

**IN UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DENVER**

Dr. Christian Robert Komor, Plaintiff

v.

The United States of America

Joseph R. Biden, President of the United States

Steffanie Feldman, Office of the President

Gina McCarthy, National Climate Adviser

John Kerry, Presidential Envoy for Climate

Sonia Aggarwal, Senior Advisor for Climate Policy

David Hayes, Special Assistant for Climate Policy

Ali Zaidi, Deputy National Climate Advisor

Michael Regan, Environmental Protection Agency

Maggie Thomas, Office of Domestic Climate Policy

Deborah Haaland, Secretary of the Interior

Jennifer Granholm, Secretary of Energy

Dr. J. Michael Kuperberg, Program Manager DOE

Brenda Mallory, Council on Environmental Quality

Melanie Nakagawa, Dir. for Climate and Energy

Jahi Wise, Office of Domestic Climate Policy.

Dr. Cecilia Martinez, Dir. for Environ. Justice

Gina Raimondo, US Secretary of Commerce

Peter Buttigieg, US Secretary of Transportation

US Department of Defense

Thomas Vilsack, US Department of Agriculture

Anthony Blinkin, US Department of State

Merrick Garland, US Attorney General

**COMPLAINT FOR
DECLARATORY,
INJUNCTIVE &
MONETARY
RELIEF**

COMPLAINT

Plaintiff Dr. Christian Robert Komor submits this complaint against the Defendants named herein and alleges as follows:

INTRODUCTION

1. The Defendants have assumed responsibility for sole sovereign dominion and protection over the United State of America where the Plaintiff was born and now resides in Fruita, Colorado.

2. As part of this dominion the Defendants exert sole control over the harvesting, transportation, refinement, burning, export and import of all fossil fuels, coal, cement, and other greenhouse gas emitting natural resources of the United States.

3. United States government records clearly show the Defendants, through scientific data collected and disseminated by their own experts and agencies, have been aware for more than 50 years that these actions result in the generation of greenhouse gasses which inevitably accumulate in the atmosphere and continue to influence global temperatures and sequela for many hundreds to thousands of years depending on the gas involved. These gasses include: Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Chlorofluorocarbon-12 (CFC-12), Hydrofluorocarbon-23 (HFC-23), Sulfur Hexafluoride, (SF₆), and Nitrogen Trifluoride (NF₃)

4. The Defendants have also been aware for more than 50 years that the accumulation of these greenhouse gasses, and especially carbon dioxide, causes the

trapping solar radiation which in turn artificially increases the temperature of the United States and the planetary ecosystems in which it is imbedded.

5. The Defendants have been aware for more than 50 years that disrupting planetary temperature thus ecosystems of the United States would result in various harms to the natural systems on which the life, liberty and property of the Plaintiff depend. These harms are escalating and now self-evident to the general population and include: A slowing and redirection of ocean currents which distribute heat around the planet; Dramatic melting of ice and thawing of permafrost at both poles - including in Greenland where they have lost over 500 billion tons of ice in the past 10 years alone; A vast and accelerating release of stores of methane from beneath melting permafrost; Wildfires including in the polar regions. (In June and July 2020 alone NASA estimated that 205 megatons of CO₂ were emitted from wildfires. Wildfires coincided with a heatwaves in Australia, California and Siberia, where temperatures soared to more than 30C (86F) in some areas.); Reduced or destroyed animal species and habitats such as during the Australian wildfires of 2019 when 80% of some animal's habitats were destroyed; The emergence of new soil microbes around the world which have begun to release increasing amounts of stored carbon from the ground. The Amazon rainforest has recently become a net contributor to global warming; A widening breach between plants and pollinators; Altered weather patterns leading to loss of life and costly infrastructure damage; Increased seismic disruptions; A weakened arctic jet stream that normally propels weather systems around the globe can no longer push large weather patterns out it's the way. (This is what, in recent years, caused wildfires above the Arctic Circle, droughts throughout the world, and record-setting heat waves from Moscow to the U.S.); Increasingly adverse weather events which have begun to disable alternative as well as traditional energy infrastructure during critical weather events. This has left large populations vulnerable to unmanageable decrees of heat, cold, drought, flooding, wind and seismic and ocean dangers; Increasing prevalence and intensity of viral and other diseases due to changes in the feeding grounds of bats, insects and other disease carrying

vectors. (In Texas, for example, 3.5% of the summer bats are now staying for the winter, compared with 0% in the mid-1950s.) The current burden from climate-sensitive diseases such as diarrhea, malaria and malnutrition is so large that even the subtle climatic changes that have occurred since the mid-1970s could already be causing >150,000 deaths and the loss of approximately 5 million disability-adjusted life-years (DALY) each year; Resulting mass migrations the likes of which have not been seen since the second world war;

6. For more than 50 years the Defendants have claimed they would modify and remediate their actions and carry through with plans developed by their own agencies for reducing greenhouse gas emissions. Instead, the Defendants have collectively acted to *escalate* these greenhouse gas emissions further increasing the subsequent damage to the Pro se Plaintiffs' life, liberty and property. The Defendants have collectively taken the approach that climate change is inevitable and the best they can do is to slowly reduce the amount of *further* emissions and increase "resilience". The Defendants continue to refuse to acknowledge the need to remove atmospheric greenhouse gasses they *already* permitted into the atmosphere of the United States. Thus, closing the door to proactive Negative Emissions Technologies (NET) which can remediate the current damage to our atmosphere and ecosystems and actually repair much of the damage caused by the Defendants. It is as if the Defendants have been shown a broom which can be used to sweep up their mess, yet are refusing to pick it up and use it.

7. Paleogeologic evidence demonstrates that each and every time (due to cataclysmic natural events) the Earth has reached 450 ppm atmospheric CO₂, ecosystem changes have accelerated and "locked into" new patterns – patterns which are inconsistent with the survival of the majority of the currently existent species residing on and in the planet's surface and waters. There is scientific agreement to a high degree of certainty, including from the Defendants own agents and agencies and the Intergovernmental Panel on Climate Change (IPCC) to which the Defendants are pledged, that by the mid 2030's when dissolved atmospheric carbon released by the

Defendants action and inaction reaches 450 ppm (parts per million) “tipping levels”, which are now being bent, will be irrevocably broken. We will then be beyond the point at which *remediation of the Defendants actions will be possible*.

8. There is further scientific agreement that, due to the Defendants decades of deceptions, delays and lack of affirmative action, only widespread deployment of Negative Emissions Technologies will suffice to protect the Plaintiffs rights to life, liberty and property. Specifically *Direct Removal of Existing Atmospheric Carbon* (DREAC) as developed by ClimeWorks in Switzerland and Carbon Engineering in Canada is the only NET methodology for reducing existing atmospheric carbon levels in sufficient time to surpass the 450 ppm Climate Deadline in the mid-2030’s. The Defendant’s inaction has allowed the situation to become an Emergency which will require the removal of approximately 950 gigatons or 950,000,000,000 metric tons of carbon from the atmosphere over the next 10 years. The current levelized cost per ton of CO₂ captured from the atmosphere is approximately 150\$/t-CO₂.

9. The Defendant’s stated plans to slowly reduce additional carbon emissions by 50% over 10 years fails to take into account the aforementioned “legacy emissions” *already in the atmosphere* which will remain for hundreds to thousands of years. Their plans, even should they break pattern and follow through with them, will effectively do nothing to prevent reaching and surpassing the 450 ppm tipping levels in the mid 2030’s that represent at “Climate Deadline”.

10. As the Defendants have had many decades to remediate their reckless destruction of the atmosphere and ecosystems on which the Plaintiff relies for life, liberty and property and have instead have only escalated these actions, the Plaintiff has no choice but to plead for intervention by this Court. The Defendants have spent most of the Plaintiff’s lifetime claiming they will take effective action while they have instead been escalating the harms they were perpetrating. No rational person would continue to believe in the Defendants protestations of reform. The Plaintiff pleads for

the Court's swift and proactive intervention such as through a Consent Decree closely supervising the Defendants in deploying and operating Direct Removal of Existing Atmospheric Carbon technology at a scale sufficient to avoid the rapidly approaching 450 ppm tipping levels. Alternatively, the Pro se Plaintiff would request monetary reparations so that Plaintiff could direct this work to be done by an existing carbon removal company such as ClimeWorks AG, or Carbon Engineering. This would require an estimated monetary settlement of \$143 trillion dollars.

11. The Plaintiff is experiencing direct harm from wildfires, flooding, degraded air quality, increasing ambient temperatures, supply chain disruption, reduction of plant and animal diversity, increased threat from allergic triggers, and increased disease vectors and pandemic illness not to mention the pain and suffering resulting from this multiplicity of stressors. The Plaintiff respectfully requests a swift and impartial trial by jury again making note of the time urgency imbedded in this action.

12. The Plaintiff requests the Court retain jurisdiction over this action to monitor and enforce the Defendants' compliance with the national remedial plan and all associated orders of this Court; and grant such other and further relief as the Court deems just and proper.

PARTIES

13. Pro se Plaintiff Dr. Christian R. Komor resides in Colorado, a state that has in recent years been exposed to unnaturally rapid increases in drought, floods, fires and other weather-related hardships. Hydraulic Fracturing, petroleum refining and storage, coal mining, and cement production have all been permitted and subsidized heavily in Colorado by the Defendants and their predecessors for nearly a century heavily affecting this region of the United States. Evidence shows the Defendants were fully aware that their actions would lead to widespread and life-threatening damage to the local ecosystem on which the Pro se Plaintiff depends for life and liberty. In addition, since the middle of the last century, the Defendants have

possessed incontrovertible scientific evidence that their custodial decisions were resulting in the release of dangerous amounts of greenhouse gasses which could not remove themselves from the atmosphere. The Defendants were further aware that these greenhouse gasses would need to be manually removed. In spite of continued warnings from the scientific community the Defendants have made no attempt to remove these omnicidal greenhouse gasses and have instead conducted a campaign of permitting and promotion which has escalated the rate of production and storage of these gases in the atmosphere. The most recent Intergovernmental Panel on Climate Change (IPCC) report shows that, guided by the Defendants, the United States has emitted more CO₂ than any other country to date at around 400 billion tons since 1751 (twenty five percent of total historical emissions). Greenhouse gasses produced under the auspices of the Defendants have been enhanced by the Defendant's opening-up of an international market for the export of natural gas extracted from public lands through hydraulic fracturing. Some of this permitting has occurred within yards of from the Colorado River and other critical life-sustaining natural resources on which the Plaintiff depends for survival. These fossil fuel products have been consumed both domestically and exported abroad, ultimately to be burned, thereby causing additional CO₂ emissions. The Pro se Plaintiff is also being harmed by a continuing stream of permits and leases granted for coal, uranium and other natural resource exploitation again leading to increases in lethal greenhouse gasses. The Plaintiff believes he has a right to life and liberty guaranteed by the Constitution of the United States and that these rights are being denied and are in danger of being lost entirely due to global warming and the resulting disruption in the national climate and ecosystems. Like more than 70% of US citizens researched by the University of Arizona and Stanford University, the Plaintiff believes that "the U.S. Government is responsible" for taking timely action on global warming, should limit the amount of greenhouse gases emitted by businesses and industry and take active steps to remove greenhouse gasses already in the atmosphere. The Plaintiff has contacted the Defendants and through various means has requested they take

action in this matter yet all of these requests have been ignored or denied. This Court is the Plaintiffs' last hope for restoring his Constitutional rights.

14. Defendant the United States of America (United States) is the sovereign trustee of the natural resources belonging to its citizens, including air, water, sea, shores of the sea, and wildlife. In its sovereign capacity, the United States controls the nation's air space and atmosphere. In its sovereign capacity, the United States also 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 CO₂ emissions from major sources.

15. Through its exercise of control over articles of interstate and international commerce, as well as its failure to limit and phase out CO₂ emissions, the United States has caused dangerous levels of CO₂ to build up in the atmosphere termed "legacy emissions" which now remain in the atmosphere for up to thousands of years depending on the gas under discussion. The United States has also refused its duty to avail itself of existing and readily available technology termed Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) (DACR) which can, if deployed in a timely manner, can remove legacy emissions. Legacy emissions seriously threaten the relatively stable climate system that has enabled civilization to develop over the last 10,000 years. The build-up impairs essential national public trust resources required for life and liberty by future generations. Further, the Intergovernmental Panel on Climate Change at the United Nations has issued a warning that if the carbon dioxide portion of legacy emissions reaches a level of 450 parts per million (ppm), from its current level of 418 ppm, natural ecosystems will have been so disrupted that there will no longer be a possibility of correcting the situation. The Defendants must therefore not only take action to remove legacy emissions through DACR – the only known means for doing so rapidly but take this action in the next few years to prevent the present and looming climate crisis which

constitutes a breach in the government's basic duty of care to protect the Pro se Plaintiffs' fundamental constitutional rights. The following Defendants currently determine and enforce the decisions and actions of the United States government in regard to natural resources management and climate policy and climate disruption mitigation and interventional efforts.

16. Defendant Joseph R. Biden has been elected the President of the United States. In his official capacity, he is vested with the executive power of the United States and must faithfully execute the office of President, as well as preserve, protect, and defend its Constitution. The President has permitted fossil-fuel exploitation, utilization, and exports, which activities generate additional CO₂ emissions and, considering the present baseline of atmospheric concentrations, dangerously interfere with the climate system in violation of Pro se Plaintiffs' constitutional rights. President Biden is in possession of studies and reports commissioned by the United States government clearly demonstrating that for the past fifty years a reduction in greenhouse gas emissions alone will no longer be sufficient to prevent catastrophic failure of the land, sea and atmospheric ecosystems which sustain the Pro se Plaintiff's life and liberty. The President and his advisors are fully aware that for many decades only direct mechanical removal of sufficient amounts of accumulated atmospheric carbon will be effective in protecting the Pro se Plaintiff's rights. These accumulated atmospheric greenhouse gas emissions are referred to in the scientific community as "legacy emissions" - already existing greenhouse gasses which the President and the Executive Office of the President have allowed and encouraged to accumulate. In so doing the President has allowed solar radiation to be further trapped in the atmosphere. The Pro se Plaintiff has gone to extraordinary efforts to communicate his concerns to the President and several of the other Defendants and plead with them to begin efforts at atmospheric carbon removal, but these pleadings have been ignored. In a 1965 White House report, Restoring the Quality of Our Environment the President's Science Advisory Committee stated:

17. “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.”

18. The Executive 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). 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. OMB serves as the implementation and enforcement arm of all presidential policy, including budget development and execution, the coordination and review of all significant federal regulations, and the issuance of executive orders. OMB promotes the government’s affirmative aggregate acts in the areas of fossil-fuel production, consumption, and combustion via coordination and review of federal regulations by executive agencies and review and assessment of information-collection requests. 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 the National Science and Technology Policy, Organization, and Priorities Act of 1976. Despite its charge to ensure that the policies of the Executive Branch are informed by sound science, OSTP has permitted the initiation of additional fossil-fuel projects, including extraction, processing, transportation, combustion, and exportation of coal, oil, and gas from conventional and unconventional reserves. The presidential policies promoted by CEQ, OMB, and OSTP have been contrary to sound science. These policies have led to the current dangerous levels of atmospheric CO₂, dangerous interference with a stable climate system, and violations of the Pro se Plaintiffs’ constitutional rights. Through the governments action and inaction allowing an omniscidal amount of greenhouse gasses, particularly carbon, to be lodged in the atmosphere the only means of restoring and

then preserving a habitable climate system at this late date is through Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.).

19. Defendants Steffanie Feldman, Megan Ceronsky, Sonia Aggarwal, David Hayes, Gina McCarthy, Maggie Thomas, and Ali Zaidi are all Advisors to the President working under the auspices of the Executive Office of the President and specifically tasked with analyzing and taking action to remediate the Climate Crisis. They are responsible for advising the President on strategies for addressing global warming and protecting United States citizens from its effects.

20. Defendant Michael Regan is the Administrator of the United States Environmental Protection Agency. The 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 CO₂ standards for power plants, which account for our nation's largest source of CO₂ emissions at 37% of U.S. annual emissions. EPA has authorized, and continues to authorize, installations and activities that emit prodigious amounts of CO₂, which authorizations dangerously disrupt and fail to preserve a habitable climate system—in violation of Pro se Plaintiffs' fundamental rights. 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. EPA abrogated its duty to implement its 1990 Plan, entitled "Policy Options for Stabilizing Global Climate," to reduce CO₂ emissions (a pollutant under its jurisdiction) in line with the best available science, and continues to allow CO₂ emissions in excess of what is necessary for climate stability. The "Clean Power Plan" affects emissions only in the

power sector, aimed for power-plant emissions reductions of only approximately 32% from 2005 levels by full implementation in 2030 (reductions which would achieve only an 8–10% reduction in total U.S. emissions by 2030, approximately 1.25% per year, a reduction rate that is a fifth of that minimally required to preserve a habitable climate system. Furthermore, upon information and belief, the “Clean Power Plan” would allow fossil-fuel-fired power units to continue to operate and will encourage increased investment in, utilization of, and reliance on natural gas (whose principle constituent, methane, is a highly potential greenhouse gas). The “Clean Power Plan,” moreover, did 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 CO₂ emissions far in excess of what is minimally required to secure a stable climate system. The EPA’s August 3, 2015, “Clean Power Plan” under which CO₂ emissions reductions did not even approach the rate required to preserve a habitable climate system was then supplanted on June 19, 2019 when the EPA issued the Affordable Clean Energy rule (ACE) – replacing the Clean Power Plan with a rule that “restores rule of law, empowers states, and supports energy diversity”. The ACE rule established emission guidelines for states to use when developing plans to limit carbon dioxide (CO₂) at their coal-fired electric generating units (EGUs)”, thus setting even the Clean Power Plan back years. On January 19, 2021, the D.C. Circuit vacated the Affordable Clean Energy rule and remanded to the Environmental Protection Agency for further proceedings consistent with its opinion. The EPA appears to now be in without clear direction. We can only assume it will fall back to the previous “Clean Power Plan,” which is not an adequate or proportionally appropriate response to the climate crisis. In short, regardless of the political milieu in which it is functioning, the EPA’s has allowed emissions to continue at dangerous levels and jeopardize the climate system on which the Pro se Plaintiff depends, now and in the future. At bare minimum the EPA should be maintaining an ecological environment which allows for the survival of the citizens of the United States. Instead EPA has allowed the quality of our environment to deteriorate to the point where complete atmospheric and environmental collapse is now in plain view.

21. John F. Kerry is an American politician and diplomat serving as the United States Special Presidential Envoy for Climate. He previously served as the 68th United States Secretary of State from 2013 to 2017. As Climate Envoy Mr. Kerry has been negotiating emissions reduction agreements with various countries. Since taking office none of his activities have even touched upon the urgent need for Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.)

22. Deborah Haaland is the Secretary of the Department of the Interior. 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. 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 United States. 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. Through its action in permitting the extraction of coal, coal-bed methane, oil, oil shale, and natural gas; the building and use of 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 CO₂ and a dangerous climate system in our nation. Today on lands in our southwestern states, there is a backlog of over 158 solar energy applications. In addition, there are some 281 proposed wind development projects lands in the west. DOI has managed to permit massive numbers of hydraulic fracturing sites (also known as fracking) as a method of oil and natural gas extraction. The process involves injecting fluid into subterranean rock formations at high pressure. The high-pressure fluid produces a fracture network that allows crude oil and natural gas inside dense rocks to flow into a wellbore and be extracted at the surface. According to the U.S. Energy Information Administration (EIA), the United States had approximately 23,000 hydraulically fractured wells in 2000. In 2015, the United States had approximately 300,000 hydraulically fractured wells, which accounted for 67 percent of U.S. natural gas production and 51 percent of U.S. crude oil production. In 2021 there are over 2,000,000 hydraulically fractured wells. Climate change appears to have created many good-paying government jobs and large agency budgets while climate disruption itself is growing worse under the management of the Defendants.

23. Defendant Jennifer Granholm is the Secretary of Energy (DOE) which is a yet another 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 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 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 CO₂ and a dangerous climate system. DOE, through the Building Technology Office, also sets energy-efficiency standards that 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. 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.

24. Defendant Brenda Mallory is the Chairperson of the Council on Environmental Quality. The Council on Environmental Quality (CEQ) is a division of the Executive Office of the President that coordinates federal environmental efforts in the United States and works closely with agencies and other White House offices on the development of environmental and energy policies and initiatives.

25. Defendant Melanie Nakagawa is Special Assistant to the President and National Security Council Senior Director for Climate and Energy.

26. Defendant Jahi Wise serves as a senior adviser for climate policy and finance in the administration's Office of Domestic Climate Policy.

27. Defendant Dr. Cecilia Martinez is the President's senior director for environmental justice.

28. Defendant Peter Buttigieg, is head of the United States Department of Transportation (DOT) 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. 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. 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. 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. CO₂ emissions.

29. Defendant Thomas Vilsack is the Secretary of the United States Department of Agriculture (USDA). USDA's mission statement asserts 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 CO₂ from our atmosphere—commonly referred to as "carbon sequestering." USDA, through the U.S. Forest Service, authorizes 25% of U.S. coal production. 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. 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. USDA has substantially contributed to and continues substantially to 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.

30. Defendant Gina Raimondo is the current Secretary of Commerce and, in her official capacity, is responsible for all actions of the United States Department of Commerce 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. Commerce, through National Institute of Standards and Technology, oversees research in energy efficiency opportunities for homes and companies nationwide. 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. 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. 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. 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.

31. 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. 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. For all exports of coal, oil, and gas by ship, 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 pursuant to authority granted by Congress under the Rivers & Harbors Act. Such exports endanger the climate system on which our nation and Pro se Plaintiffs alike depend.

32. Defendant Antony Blinken is the United States Secretary of State. The State Department is a federal agency whose 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 the 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.” The State Department leads international efforts on climate change on behalf of the Office of the President. 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.” 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 moving 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 crude oil sands, 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.

33. The Defendants have permitted, authorized, and subsidized the extraction, production, transportation, and utilization of fossil fuels across the United States (and beyond). The Defendants retain the authority to limit or deny the 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 Pro se Plaintiff to challenge every instance of the Defendants’ violations and, even if feasible, challenging each of the Defendants’ actions would overwhelm the court. Nonetheless, the Defendants’ liability arises in part from their

aggregate actions. Those actions have substantially caused the present climate crisis. The Defendants refusal to develop and deploy reasonable and effective countermeasures in the form of Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) form the predicate for Pro se Plaintiffs' allegations that the Defendants actions have caused and continue to allow a destructive rise in atmospheric CO₂ levels and infringe upon Pro se Plaintiffs' constitutional rights.

34. The President of the United States and his assigns through their respective offices, departments, and agencies including the CEQ, OMB, OSTP, DOE, DOI, DOT, USDA, Commerce, DOD, State Department, and EPA, are primarily responsible for authorizing, permitting, and incentivizing fossil-fuel production, consumption, transportation, and combustion, causing the atmospheric CO₂ concentration to increase to greater than 400 ppm and, thus, substantial harm to Pro se Plaintiffs. the Defendants have failed to preserve a habitable climate system for present and future generations, and instead have created dangerous levels of atmospheric CO₂ concentrations. The affirmative aggregate acts and omissions of the Defendants, jointly and severally, have violated and continue to violate Pro se Plaintiffs' fundamental constitutional rights to freedom from deprivation of life, liberty, and property; Pro se Plaintiffs' constitutional rights to equal protection; Pro se Plaintiffs' unenumerated inherent and inalienable natural rights; and Pro se Plaintiffs' rights as beneficiaries of the federal public trust.

35. Merrick Garland is the Attorney General of the United States. The Attorney General represents the United States in legal matters generally and gives advice and opinions to the President and to the heads of the executive departments of the Government when so requested. In matters of exceptional gravity or importance the Attorney General appears in person before the Supreme Court. The Attorney General represents all of the aforementioned Defendants.

JURISDICTION AND VENUE

Federal question pursuant to 28 U.S.C. § 1331 (claims arising under the Constitution, laws, or treaties of the United States) 28 U.S.C. § 1331 (federal question), 28 U.S.C. § 2201 (creation of a remedy) and 28 U.S.C. § 2202 (further relief).

36. This court has jurisdiction over this matter pursuant to Constitutional Rights, Public Trust Doctrine, Ninth Amendment, Fifth Amendment—Due Process, Fifth Amendment—Equal Protection §§ *Obergefell v. Hodges*, 576 U.S. ____, slip. op. at 10 (2015).

37. The Pro se Plaintiff Dr. Christian Robert Komor is a resident of the City of Fruita in Mesa County Colorado and a citizen of the United States.

38. This action is brought pursuant to the United States Constitution. It is authorized by Article III, Section 2, which extends federal judicial power to all cases arising in equity under the Constitution. “The identification and protection of fundamental rights is an enduring part of the judicial duty to interpret the Constitution.” *Obergefell v. Hodges*, 576 U.S. ____, slip. op. at 10 (2015). C.

39. That grant of equitable jurisdiction requires Article III courts to apply the underlying principles of the Constitution to new circumstances unforeseen by the Framers. The Plaintiff believes irreversible destruction of the atmospheric envelope and ecosystems of our whole nation rises to this standard. An actual controversy has arisen and exists between the Pro se Plaintiffs and the Defendants because the Defendants have placed the Pro se Plaintiff in danger of losing his life and liberty due to the Defendant’s neglect and direct actions contributing to the trapping of radiative solar energy causing an unnatural and omnicidal warming of the atmosphere. The Defendants continue to infringe upon the Pro se Plaintiffs’ constitutional rights, and have abrogated their duty of care to ensure the Pro se Plaintiffs’ reasonable safety, among other violations of law. The Pro se Plaintiff has no adequate remedy at law to

redress the harms herein, which are of a continuing nature and which, if left unresolved, will be irreversible.

40. This Court has jurisdiction pursuant to 28 U.S.C. § 1331 (federal question), 28 U.S.C. § 2201 (creation of a remedy), and 28 U.S.C. § 2202 (further relief) as this action arises under the laws of the United States.

41. Venue is proper pursuant to 28 U.S.C. 1391(b) because the events giving rise to the allegations in this complaint occurred in this district. The cause of action arose in the Denver Division wherein the Plaintiff resides.

FACTUAL BACKGROUND

42. For many decades, the United States Government has been aware of the problem and consequences of global warming and yet continued to pursue actions exacerbating these dangers. The United States Environmental Protection Agency (EPA) in 1990 and the Congressional Office of Technology Assessment (OTA) in 1991 prepared plans to reduce significantly our nation's CO2 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 climate-change dangers identified in both the EPA's 1990 Plan and the OTA 1991 Plan, the Defendants never implemented either plan. Mindful of these facts, the Pro se Plaintiff cannot expect to receive a fair and just hearing from Executive and Legislative branches of Government. Returning this case to an administrative or legislative venue would be akin to placing the hen back in the foxes' den. The United States Government and its organs have repeatedly demonstrated a disregard for public safety and a willingness to place citizens, including the Pro se Plaintiff, in harm's way. These are, in fact, the very entities which the Pro se Plaintiff is seeking protection from. Only this Court can provide the shelter and protection so far denied the Pro se Plaintiff by the Executive and Legislative Branches.

43. The Plaintiff has a substantial, direct, and immediate interest in ensuring that the Defendants refrain from further damaging and repair existing damage to the atmosphere on which his life, property interests, and liberties depend.

44. Since the various elements of nature are interdependent and inseparable, disruption of one key element like the atmospheric envelope can put many other elements on which the Plaintiff depends at risk.

45. A livable ecosystem includes the opportunity to drink clean water, grow food, be free from direct and imminent property damage caused by extreme weather events, benefit from the use of property, and remain safe from predation due to resource scarcity. Pro se Plaintiff is now suffering both immediate life-threatening injuries as a result of the actions and omissions by the Defendants.

46. Some of the current harms to the Plaintiff: Increased asthma and allergies causing the Plaintiff to be confined to indoor environments during large portions of the year due to a dramatic increase in particulate matter in the air; Increased inflammatory disease including arthritis, depression and cardiac disease again due to increased atmospheric particulates; Exposure to excessive heat triggering cardiac arrhythmia; Chronic insomnia due to concern over availability of drinking water and contamination of the Plaintiff's local watershed by hundreds of hydraulic fracturing wells; Dramatically worsening allergies due to increasing pollen levels.

47. The Colorado River, which has its inception in the region in which the Plaintiff resides, has been influenced by a variety of polluting sources including hydraulic fracturing. Under optimal condition humans are able to survive for only three days without potable drinking water. Pro se Plaintiff Komor resides in the upper basin of the Colorado (Wyoming, Utah, Colorado and New Mexico) where Lake Powell is the primary reservoir for water. The Colorado River which feeds Lake Powell provides water to 40 million people living in seven western states and Mexico,

and irrigates more than 5 million acres of farmland. For twenty years the Defendants have allowed the Colorado River Basin to be exposed to a megadrought. The Colorado River's flow of life-sustaining water has declined by about 20% over the last century and that over half of that decline can be attributed to warming temperatures across the basin.

48. Lake Mead sits at just 39% full today. And Lake Powell, the river's second-largest reservoir, is just 36% full, according to an April water supply report. The period from 2000 to 2018 was the driest 19-year stretch the southwestern United States has experienced since the 1500s, according to an analysis of tree ring data published in the journal *Science* in 2020. The scientists that the human-caused climate crisis can be blamed for nearly half of the drought's severity. Warming temperatures are leading to a decline in snowfall and an earlier snowmelt. But as the snow melts earlier and leaves behind bare ground, more heat energy from the sun is absorbed by the exposed soil. The warmer ground leads to more evaporation, which means less runoff from melting snow ends up in the river. There is also substantial evidence that these harms are and will be increasing in frequency and intensity through exponentially increasing negative-feedback-loops, interactions between various outcomes of climate change which will only grow worse as global warming advances furthering the harm to the Pro se Plaintiff.

49. Additionally, the Defendants actions and lack of action are creating the conditions for additional future life-threatening harms which place the Pro se Plaintiff in imminent danger. Imminent danger describes situations that pose a direct and immediate danger to the individual affected by the action, or failure to act (*Brower v. Ackerley* : 943 P2d 1141 *and* *David Wayne Bryant v. The State of Texas* 10-94-177-CR). Wildfires, aberrant weather patterns and the SARS-CoV-2 pandemic have all been substantially influenced by disruption of planetary ecosystems attributable to global warming. Near the Plaintiffs home in Colorado the unprecedented ongoing drought, increasing temperatures, and frequency of lightning

strikes have contributed to a rise in seasonal wildfire activity threatening the Plaintiff. In 2020 the Cameron Peak Fire burned 208,913 acres, making it the largest wildfire recorded in the state of Colorado after it surpassed the Pine Gulch Fire, which earned the title seven weeks prior. Also surpassing the Pine Gulch Fire in size was the East Troublesome Fire, which, when fully contained on November 30, had burned a total of 193,812 acres. In total, the suppression costs for the fires during the 2020 season amounted to at least \$266 million. At the same time a worldwide pandemic was occurring due in part to aberrant intersections between humans due to changing weather patterns. The Plaintiff, who suffers from asthma and heart disease was had to risk SARS-CoV-2 exposure in a group living situation or be exposed to life-threatening levels of particular matter from wildfire smoke and dust. Thus, the actions and omissions of the Defendants are causing both measurable current harms and predictable imminent danger for the Pro se Plaintiff.

50. In a reckless and callous fashion the Defendants have made promises to correct the harms impacting and threatening future impact to the Plaintiff while at the same time escalating their behaviors leading to these harms. They will claim they are addressing the climate disruption problem through gradual emissions reductions and a slow turn to alternative energy sources while the primary measure from which this complaint arises, – the percentage of dissolved carbon in the atmosphere (418 ppm and rising rapidly), has only worsened under each successive US Government Administration including that of the Defendants for more than a century.

51. Earth and the land mass on which United States of America exerts it's domain has gone through many transformations in environmental conditions. Scientists refer to these as Epochs. Within each Epoch there may be periods of lesser change which existent life forms adapt to. Eventually, however, an accumulation of smaller events or a single large event will push the Earth into a new Epoch. Conditions will then be so markedly different that few species of life from the prior Epoch will survive. The percentage of dissolved carbon in the atmosphere, which is

now 418 ppm and rising rapidly, is the only viable measure scientists have discovered marking these times of Epoch-level change. Currently, we are seeing warning signs of an impending “Epoch-shift” thousands of years earlier than it would naturally occur. Geologic records, or chronostratigraphy, allowed scientists to learn that invariably after passing 450 ppm dissolved atmospheric carbon the planet crosses “tipping levels” beyond which the Epoch-shift is already in motion. Human intervention would no longer be possible beyond this point. Therefore, the level of dissolved carbon in the atmosphere is the only completely reliable measure of the Defendants actions as they impact upon the Plaintiff’s life, liberty and property. All other related metrics (water, energy, transportation, wildlife, agriculture, ecosystems, and human health) follow from this crucial statistic. This is also the measure of when the harms that are now occurring as a result of the Defendants actions become irreversible.

52. There is a clear scientific consensus that the Defendants actions and omissions are pushing our current Epoch exponentially faster toward the next Epoch. Indeed, at the current rate our atmosphere will reach 450 ppm in the mid-2030’s, thousands of years sooner than would normally occur.

53. The net result of decades of obfuscation and delay by the Defendants is that there is no longer *any* level of emissions reductions which can meaningfully decrease the danger global warming poses to the Pro se Plaintiff. Only affirmative action by the Defendants resulting in the establishment of a Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) program of sufficient scale to remove large amounts of the greenhouse gasses which have been allowed to become legacy emissions will prevent increasingly severe consequences to the Pro se Plaintiff’s life and liberty.

Despite the Known Danger Defendants Have Recklessly Allowed Dangerous Levels of CO2 Pollution to Build Up from the Combustion of Fossil Fuels While Making Claims to the Contrary

54. Either directly or through the control of the federal government, the 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.

55. It is now accepted that anthropogenic climate change presents a serious threat to the health, prosperity, and stability of human communities, and to the stability and existence of non-human species and ecosystems. The international legal framework established in 1992 to prevent dangerous anthropogenic interference with the climate system has focused attention on the role of nation-states and has led to commitments by many nation-states (particularly the Annex I or highly developed nations) to cut their greenhouse gas (GHG) emissions.

56. Quantitative analysis has been conducted of the historic fossil-fuel and cement-production records of the 50 leading investor-owned, 31 state-owned, and 9 nation-state producers of oil, natural gas, coal, and cement from as early as 1854 to 2010. This analysis traces emissions totaling 914 GtCO₂e—63% of cumulative worldwide emissions of industrial CO₂ and methane between 1751 and 2010—to the 90 “carbon major” entities based on the carbon content of marketed hydrocarbon fuels (subtracting for non-energy uses), process CO₂ from cement manufacture, CO₂ from flaring, venting, and own fuel use, and fugitive or vented methane. Cumulatively, emissions of 315 GtCO₂e have been traced to investor-owned entities, 288 GtCO₂e to state-owned enterprises, and 312 GtCO₂e to nation-states. Of these emissions, half have been emitted since 1986 during the period in which the United States government was fully aware of the dangers posed by GHG generated global warming.

57. In 2012, petroleum accounted for 36.5% of the total primary energy consumption in the U.S., the single largest source of energy consumption. In 2020 that percentage had risen to 69% (with for the past 20 years another 22% from coal). All U.S. petroleum refineries are permitted and regulated by EPA. In 2013, fossil-fuel combustion from various industrial processes accounted for approximately 15% of

total CO₂ emissions in the United States. The EPA regulates these industrial processes.

58. The DOE establishes efficiency standards in buildings and appliances. These standards affect levels of energy consumption and combustion.

59. 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, the Defendants have exercised control over CO₂ emissions in the transportation sector.

60. From 1996 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 CO₂ per mile than lighter-weight vehicles, other factors held equal.

61. In 2012, U.S. CO₂ equivalent emissions from transportation were 1,837 million metric tons. In 2012, CO₂ 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.

62. 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).

The Window for Correcting Climate Disruption Due to Greenhouse Gas Emissions Permitted by The Defendants Is Closing Even as the Cost in Human Life and National Fiscal Expense is Increasing

63. Greenhouse gases in the atmosphere act like a blanket over the earth, trapping energy received from the sun. The governments own researchers including those from the National Aeronautics and Space Administration (NASA) have documented observable impacts from the changes in Earth's climate system.

64. The heat-trapping nature of carbon dioxide and other gases was demonstrated in the mid-19th century. Their ability to affect the transfer of infrared energy through the atmosphere is the scientific basis of many instruments flown by NASA. There is no question that increased levels of greenhouse gases must cause Earth to warm in response.

65. Ice cores drawn from Greenland, Antarctica, and tropical mountain glaciers show that Earth's climate responds to changes in greenhouse gas levels. Ancient evidence can also be found in tree rings, ocean sediments, coral reefs, and layers of sedimentary rocks. This ancient, or paleoclimate, evidence reveals that current warming is occurring roughly ten times faster than the average rate of ice-age-recovery warming. Carbon dioxide from human activity is increasing more than 250 times faster than it did from natural sources after the last Ice Age.

66. The planet's average surface temperature has risen about 2.12 degrees Fahrenheit (1.18 degrees Celsius) since the late 19th century, a change driven largely by increased carbon dioxide emissions into the atmosphere and other human activities. Most of the warming occurred in the past 40 years, with the seven most recent years being the warmest. The years 2016 and 2020 are tied for the warmest year on record. Even the time-scale used for measuring and discussing ambient temperature has recently been changed to "normalize" this warming effect.

67. New research at the Department of Earth and Environmental Sciences and Museum of Paleontology, University of Michigan, Ann Arbor has found that humans are pumping nearly 10 times more carbon dioxide into the atmosphere than what was emitted during Earth's last major warming event, called the Paleocene-Eocene Thermal Maximum (PETM). In 2013, the atmospheric CO₂ concentration exceeded 400 ppm for the first time in recorded history. The pre-industrial concentration was 280 ppm. March 2015 was the first month in which the monthly global average concentration of CO₂ was 400 ppm for an entire month, reaching levels that have not been seen for about three million years. CO₂ concentrations have risen more than 120 ppm since pre-industrial times, with half of that rise occurring since 1980

68. In 2017, unnaturally rising ocean temperatures and vastly increased amounts of water in the airstream overhead helped to spawn Hurricane Harvey. (Hurricanes now last over 60% longer and have peak winds 50% greater than only a generation earlier.) The devastating super-storm left Houston and 50 counties around it submerged and battered. More than 30,000 people fled to shelters, 21.5% of oil production and 23.2% of natural gas production has shut down, and there remains estimated \$180 billion dollars in damage. Hurricane Irma—the most powerful Atlantic Ocean hurricane ever recorded, with wind speeds over 185 miles per hour—evacuated 5.6 million people from Florida, left millions without power, and destroyed thousands of homes. In the United States, all of the Virgin Islands and Puerto Rico remained without power for months, and, in many areas, also without drinking water—including all of the hospitals on Puerto Rico.

69. Recent scientific reports warn of the disintegration of both the West Antarctic ice sheet and the East Antarctic ice sheet, causing multi-meter sea-level rise. NOAA reports that this year's Arctic ice "shows no sign of returning to a reliably frozen state." Such a shift will devastate coastal regions, including much of the Eastern Seaboard. Millions of Americans and trillions of dollars in property damage

will result. On the current trajectory, 50% of the world's population in coastal areas are expected to experience major flooding by the year 2070. In addition to the lives lost, the economic impact would be devastating. For example, New York City, with real estate valued at \$120 billion, currently lies in the flood zone. In 2012, Hurricane Sandy caused billions of dollars in damage, including flooding the 9/11 Memorial with seven feet of water. Tomas Regalado, mayor of the City of Miami, stated in 2016, "Anyone who thinks that the topic of climate change is a partisan issue is not focused on the reality which we as public officials and citizens are dealing with. This is a crisis that grows day by day."

70. The fire season of the American West (including Colorado, where the Pro se Plaintiff resides) is already 150 days longer than it was 50 years ago. 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 10 years with the largest acreage burned have occurred in the 14 years since 2000 (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. So far, the death toll as a result of a single fire in Northern California, the Camp Fire, now stands at 83, most of the victims burned alive – burned alive. According to the Butte County Sheriff's Department, 563 people remain unaccounted for. The Camp Fire has burned more than 153,000 acres and has destroyed more than 13,000 residences, as well as 514

commercial structures and more than 4,000 other buildings. Asking for help fire officials are stressing the connection between Climate Change and increasingly deadly and extensive fires. Over 137 deadly wildfires burned more than 1,830,00 acres in the Western United States during the 2017 fire season alone.

71. Heat waves are 150 times more frequent than in pre-industrial times and often reach levels over 120 degrees Fahrenheit. If business continues as usual, heat waves will increase in frequency, severity, and duration. For example, by the end of this century, if the 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.

72. 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.

73. The 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. Rather than addressing the causative problems inhuman practices in immigration control have been instituted.

74. Mud slides have increased by 400% since the 1950s.

75. So-called "atmospheric rivers" have caused seven "thousand-year flood events" in the past seven years.

76. 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. We

cannot wait until century's end, because the predicted tipping point of the "big splash," or the final collapse of these three polar ice sheets, will be in the 2030s. With less sea ice, less solar radiation is reflected back to space, a positive feedback loop serving to amplify regional and global warming.

77. Fifty percent of the world's population in coastal areas are expected to experience major flooding by the year 2070. In addition to the lives lost, the economic impact, as mentioned above in item 117, would be devastating. 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, these surges can overwhelm levees and sea walls, as witnessed during Hurricane Katrina, Hurricane Sandy, and other major storms. 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.

78. Air pollution now kills 6.5 million people yearly. By 2040, some allergens will have increased by 200%, with grams of pollen increasing from 8,455 grains per cubic meter to 21,735 grains per cubic meter. 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.

79. In 2015, the Lancet Commission on Health and Climate Change stated, “Climate change is a medical emergency.” Natural ecosystems are being disrupted in ways that make it easier for infectious disease to develop and spread. Even slight increases in temperature can lead to dramatic increases in microbes. Increasing temperatures and precipitation factors enable disease carrying insects such as mosquitoes to expand their range, reproduce more often, and increase their metabolism so they feed more frequently.

80. Extreme heat events now cause more deaths annually in the United States than all other extreme weather events combined. Most at risk are the elderly and disabled, as well as infants and children.

81. During the 21st century, we are projected to lose half of all land-based species. Animals who can relocate to cooler temperatures are moving an average of 15 feet per day toward the poles, but many are unable to move. Bees and other pollinators are moving upward in elevation, while the plants they pollinate will take decades or centuries to accomplish the same migration.

82. Each day, millions of tons of CO₂ are dissolved in seawater, reacting to form carbonic acid (H₂CO₃). This reaction lowers the pH of the ocean, which is indicative of its rising acidity. It is projected that excess CO₂ will reduce surface ocean pH by 0.3-0.5 units over the next century, which would be the largest change in pH to occur in the last 20-200 million years. The subsequent rise in acidity will trigger massive extinction of marine life, leading to inland extinction. To date, the world's oceans have become 30% more acidic than before we first started burning fossil fuels.

By 2050, more than 90% of the Earth's ecologically critical coral, where many fish species are born and raised, will be completely lifeless. Other life in the ocean will be increasingly threatened.

83. 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. Flooding along the Missouri river in early 2019 initiated preparations to shut down power plants, including the Cooper Nuclear Plant, forced 1,200 people to evacuate. A 30-knot wind storm, probably the first in Nepal, hit Bara and Parsa districts killing 28 and injuring over 500 people. Mozambique, Malawi, Madagascar, Zimbabwe, South Africa Tropical Cyclone Idai left entire cities demolished, close to 1,000 dead and more on the way from disease and starvation.

84. 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.

85. In higher-altitude and latitude regions, especially in mountainous areas like Colorado where the Plaintiff resides, 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 and continues to decrease yearly.

86. Inland mountain glaciers are receding nationwide because of warming temperatures. In 2010, Glacier National Park in Montana had only 25 glaciers larger than 25 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. 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 will release methane that will further increase global warming to even more dangerous levels. CO₂ and methane released from thawing permafrost could contribute as much as 0.4°F to 0.6°F of warming by 2100.

87. More than 40% of insect species are declining and a third are endangered. The rate of extinction is eight times faster than that of mammals, birds, and reptiles. The total mass of insects is falling by a precipitous 2.5% a year, according to the best data available, suggesting that insects could vanish within a century. Insects are “essential” for the proper functioning of all ecosystems, the researchers say, as food for other creatures, pollinators and recyclers of nutrients. Experts project there will be massive species extinction on all levels in this century. 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.

88. The melting of mountain glaciers is particularly serious in areas that rely on snow melt for irrigation and drinking water supply such as that occupied by the Plaintiff. 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.

89. 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.

90. 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.

91. 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. 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 Hawaii, 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.

92. 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.”

93. By 2025, 40% of the world’s population will be living in countries experiencing significant water shortages, while sea-level rise could cause the displacement of tens, or even hundreds, of millions of people. As a result, the United States 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 United States and materially increase deployment of our country’s military forces. All of this will have avoidable harms for the Plaintiff.

94. A substantial portion of every ton of CO₂ emitted by humans persists in the atmosphere for as long as a millennium or more. Every pound of CO₂ emitted in the last hundred years will continue to trap heat in the atmosphere for hundreds of years to come. Therefore, the impacts associated with past and current CO₂ emissions will be borne by our children and future generations. Our nation will continue to warm in response to concentrations of CO₂ from past emissions, as well as future emissions.

**The Defendants Are Driving the Atmospheric Envelope and
Ecosystems To “Tipping Levels” Beyond Which Remediation Will No
Longer Be Possible**

95. 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 CO₂, will initiate dynamic climate change and effects that spin out of control for the Pro se Plaintiff 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 Pro se Plaintiff and threaten his survival.

96. A tipping point is a threshold or point of no return in the climate system that once passed can no longer be reversed. Passing a tipping point does not necessarily mean immediate, drastic consequences, but it does mean those consequences become unavoidable, and over time the impacts may be dramatic. In an interconnected world tipping points escalated by the Defendants threaten everyone including the Plaintiff. In a 2019 paper, Professor Timothy Lenton, a global leader on the subject, identified nine climate tipping points, from the Amazon rainforest, the West Antarctic ice sheet to the Gulf Stream system. The three listed here are believed to be have the greatest decree of associated harms: the West Antarctic ice sheet may have already passed a tipping point; the Amazon because it is a crucial crucible of biodiversity and for its warehouse of carbon; and the Gulf Stream system because of its potential for profound changes with connected ramifications all around the planet. Changes are happening faster than what was expected and the chance of hitting tipping points in the climate system, which just a decade ago appeared remote and far off, now seems much more likely and more immediate.

97. In 2020, fires reached their highest number in a decade in the Brazilian Amazon and deforestation in the Amazon surged to its highest point in 12 years. Since the 1980s, NASA has observed a significant increase in something called the vapor pressure deficit (VPD) over the Amazon rainforest. The VPD is the difference, or gap, between the amount of moisture in the air and the amount it can hold. That gap is widening, which represents a drop in relative humidity, due to an increase in greenhouse warming from human-caused climate change and aerosols from biomass burning. When the atmosphere is less humid, it has room for more moisture and it becomes more thirsty, pulling that moisture out of the ground and making the vegetation drier. This leads to more drought and is very similar to what is happening in California, which is making wildfires worse. Over the past century temperatures in the Amazon have risen by over 2 degrees Fahrenheit and in the past 50 years the dry season has expanded by a month. Globally, the Amazon rainforest is a tremendous repository for the planet's carbon, but if it becomes a savanna much of that carbon will be unleashed, magnifying climate change. Estimates are that the forest contains a staggering 100 billion tons of carbon in its lush vegetation and soils — equivalent to about three times the amount of greenhouse gases emitted from the burning of fossil fuels each year. As of 2021 scientists report that the Amazon rainforest has become a carbon producer rather than a carbon sink. The harm to the Plaintiff, while indirect, is clearly causal and a clear and present danger.

98. Of all the threats posed by climate change, sea level rise is arguably the most significant. That's because with billions of people living along the world's coastlines, rapid sea-level rise will force massive disruption. Given the immense amount of heat already absorbed in the ocean system due to human-caused climate change, there's no doubt several feet — and likely much more — of sea level rise is already locked in, but the question is how fast will it happen? The latest research finds that global warming thresholds that would trigger tipping points on both the Greenland and Antarctic ice sheets are not that far away. The authors of a 2018 study find that these tipping points will likely occur between 1.5 and 2 degrees Celsius of

global warming above pre-industrial levels — the level at which the Paris Climate Agreement aims to halt warming. The Earth has already warmed by 1.2 degrees, and 1.5 degrees of warming may be less than 15 years away. While the Plaintiff resides in a high desert region, the mass migrations and changes in resource availability will certainly result in harm to his life liberty and property.

99. Because of the complexity of ice sheet dynamics, it is hard to know exactly when a tipping point will be reached, but Lenton warns we may already be there: "It is plausible we are already past a tipping point." With ice more than a mile thick and a size almost double the contiguous United States, the Antarctic landmass holds enough ice to raise sea levels by 200 feet. For decades it was assumed the frigid Antarctic ice sheet was fairly stable, so most glacier headlines were focused on the other massive ice sheet in Greenland. But in just the past few years, researchers have become alarmed at several areas in Antarctica which are showing signs of instability due to a warming climate and shifting ocean and atmosphere currents. What makes the situation at Pine Island Glacier, and especially Thwaites Glacier, so precarious is that the ice shelves float far out over the sea. Warm water, about 2 degrees Celsius above the historical average, is now undercutting the marine ice. That is destabilizing the base of the ice shelf where it is propped up on land (called the grounding line) and accelerating its retreat. If and when the base of the glacier lifts off the ocean floor, it will no longer be supported by land and thus will become floating ice. Just like adding ice cubes to a glass, this raises the water level. Because Thwaites, also known as the Doomsday Glacier, is below sea-level, that means much more ice is vulnerable to warming seas.

100. Oceanographers now describe a potential tipping point in the Gulf Stream system as "profound." That's because the Atlantic Ocean circulation is a linchpin in Earth's climate system. It is the driving force behind the Global Ocean Conveyor Belt (pictured below) and transports 20% of the excess heat which accumulates at the Equator towards the Northern Hemisphere polar regions. This is

how Earth attempts to balance out unequal heating from the sun, and the flux of heat is a big factor controlling weather patterns. What concerns scientists is that this current is slowing down. In fact, a new study found it is moving the slowest it has in at least 1,600 years and may decrease speed by up to 45% by 2100, possibly tipping the circulation into collapse. Gulf Stream system is a newly popularized nickname for the Atlantic Meridional Overturning Circulation (AMOC for short). One look at that name and it's clear why the Gulf Stream system may be preferable. But in that AMOC name there are some clues as to why this current system is so important. "Meridional" means transport in a north-to-south or south-to-north direction. And "overturning" implies that the current moves vertically as well. So this current is the engine that propels ocean heat to the ends of the Earth. Being that it takes any one water parcel around 1,000 years to complete a full journey, anything we do today lingers in the system for a great many generations. Each year ocean heat content hits a new record high because 93% of the excess heat trapped by greenhouse gases is stored in the ocean. That's equivalent to 5 Hiroshima atomic bombs worth of heat per second. This is a big reason why ice melt has already locked in 20 feet or more of future sea-level rise. This points out again why it is not only current harms to the Pro se Plaintiff that are of concern in this Complaint, but also future harms. These future harms, which are massive and far reaching, can be predicated with the same certainty as if they had already occurred.

101. The natural world tends to be interconnected. Accelerated meltwater from Greenland ice is currently rushing into the North Atlantic. This combined with heavier rainfall is likely responsible for a slowdown of the AMOC by 15% since 1950. Here's how it works. In the North Atlantic, east of Greenland, water is cold, salty and dense. Therefore it sinks. That vertical movement of the AMOC is the driving force, the momentum which keeps the whole system moving. But the water is changing in this region. That's because, according to NASA, a warmer climate is melting ice at 6 times the rate of the 1990s. That is pumping a layer of fresh water — which is not as heavy — into the North Atlantic, resulting in a decreased ability to sink, slowing

down the overturning. While the vast majority of Earth is warming, a big "cold blob" near Greenland sticks out like a sore thumb. Scientists report this colder region is a "fingerprint" for the slowdown of the AMOC. It's a result of a decrease in heat transfer northbound due to the slowing of the Gulf Stream. This is all happening much faster than projected. The observations tell us we are about 50 years, or more, ahead of where even the climate models say we should be at this point continued to be surprised by how fast some of these processes appear to be playing out.

102. We know from geologic records that an increase in global temperatures consistent with 450 ppm atmospheric carbon will trigger irreversible feedback loops ("tipping levels). For example, 120,000 years ago the Earth drifted slightly closer to the Sun and put us in the geological "Eemian Period." During this time, the Earth warmed by 1.9°C (35.4°F). According to world-renowned paleoclimatic research teams, during the Eemian Period the polar ice caps at first underwent "linear" gradual melting, which produced a gradual sea rise, but then suddenly several major discontinuities arose that no longer followed linear gradual melting behavior. Instead, three major ice sheets in Western Antarctica, minor sections of East Antarctica, and Greenland abruptly and spectacularly collapsed in several stages, causing very rapid sea level rises ranging from 16 to 30 feet. The resulting high seas lasted for more than 1,000 years, ending only with the appearance of the next ice age.

103. The Defendants have already facilitated the release of too much warming pollution in the atmosphere for emissions reductions to be effective in avoiding the "tipping levels" projected for the mid-2030s. Unless relief is provided by the Court emergently, the window for fixing the problem will close. We need to deploy a method of "carbon capture and sequestration" either isolating or neutralizing the carbon, so our planet can cool off again. All the solar and wind energy, electric cars and recycling in the world will not save us unless we first remove excess carbon already in the atmosphere. (Carbon is our target, as it is the most prevalent and most enduring pollutant, and we know how to remove it.)

104. The same James Hansen who briefed Congress decades ago, and his colleagues (2008, 2009), warn that crossing the 450 ppm tipping level could lead to irreversible seeding of catastrophic climate impacts and a shift out of the current Anthropocene period which geologically-speaking began around the mid-twentieth century C.E. Modeling studies from various research groups including Cao and Caldeira (2008) indicate when atmospheric CO₂ exceeds 450 ppm, the current process of ocean acidification and marine die-off would also accelerate outside of the range of human capability to intervene. Together with paleogeologic evidence the impending resultant harms to the Plaintiff are all but certain.

105. Scientists tell us the Defendants have until only the mid-2030's, when atmospheric CO₂ concentrations will reach 450 ppm, to provide relief for the Plaintiffs complaint. After this time even manual restoration of our habitable ecosystem will no longer be feasible. Therefore, urgent action by this Court is needed before the Pro se Plaintiff's Constitutional rights are irretrievably lost. Since the Defendants first became aware some 50 years ago that their activities were leading to a catastrophic collapse of environmental systems, they have continued to foster and promote man-made greenhouse gas emissions which have increased and accumulated in our atmosphere. From 1850 to 2021 human activity dumped escalating levels of greenhouse gasses so that today we have approximately 950 gigatons of CO₂ (not to mention ozone, and chlorofluorocarbons, and methane, and nitrous oxide) like gaseous garbage hanging above us. The effect of this has been to trap large amounts of global warming solar radiation. At present the amount of energy trapped is roughly equivalent to exploding 400,000 Hiroshima-class atomic bombs each day 365 days a year. Eventually much of this carbon will be "recycled" through natural processes – but that "eventually" is in the neighborhood of up to thousands of years from now. Meanwhile, in the mid-2030's, at around 450 ppm dissolved atmospheric carbon (or 10 GtC of ocean-dissolved CO₂ resulting in acidity so high that phytoplankton to stop producing their 80 percent share of the world's

oxygen.), geohistorical evidence has clearly shown us that the Earth will cross “tipping levels” and lock into a “new normal”. Scientists tell us this new normal will be incompatible with the continued survival of most land and aquatic species now living.

106. The Defendants like to talk about temperature change. Any analysis of where we stand on climate that is not based on parts per million atmospheric carbon dioxide opens the door for political and accounting gamesmanship. Some parties are even attempting to get credit for “avoided emissions” (an investment in wind turbines might be claimed as avoiding an investment in the same amount of energy produced by coal). The big lie here is that every Defendant is aware that it has been more than a half a century since reduced emissions could put the brakes on global warming. Thus, bartering carbon credits and changing the shoe size on carbon footprints is like playing cards on a high-speed train now 100 yards from the edge of a precipice. For the present, carbon footprints and emissions reduction numbers are irrelevant. Only the goal of staying well below 450 ppm will keep stakeholders’ efforts useful and on-target. No other number is truly relevant.

107. If the Defendants are allowed to continue their current course, synergistically-exponential escalation of climate-related ecological effects will soon place relief or remediation for the Plaintiff out of reach of human technology and ability. Furthermore, the Defendant’s actions are causing elements of the Earth’s environmental systems to create negative feedback loops causing a much more rapid escalation in the Earth’s ecological imbalance and researchers, relying on computer modeling, to consistently underestimated the gravity and speed of global warming.

108. Observational data from NASA, NOAA and other monitoring agencies already show major changes such as ocean currents slowing and redirection of ocean currents which distribute heat around the planet; dramatic melting of ice and thawing of permafrost at both poles (including in Greenland where they have lost

over 500 billion tons of ice in the past 10 years alone); a vast and accelerating release of stores of methane from beneath melting permafrost; disease vectors altering and exposing populations without the generations necessary to adapt and build immunity, land and ocean species die-off accelerating much more rapidly than anticipated; increasing wildfires including in polar regions (where in June and July 2020 alone NASA estimated that 205 megatons of CO₂ were emitted from wildfires); temperatures soaring to the point where vast amounts of air conditioning are being used; reduced or destroyed animal species and habitats (such as during the Australian wildfires of 2019 when 80% of some animal's habitats were destroyed); the emergence of new soil microbes which have begun to release increasing amounts of stored carbon from the ground; a fatal breach between plants and pollinators; Altered weather patterns leading to loss of life and costly infrastructure damage; mass poleward migrations happening across the globe creating intense pressure of immigration systems and social upheaval; vastly worsening insect borne disease vectors; weakening of the arctic jet stream that propels weather systems around the globe can no longer push large weather patterns so that they are becoming more destructive costing hundreds of billions of dollars in cleanup and mitigation efforts leaving large populations vulnerable to unmanageable degrees of heat, cold, drought, flooding, wind, volcanic, seismic and ocean dangers as well as increasing prevalence and intensity of viral and other diseases due to unnatural intersections between migrating humans and animals; and a widening breach between plants and pollinators. All of these are indicators that tipping-levels are in danger of being breached in the near future. The Defendants are, in effect, triggering a premature Epoch-shift at 450 ppm dissolved atmospheric carbon.

109. Adverse weather events have now become so frequent that alternative as well as traditional energy infrastructure is being disabled on an increasingly frequent basis.

110. Ecologically, humanity has been noted as an unprecedented "global superpredator" that consistently preys on the adults of other apex predators, and has worldwide effects on food webs. There have been extinctions of species on every land mass and in every ocean: there are many famous examples within Africa, Asia, Europe, Australia, North and South America, and on smaller islands. The 2019 Global Assessment Report on Biodiversity and Ecosystem Services, published by the United Nations' Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, posits that roughly one million species of plants and animals face extinction within decades as the result of human actions. Organized human existence is jeopardized by increasingly rapid destruction of the systems that support life on Earth, according to the report, the result of one of the most comprehensive studies of the health of the planet ever conducted climate and ocean impacts (Cao & Caldeira, 2008; Fry et al., 2016; Hansen et al., 2008; Hansen, 2009; and Lovelock, 2006). Note: Tipping level crossed between approximately 2030 and 2035.

111. In recent years, the United States has experienced an unnaturally rapid increase in events causally linked to the disruption of the Earth's atmospheric envelope. These catastrophic events include the destruction of American homes and businesses; the displacement of millions of United States citizens; damage to infrastructure leading to an unsustainable drain on the national treasury; the disruption of animal, insect, and aquatic ecosystems necessary for human survival; increased physical and mental disease and disorder; and the tragic loss of human life, among other harms.

112. The essential role of business is to generate financial profits for owners, employees and shareholders. Democratic government is chartered with the responsibility of providing for the good order and management of society, and specifically development and deployment of laws, treaties, and other regulatory policies that do not infringe upon or endanger the constitutional rights of citizens to liberty, property, and life.

113. The Plaintiff contends that the United States of America and its organs and agents have willfully ignored and abrogated its own findings and scientific consensus regarding the known effects of releasing large amounts of greenhouse gases (GHG), in particular carbon (CO₂) emissions, into the atmosphere. The Pro se Plaintiff contends the Defendants have in fact promulgated legislation, regulation, procedure, and policy leading to an increase in dangerous GHG while simultaneously rolling back existing regulations and practices directed at addressing and minimizing anthropogenic climate change and thus have infringed upon and endangered the constitutional rights of the citizenry to liberty, property, and life. These procedural actions violate the Constitution of the United States of America, which enjoins the Government and its organs from engaging in laws, treaties, regulations, or other actions that deprive its citizens of their right to liberty, property, and life.

114. The Government has ignored accepted facts, research data, and reliable principles and methods arising out of scientific, technical, and specialized knowledge about global warming. In doing so, the Defendants have acted with reckless and deliberate indifference to the established clear and present dangers of climate change, knowingly increasing its scope and impact and resulting in damages, death, and destruction. In spite of warnings from their own scientific community, the Defendants have refused to establish regulations and remedial actions to reduce emissions contributing to the unnaturally rapid warming of and other anthropocidal changes in the protective planetary atmosphere and ecology of our country, thereby deliberately and willfully in rem endangering the welfare and constitutional rights of United States citizens.

115. The Defendants have known of the unusually high risks of harm to human life, liberty, and property that would be caused by continued fossil-fuel burning. Yet the Defendants have willfully ignored this impending harm. By their exercise of sovereign authority over our country's atmosphere and fossil-fuel

resources, the Defendants permitted, encouraged, and otherwise enabled the continued exploitation, production, and combustion of fossil fuels. By and through their aggregate actions and omissions, the Defendants deliberately allowed atmospheric CO₂ concentrations to escalate to levels unprecedented in human history, resulting in the dangerous destabilizing of the climate system for our nation and this Pro se Plaintiff. The 1965 Report and the 1990 and 1991 Plans are only examples of the extensive knowledge the Defendants have had about the dangers they caused to present and future generations, including Pro se Plaintiffs. Since 1965, numerous other studies and reports also have informed the Defendants of the significant harms that would be caused if the 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 CO₂ to dangerous levels that would destabilize the climate system.

116. Rather than implement a rational course of effective action to phase out carbon pollution, the Defendants have continued to permit, authorize, and subsidize fossil-fuel extraction, development, consumption and exportation—activities producing enormous quantities of CO₂ emissions that have substantially caused or contributed to the increase in the atmospheric concentration of CO₂. Through its policies and practices, the federal government bears a higher degree of responsibility than any other individual, entity, or country for exposing the Pro se Plaintiff to the present dangerous atmospheric CO₂ concentration. In fact, the United States is responsible for more than a quarter of global historic cumulative CO₂ emissions.

117. The present level of CO₂ and its warming effect, both realized and latent, are already in the zone of danger. The Defendants have acted with deliberate indifference to the peril they knowingly created. As a result, the Defendants have infringed on the Pro se Plaintiffs' fundamental constitutional rights to life, liberty, and property. Through decades of research, and now lived experience, it has become

clear that the impacts of climate change will have drastic and far-reaching consequences on our planet. And while some of those consequences are predictable — like more extreme weather, sea-level rise and loss of biodiversity — the pace at which these unfold and their eventual severity hinge on what happens with key linchpins in the climate system, called tipping points.

118. The current policies, plans, and practices of the Defendants government will not achieve even a proportionate share of the fossil-fuel emission reductions that must occur. To the contrary, the Defendants' policies, plans, and practices permit, authorize, and subsidize fossil-fuel exploitation and consumption and thus press our climate system further toward irretrievable impacts. The Pro se Plaintiff prays this Court will order the Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels and instead move swiftly to phase out CO₂ emissions. Of greatest importance, the Defendants asks this Court to compel the Defendants to develop, subsidize, and manage a scientifically viable program for directly removing anthropotoxic carbon which they have allowed to enter the atmosphere through generations of the Defendants' action and inaction, reducing carbon to pre-industrial levels, or at least no more than 350ppm which scientists have determined is a relatively safe level.

The Defendants Have Known For Decades That Carbon Dioxide Pollution Was Causing Catastrophic Climate Change And That Massive Emission Reductions, A Nation-Wide Transition Away From Fossil Fuels And Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) Will All Be Needed To Protect Pro Se Plaintiffs' Constitutional Rights.

119. As early as 1899, scientists understood that CO₂ concentrations in the atmosphere cause heat retention on Earth and that a doubling or tripling of the CO₂ content in 1899 would significantly elevate Earth's surface temperature. Scientists also understood that CO₂ 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 CO₂ could cause global climate change.

120. By 1965, the Executive Branch reported that anthropogenic pollutants, including CO₂, 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 CO₂, threaten "the health, longevity, livelihood, recreation, cleanliness and happiness of citizens who have no direct stake in their production, but cannot escape their influence."

121. For 50 years, the Executive Branch has known that "pollutants have altered on a global scale the CO₂ content of the air" through "the burning of coal, oil and natural gas." The Executive Branch predicted that CO₂ "will modify the heat balance of the atmosphere to such an extent that marked changes in climate, not controllable though 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."

122. Fifty years ago, the Executive Branch described the marked climatic changes from CO₂ pollution as including the melting of the Antarctic icecap, rising sea levels, warming oceans, acidifying waters, and additional releasing of CO₂ 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. 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.

123. In 1969, Patrick Moynihan, then Advisor to President Nixon, wrote a letter to White House counsel John Ehrlichman stating that CO₂ 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. 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).

124. On June 23, 1988, 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.

125. Around the time of Dr. Hansen’s testimony, Congress directed its own offices and the EPA to separately prepare reports on how to stabilize the global climate system and transition our country away from the use of fossil fuels.

126. 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.”

127. The EPA’s 1990 report called for a 50% reduction in total U.S. CO₂ 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 CO₂ 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 CO₂ was a "dangerous" pollutant.

128. 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 CO₂ 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 CO₂ emissions was only the beginning and further efforts in the 21st century would be required to stabilize our nation's climate system.

129. The OTA's 1991 Report stated that major reductions of CO₂ 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.

130. 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 CO₂ emissions was implementing a rising carbon

tax. 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 stated clearly 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.

131. 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 the intervening 30 years. Greenhouse gasses have continued to accumulate and become legacy emissions. Scientists’ projections of catastrophic downstream ecosystem collapse have been more than realized as discussed above. There are now 1,290 billion additional tons of CO₂ in the atmosphere and US emission rates are climbing 60% faster than in 1990).

132. Thirty years later the Defendants have restated to Congress the exact same 1991 goal for a 50% reduction in U.S. CO₂ emissions, this time by the year 2031. There is no evidence to suggest the Defendants will carry through on pledges and promises. According to scientists there is no more time even to carry out these promises. We are now at 418 ppm atmospheric carbon saturation and the geologic record clearly shows that, each and every time atmospheric CO₂ levels reach approximately 450 ppm, Earth’s ecosystems lock into a new normal incompatible with

the current forms of land and sea life. If the Pro se Plaintiff's life liberty and property are to be protected it must happen now and it must happen through the auspices of this Court.

133. 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 CO₂—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).

134. On January 2, 2011, EPA commenced partial regulation of greenhouse gases under the Clean Air Act from mobile and stationary sources of air pollution.

135. Three 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."

136. During the last decade, the Defendants have repeatedly stated that allowing "business as usual" CO₂ emissions will imperil future generations with dangerous and unacceptable economic, social, and environmental risks. As the 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.

**Despite the Known Danger, The Defendants Caused Climate Instability
and Allowed U.S. Fossil-Fuel Extraction, Production, Consumption,
Transportation, And Exportation and Associated Emissions to Increase
Dangerously While Making Claims to the Contrary**

137. Between 1751 and 2019, the United States has been responsible for emitting 25.5% of the world's cumulative CO₂ 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. the Defendants enabled and permitted those cumulative emissions.

138. Between 1800 and 2019 the United States annual CO₂ emissions increased by 2,090,233%.

139. Acting with deliberate indifference, the 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 the Defendants followed the EPA's 1990 Report and the OTA's 1991 Report, CO₂ emissions today would be reduced by 35% from 1987 levels. Instead, since 1991, the Defendants have knowingly allowed at least an additional 130,466 million metric tons of CO₂ emissions from fossil-fuel combustion.

140. Accordingly, instead of pursuing their own plans to slash emissions and reduce the risk of dangerous climate change, the Defendants knowingly acted to exacerbate that risk and impose harm on the nation and on the Pro se Plaintiff.

141. Total fossil-fuel production in the U.S. climbed from 98.70 quadrillion Btu in 2000 up to 101.19 quadrillion Btu in 2018.

142. Total carbon intensity of our energy use was 2.331 MtCO₂ in 2016 – the same level as in 1990.

143. In 2011, fossil-fuel combustion in the U.S. accounted for 94% of CO₂ emissions.

144. The above emissions figures are from U.S. government sources and, regrettably, underreport the amount of emissions that the 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. The Defendants have not provided a national consumption-based inventory for CO₂ emissions, which would include all embedded CO₂ emissions for goods produced outside of the U.S. and consumed within the U.S.

145. In 2020, the U.S. was the largest producer of natural gas, producing a total that year of 766,200 million m³. Also, in 2020, 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.

146. According to the United States Energy Information Administration (EIA), the U.S. was the largest producer of total petroleum and other liquids with 19.51 thousand barrels produced per day in 2020 up from 13.98 in 2014.

147. 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).

148. The aggregate actions by the Defendants in allowing fossil-fuel production, consumption, and emissions to increase in the United States 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 the Defendants' actions upon the climate system and with respect to the fundamental rights of the present and future generations.

Despite the Known Danger Defendants Have Allowed Excessive Fossil-Fuel Production on Federal Public Lands and These Leases Are Increasing In Spite of The Defendants Claims to the Contrary

149. 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. While 2013 saw more than 25% of all fossil fuels extracted in the U.S. originating on federal public lands, in 2020 this amount had risen to 37%.

150. Since January 1990, under Title 43 of the Code of Federal Regulations 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 and in 2020 that number had risen to 42%. The United States has more coal deposits available than any other fossil-fuel resource within its borders and, as of 2015, had 28% of the world's coal reserves.

151. 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.

152. 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.

153. From 2009 to 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.

154. 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 Pro se Plaintiff or increase Pro se Plaintiffs' susceptibility to harm.

155. It is clear that the Defendants cannot be trusted to act in accordance with their own proclamations and claims. There is no evidence to support that they will self-regulate their actions which are causing greenhouse gasses to accumulate in the atmosphere and create life-threatening conditions for the Pro se Plaintiff. There is no evidence to support that they will adhere to their Constitutionally-defined duties to safeguard and manage the natural resources of the United States or respect and follow any self-regulatory agreement in this matter without ongoing intervention and management by this Court as through a Consent Decree.

Despite the Known Danger Defendants Promote, Permit and Subsidize the Fossil-Fuel Industry While Making Claims to the Contrary

156. In addition to leasing federal public lands for fossil-fuel exploitation, the United States subsidizes, funds, and subsidizes fossil-fuel production and consumption.

157. 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.

161. Through 11 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.

162. The United States provides approximately \$5.1 billion per year in tax provision subsidies to support fossil-fuel exploration.

163. 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.

98. 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.

164. The Defendants have 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.

165. The United States supports fossil-fuel development by allowing the fossil-fuel industry to avoid the true social cost of CO₂ emissions from fossil fuels. Based on EPA's social cost of carbon estimates, CO₂ emissions from fossil fuels have the potential to cause trillions of dollars in damages. In May 2021 the District Court of The Hague in the Netherlands ruled in *Milieudefensie et al v Royal Dutch Shell* (ECLI:NL:RBDHA:2021:5337) for the Plaintiffs. The Hague ordered that Royal Dutch Shell must reduce its global carbon emissions from its 2019 levels by 45% by 2030. (This ruling was considered the first major climate change litigation compelling a multinational corporation to curtail carbon dioxide emissions.

Despite the Known Danger Defendants Recklessly Allow Interstate and International Transport of Fossil Fuels While Making Claims to the Contrary

166. Despite knowledge of the harm to Pro se Plaintiffs caused by the CO₂ emissions from fossil fuels, the Defendants recklessly allow all interstate transport of fossil fuels. Despite knowledge of the harm to Pro se Plaintiff caused by the CO₂ emissions from fossil fuels, the 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. This has heavily impacted the Plaintiff who resides near the Green River Oil Shale Formation.

167. 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 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.

168. A presidential exemption or federal license is required for all exports of crude oil to all destinations. In the 2000s 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.

169. No natural gas can be exported or imported without DOE authorization through FERC. FERC permits all LNG export terminals. 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.

170. 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.

Defendants Are Harming the Plaintiff Through Irresponsible Use of the National Treasury, Mopping-up Climate-Related Disasters Rather than Taking Necessary Steps to Prevent Them

171. In 2018, British NGO Christian Aid released a comprehensive survey finding that extreme weather has hit every populated continent in 2018. Just 10 of the worst climate-change disasters caused 84 billion dollars of damage in addition to loss of life. The study used cost figures from governments, banks, and insurers. Hurricanes Florence and Michael wrapped up at least \$32 billion in damage spread across the United States, the Caribbean, and Central America. The California wildfires caused at least \$9 billion in losses. Earthquakes in Japan and a typhoon were responsible for more than \$9 billion. Commenting on the study, Michael Mann, professor of atmospheric science at Penn State University, said the only thing that can stop this destructive trend is a rapid fall in carbon emissions already in the atmosphere.

172. Climate-change projections estimate an increase in monetary damages associated with inland flooding across most of the contiguous United States. 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.

173. 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 trillion in damage to coastal properties in the contiguous United States through 2100. 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.

The Federal Government's Admissions of Its Public Trustee Obligations

174. The 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.

175. In 1968, Congress declared that the federal government has “continuing responsibility” to “use all practicable means” to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.” 42 U.S.C. § 4331(b)(1).

176. Congress also declared that the federal government is among the “trustees for natural resources” and directed the 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).

177. 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).

178. According to the National Research Council, “fisheries within federal waters are held in public trust for the people of the United States.”

179. 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.”

180. 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.

181. 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.”

182. 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.”

183 The State Department admitted “an obligation to current and future generations to take action” on climate change.

184. 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.

185. 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.”

186. Since 1965, the Defendants have known they each have mandatory duties to abate CO2 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.”

187. The 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 the Defendants have put Pro se Plaintiff in danger and increased Pro se Plaintiffs’ susceptibility to harm, the Defendants are responsible for acting to protect the Pro se Plaintiff. In fact, the Defendants have exacerbated the harm to our atmosphere in violation of Pro se Plaintiffs’ constitutional rights.

**Despite the Known Dangers and the Existence of Carbon Removal
Technology the Defendants Have Recklessly Ignored the Need for Direct
Removal Of Existing Atmospheric Carbon (D.R.E.A.C.)**

188. An urgent and critical undertaking is required to protect the climate system and cause a cessation of the Defendants' infringement of Pro se Plaintiffs' constitutional rights. The Defendants must act rapidly and effectively to phase out CO₂ emissions in order to restore Earth's atmospheric balance. The Defendants must cease permitting and authorizing fossil-fuel projects so as not to exacerbate the climate crisis and further infringe on Pro se Plaintiffs' constitutional rights. Finally, and most importantly, the federal government must initiate a large-scale project for active atmospheric carbon removal. Global atmospheric CO₂ concentrations must be reduced to below 350 ppm prior to the mid-2030s in order to avoid triggering "tipping levels" in various ecological systems leading to runaway global heating beyond control by human beings.

189. We have seen that the Defendants cannot be relied upon to translate public statements into remediative action. However, even if the Defendants were to carry out all of their stated remediative efforts these measures will slow the current increase in greenhouse gas accumulation or planetary temperature rise for hundreds of years. Scientists tell us that even a complete and immediate halt to all greenhouse gas generation will alter these trajectories a fraction of what will be required to avoid reaching 450 ppm atmospheric carbon saturation and the tipping levels outline in this Complaint.

190. The Plaintiff and many others have repeatedly informed the Defendants of the dire nature of the situation and requested that the Pro se Plaintiffs include Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) in their planning and actions continue their policy of half-measures any reasonable and informed person or agency can be expected to comprehend that it is now impossible to halt global

warming through emissions reductions alone and Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) is necessary to protect Pro se Plaintiff's rights to life and liberty.

191. At present the actions of the Defendants have us on track to become sustainable and largely extinct. The Defendants have been aware for many decades that emissions reductions alone could not protect the Defendant's rights. It is as if the government has finally agreed to put seat belts in cars whose engines are catching fire due to a defect. The solution no longer rises to the level of the problem. A continued failure to adopt Negative Emissions Technologies (NET) is an abrogation of the government's responsibility to protect and defend the Plaintiff's inalienable rights to life, liberty and the pursuit to happiness.

192. Only a halt in the rise of atmospheric CO₂ before reaching the geologically established 450 ppm cutoff (now projected to be reached by the mid-2030's) will protect the Pro se Plaintiffs Constitutionally determined rights to life and liberty. Passive "natural" solutions like reduced emissions will continue to fall extremely short. Legacy emissions are so long-lived that we must manually remove them and even this remedy to the present Complaint will be impossible to achieve if not begun immediately. The Negative Emissions Technologies of Direct Air Carbon Removal (DAR) and Solar Radiation Management (SRM) through increasing planetary albedo are well-researched, carry very minimal risk (especially when compared to the catastrophic certainty of crossing the 2030's climate deadline) and will reduce climate-related mitigation costs as well as create positive economic sequela not seen since the aftermath of World War II.

193. Already several companies have opened pilot plants: Global Thermostat (United States), Carbon Engineering (Canada), Climeworks (Switzerland), and Karlsruhe Institute of Technology (KIT) in Germany. Dr. David Keith a Harvard Professor and founder of Carbon Engineering has teamed with Occidental Petroleum

to profitably scale up DAR ground stations. Carbon Engineering employs an advanced process that uses solar power to cause absorbed CO₂ to react with hydrogen to produce a biofuel that can replace fossil fuel.

194. After building a small plant that fed absorbed carbon dioxide into a greenhouse, Climeworks opened a small-scale commercial plant in Iceland aimed at removing carbon dioxide from the air and using water to pump it down into basalt rocks underground, harnessing Iceland's abundant geothermal power as a source of energy. Here the carbon dioxide is literally turned to stone—it mineralizes rapidly because of the type of rock and the pressure. Once turned to stone, the carbon dioxide is out of the planet's energy system for millions of years.

195. At Karlsruhe Institute of Technology (KIT) in Germany, the NECOC (Negative Carbon Dioxide to Carbon) research project is aimed at building a unique test facility for active reduction of atmospheric carbon dioxide (CO₂). The world's first container-scale facility of this type will convert CO₂ contained in ambient air into highly pure carbon black powder that can be used as a resource in industry. Project partners are INERATEC GmbH, a spinoff of KIT, and ClimeWorks. The project is funded with a total of EUR 1.5 million by the Federal Ministry for Economic Affairs and Energy (BMWi).

196. By 2025 DAC facilities must be up and running and capable of capturing a net 10 GtC/yr of CO₂ per year if we hope to skirt the Climate Deadline. The Defendants have little to lose by affirmatively protecting the Pro se Plaintiff's rights through the establishment of a Negative Emissions program. NET can play out far differently on the international stage than the past 50 years of never-ending, snail-paced, debates over carbon reductions and carbon credits. The United States can take an entirely fresh and proactive approach doing what Americans do so well – innovate and build. Initiating the deployment of large-scale Direct Air Carbon Capture facilities at home and elsewhere, leveraging our allies and the United Nations in the

process promises great benefits. This vastly different, proactive stance will free us from the quicksand of endless discussion and jockeying for position while giving China a whole new technology race. If sufficiently motivated humans can build a massive network of fossil fuel exploration and extraction apparatus including SPAR platforms reaching thousands of feet to the sea floor we should be able to do this!

197. The Plaintiff alleges that the Defendants, in clear defiance of factual scientific evidence from their own scientists and advisors, began and now are continuing on a course of action and refusal of action resulting in an omnicidal build-up of greenhouse gasses mainly through the burning of fossil fuels. This conduct is resulting in the destruction of the atmosphere and ecosystems on which the Plaintiff's constitutional rights to life, liberty, and property depend. The Defendants have continued on this course while making grossly inadequate and ineffective plans, proposals and proclamations of concern. Even should, against all historical evidence, the Defendants fully realize their stated intention to gradually reduce the use and permitting of fossil fuels, many decades of delay have now resulted in such a backlog of atmospheric and environmental damage that the only course of safe and effective remediation is the direct manual removal of excess greenhouse gas from the atmospheric envelope over which the Defendants have exerted their sovereign dominion and protection. Prior litigation introduced in the Ninth District Court (*Juliana v. The United States* Docket 6:15-cv-01517-AA) has established in the record a number of facts and key arguments referenced here. In her Dissenting Opinion on 6:15-cv-01517-AA Judge Staton stated that *"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. Seeking to quash this suit, the government bluntly insists that it has the absolute and unreviewable power to destroy the Nation."*

198. This atmospheric disruption is increasingly threatening the life and liberty of the Plaintiff and scientific findings report it will soon be too late for reparations. The Plaintiff asks the Court to bear in mind remember the momentous weight alluded to by Judge Staton on the scales of justice in this unique issue. No Court has ever faced so grave a decision, for this case has at its heart omnicide – the preventable disintegration of our civilization. At risk is not just to one element of society or governance but, as impossible and overwhelming as it may at first seem, the entirety of our known way of life. Without affirmative action to repair the environmental damage enumerated here, in a very few decades the preponderance of scientific evidence tells us a collapse of government and judicial systems is to be expected. This may be the last opportunity in a long lineage of opportunities for the Defendants to be held to account. This Court may indeed be last recourse for the Plaintiff. This Complaint may be the last recourse for a civilization largely unaware it is at the brink of crossing a threshold beyond which restoration of the natural life support systems on which all of us depend will no longer be possible.

CLAIMS FOR RELIEF

CLAIM 1:

Violation of The Due Process Clause of The Fifth Amendment

199. Pro se Plaintiff hereby re-alleges and incorporate by reference each of the allegations set forth above.

200. 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).

201. Our nation's climate system, including the atmosphere and oceans, is critical to Pro se Plaintiffs' rights to life, liberty, and property. Our nation's climate system has been, and continues to be, harmed by the Defendants. The Defendants harmed our nation's climate system with full appreciation of the results of their acts. Pro se Plaintiffs' substantive Fifth Amendment rights have been infringed because the Defendants directly caused atmospheric CO₂ to rise to levels that dangerously interfere with a stable climate system required alike by our nation and Pro se Plaintiff. The present CO₂ concentration and continuing CO₂ emissions—a function, in substantial part, of the Defendants' historic and continuing permitting, authorizing, and subsidizing of fossil-fuel extraction, production, transportation, and utilization – endangers Plaintiffs' life, liberty, and property.

202. Plaintiff is suffering harm by the dangerous aggregate actions and deliberate omissions of the Defendants. The Defendants' dangerous interference with a stable climate system is having such irreversible and catastrophic consequences as to shock the conscience.

203. The Plaintiff cannot wait to submit this pleading to the Court until, for example, he has no water on which he depends for life. In many instances the Court takes into account future harms – for example in decisions regarding termination of a pregnancy. Likewise, the Plaintiff must seek relief now. He cannot wait for the full impact of climate harms. The affirmative aggregate acts of the Defendants have been and are infringing on Plaintiffs' right to life by creating a causal chain of events beginning with the actions and lack of action which the Defendants have willfully and with full awareness of the consequences caused in allowing and causing

dangerous CO₂ concentrations in our nation's atmosphere and dangerous interference with our country's stable climate system.

204. After knowingly creating this dangerous situation for Pro se Plaintiff, the Defendants continue knowingly to enhance that danger by allowing fossil-fuel production, consumption, and combustion at dangerous levels, thereby violating Pro se Plaintiffs' substantive Fifth Amendment due process rights.

205. After placing Plaintiff in a position of climate danger, the 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. The 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, the Defendants have not implemented their own plans for climate stabilization or any other comprehensive policy measures to effectively reduce CO₂ emissions to levels that would adequately protect Plaintiffs from the dangerous situation of climate destabilization.

206. By exercising sovereignty over the air space and the federal public domain, by assuming authority and regulatory responsibility over fossil fuels, and by allowing and permitting fossil-fuel production, consumption, and its associated CO₂ pollution, the 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, fossil fuels, and climate system, the 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 Plaintiff, and a concomitant duty of care to ensure their reasonable safety. By their affirmative acts resulting in dangerous interference with a stable

climate system, the Defendants have abrogated their duty of care to protect Plaintiffs' fundamental rights to life, liberty, and property. In their custodial role, the Defendants have failed to protect Plaintiffs' needs with respect to the climate system in violation of the Fifth Amendment.

207. The United States, through DOE, is depriving Plaintiff of his fundamental rights to be free from the dangerous government acts, which infringe on his 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. The Energy Policy Act and DOE's actions taken pursuant to the Energy Policy Act deprive Plaintiffs of his fundamental rights to life, liberty, and property.

208. The affirmative aggregate acts of the 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 CO₂ 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 the Defendants cannot and do not operate to secure a more compelling state interest than Plaintiffs' fundamental rights to life, liberty, and property.

CLAIM 2:
**Violation of Equal Protection Principles Embedded in The Fifth
Amendment**

209. Plaintiff hereby re-alleges and incorporates by reference each of the allegations set forth above.

210. The Defendants have violated the equal protection principles of the Fourteenth Amendment, embedded in the Due Process Clause of the Fifth Amendment.

211. The affirmative aggregate acts of the 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 the 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 the Defendants has denied Plaintiff the same protection of fundamental rights afforded to prior and present generations of adult citizens. The imposition of this disability on the Plaintiff 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 the 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 the Defendants, this Court must apply strict scrutiny for a denial of equal protection of the law.

212. 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 clearer and more 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 the Defendants' discriminatory laws and actions.

213. Plaintiff has no avenues of redress other than this Court, as Plaintiff cannot challenge or alter the acts of the Defendants concerning the management of natural resources which generate greenhouse gasses.

214. The affirmative aggregate acts of the 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 Plaintiff will no longer be able to secure equal protection of the laws and protection against an uninhabitable climate system.

215. The Energy Policy Act's mandatory authorization for export and import of natural gas discriminates against Plaintiffs by exacerbating already-dangerous levels of atmospheric CO₂ and a dangerous climate system, the consequences of which will be irreversible and catastrophic in Plaintiffs' lifetime. The Energy Policy Act, section 201, creates a disproportionate impact on suspect classes. Historical evidence demonstrates the 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 CO₂ 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 Class Plaintiffs, and for millennia by future generations.

216. Section 201 of the Energy Policy Act violates Plaintiffs' rights of equal protection under the law.

217. The affirmative aggregate acts of the Defendants unconstitutionally favor the present, temporary economic benefits of certain citizens, especially corporations, over Plaintiffs' rights to life, liberty, and property.

CLAIM 3:
The Unenumerated Rights Preserved for The People by The Ninth Amendment

218. Plaintiff hereby re-alleges and incorporates by reference each of the allegations set forth above.

219. 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.

220. 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. 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.

221. 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 CO₂. Plaintiff holds these inherent, inalienable, natural, and fundamental rights.

222. The affirmative aggregate acts of the Defendants have unconstitutionally caused, and continue to materially contribute to, dangerous levels of atmospheric and oceanic CO₂ and a destabilized climate system.

223. The affirmative aggregate acts of the Defendants have infringed, and continue to infringe, on Plaintiffs' fundamental constitutional rights.

**CLAIM 4:
Violation of The Public Trust Doctrine**

224. Plaintiff hereby re-alleges and incorporates by reference each of the allegations set forth above.

225. Plaintiff is a beneficiary 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. The Defendants must take affirmative steps to protect those trust resources.

226. As sovereign trustees, the Defendants have a duty to refrain from “substantial impairment” of these essential natural resources. The affirmative aggregate acts of the 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. the 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.

227. As sovereign trustees, the affirmative aggregate acts of the Defendants are unconstitutional and in contravention of their duty to hold the atmosphere and other public trust resources in trust. Instead, the 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. The 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.

RELIEF REQUESTED

WHEREFORE, Plaintiff respectfully prays that the Court will provide relief as follows:

Declaratory Relief

228. Plaintiff restates and realleges paragraphs above as if set forth herein in full.

229. Declare that the 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 greenhouse gasses in the atmosphere, and that, in so doing, the Defendants dangerously interfere with a stable climate system required by our nation and Plaintiff alike.

230. Declare that the government's awareness of the problem of greenhouse gas emissions dates back half a century. In spite of many government and NGO studies, reports and recommendations since then, the problem has only escalated more rapidly.

231. Declare that the Defendants, through their own admissions, are responsible for remediating this egregious damage to the natural systems on which the Plaintiff and his fellow citizens depend for life, liberty and property. The Defendants have already had many decades to prepare the national economy to facilitate these remedial efforts.

232. Declare that without a functioning habitat all other human endeavors become palliative at best. For the Plaintiff to have a viable chance at life, liberty and property the Defendants must give up their "business as usual" mindset and get on "war footing" regarding Climate Change. This issue must have first priority realizing, as US Climate Envoy John Kerry pointed out, 2021 may be our last year to get on the right track.

233. Declare that the preponderance of scientific evidence shows that without manually removing existing atmospheric carbon (and other greenhouse gasses) called "legacy emissions", even should we reduce further greenhouse gas emissions to zero, the extremely long life of these gasses means this will have no meaningful impact on

the course of climate disruption. There is too much greenhouse gas already in the atmosphere and it's not going anywhere.

234. Declare that the preponderance of scientific evidence has demonstrated that somewhere in the mid-2030's we will hit a "climate deadline" which geohistorically has occurred at 450 ppm dissolved atmospheric carbon (or 10 GtC of ocean-dissolved CO₂, whichever happens first). Feedback-loops in Earth's ecosystems that are already altered will then lock into a "new normal" incompatible with the continued survival of most existing land and aquatic species. We will not be able to reverse course after this point.

235. Declare that the Defendants must therefore publicly establish and fulfill a goal of keeping atmospheric carbon dioxide concentrations below 425 ppm realizing that the preponderance of scientific evidence shows breaching the 450 ppm level presents an unacceptably high risk of triggering a cascade failure of critical ecosystems effectively ending the Plaintiffs Constitutionally protected rights to life, liberty and property.

236. Declare that the preponderance of scientific evidence demonstrates that an artificially-caused excess of greenhouse gasses cannot be removed in a timely fashion by nature unaided. That the Defendants must now shoulder the burden of manually removing these dangerous gasses.

237. Declare that a National program for Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) (NDACR) -part of a group of technologies known as Negative Emissions Technologies - must be undertaken by the Defendants to accomplish the removal of excess legacy greenhouse gasses. NDACR is already effectively and safely underway on a small scale pioneered by ClimeWorks in Europe and Carbon Engineering (teamed with Occidental Petroleum) in North America. The Defendants must be responsible for scaling up these efforts to meet the goal of staying

below the 425 ppm minimum safe threshold of atmospheric contamination. This will require the Defendants to operationalize NDACR by 2025 DAC facilities must be up and running and capable of capturing a net 10 GtC/yr of CO₂ per year in order to clear the 450 ppm climate deadline.

Injunctive Relief

238. Plaintiff restates and realleges paragraphs above as if set forth herein in full.

239. Enjoin the Defendants from further violations of the Constitution underlying each claim for relief.

240. Enjoin the Defendants from further greenhouse gas emissions reduction operations without the establishment of a National Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) Program (NDACRP).

241. Order the Defendants to establish requirements for greenhouse gas emissions capture and sequestration in the oil and gas, cement production and transportation industries.

242. Hydraulic fracturing in the oil and gas industry has been permitted on public and private lands to a degree and extent that shocks the conscience. Like legacy atmospheric emissions, hydraulic fracturing in its various forms is uniquely offensive in that it creates not only an immediate demonstrable threat to the water, land and wildlife resources of the United States but also an enduring threat to future generations including that of the Plaintiff and his offspring. If left in place, many of the chemicals used in these processes will continue having deleterious effects thousands of years into the future. The Plaintiff therefore asks the Court to order the Defendants to immediately cause a halt to any further permitting of the fracking

industry, withdraw all existing permits, and order removal of all hydraulic fracturing installations including all chemicals used or stockpiled for use both on the surface and underground. This must be done in such a way as to avoid further damage to our nations natural resources through emissions release.

243. Enjoin the Defendants from making further false public statements regarding the efficacy of emissions reduction and alternative energy which do not include clear and accurate discussion of the lack of efficacy of these interventions without direct removal of existing legacy emissions.

Monetary Relief

244. Plaintiff restates and realleges paragraphs above as if set forth herein in full.

245. Order the Defendants to immediately begin a National Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) Program (NDACRP) operations for keeping atmospheric carbon dioxide concentrations below 425 ppm. This level is in line with the preponderance of scientific evidence showing that breaching the 450 ppm level (projected to happen prior to the mid-2030's) presents an unacceptably high risk of triggering a cascade failure of critical ecosystems further damaging and denying the Plaintiffs Constitutionally protected rights to life, liberty and property.

246. Order the Defendants use of Title III of the Defense Production Act of 1950, or an alternative mutually agreeable to all parties, to provide financial incentive and assistance to U.S. industry in expanding productive capacity for a National Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) Program. The target goal of the NDACRP must be to keep atmospheric carbon levels below 425 ppm and reduce said levels to 350 ppm or below by the year 2035. The Plaintiff is aware this will require a large mobilization of resources placing many other policies and

programs in a secondary position. The Defendants have had decades of forewarning and no reasonable party to the facts could have believed that this reckoning was not inevitable. The atmospheric envelope maintaining life in the United States of America is finite and thus predictably reach a limit in it's ability to absorb the waste products of industry. It is unreasonable to expect that an artificially-caused excess of greenhouse gasses can be removed in a timely fashion by nature unaided. That the Defendants must now shoulder the burden of manually removing these dangerous gasses however inconvenient this might be.

247. Order the Defendants to utilize existing DACR technology, modified or unmodified. Due to the delays and prevarications of the Defendants there is no time remaining to reinvent carbon removal technology. The NOAA Global Monitoring Laboratory is currently reporting an atmospheric carbon saturation level of 419 ppm. The Swiss company ClimeWorks and the Canadian company Carbon Engineering both have direct air carbon removal facilities in successful operation. The Defendants must be responsible for scaling up these efforts to meet the goal of staying below the 425 ppm minimum safe threshold of atmospheric contamination. This will require the Defendants to operationalize NDACR by 2025 DAC facilities must be up and running and capable of capturing 10-60 GtC/yr of CO₂ per year.

248. Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) is the primary relief sought by the Plaintiff *without which any other relief will be insufficient to answer this Complaint*. Any levels of greenhouse gas emissions reductions and, or increased use of renewable energy sources are wholly and completely insufficient as relief without Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.). “Sustainability” and “emissions reductions”, while eventually important, are at present functioning as panaceic diversions from the harsh reality of removing legacy carbon emissions.

249. Plaintiff's Complaint would alternatively be satisfied through direct monetary relief sufficient to pay for a private sector commercial company such as ClimeWorks AG or Climate Engineering CA to conduct Direct Removal Of Existing Atmospheric Carbon (D.R.E.A.C.) operations. The process is straightforward, it just needs to be initiated, scaled up and carried through. If the Defendants are not capable of accomplishing this necessary task sufficient monetary relief would allow the Plaintiff to do so. To reach a pre-industrial level of dissolved atmospheric carbon (275 parts per million) it would be necessary to remove approximately 950 gigatons or 950,000,000,000 metric tons of carbon from the atmosphere over the next 15 years. The current levelized cost per ton CO₂ captured from the atmosphere is approximately 150\$/t-CO₂.

250. Award compensatory damages to the Plaintiff at his previous professional rate for lost time expended developing and implementing this Complaint and previous campaigns, complaints and petitions.

251. Award costs of this current legal action and all associated fees to the Plaintiff.

252. Provide such other and further relief as the Court may deem just, proper and appropriate.

JURY DEMAND

253. The Plaintiff respectfully requests a swift and impartial trial by jury again making note of the time urgency imbedded in this action.

RETAIN JURISDICTION

254. The Defendants have heretofore evidenced either a reckless disregard for the Plaintiff's rights and welfare, or a gross absence of judgement concerning the nature of greenhouse gas emissions and their effects on global warming. The Defendants cannot be trusted to independently manage remediative efforts in this regard. As a Pro se litigant the Plaintiff is unaware of the range of tools the Court may have to enforce its Orders. The Plaintiff respectfully requests the Court retain jurisdiction over this action through Consent Decree or other means. The Plaintiff asks that the Court closely monitor the plans and actions of the Defendants pertaining to this litigation.

PLAINTIFF'S SIGNATURE

I declare under penalty of perjury that I am the plaintiff in this action, that I have read this complaint, and that the information in this complaint is true and correct. *See* 28 U.S.C. § 1746; 18 U.S.C. § 1621.

Under Federal Rule of Civil Procedure 11, by signing below, I also certify to the best of my knowledge, information, and belief that this complaint: (1) is not being presented for an improper purpose, such as to harass, cause unnecessary delay, or needlessly increase the cost of litigation; (2) is supported by existing law or by a nonfrivolous argument for extending or modifying existing law; (3) the factual contentions have evidentiary support or, if specifically so identified, will likely have evidentiary support after a reasonable opportunity for further investigation or discovery; and (4) the complaint otherwise complies with the requirements of Rule 11.

Respectfully submitted this 25th day of June, 2021

Date: _____

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Plaintiff, Pro Se

(Form Revised December 2017)