharecha Dec., ¶18. Under continued warming – and thus continued
21 increase in atmospheric water vapor – dry (or wet) areas are likely to get drier (or wetter); and
22 floods, droughts, heat waves, and wildfires are likely to become more frequent, intense, and
23 spatially extensive in the U.S. Kharecha Dec., ¶18; *see also* Trenberth Dec., ¶5. “A warmer
24 climate therefore increases risks of both drought – where it is not raining – and floods – where it is
25 – but at different times and/or places.” Trenberth Dec., ¶¶11, 18-21. For example, the heavy rains
26 this spring led to record breaking flooding along the Mississippi and record tornado outbreaks. At
27 the same time drought conditions in Texas and Arizona led to many wildfires, including the biggest
28 on record in Arizona, affecting over 3.6 million acres, and the loss of 1500 homes in Texas. *Id.*

1 As climate continues to warm, heavy rainfall and thus flooding are likely to become much
2 more frequent, which has enormous adverse consequences for agriculture, hydrology, and water
3 resources. Trenberth Dec., ¶31. Western North America, especially the southwest, has experienced
4 more extreme climate changes than any region on the continent except the Arctic. Declaration of
5 Jonathan T. Overpeck, Ph.D. (“Overpeck Dec.”), ¶3. Drought conditions in the south and
6 southwest are worse than they have been since the rain gauge record. *Id.*, ¶4. Scientists expect
7 these trends to continue and become more severe than projections initially indicated. *Id.*, ¶¶8, 10.

8 **C. Rising Sea Levels**

9 “Sea level rise is an inevitable consequence of a warming climate, as ice melts and the
10 oceans warm up.” Declaration of Stefan Rahmstorf, Ph.D. (“Rahmstorf Dec.”), ¶2. Global average
11 sea level has risen nearly 20 cm over the past century. Kharecha Dec., ¶15. This amount of sea
12 level rise, combined with human development, has led to loss of coastal wetlands and greater
13 damage from coastal flooding, including the loss of 1900 square miles of Louisiana’s coastal
14 wetlands. Kharecha Dec., ¶15; Olson Dec., Ex. M at ES-7. Scientists’ best estimates on projected
15 sea level rise is that it will reach one meter or more by the end of this century with current
16 emissions of GHGs. Rahmstorf Dec., ¶18. However, the extent of sea level rise is hard to predict
17 because of the uncertain projections in the loss of the major ice sheets on Greenland and Antarctica,
18 which have already begun to lose mass. *Id.*, ¶¶5, 8, 11-13; Kharecha Dec., ¶5, figure 2b, ¶17.

19 Sea level depends on local variables such as ocean temperature and currents and land
20 movements, which make certain coasts particularly vulnerable. Rahmstorf Dec., ¶¶19-21; Olson
21 Dec., Ex. M at 121. Because there is such delay between warming and sea level rise, the emissions
22 produced today and in the coming decades will cause a long-term delayed response, likely causing
23 massive impacts along our Nation’s coastlines. Rahmstorf Dec., ¶22-23. “The main impacts of sea
24 level rise are increased coastal erosion and land loss, increased risk of flooding during extreme
25 events (storm surges), increasing groundwater levels up to 20-50 km inland, and salt water intrusion
26 into freshwater resources.” Rahmstorf Dec., ¶24. For instance, even with a one-meter rise in sea
27 level, once-per-century storm surge events in New York City, which cause severe damage, would
28 be expected once every three years. *Id.*, ¶25.

1 **D. Melting Glaciers and Ice Loss**

2 As a result of human-induced energy imbalance, mountain glaciers are receding nationwide
3 because of warming temperatures. Kharecha Dec., ¶5, Figure 2a; see Olson Dec., Ex. M at 111.
4 Today, Glacier National Park in Montana has only twenty-five glaciers larger than twenty-five
5 acres, down from 150 in 1850. Olson Dec., Ex. K at 1. Further, rain falling on snow accelerates the
6 melting of glaciers and snow packs, often causing severe flooding. Olson Dec., Ex. M at 111.

7 Similarly, because of human-induced climate change, there has been a general increase in
8 permafrost (frozen ground) temperatures and permafrost melting in Alaska. Permafrost degradation
9 leads to the release of stored methane, which has the potential to “cause a large, uncontrollable
10 amplifying effect on the background climate warming.” Kharecha Dec., ¶¶25-26.

11 **E. Harm to Species and Ecosystems**

12 Human-induced climate change has already affected every major biological group studied,
13 from trees to insects to mammals to fish. Over 50% show measurable response. Kharecha Dec.,
14 ¶18; Parmesan Dec., ¶¶5-6; Running Dec., ¶¶24-32. If future global warming remains at or beyond
15 ~1.6°C above preindustrial (i.e. only ~0.8°C warming above present), between 9-31% of the many
16 millions of Earth’s species are projected to be “committed to extinction.” Kharecha Dec., ¶18; see
17 also Running Dec., ¶¶37- 45; Parmesan Dec., ¶¶15, 17.

18 Forest ecosystems have been extensively harmed by significant pest outbreaks such as the
19 white pine beetle in the western United States. Running Dec., ¶22; Parmesan Dec., ¶11. “There are
20 now millions of hectare of dead forests in the western United States, and no clear evidence of when
21 this outbreak will stop.” Running Dec., ¶22. The area of forest burned in wildfires has also
22 substantially increased in recent decades because a warming climate, causing earlier snowmelt,
23 longer growing seasons, and higher summer temperatures resulting in drier land, encourages
24 wildfires. *Id.*, ¶¶20-21; Overpeck Dec., ¶¶6, 9.

25 **F. Agricultural Impacts and Food Insecurity**

26 In most regions of our Country, as surface temperatures increase, yields in crop production of
27 the four primary crops (maize, wheat, rice and soybeans) are decreasing or will decrease.
28 Declaration of David B. Lobell (“Lobell Dec.”), ¶¶11, 16, 18, 20-26. “[C]limate change appears

1 very likely to cause downward pressure on average global yields by 2030” which could lead to as
2 much as a 35% increase in cereal prices. *Id.*, ¶23. By mid to late century, it will be difficult to
3 produce crop varieties that can withstand extreme heat and drought while still being economically
4 viable. *Id.*, ¶27. Scientists’ estimates of impacts to maize production in the U.S. Corn Belt suggest
5 an 11% yield loss per degree C of warming. *Id.*, ¶29. In all, warming presents significant impacts
6 to food security in coming decades. *Id.*, ¶31.

7 **G. Harm to Human Health**

8 By placing additional stress upon the availability of food, clean air, and clean water and by
9 potentially expanding the burden of disease from certain vector-borne diseases, human-induced
10 climate change represents a major threat to child health. Dec. of Paul Epstein, M.D. (“Epstein
11 Dec.”), ¶2. There are seven ways in which climate change already affects human health and
12 particularly that of the young and elderly: (1) heatwaves; (2) asthma and allergies; (3) spread of
13 infectious diseases; (4) spread of pests and pathogen; (5) winter weather anomalies; (6) drought;
14 and (7) food insecurity. *Id.*, ¶¶3-29. “The most profound implications for human health however,
15 lie with the adverse impacts of climate change on the ecological systems – our life support systems
16 – that underlie our health and well-being.” *Id.*, ¶29. The resulting problems include: (a)
17 dehydration and diarrhea in children and cardio respiratory illnesses; (b) increased numbers of
18 asthma sufferers; (c) stronger allergenic proteins; (d) increased spread of infectious diseases,
19 including vector-borne diseases and mosquito, water and rodent-borne diseases, malaria, dengue
20 fever infections, diarrhea, tick-borne Lyme disease, and E. coli and cryptosporidium infections; and
21 (e) increased crop pests and diseases. *Id.*, ¶¶4-10, 12, 15, 18, 20-22; Parmesan Dec. ¶¶13.

22 **H. Psychological Health of Young People**

23 Experts expect an increased incidence of mental and social disorders from climate change
24 catastrophes, including depressive and anxiety disorders, posttraumatic stress, increases in
25 substance abuse, suicides and outbreaks of violence. Dec. of Lise Van Susteren, M.D. (“Van
26 Susteren Dec.”), ¶¶6-46. There are seventy million children in America who risk suffering from
27 long-term anxiety and acute reactions due to natural disasters and extreme weather events, in
28 addition to the other physical health effects. *Id.*, ¶¶11-14.

1 **I. Threat to National Security**

2 Top retired United States' military advisors have approved a report finding: (1) "Projected
3 climate change poses a serious threat to America's national security;" (2) "Climate change acts as a
4 threat multiplier for instability in some of the most volatile regions of the world;" (3) "Projected
5 climate change will add to tensions even in stable regions of the world;" and (4) "Climate change,
6 national security, and energy dependence are a related set of global challenges." Olson Dec. Ex. A,
7 at 44-45 (*National Security and the Threat of Climate Change*) An increase in refugees, drought,
8 and extreme weather events will all strain foreign aid and military forces. *Id.* at 7. For instance, by
9 2025, 40 percent of the world's population will be living in countries experiencing significant water
10 shortages, while sea-level rise could cause displacement of tens or even hundreds of millions of
11 people, climate refugees. *Id.* at 16.

12 **III. It Is Urgent to Restore Our Nation's Atmosphere by Attaining 350 ppm**

13 To protect the atmosphere, our climate, and our Nation's natural resources, our federal
14 government must return atmospheric CO₂ levels to 350 ppm or below. There are three scientific
15 bases for attaining 350 ppm for atmospheric CO₂ levels: (1) it will restore the Earth's energy
16 balance; (2) it will limit global surface heating to no more than 1°C above preindustrial
17 temperatures; and (3) it will safeguard our oceans.

18 Our nation's top climate scientists have accurately calculated how energy balance can return
19 to a safe equilibrium by reducing long-lived greenhouse gases such as carbon dioxide. Kharecha
20 Dec., ¶¶22-24. Right now, the energy imbalance is over one-half watt. *Id.*, ¶7. In order to increase
21 heat radiation into space by one-half watt, atmospheric carbon dioxide concentrations must decrease
22 by about 40 ppm to 350 ppm or below, if other long-lived GHGs stay the same as today. *Id.*, ¶22.

23 In addition to restoring energy balance, 350 ppm is the target because temperature change
24 should be no more than 1°C above preindustrial temperatures in order to protect natural systems.
25 *Id.* To prevent heating greater than 1°C, concentrations of atmospheric CO₂ must decline to less
26 than 350 ppm this century. *Id.* Finally, for the health of our oceans and life therein, it is imperative
27 that atmospheric CO₂ levels decline to below 350 ppm. Hoegh-Guldberg Dec., ¶¶19, 20.

1 “Given the measured industrial-era increases of temperature (about 0.8°C) and CO₂
 2 (currently at about 390 ppm), achieving these targets implies the need for rapid, large-scale, and
 3 sustained reductions in CO₂ (and other GHG) emissions from human activities.” Kharecha Dec.,
 4 ¶¶22. If our government does not act quickly, a tipping point could be reached and natural feedback
 5 loops may not allow the warming to be reversed due to large, uncontrollable amplifying effects. *Id.*,
 6 ¶¶25-26; Parmesan Dec., ¶19. To reduce concentration of CO₂ in the atmosphere to 350 ppm by
 7 2100 and avoid heating over 1 degree Celsius over pre-industrial temperatures or the collapse of the
 8 oceans, atmospheric carbon dioxide emissions need to peak in 2012 and then begin to decline at an
 9 average of 6% per year. Kharecha Dec., ¶24. In addition, carbon sequestering forests and soils
 10 must be preserved and replanted to sequester an additional 100 gigatons of carbon through the end
 11 of the century. *Id.*

12 A major implication of climate system inertia is that every year of delay in
 13 reducing CO₂ emissions leads to a longer duration of “overshoot” of the
 14 temperature and CO₂ targets outlined herein – thereby substantially
 15 increasing the risk of severe or irreversible climate impacts. For example,
 16 delaying the CO₂ emissions peak by just 8 years... leads to an overshoot
 17 of the temperature target that is about 70 years longer. Thus, the
 requirement of an emissions peak in 2012 and the other stipulations in our
 mitigation scenario are fully consistent with our best available science and
 reflect the type and scale of action needed to maximize the likelihood of
 preventing further irreparable harm, beyond what is already occurring and
 what is unavoidable due to heating in the pipeline.

18 Kharecha Dec., ¶29.

19 **IV. Getting to 350 ppm Is Technologically and Economically Feasible**

20 Defendants have the ability to curtail these devastating harms and losses. *See* Dec. of Arjun
 21 Makhijani, Ph.D. (“Makhijani Dec.”); Kharecha Dec., ¶¶27-28. It is technically and economically
 22 feasible for the U.S. to transition to an almost fully renewable energy system by at least 2050, at
 23 reasonable cost. Makhijani Dec., ¶2 (describing energy efficiency, solar and wind energy, replacing
 24 jet fuel with algal biofuels and hydrogen as important elements of the transition). Among other
 25 measures, a federal plan could include a renewable portfolio standard, a carbon tax, federal
 26 leadership toward carbon neutrality to help create the necessary markets, building, appliance and
 27 vehicle efficiency standards including ships and aircraft, CO₂ emission targets per mile traveled,
 28 and a steadily declining cap on emissions from large, energy intensive industries. *Id.*

LEGAL ARGUMENT

I. Standard of Review

A preliminary injunction should issue if the plaintiff establishes: “[(1)] that he is likely to succeed on the merits, [(2)] that he is likely to suffer irreparable harm in the absence of preliminary relief, [(3)] that the balance of equities tips in his favor, and [(4)] that an injunction is in the public interest.” *Am. Trucking Ass’n, Inc. v. City of Los Angeles*, 559 F.3d 1046, 1052 (9th Cir. 2009). A preliminary injunction “preserve[s] the status quo pending at least some discovery and further hearing on the merits.” *Alliance for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1134 (9th Cir. 2011). An injunction should issue where there are “serious questions going to the merits” and where the balance of hardships tips sharply in the plaintiffs’ favor, provided there is a likelihood of irreparable injury and the injunction is in the public interest. *Id.* at 1132, 1134-35.

II. Plaintiffs Raise Serious Questions on the Merits and Are Likely to Succeed

Defendants, as sovereign trustees, have a legal obligation under the Public Trust Doctrine to protect the atmosphere from harm associated with GHG emissions causing climate instability and collapse of our Nation’s natural systems. By allowing GHG emissions are occurring at a rate far exceeding scientific requirements. Thus, Defendants are violating their public trust duties owed to generations of United States citizens, as beneficiaries of the trust, and specifically Plaintiffs.

To sustain an action asserting a violation of the Public Trust Doctrine, a plaintiff must establish the sovereign trustee’s conduct and inaction has disposed of or is wasting a public trust resource (the “res”) in a way that does not preserve or protect the public interests in the res for present and future generations. In this case, Plaintiffs will establish the federal government, as trustee, has caused or allowed significant harm to occur to the atmosphere, a public trust asset, and this harm has significantly interfered with the public’s use of the res.

A. The Federal Public Trust Doctrine is an Attribute of Sovereignty

The Public Trust Doctrine is an ancient legal mandate incorporated into American jurisprudence. The Doctrine establishes a sovereign obligation to hold critical natural resources in trust for the benefit of the citizen beneficiaries. The doctrine is “rooted in the precept that some resources are so central to the well-being of the community that they must be protected by

1 distinctive, judge-made principles.” Charles L. Wilkinson, *The Public Trust Doctrine in Public*
2 *Land Law*, 14 U.C. DAVIS L. REV. 269, 315 (1980). The Public Trust Doctrine is “inherent in the
3 nature of sovereignty and are therefore enforceable as limits on federal action.” See Karl S. Coplan,
4 *Public Trust Limits on Greenhouse Gas Trading Schemes: A Sustainable Middle Ground*, 35
5 Colum. J. Envtl. L. 287, 315 (2010).

6 Pursuant to the Public Trust Doctrine, the sovereign trustee has an affirmative obligation to
7 prevent waste, use reasonable skill and care to preserve the trust property, and maintain trust assets.
8 See Mary Christina Wood, *Advancing the Sovereign Trust of Government to Safeguard the*
9 *Environment for Present and Future Generations (Part I): Ecological Realism and the Need for a*
10 *Paradigm Shift*, 39 Envtl. L. 43, 69 (Winter 2009). These obligations run to all three branches of
11 the government and cannot be abdicated by any branch. See R. Abrams, *Walking the Beach to the*
12 *Core of Sovereignty*, 40 U. Mich. J.L. Reform 861, 861 (Summer 2007). The duty to protect
13 includes the duty to ensure the continued availability of trust resources for the benefit of present and
14 future generations and the duty to promote the utilization of trust resources in a manner consistent
15 with their conservation. See *Kelly v. 1250 Oceanside Partners*, 140 P.3d 985, 1003 (Haw. 2006).
16 Therefore, the Public Trust Doctrine imposes an affirmative, inalienable obligation on the sovereign
17 to preserve and protect trust assets from damage or loss, and not to use the asset in a manner that
18 causes injury to present and future trust beneficiaries.

19 The Public Trust Doctrine can be traced from Roman Law through the Magna Carta to
20 present day decisions. Published in 533, the Roman Institutes of Justinian codified the right of
21 public ownership of important natural resources: “By the law of nature these things are common to
22 mankind – the air, running water, the sea, and consequently the shores of the sea.” Justinian,
23 Institutes, 1.2.1, 2.1.1 (T. Sandars trans. 1st Am. ed. 1876). Under English common law: “There
24 are some few things which... must still unavoidably remain in common . . . Such (among others)
25 are the elements of light, air, and water . . .” 2 William Blackstone, Commentaries on the Laws of
26 England 4 (1766). The Public Trust Doctrine was incorporated into the first American colonial
27 charters, thereby providing the same protection for natural resources in America as provided by the
28 Crown in England. *Martin v. Waddell*, 41 U.S. 367, 413 (1842).

1 The United States Supreme Court recognized the Public Trust Doctrine was needed as a
2 bulwark to protect resources too valuable to be disposed of at the whim of the legislature. *See Ill.*
3 *Cent. R.R. v. Illinois*, 146 U.S. 387, 453 (1892) (“The state can no more abdicate its trust over
4 property in which the whole people are interested . . . than it can abdicate its police powers in the
5 administration of government and the preservation of the peace.”); *see also Geer v. Connecticut*,
6 161 U.S. 519, 534 (1896), *rev’d on other grounds, Hughes v. Oklahoma*, 441 U.S. 322 (1979).

7 The Public Trust Doctrine imposes both rights and duties on the United States government
8 with regards to public trust assets. *See United States v. 1.58 Acres of Land*, 523 F. Supp. 120 (D.
9 Mass. 1981); *City of Alameda v. Todd Shipyards*, 635 F. Supp. 1447 (N.D. Cal. 1986). For
10 example, the federal government has an inalienable duty to preserve and protect public trust assets
11 from damage or loss. *In re Complaint of Steuart Transp. Co.*, 495 F. Supp. 38, 40 (E.D. Va. 1980)

12 In *Steuart Transp. Co.*, approximately 30,000 migratory birds were killed as a result of an oil
13 spill. 495 F. Supp. at 39. In holding both the State of Virginia and the federal government could
14 seek recovery for the destruction of the birds under the Public Trust Doctrine, the court found the
15 federal government has a duty to protect and preserve public trust assets: “Under the public trust
16 doctrine, the State of Virginia and the United States have the right and the duty to protect and
17 preserve the public's interest in natural wildlife resources. Such right does not derive from
18 ownership of the resources but from a duty owing to the people.” *Id.* at 40.

19 Additionally, there are both Constitutional and statutory bases to the federal government’s
20 sovereign public trust obligation. As a fundamental attribute of sovereignty, under the reserved
21 powers doctrine and the vesting clauses of the U.S. Constitution, the Public Trust Doctrine is
22 reflected as a limitation on the federal government’s power to allow damage to a public trust asset.
23 *See Douglas L. Grant, Underpinnings of the Public Trust Doctrine: Lessons from Illinois Central*
24 *Railroad*, 33 ARIZ. ST. L.J. 849 (2001). As a constitutional foundation for the reserved powers
25 doctrine, the Constitution’s vesting clauses are an allocation of “power temporally within the
26 legislative branch by preventing one legislature from impairing essential powers of a later
27 legislature.” *Id.* at 872. The Supreme Court’s opinion in *Newton v. Commissioners* provided a
28 foundation for the lodestar public trust opinion, *Illinois Central*, and stated:

1 Every succeeding legislature possesses the same jurisdiction and power
2 with respect to them as its predecessors. . . . All occupy, in this respect, a
3 footing of perfect equality. This must necessarily be so in the nature of
4 things. It is vital to the public welfare that each one should be able at all
 times to do whatever the varying circumstances and present exigencies
 touching the subject involved may require.

5 *Newton v. Commissioners*, 100 U.S. 548, 559 (1879).

6 Therefore, one legislature cannot bind a future legislature in matters of crucial public
7 concern. *See Ill. Cent. R.R.*, 146 U.S. at 455. By continuing to abdicate its public trust duties, our
8 federal government will reach a point where it no longer has the ability to protect public trust assets
9 and the public’s interest in those assets.

10 The federal government’s sovereign public trust obligations are also recognized and reflected
11 in federal statutes such as the Comprehensive Environmental Response, Compensation, and
12 Liability Act (“CERCLA”), the Oil Pollution Act (“OPA”), and the Clean Water Act (“CWA”). 42
13 U.S.C.S. § 9607(f); 33 U.S.C.S. § 2706; 33 U.S.C.S. § 1321. For example, the OPA designates
14 federal trustees “who shall act on behalf of the public as trustees for natural resources under this
15 Act” and “shall assess natural resource damages” and “develop and implement a plan for the
16 restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources
17 under their trusteeship.” 33 U.S.C.S. § 2706(b)-(c).

18 Defendants’ public trust obligations are further reflected in their mission statements. The
19 mission of Defendant United States Environmental Protection Agency (“EPA”) is to protect human
20 health and the natural environment, on which life depends, including air, water and the land. Olson
21 Dec., Ex. B. at 1. As part of this duty, it must ensure that federal laws protecting human health and
22 the environment are implemented and enforced effectively and fairly. *Id.*

23 The mission of Defendant United States Department of Interior (“DOI”) is to protect
24 America’s natural resources and heritage, honor cultures and tribal communities, and supply the
25 energy to power the future of America. Olson Dec., Ex. D. It has a duty to “uphold the federal
26 government’s trust responsibilities to 562 Indian Tribes; conserve fish, wildlife and their habitats;
27 manage water supplies for more than 30 million people; and protect the icons of our national
28 heritage.” Olson Dec., Ex. C at 1.

1 Defendant United States Department of Agriculture (“USDA”) has authority over our
2 nation’s food, agriculture, and many natural resources, including national forests. Olson Dec., Ex.
3 E. “The mission of the USDA Forest Service is to sustain the health, diversity, and productivity of
4 the Nation’s forests and grasslands to meet the needs of present and future generations.” Olson
5 Dec., Ex. F at 1.

6 The mission of Defendant United States Department of Commerce (“Commerce”) includes
7 “provid[ing] effective management and monitoring of our nation’s resources and assets to support
8 both environmental and economic health.” Olson Dec., Ex. G at 1. Through its agency, National
9 Oceanic and Atmospheric Administration (“NOAA”), it is also responsible for preserving and
10 protecting natural resources, including fisheries, coastal areas, marine life, and *our atmosphere*.
11 Olson Dec., Ex. H.

12 The mission of Defendant United States Department of Energy (“DOE”) is to advance the
13 national, economic, and energy security of the United States through clean, reliable, and affordable
14 energy, to protect the environment, and to encourage innovations in science and technology that
15 improve the quality of life. Olson Dec., Ex. I.

16 The mission of Defendant United States Department of Defense (“DOD”) is to protect the
17 security of our country. Olson Dec., Ex. J at 1. DOD is the oldest and largest government agency,
18 and as the nation’s largest employer is responsible for enormous greenhouse gas emissions from its
19 vehicle fleet, electricity for buildings, and its weapons infrastructure. *Id.*

20 Collectively, these Defendant federal agencies are charged with protecting citizens and our
21 Nation. Each of them is a trustee of the atmosphere.

22 **B. The Atmosphere is an Essential Public Resource, Held in Trust By Our Federal**
23 **Government**

24 The Public Trust Doctrine imposes the duty on the sovereign trustee to prevent harm to,
25 protect, and preserve any trust asset that is not susceptible to private ownership. The Public Trust
26 Doctrine also applies to those assets extending beyond the borders of a state, making federal
27 protection of them of paramount importance. In fact, the Supreme Court has held resources only
28 temporarily within a state, such as migratory birds, are best regulated by the federal government.

1 *Missouri v. Holland*, 252 U.S. 416, 435 (1920) (“Here a national interest of very nearly the first
2 magnitude is involved. It can be protected only by national action in concert with that of another
3 power.”).

4 In its first recognition of the Public Trust Doctrine, the United States Supreme Court
5 explained public trust duties arise when the asset in question is “property of a special character.”
6 *Ill. Cent. R.R. v. Illinois*, 146 U.S. at 454 .

7 The State can no more abdicate its trust over property in which the whole
8 people are interested, like navigable waters and the soils under them, so as
9 to leave them entirely under the use and control of private parties . . . than
it can abdicate its police powers in the administration of government and
the preservation of peace.

10 *Id.* at 453. While *Illinois Central* dealt specifically with the alienation of land beneath navigable
11 waters, the Supreme Court’s broad language in the decision is applicable to the atmosphere. Much
12 like the public trust asset discussed in *Illinois Central*, the atmosphere is “property of a special
13 character” “in which the whole people are interested” that should not be left “entirely under the use
14 and control of private parties.” The atmosphere is undeniably “a subject of public concern to the
15 whole people of the state.” *Ill. Cent. R.R.*, 146 U.S. at 455. Therefore, it is a fundamental natural
16 resource necessarily entrusted to the care of our federal government, in trust, for its preservation
17 and protection as a common property interest. See *Georgia v. Tenn. Copper Co.*, 206 U.S. at 237.

18 Over time, courts have expanded the Public Trust Doctrine beyond original societal concerns
19 of commerce and navigation to other modern concerns such as biodiversity, wildlife, and recreation.
20 See, e.g., *Nat’l Audubon Soc’y v. Superior Court of Alpine Cnty.*, 658 P.2d 709, 719 (Cal. 1983);
21 *Ctr. for Biological Diversity v. FPL Grp.*, 83 Cal. Rptr. 3d 588, 599 (Cal. Ct. App. 2008); *Matthews*
22 *v. Bay Head Improvement Assoc.*, 471 A.2d. 355, 363 (N.J. 1984). Indeed, courts have “perceiv[ed]
23 the public trust doctrine not to be ‘fixed or static,’ but one to be molded and extended to meet
24 changing conditions and needs of the public it was created to benefit.” *Matthews*, 471 A.2d. at 365;
25 see also *Marks v. Whitney*, 491 P.2d 374, 380 (1971) (“In administering the trust the state is not
26 burdened with an outmoded classification favoring one mode of utilization over another.”).

27 The same test used by courts for over a century to determine whether a particular waterway is
28

1 protected by the Public Trust Doctrine, navigability, is equally applicable to the atmosphere to
2 determine if it too is subject to the Public Trust Doctrine. Much like navigable waterways, the
3 atmosphere also is navigable and therefore not subject to private ownership. *See Claassen v. City &*
4 *Cnty. of Denver*, 30 P.3d 710, 713 (Colo. App. 2000) (“Navigable airspace is in the public domain,
5 and the surface owner’s property interest in airspace above his or her land is generally limited to the
6 airspace which is below navigable limits.”); *United States v. Causby*, 328 U.S. 256, 261 (1946)
7 (“To recognize such private claims to the airspace would clog these highways, seriously interfere
8 with their control and development in the public interest, and transfer into private ownership that to
9 which only the public has a just claim.”).

10 Because the atmosphere is navigable and in the public domain, the Public Trust Doctrine
11 requires the sovereign trustee must protect the public’s interest in it. To allow carbon emissions to
12 clog the atmosphere and destabilize the climate is the equivalent of allowing the transfer of the
13 atmospheric resource into private ownership, a resource to which only the public has a just claim.

14 The question of whether the atmosphere must be protected as a public trust resource by
15 Defendants is a different but analogous question to the claims in *Native Village of Quinhagak v.*
16 *U.S.*, where the Ninth Circuit held that the Native Villages had raised serious questions as to
17 “whether, for purposes of ANILCA, public lands include navigable waters . . . [more specifically]
18 whether the . . . regulation interpreting ANILCA to exclude navigable waters from the definition of
19 public lands is unreasonable,” and “whether the navigational servitude held by the United States on
20 navigable waters constitutes the necessary federal ‘interest’ in the waters in question.” 35 F.3d 388,
21 392 (9th Cir. 1994). There the court also held that the balance of hardships tipped sharply in favor
22 of plaintiffs in light of “the evidence of the threatened loss of an important subsistence food source
23 and destruction of their culture and way of life.” *Id.* at 394, n.5.

24 **C. Defendants Have Violated Their Public Trust Duties To the Atmosphere**

25 As demonstrated above, current concentrations of GHG are demonstrably too high, placing
26 our Nation on the brink of climate catastrophe. United States carbon dioxide emissions are a major
27 contributor to our national climate crisis. Kartha Dec., ¶¶3-5, 8. Defendants have allowed a public
28 trust asset, the atmosphere, to be severely damaged with 28% of the world’s carbon emissions and

1 have contributed significantly to the unhealthy clogging of the atmosphere, so that today, it contains
2 CO₂ levels that are 11.5% over the upper limit of health and stability of 350 ppm. Kartha Dec, ¶¶3-
3 5, 9. “Even if the United States stabilized emissions at this year’s levels, holding emissions steady
4 the remainder of the century, it would still nearly deplete the entire world’s carbon dioxide budget
5 (emitting 510 billion tons).” Kartha Dec., ¶9, *see also* ¶¶6-16. Preventing the worst consequences
6 of human-induced energy imbalance would be impossible without United States’ emission
7 reductions of at least 6% per year. *Id.*, ¶16.

8 Since at least the late 1970s the federal government has known about the “grave threat” from
9 human-induced climate change and the “major federal action [needed] to contain the buildup of
10 greenhouse gases in Earth’s atmosphere.” Dec. of James Gustave Speth (“Speth Dec.”), ¶3. A
11 National Climate Program Act was passed in 1978 “to establish a national climate program that will
12 assist the Nation and the world to understand and respond to natural and man-induced climate
13 processes and their implications.” 15 U.S.C. § 2901(3) (1978). The Act’s Senate Report stated
14 “more severe weather conditions in the last few years may be indicative of significant climate
15 fluctuations and change in the future. Such changes would likely cause serious problems for the
16 United States in a number of critical areas, such as food production, energy supplies, water
17 resources, and maintenance of human health. The United States must be prepared to adapt to future
18 climate fluctuations should they occur.” S. Rep. No. 95-740, at 1 (1978), *reprinted in* 1978
19 U.S.C.C.A.N. 1386. While legislators were clearly aware of the threats climate change posed,
20 Congress failed to take any meaningful action to reduce GHG emissions and avert the impacts that
21 were predicted 33 years ago and that our Country is facing today.

22 Recognizing the complete lack of a coordinated national approach to climate change, our
23 President issued an Executive Order in 2009 “to establish an integrated strategy towards
24 sustainability in the Federal Government and to make reduction of greenhouse gas emissions a
25 priority for Federal agencies.” Exec. Order No. 13,514, 74 Fed. Reg. 52,117 (Oct. 5, 2009).
26 Existing “mandates have established various goals for energy management, renewable energy use,
27 and other activities that may reduce GHG emissions, but none have specifically required
28 comprehensive reporting of GHG emission inventories or establishment of targets for reduction of

1 emissions.” Olson Dec., Ex. N at 4 (CEQ Guidance) (emphasis added).

2 Defendants, and each of them, have violated their sovereign public trust obligations and are
3 contributing, actively and passively, to a serious threat to individual and national security.

4 Normal political and policymaking processes in the United States have
5 completely failed to respond in a manner that is in the best interests of our
6 county and its people. Our government has simply failed to act responsibly
7 to protect the atmospheric commons for current and future generations.
8 The prospect for responsive action from Congress today is widely viewed
9 as grim. This dereliction of fiduciary duty, if continued, will be the failing
10 for which our children and grandchildren will least forgive us.

11 Speth Dec., ¶8.

12 **D. This Court Has the Authority to Enforce the Trust on Behalf of Public Beneficiaries**

13 Federal courts necessarily have jurisdiction to hear federal public trust cases because it is a
14 judicially created and enforced doctrine. Plaintiffs, as beneficiaries of the public trust, retain the
15 right to bring this action against the public trustees for failing to discharge their duties. Many cases
16 “have been brought by private parties to prevent agencies of government from abandoning or
17 neglecting the rights of the public with respect to resources subject to the public trust.” *Ctr. for*
18 *Biological Diversity v. FPL Grp.*, 166 Cal.App4th 1349, 1366 (2008) (citing *Ill. Cent. R.R.*, 146
19 U.S. 387).

20 The Public Trust Doctrine does not dictate a specific process or action. The doctrine is an
21 attribute of sovereignty and like the Constitution, it overlays all other acts of government, including
22 the enactment of legislation or the promulgation of regulations. The U.S. Supreme Court in *Illinois*
23 *Central* explains this point. In that case, Congress, the State, and the city had enacted laws that
24 spoke precisely to the issue in the case, the transfer of title to lands to the railroad company to
25 improve commerce in Illinois around the harbor of Chicago. *Ill. Cent. R.R.*, 146 U.S. at 439-440,
26 450-451. In reviewing the land transfer under the sovereign’s public trust obligation, Justice Field
27 explained that even though the legislative acts allowed the transfer of public property, the Public
28 Trust Doctrine limits the ability of the sovereign to transfer lands submerged by navigable waters
because those navigable waters were a public trust resource deserving protection by the sovereign
trustee. *Id.* at 452-464.

As the Supreme Court of Arizona once said in underscoring the judicial role in enforcing the

1 trust, “[j]ust as private trustees are judicially accountable to their beneficiaries for dispositions of
2 the res, so the legislative and executive branches are judicially accountable for their dispositions of
3 the public trust. The beneficiaries of the public trust are not just present generations but those to
4 come. The check and balance of judicial review provides a level of protection against improvident
5 dissipation of an irreplaceable res.” *Ariz. Ctr. for Law in the Pub. Interest*, 837 P.2d at 169. The
6 California Supreme Court affirmed this principle by explaining that courts have concurrent
7 jurisdiction with other branches over the public trust. *Nat’l Audubon*, 33 Cal.3d at 731-732.

8 A trust claim brought against a sovereign does not invade the sphere of regulation—deciding
9 what activities to curtail and to what extent—but rather demands an accounting of the overall
10 effectiveness of the trustee’s actions to achieve asset protection. A public trust claim against
11 government simply does not put courts in the position of making policy determinations as to who
12 should be regulated and to what extent; rather, “judicial review of public trust dispensations
13 complements the concept of a public trust.” *Ariz. Ctr. for Law in the Pub. Interest*, 837 P.2d at 169.

14 **III. Plaintiffs Suffer Irreparable Harm in the Absence of Injunctive Relief**

15 Plaintiffs will suffer irreparable harm without the issuance of a preliminary injunction
16 requiring immediate federal government action to cap and then reduce carbon dioxide emissions in
17 the atmosphere. Because of climate inertia and “heating already in the pipeline,” the status quo of
18 our climate cannot feasibly be maintained; it will continue to change. However, this Court and
19 Defendants have the ability to preserve as much of the status quo as is feasible and avoid
20 contributing to increasing atmospheric levels of CO₂.

21 “Environmental injury, by its nature, can seldom be adequately remedied by money damages
22 and is often permanent or at least of long duration, i.e., irreparable.” *Amoco Prod. Co. v. Village of*
23 *Gambell, AK*, 480 U.S. 531, 545 (1987). The instant case not only involves actual ongoing
24 environmental injuries, but serious injuries to public health, safety and welfare, economic losses
25 and threats to national security as well. The U.S. Supreme Court has recognized the scientific
26 consensus that GHG from human activities are increasing average global temperatures and
27 producing changes to the climate. *Massachusetts v. EPA*, 549 U.S. 497, 521-23 (2007). The Court
28

1 stated, “[t]he harms associated with climate change are serious and well recognized,” and “qualified
2 scientific experts involved in climate change research have reached a strong consensus that global
3 warming threatens (among other things) a precipitate rise in sea levels by the end of the century,
4 severe and irreversible changes to natural ecosystems, a significant reduction in water storage in
5 winter snowpack in mountainous regions with direct and important economic consequences . . . an
6 increase in the spread of disease, [and] . . . that rising ocean temperatures may contribute to the
7 ferocity of hurricanes.” *Massachusetts v. EPA*, 549 U.S. at 521–22. The Court found “[a]
8 reduction in domestic emissions would slow the pace of global emissions increases, no matter what
9 happens elsewhere.” *Id.* at 525-26.

10 **A. Plaintiffs Are Suffering Irreparable Harm**

11 Each Plaintiff is experiencing serious environmental, economic, physical, cultural, emotional,
12 psychological, and/or aesthetic injuries. Plaintiffs are very likely to suffer future irreparable harms
13 resulting from the unsafe atmosphere and human-induced climate change. Some of these harms are
14 outlined here.

15 Nelson, a youth member of the Yup’ik Eskimo Tribe, lives in Kipnuk, Alaska and is being
16 personally harmed by “warming temperatures, delayed onset of winter and sea ice formation,
17 permafrost thaw, increased flooding and erosion” in his native village. Nelson Dec., ¶5. The
18 delayed onset of winter and sea ice formation is a critical issue for Nelson’s way of life and that of
19 his village. *Id.*, ¶¶6, 14. The increased rains and warm temperatures lead to increased flooding, all
20 of which makes it hard for Nelson to travel from village to village and to hunting areas and which
21 poses a direct threat to his home. *Id.*, ¶¶9-12, 14. Nelson’s land is being eroded irreparably by the
22 melting and flooding of the river and his family may soon have to move if the erosion continues.
23 *Id.*, ¶12. Nelson’s village is faced with health risks too as their sewage holding ponds overflow
24 during these flood events. *Id.*, ¶13. Dr. Kharecha confirms the even higher temperatures in Alaska
25 and the significant thawing from global warming. Kharecha Dec., ¶¶5-6.

26 Plaintiffs Alec, Grant, Garrett, and Zoe have all experienced first-hand the devastation of
27 white pine beetle outbreaks in the forests of California and Colorado, where they have lived and
28 would like to recreate, but will never again be able to walk through and enjoy those forests alive

1 with trees and wildlife. Grant Dec., ¶¶2-3; Garrett Dec., ¶2; Alec Dec., ¶9; Zoe Dec., ¶15. Drs.
2 Running and Parmesan confirm the tremendous loss of forests in the west is due to increased
3 temperatures and drought, which enable the life cycle of the beetles. Running Dec., ¶22; Parmesan
4 Dec., ¶11, Table 1; Epstein Dec., ¶17. Grant and Garrett have also experienced the eastern outbreak
5 of Asian beetles. Grant Dec., ¶9; Garrett Dec., ¶2; Epstein Dec., ¶¶17-20.

6 Plaintiff Alec suffers from asthma and allergies in southern California. Alec Dec., ¶6.
7 According to Dr. Epstein, asthma and allergies will be exacerbated by heat and increased water
8 vapor caused by the warming climate. Epstein Dec., ¶¶5-9. These impacts to Alec's health
9 compromise his recreational and physical activities. Alec Dec., ¶¶6-7. Plaintiff Grant also suffers
10 from a climate-related health condition. Grant Dec., ¶7. He has developed an allergic reaction to
11 heat and as summer temperatures continue to rise in his home-state of Virginia, his physical activity
12 becomes increasingly limited and he suffers severely from heat rash. *Id.*

13 Some Plaintiffs are ocean lovers and they are already seeing changes in their beaches and
14 fear that their ability to continue to recreate on those beaches and in those ocean waves will be lost
15 with sea level rise. Alec Dec., ¶¶11-12, 18, Ex. A; Zoe Dec., ¶6; Grant Dec., ¶8; Madeleine Dec.,
16 ¶14; *see* Rahmstorf Dec., ¶24 (stating main impacts of sea level rise); *see Massachusetts v. EPA*,
17 549 U.S. at 526 (finding that global warming is already causing harm from rising sea levels in
18 Massachusetts). In order to stop further sea level rise, and the irreparable harm to coastlines,
19 emissions must be immediately reduced. Rahmstorf Dec., ¶27; Kharecha Dec., ¶16.

20 Plaintiffs are harmed due to the effects of climate change on marine and freshwater fish and
21 wildlife, including coral reefs. Grant Dec., ¶¶6, 12, 15; Madeleine Dec., ¶15; Zoe Dec., ¶11.
22 Plaintiff Zoe's family operates a fishing boat and supply business on Apalachicola Bay in the
23 Florida Panhandle and her family's business has suffered. Zoe Dec., ¶¶18-19. A long drought has
24 increased the salinity of the bay because of less fresh water flowing into the bay, thereby impacting
25 wildlife. Zoe Dec., ¶20.

26 Several plaintiffs have already been impacted by extreme weather patterns, which are caused
27 in part by climate change. Grant Dec., ¶4-5 (loss of electricity and water and wildfires just miles
28 away from their home in the mountains); Garrett Dec., ¶2 (same); Madeleine Dec., ¶10-11 (drought,

1 water shortages and heat waves leading to wildfires threatening her home), ¶9 (heat waves in NYC
 2 and New Orleans); Alec Dec., ¶8 (smoke from wildfires in southern California, drought in Ojai
 3 watershed, and huge rains leading to flooding in the spring); Zoe Dec., ¶21 (hurricanes). Dr.
 4 Trenberth confirms global warming directly influences drought, wildfires, heat waves, heavy rains,
 5 and flooding because “all weather events are now occurring in an environment which has changed
 6 in significant ways.” Trenberth Dec., ¶¶4-5.

7 Jamie, a youth member of the Navajo Nation and part of the Bitterwater and Tangle People
 8 Clans, is being harmed by drought and excessive heat in Arizona. Jamie Dec., ¶¶1-2, 4, 6. She had
 9 to move from her home because of the heat and lack of clean water and because it continues to get
 10 hotter and drier. *Id.*, ¶¶6, 9, 11, 12; Overpeck Dec., ¶¶3-4, 8-10. The lack of water harms Jamie
 11 and her people’s way of life. *Id.*, ¶13.

12 Plaintiffs are also emotionally and psychologically affected by climate change and the
 13 unsafe state of the atmosphere. They are scared about the changes and what the future holds for
 14 them, their families and for others around the world. Alec Dec., ¶14; Nelson Dec., ¶¶3, 11;
 15 Madeleine Dec., ¶¶3-4, 16; Zoe Dec., ¶¶2, 12, 23; Jamie Dec., ¶14; *see* Van Susteren, ¶33. Each is
 16 an activist in his or her own right and as a result, according to experts, will likely experience greater
 17 psychological impacts than the average child and harm to their well-being and perhaps even
 18 depression as climate change continues. Van Susteren Dec., ¶¶40-42; Alec Dec., ¶¶2-5, 12-18;
 19 Grant Dec., ¶¶14, 16-18; Garrett Dec., ¶2; Nelson Dec., ¶¶2-4, 15; Madeleine Dec., ¶¶2-8; Zoe
 20 Dec., ¶¶3-4; Jamie Dec., ¶¶2, 4-5, 7.

21 Defendant EPA concurs that the harms from climate change go beyond environmental
 22 injuries and that “greenhouse gases in the atmosphere may reasonably be anticipated both to
 23 endanger the public health and to endanger the public welfare of current and future generations.” 74
 24 Fed. Reg. at 66516. Plaintiffs have a right to a healthy and livable future, which is being violated
 25 by the federal government’s failure to control our atmosphere in violation of its trust duties.

26 **B. This Level of Irreparable Harm Warrants Issuance of a Preliminary Injunction**

27 The likelihood of irreparable harm demonstrated here vastly exceeds the level of harm in
 28 other cases where injunctive relief has been awarded. *See, e.g., Alliance for Wild Rockies v.*

1 *Cottrell*, 632 F.3d 1127 (9th Cir. 2011) (logging project would prevent the use and enjoyment of
2 1,652 acres of forest); *South Fork Band Council of W. Shoshone of Nev. v. U.S. Dept. of Interior*,
3 588 F.3d 718 (9th Cir. 2009) (injunction issued to prevent environmental injury to tribes). In a case
4 about protecting the safety of children, the Ninth Circuit affirmed a preliminary injunction ordering
5 state defendants to perform seismic safety testing at a school site or to close the school. *Students of*
6 *California School for the Blind v. Honig*, 736 F.2d 538, 540 (9th Cir. 1984). “The testimony of a
7 court-appointed expert convinced the district court that additional tests were needed to determine
8 the seismic safety of the Fremont school.” *Id.* at 540. The court found the students raised serious
9 legal questions and were likely to succeed on the merits. *Id.* at 546 (citation omitted).

10 **C. The Preliminary Relief Sought Will Prevent Further Irreparable Harm**

11 This Court has the authority to grant the relief sought. *See Swann v. Charlotte-Mecklenburg*
12 *Bd. of Educ.*, 402 U.S. 1, 15 (1971) (“the scope of a district court’s equitable powers to remedy past
13 wrongs is broad, for breadth and flexibility are inherent in equitable remedies.”); *Alaska Ctr. for the*
14 *Env’t v. Browner*, 20 F.3d 981, 986 (9th Cir. 1994); *High Sierra Hikers Ass’n v. Blackwell*, 390
15 F.3d 630, 645 (9th Cir. 2004). Courts have ordered parties to create a plan to remedy the problem
16 being litigated. *See, e.g., Brown v. Plata*, 131 S. Ct. 1910, 1928 (2011) (“[T]he court ordered the
17 State to formulate a plan for compliance and submit its plan for approval by the court.”); *Health*
18 *Care for All, Inc. v. Romney*, No. Civ.A. 00-10833RWZ, 2005 WL 1660677, at *15 (D. Mass. July
19 14, 2005) (ordering parties to attempt to develop a joint remedial program and to report their
20 progress to the court); *United States v. Mass. Mar. Acad.*, 762 F.2d 142, 147 (1st Cir. 1985)
21 (affirming district court decision ordering Defendants “to file a plan to eliminate the effects of their
22 unlawful discrimination ‘in a swift and efficient manner’”).

23 Ordering creation of a plan as preliminary relief for Defendants’ public trust violations
24 allows other branches of the government to determine the details of how to reduce CO₂ emissions
25 and protect the atmosphere as a public trust resource. *See e.g., Brown*, 131 S. Ct. at 1928 (“The
26 court did not order the State to achieve this reduction in any particular manner. Instead, the court
27 ordered the State to formulate a plan for compliance and submit its plan for approval by the court.”)
28

1 **IV. Plaintiffs' Requested Injunctive Relief Would Serve the Public Interest**

2 The Supreme Court and the Ninth Circuit have emphasized the importance of considering
3 and weighing the public interests affected by, and the public consequences of, both granting and
4 denying a preliminary injunction. *Winter v. Natural Resources Defense Council, Inc.*, 555 U.S. 7,
5 24 (2008); *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982); *Fund for Animals, Inc. v.*
6 *Lujan*, 962 F.2d 1391, 1400 (9th Cir. 1992). The public interest served in granting the injunction
7 must “outweigh other public interests that cut in favor of not issuing the injunction.” *Alliance for*
8 *Wild Rockies v. Cottrell*, 632 F.3d 1127, 1138 (9th Cir. 2011). Because Defendants are failing to
9 take the necessary steps to protect the trust res, the public consequences will be catastrophic and
10 irreparable absent an immediate preliminary injunction. *See Massachusetts v. EPA*, 549 U.S. at 526
11 (where relief would reduce risk of catastrophic harm from climate change, it was warranted).

12 “[O]n the side of issuing the injunction, we recognize the well-established ‘public interest in
13 preserving nature and avoiding irreparable environmental injury.’” *Alliance for Wild Rockies v.*
14 *Cottrell*, 632 F.3d at 1138. “The public interest analysis for the issuance of a preliminary injunction
15 requires us to consider ‘whether there exists some critical public interest that would be injured by
16 the grant of preliminary relief.’” *Indep. Living Ctr. of S. Cal., Inc. v. Maxwell-Jolly*, 572 F.3d 644,
17 659 (9th Cir. 2009), *cert. granted*, 131 S. Ct. 992 (2011). As in *Alliance for Wild Rockies*, “[t]he
18 public interests that *might* be injured by a preliminary injunction here . . . do not outweigh the
19 public interests that *will* be served.” 632 F.3d at 1138 (emphasis added).

20 **V. The Balance of Hardships Tips Sharply in Favor of Plaintiffs**

21 The Supreme Court has stated “[e]nvironmental injury, by its nature, . . . is often . . .
22 irreparable,” and “[i]f such injury is sufficiently likely, therefore, the balance of harms will usually
23 favor the issuance of an injunction to protect the environment.” *Amoco Prod. Co. v. Village of*
24 *Gambell, AK*, 480 U.S. 531, 545 (1987). The balance of hardships tips sharply in favor of Plaintiffs.
25 Defendants’ failure to reduce our nation’s carbon dioxide emissions by the amount necessary to
26 prevent global heating more than 1° C over pre-industrial levels and lower atmospheric carbon
27 concentrations to below 350 ppm, will continue to contribute to and exacerbate global warming.
28 The hardships Plaintiffs will suffer if preliminary injunctive relief is denied significantly outweigh

1 any fiscal challenges the federal government may assert if preliminary injunctive relief is granted.

2 **VI. No Bond Should Be Required**

3 There are no grounds to require Plaintiffs post any more than a nominal bond as a condition
4 of granting the requested relief. Courts have “discretion to dispense with the security requirement,
5 or to request mere nominal security, where requiring security would effectively deny access to
6 judicial review.” *Save Strawberry Canyon v. Dept. of Energy*, 613 F. Supp. 2d 1177, 1190-91
7 (N.D. Cal. 2009). The Ninth Circuit, and district courts within it, consistently reject defendants’
8 request for substantial bonds in environmental cases, emphasizing there is little reason for requiring
9 more than a nominal bond of plaintiffs, who are acting much as private attorneys general. *See, e.g.,*
10 *Tenakee Springs v. Clough*, 915 F.2d 1308, 1314 n. 4 (9th Cir. 1990); *Wilderness Soc. v. Tyrrel*,
11 701 F. Supp. 1473, 1492 (E.D. Cal. 1988); *California v. Tahoe Regional Planning Agency*, 766
12 F.2d 1319, 1325-26 (9th Cir. 1985).

13 **CONCLUSION**

14 Our nation’s atmosphere is a quintessential public trust resource. The atmospheric trust
15 resource already contains excessive concentrations of CO₂. Using the best available science, major
16 reductions in emissions of carbon dioxide are warranted immediately. Plaintiffs have shown there
17 is a likelihood of irreparable harm; there are serious questions on the merits; the balance of
18 hardships tips sharply in their favor; and the public interest favors a preliminary injunction.

19 Plaintiffs do not request a particular method for emissions reductions. Rather Plaintiffs
20 request this Court order Defendants to submit a Climate Recovery Plan. Such an order will enforce
21 the public trust obligation in the atmospheric trust and to prevent irreparable harm resulting from
22 the degradation of the atmosphere as a safe natural resource.

23 Respectfully submitted,

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Dated: September 28, 2011

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