UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

INTERNATIONAL CENTER FOR TECHNOLOGY ASSESSMENT and CENTER FOR FOOD SAFETY, 660 Pennsylvania Avenue, SE, Suite 302 Washington, DC 20003 *Plaintiffs*, v. COUNCIL ON ENVIRONMENTAL QUALITY and MICHAEL BOOTS, ACTING CHAIR, COUNCIL ON ENVIRONMENTAL QUALITY, 722 Jackson Place, NW Washington, DC 20503 *Defendants*.	**Case No. 1:14-cv-549** **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF** **Administrative Procedure Act Case**

INTRODUCTION

1. This is an action for declaratory and injunctive relief challenging the failure of the Council on Environmental Quality (CEQ or the agency) to answer, as required by law, a 2008 legal petition. That petition called on CEQ to require consideration and analysis of climate change impacts in federal agency environmental compliance documents under the National Environmental Policy Act (NEPA).

2. Anthropogenic climate change is perhaps the most important and urgent challenge facing humanity. Thus, on March 31, 2014, the Intergovernmental Panel on Climate Change declared that

> [T]he effects of climate change are already occurring on all continents and across the oceans . . . . Observed impacts of climate change have already affected agriculture, human health, ecosystems on land and in the oceans, water supplies, and some people's livelihoods. The striking feature of observed impacts is that they are occurring from the tropics to the poles, from small islands to large continents, and from the wealthiest countries to the poorest.[1]

3. However, despite scientific consensus that climate change jeopardizes human health and the environment, the greenhouse gas contributions of activities undertaken or approved by the United States' government have unfortunately often gone unrecognized or been overlooked. With the effects of climate change becoming more and more evident, prompt action is necessary to ensure that climate change analysis is integrated into all levels of federal agencies' planning. Full analysis and meaningful consideration of these impacts before federal government decisions are made will strongly affect the extent to which climate change and its consequential dangers are limited or avoided in the coming century. Yet CEQ has failed to formally address climate change impacts under NEPA.

4. Accordingly, on February 28, 2008, the International Center for Technology Assessment submitted a formal legal petition to CEQ for rulemaking on this topic. *See* Ex. A.

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[1] Intergovernmental Panel on Climate Change, *IPCC Press Release, IPCC Report: A Changing Climate Creates Pervasive Risks but Opportunities Exist for Effective Responses* (Mar. 31, 2014), *available at* http://www.ipcc.ch/pdf/ar5/pr_wg2/140330_pr_wgII_spm_en.pdf.

The Sierra Club and the Natural Resources Defense Council also were signatories to the petition (collectively, Petitioners). The sixty-five page petition was a legal, policy, and scientific blueprint for CEQ's needed action, requesting, *inter alia*, that CEQ amend its NEPA regulations to include language clarifying that this statute requires that agencies address climate change effects in NEPA compliance documentation, and that CEQ also issue a Memorandum to agencies clarifying when and how they should address those effects.

5. On February 18, 2010, CEQ issued for public comment a "Draft Guidance for Greenhouse Gas Emissions and Climate Change," which proposed to affirm that NEPA and corresponding CEQ regulations require federal agencies to consider climate change impacts. Yet more than four years later, the agency has still failed to finalize this document or take any further action addressing climate change considerations under NEPA.

6. More than six years have passed since CEQ received the 2008 legal petition. However, CEQ has not formally responded nor taken meaningful action on that petition, in violation of the Administrative Procedure Act (APA). In the interim, evidence of climate change impacts has continued to mount and gain in severity and urgency. Accordingly, this Court should order CEQ to respond to the 2008 Petition.

JURISDICTION

7. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 (federal question) and 1346 (United States as Defendant).

8. The relief requested is specifically authorized pursuant to 28 U.S.C. §§ 1651 (writs) and 2201 to 2202 (declaratory relief). An actual controversy exists between the parties within the meaning of 28 U.S.C. § 2201 (declaratory judgments).

9. Plaintiffs have a right to bring this action pursuant to the APA. 5 U.S.C. §§ 551–559, 702–706.

VENUE

10. Venue properly lies in this Court pursuant to 28 U.S.C. § 1391(e) because one or more of the Plaintiffs reside in this District.

PARTIES

Plaintiffs

11. Plaintiff International Center for Technology Assessment (CTA) is located at 660 Pennsylvania Avenue, SE, Suite 302, Washington, DC 20003. Formed in 1994, CTA seeks to assist the public and policymakers in better understanding how technology affects society. CTA was a nonprofit organization devoted to analyzing the economic, environmental, ethical, political, and social impacts that can result from the application of technology or technological systems. CTA works toward adequate oversight of new technologies that pose complex threats to the environment, such as contributing to climate change. CTA is a programmatic predecessor of its sister nonprofit and co-Plaintiff in this action, Center for Food Safety.

12. CTA develops and disseminates to members; policymakers; members of local, state, and federal government; international governmental officials; nonprofit organizations; and the general public a wide array of educational and informational materials that address the environmental, economic, social, and public health impacts associated with the use of new technologies, such as those affecting climate change. CTA's materials include, but are not limited to, reprints of news articles and agency regulatory positions, press releases, fact sheets, action alerts, electronic mail alerts, and investigative or technical reports. CTA's materials often analyze the legal and regulatory means by which federal agencies address the various economic, environmental, public health, and social impacts associated with climate change.

13. Along with its function as an information clearinghouse, CTA also serves in an advocacy function to, among other things, protect human health and the environment from the impacts and risks raised by climate change. Accordingly, CTA seeks to encourage full public participation in local, state, and federal policymaking and rulemaking proceedings so that public concerns over climate change are duly considered and acted upon by governmental decision-making bodies.

14. In addition to the CEQ petition, CTA has long been a pioneer and driving force in addressing the impacts of climate change. The seminal U.S. Supreme Court climate change

case, *Massachusetts v. EPA*, 549 U.S. 497 (2007), was started by a groundbreaking 1999 rulemaking petition authored and spearheaded by CTA. The Supreme Court eventually ruled that the United States Environmental Protection Agency (EPA)'s answer to that petition was unlawful.

15. Plaintiff Center for Food Safety (CFS) is a Washington, District of Columbia-based nonprofit organization with additional offices in San Francisco, California, and Portland, Oregon. CFS has over 475,000 members, including members in every state across the country, all of whom are vulnerable to the environmental and human health risks associated with climate change. CFS and its members are being, and will be, adversely affected by CEQ's continued failure to address those risks.

16. Founded in 1997, CFS is dedicated to addressing the environmental, economic, ethical, human health, and social impacts associated with the development and commercialization of agricultural and food processing technologies. CFS combines multiple tools and strategies in pursuing its goals, including litigation and legal petitions for rulemaking, legal support for various sustainable agriculture and food safety constituencies, public education, grassroots organizing, and media outreach.

17. CFS is actively involved in combating climate change, and especially climate change impacts caused by industrial agriculture. To that end, CFS's "Cool Foods Campaign" empowers consumers to make climate-smart food purchasing choices and support other climate-related initiatives. CFS members support efforts to mitigate climate change by purchasing organic, locally grown, minimally processed, unpackaged foods. CFS and its members believe it is imperative that CEQ require the consideration of climate change impacts resulting from federal agencies' actions and policies, especially those related to food and agriculture.

18. CFS also sends action alerts to its membership. These action alerts generate public involvement, education, and engagement with governmental officials on issues related to fighting the negative health and environmental impacts of industrial agriculture and promoting a

more sustainable, healthier food system. Collectively, the dissemination of this material has made CFS an information clearinghouse for public involvement and governmental oversight of industrial agriculture, including regarding climate impacts of the same.

Defendants

19. Defendant CEQ coordinates federal environmental protection efforts and works closely with agencies in the development of environmental policies and initiatives. Congress established CEQ through NEPA in 1969, and the agency received additional responsibilities pursuant to the Environmental Quality Improvement Act of 1970.

20. Defendant Michael Boots is sued in his official capacity as Acting CEQ Chair. As Acting Chair, Mr. Boots has ultimate responsibility for CEQ's activities and policies.

21. Mr. Boots and CEQ are collectively referred to herein as CEQ or the agency.

LEGAL BACKGROUND

National Environmental Policy Act

22. In 1970, NEPA established CEQ and charged the agency with overseeing implementation of this statute. *See* 42 U.S.C. §§ 4321, 4344.

23. Under NEPA, CEQ must "document and define changes in the natural environment, including the plant and animal systems," and "accumulate necessary data and other information for a continuing analysis of these changes or trends and an interpretation of their underlying causes." *Id.* § 4344(6). Further, under NEPA, CEQ must "formulate and recommend national policies to promote the improvement of the quality of the environment." *Id.* § 4342.

24. To implement the procedural provisions of NEPA, CEQ promulgates mandatory regulations that are applicable to and binding on all federal agencies. 40 C.F.R. § 1500.3. "The provisions of the Act and of these regulations must be read together as a whole in order to comply with the spirit and letter of the law." *Id.* In addition, CEQ oversees compliance with those regulations, which includes, among other things, issuing interpretive documents. As CEQ has stated, "continual attention is required to ensure that the mandate of the regulations is being

fulfilled." National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. 15,618, 15,619 (Apr. 25, 1986).

25. CEQ's NEPA regulations mandate that federal agencies consider the "reasonably foreseeable" effects of their proposed programs, projects, and regulations. 40 C.F.R. §§ 1502.4, 1508.7, 1508.8, 1508.18, 1508.25. As those regulations explain, "[e]ffects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." *Id.* § 1508.8. To merit an agency's consideration, such effects may be direct, indirect, or cumulative. *Id.* §§ 1508.7, 1508.8.

26. "Direct effects" are those "which are caused by the action and occur at the same time and place." *Id.* § 1508.8(a).

27. "Indirect effects" are those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." *Id.* § 1508.8(b).

28. A "cumulative impact" is one "which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.* § 1508.7.

29. CEQ's NEPA regulations account for the uncertainty inherent in assessing certain types of environmental harms—such as evaluating "reasonably foreseeable significant adverse effects" when "there is incomplete or unavailable information"—by mandating that agencies still attempt to address those effects. *Id.* § 1502.22. As CEQ has explained, NEPA requires "disclosure of the fact of incomplete or unavailable information; acquisition of that information if reasonably possible; and evaluation of reasonably foreseeable significant adverse impacts

even in the absence of all information." National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. at 15,620.

30. Under CEQ's NEPA regulations, "'reasonably foreseeable' includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." 40 C.F.R. § 1502.22(b)(4).

Administrative Procedure Act

31. Under the APA, agencies must "give an interested person the right to petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. § 553(e). A "rule" is "the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy." *Id.* § 551(4).

32. The APA requires an agency to conclude a matter presented to it, such as a legal petition, "within a reasonable time." *Id.* § 555(b). If an agency denies a petition in whole or in part, it must provide "[p]rompt notice" to the petitioner. *Id.* § 555(e).

33. The APA grants a right of judicial review to "[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action." *Id.* § 702. "Agency action" is defined to include the "failure to act." *Id.* § 551(13).

34. Courts "shall compel agency action unlawfully withheld or unreasonably delayed," *id.* § 706(1), and "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," *id.* § 706(2)(A).

STATEMENT OF FACTS

Climate Change

35. The build-up of heat-trapping gases in the atmosphere is causing a rise in global temperatures, the phenomenon known as global warming or climate change. These gases—including carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, chlorofluorocarbons, and hydroflourocarbons—are commonly called "greenhouse gases," or

"GHGs." The continuing increases in the concentrations of atmospheric greenhouse gases are resulting from a variety of human activities, including those related to industrial agriculture. As a result, the change of our climate system due to global warming continues to increase in magnitude, and the scope and likelihood of severe impacts multiplies. Indeed, climate change is already causing, and will continue to cause, a host of harmful environmental, economic, and social effects.

36. Various courts, including, most prominently, the U.S. Supreme Court, have recognized climate change as an important national issue. *See, e.g.*, *Massachusetts v. EPA*, 549 U.S. at 521–22 ("The harms associated with climate change are serious and well recognized . . . . According to the climate scientist Michael MacCracken, 'qualified scientific experts involved in climate change research' have reached a 'strong consensus' that global warming threatens (among other things) a precipitate rise in sea levels by the end of the century, 'severe and irreversible changes to natural ecosystems,' a 'significant reduction in water storage in winter snowpack in mountainous regions with direct and important economic consequences,' and an increase in the spread of disease. He also observes that rising ocean temperatures may contribute to the ferocity of hurricanes.") (internal citations omitted); *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070, 1107 (9th Cir. 2013) (opining that a state "should be encouraged to continue and to expand its efforts to find a workable solution to lower carbon emissions, or to slow their rise," because absent such a solution, that state's "residents and people worldwide will suffer great harm" from climate change); *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1190 (9th Cir. 2008) ("[T]here have already been severe impacts in the Arctic due to warming, including sea ice decline. Global warming has already affected plants, animals, and ecosystems around the world.") (internal citation omitted).

Intergovernmental Panel on Climate Change

37. For more than two decades, the science and impacts associated with climate change have been recognized on a national and international level. In 1988, the United Nations

and the World Meteorological Organization appointed an international group of scientists to investigate global warming called the Intergovernmental Panel on Climate Change (IPCC). The U.S. government recognizes the IPCC as the preeminent international body established to provide objective scientific and technical assessments on climate change. The U.S. Supreme Court approvingly cited the IPCC multiple times in *Massachusetts v. EPA*, its seminal decision on climate change. 549 U.S. at 508–09.[2]

38. On September 27, 2013, the IPCC completed its Fifth Assessment Report (IPCC AR5) on the physical basis of climate change.[3] The IPCC AR5 made the following findings with respect to observed changes in climate and their effects:

- "Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased."

- "Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850."

- "Over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent."

- "The rate of sea level rise since the mid-19th century has been larger than the mean rate during the previous two millennia."

- "The atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. Carbon dioxide concentrations have increased by 40% since pre-industrial times,

[2] As noted, similar to this case, the genesis of *Massachusetts v. EPA* was a 1999 legal petition drafted and spearheaded by CTA, which EPA initially failed to answer. 549 U.S. at 510 n.15; *see* Joseph Mendelson, The Ecologist, *US Climate Change Policy* (Dec. 4, 2007), http://www.theecologist.org/blogs_and_comments/commentators/other_comments/269321/us_climate_change_policy.html.

[3] Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis, Fifth Assessment Report* (Sept. 27, 2013) [hereinafter IPCC, *Climate Change 2013: The Physical Science Basis*], *available at* http://www.ipcc.ch.

primarily from fossil fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification."

- "The global ocean will continue to warm during the 21st century. Heat will penetrate from the surface to the deep ocean and affect ocean circulation."
- "It is very likely that the Arctic sea ice cover will continue to shrink and thin and that Northern Hemisphere spring snow cover will decrease during the 21st century as global mean surface temperature rises. Global glacier volume will further decrease."
- "Global mean sea level will continue to rise during the 21st century."
- "Climate change will affect carbon cycle processes in a way that will exacerbate the increase of CO_2 in the atmosphere. Further uptake of carbon by the ocean will increase ocean acidification."
- "Most aspects of climate change will persist for many centuries even if emissions of CO_2 are stopped. This represents a substantial multi-century climate change commitment created by past, present and future emissions of CO_2."

39. Based on those findings, the IPCC AR5 concluded, "Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions."

40. On March 31, 2014, the IPCC released a report on global climate change impacts, adaptation, and vulnerability.[4] According to the report, "In recent decades, changes in climate have caused impacts on natural and human systems on all continents and across the oceans." Further, the report stated, "Throughout the 21st century, climate-change impacts are projected to slow down economic growth, make poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger."

[4] Intergovernmental Panel on Climate Change, *Climate Change 2014: Impacts, Adaptation, and Vulnerability* (Mar. 31, 2014) [hereinafter IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability*], *available at* http://www.ipcc.ch.

41. Concerning agriculture, IPCC's March 2014 report observed that climate extremes have already caused rapid price increases for certain foods, and that "[a]ll aspects of food security are potentially affected by climate change, including food access, utilization, and price stability." Consequently, the report identified a "[r]isk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings."

42. The March 2014 report emphasized that increased warming will result in more drastic repercussions, but that prevention of additional warming can minimize the danger: "Increasing magnitudes of warming increase the likelihood of severe, pervasive, and irreversible impacts. . . . The overall risks of climate change impacts can be reduced by limiting the rate and magnitude of climate change."

EPA's 2009 Finding of Endangerment

43. In 2009, implementing the rulemaking required by *Massachusetts v. EPA*, 549 U.S. 497, EPA formally acknowledged that climate change substantially impacts human health and the environment, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,497 (Dec. 15, 2009).

44. Specifically, EPA stated that GHG emissions "may reasonably be anticipated both to endanger public health and to endanger public welfare." *Id*. According to the agency, the dangers of GHG emissions and associated climate change include increases in heat-related deaths; coastal inundation and erosion caused by melting icecaps and rising sea levels; more frequent and intense hurricanes, floods, and other "extreme weather events"; drought due to reductions in mountain snowpack and shifting precipitation patterns; destruction of ecosystems; and potentially crop failure and "significant disruptions" of food production. *Id.* at 66,524–35.

EPA's 2012 Report on Climate Change Indicators

45. In 2012, EPA released its second report detailing climate change indicators in the

United States[5] The report found that each of the following impacts on public health or welfare, *inter alia*, are likely to occur in the U.S. as a result of climate change:

- Increases in temperatures, overall, as well as extremes in high and low temperatures;
- Rising sea levels;
- Increases in the frequency of both droughts and heavy precipitation events;
- Increases in the severity of extreme weather, such as hurricanes;
- Losses of sensitive ecosystems;
- Increases in the frequency and intensity of fires;
- Increases in the degradation of surface water quality;
- Increases in ocean temperatures and acidity;
- Shrinking glaciers and arctic sea ice; and
- Decreases in snowfall in most places.

46. As EPA has explained, "Weather and climate play a significant role in people's health. Changes in climate affect the average weather conditions that we are accustomed to. Warmer average temperatures will likely lead to hotter days and more frequent and longer heat waves. This could increase the number of heat-related illnesses and deaths. Increases in the frequency or severity of extreme weather events such as storms could increase the risk of dangerous flooding, high winds, and other direct threats to people and property. Warmer temperatures could increase the concentrations of unhealthy air and water pollutants. Changes in temperature, precipitation patterns, and extreme events could enhance the spread of some diseases."[6]

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[5] U.S. Envtl. Prot. Agency, *Climate Change Indicators in the United States, 2012* (2012), *available at* http://www.epa.gov/climatechange/pdfs/climateindicators-full-2012.pdf.

[6] U.S. Envt'l Prot. Agency, *Climate Impacts on Human Health*, http://www.epa.gov/climatechange/impacts-adaptation/health.html (last updated Sept. 9, 2013).

Industrial Agriculture Significantly Exacerbates Climate Change

47. Industrial agriculture significantly exacerbates climate change through use of large-scale mono-crops, high stocking densities, decreased or absent fallow periods, extensive application of agrochemicals, and high degrees of mechanization. Those practices are made possible by fossil fuels, which power the production of synthetic fertilizers and pesticides, agricultural machinery, and increased irrigation. Consequently, industrial agriculture contributes substantially to greenhouse gas emissions, primarily by releasing carbon dioxide, methane, and nitrous oxide.

48. According to a 2010 World Bank report, the agricultural sector's current practices, including forestry, livestock, and land use changes, account for more than thirty percent of global GHG emissions.[7] For example, seventy-five percent of global nitrous oxide emissions—a greenhouse gas 298 times more potent than carbon dioxide—is primarily due to use of synthetic nitrogen fertilizers. Additionally, agricultural practices account for approximately fifty percent of emissions of methane, a greenhouse gas twenty-five times more potent than carbon dioxide.

49. Within industrial agriculture, concentrated animal feeding operations (CAFOs, or animal factories) have especially egregious climate change impacts. The Food and Agriculture Organization of the United Nations estimates that more than seventy billion animals worldwide, including cows, chickens, and pigs, are raised to produce food for human consumption;[8] many

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[7] Dipti Thapa & Marjory-Anne Bromhead, *The Hague Conference on Agriculture, Food Security and Climate Change, Opportunities and Challenges for a Converging Agenda: Country Examples* 5 (Oct. 2010), *available at* http://www.agriskmanagementforum.org/sites/agriskmanagementforum.org/files/Documents/Nov%203,%20The%20World%20Bank,%20Opportunities%20and%20challenges%20for%20a%20converging%20food,%20climate%20agenda.pdf.

[8] *FAOSTAT*, Food & Agric. Org. of the United Nations, http://faostat.fao.org/site/569/DesktopDefault.aspx?PageID=569#ancor (last updated Feb. 7, 2014) (under "country," select "World + (Total)"; under "year," select "2012"; under "element," select "Producing Animals/Slaughtered"; under "item," in different searches, select "Eggs Primary + (Total)," "Meat, Poultry + (Total)," and "Milk, Total + (Total)") (selected searches

or most of those animals are confined in CAFOs. CAFOs contribute directly to climate change by releasing vast amounts of greenhouse gases into the atmosphere—more than the entire global transportation industry. Indirectly, CAFOs contribute to climate change by encouraging deforestation and the draining of wetlands, and through nitrous oxide emissions from producing the pesticides used to grow feed for the animals they house.

50. Since the beginning of the Industrial Revolution, more than a third of the carbon dioxide added to the atmosphere has come from poor soil management. In that time, we have lost an estimated fifty to eighty percent of our topsoil worldwide. Soil carbon is lost primarily through land-use change, erosion, tillage, and nitrogen application. In contrast, healthy, living soils have an enormous capacity to store carbon, and carbon stored in soils accounts for roughly three times the amount stored in the atmosphere. Soil carbon also holds plant nutrients in place, aids in water storage, regulates soil temperature, provides food for beneficial microbes, binds heavy metals and pesticides (reducing toxic runoff), and improves soil structure, thus preventing compaction and erosion. Squandering this precious resource undermines our ability to achieve food security and climate resiliency.

Human Health Impacts of Climate Change

51. Substantial scientific research has focused on the numerous current and future impacts of climate change on human health. For example, according to the Centers for Disease Control and Prevention (CDC),[9] "[h]eat exposure has a range of health effects, from mild heat rashes to deadly heat stroke. Heat exposure can also aggravate several chronic diseases, including cardiovascular and respiratory disease. The results can be severe and result in both increased illness and death. Heat also increases ground-level ozone concentrations, causing direct lung injury and increasing the severity of respiratory diseases such as asthma and chronic

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estimate the following global production numbers: 7 billion eggs, 64 billion meat and poultry animals, and 750 million milk-producing animals).

[9] Ctrs. for Disease Control & Prevention, *Climate and Health Program, Health Effects*, http://www.cdc.gov/climateandhealth/effects/default.htm (last updated Nov. 29, 2010).

obstructive pulmonary disease. Higher temperatures and heat waves increased demand for electricity and thus combustion of fossil fuels, generating airborne particulates and indirectly leading to increased respiratory disease."

52. In addition, CDC reports, "[o]ver a longer time period, increased temperatures have other effects ranging from drought to ecosystem changes that can affect health. Droughts can result in shortages of clean water and may concentrate contaminants that negatively affect the chemistry of surface waters in some areas. Drought may also strain agricultural productivity and could result in increased food prices and food shortages, worsening strain on those affected by hunger and food insecurity in the United States and elsewhere. Ecosystem changes include migration of the vectors (organisms that do not cause disease but transmit infection by carrying pathogens from one host to another) and animal hosts that cause certain diseases prevalent in the United States, such as Lyme disease and Hantavirus. The dynamics of disease migration are complex and temperature is just one factor affecting the distribution of these diseases."

53. Beyond health effects from increased temperatures, extreme weather events are likely to take an indirect toll on society. For example, according to CDC, "[t]he direct effects of extreme weather events include drowning from floods, injuries from floods, and structural collapse. Indirect effects outnumber the direct effects and likely will be more costly. Potential indirect effects include aggravation of chronic diseases due to interruptions in health care service, significant mental health concerns both from interrupted care and geographic displacement, and socioeconomic disruption resulting from population displacement and infrastructure loss."

54. Further, CDC asserts that "[s]ea level rise increases the risk from extreme weather events in coastal areas, threatening critical infrastructure and worsening immediate and chronic health effects. Salt-water entering freshwater drinking supplies is also a concern for these regions, and increased salt content in soil can hinder agricultural activity in coastal areas."

55. Finally, CDC concludes, ecosystem effects could have indirect impacts on human health. For example, "[i]ncreased concentrations of ground-level carbon dioxide and longer

growing seasons could result in higher pollen production, worsening allergic and respiratory disease. Increased carbon dioxide concentrations in sea water may cause oceans to grow more acidic and is likely to contribute to adverse ecosystem changes in the world's tropical oceans. This would have potentially dramatic implications for fisheries and the food supply in certain regions of the world. Major regional ecosystem stresses may result in mass population movement and conflict, with significant health effects."

56. In sum, according to CDC, climate change impacts on human health and welfare will likely include the following:

- Heat-related morbidity and mortality;
- Asthma, respiratory allergies, and airway diseases;
- Vectorborne and zoonotic diseases;
- Cardiovascular disease and stroke;
- Weather-related morbidity and mortality;
- Foodborne diseases and nutritional deficiencies;
- Waterborne diseases;
- Human developmental effects;
- Mental health and stress-related disorders;
- Neurological diseases and disorders; and
- Cancer.

Impacts of Climate Change on Global Food Security

57. In 2013, the United Nations Conference on Trade and Development issued a report evaluating global issues of food security.[10] According to the report, climate change "has the potential to damage irreversibly the natural resource base on which agriculture depends, with grave consequences for food security."

[10] United Nations Conference on Trade & Dev., *Wake Up Before It Is Too Late: Make Agriculture Truly Sustainable Now for Food Security in a Changing Climate* (2013), *available at* http://unctad.org/en/PublicationsLibrary/ditcted2012d3_en.pdf.

58. For example, modified precipitation patterns will increase water scarcity and associated droughts, as well as reducing the predictability of farmers' planting. Additionally, increasingly frequent weather extremes "may significantly influence both crop and livestock production. It may also considerably impact or destroy physical infra-structure for agriculture."

59. Further, the report explained, the higher temperatures caused by climate change will "go hand in hand with higher ozone concentrations. Ozone is harmful to all plants but soybeans, wheat, oats, green beans, peppers, and some types of cotton are particularly vulnerable." In addition to impacting the ozone, higher temperatures are likely to increase the exposure of plants and animals to diseases and pests, which will, in turn, increase production and handling losses.

60. Moreover, according to the report, climate change will also compromise food quality, since such change will "negatively impact the nutritional quality of some food, in particular the protein and micronutrients' content."

61. Finally, the report concluded, "[s]ea level rise is likely to influence trade infra-structure for agriculture" and "may inundate producing areas and alter aquaculture production conditions." The report emphasized that such stresses will occur not only individually, but also in combination with one another, vastly magnifying the negative effects.

Impacts of Climate Change on U.S. Food Production

62. In 2008, the U.S. Climate Change Science Program and the Subcommittee on Global Change Research produced a report on the impacts of climate change on agriculture and natural resources within the United States, recognizing potentially drastic effects on food production.[11]

63. According to that report, U.S. crops and livestock are grown in diverse climates,

[11] U.S. Climate Change Sci. Program & Subcomm. on Global Change Research, *The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States* (2008), *available at* http://www.amwa.net/galleries/climate-change/CCSP_Ag_Report.pdf.

regions, and soils, and, "[n]o matter the region, however, weather and climate factors such as temperature, precipitation, CO_2 concentrations, and water availability directly impact the health and well-being of plants, pasture, rangeland, and livestock." Each year, variations in yield are related to growing-season weather, which will vary considerably and unexpectedly with climate change; growing-season weather also influences weeds, insects, and disease. All of those factors may decrease agricultural production.

64. For example, the report explained, "[w]ith increased CO_2 and temperature, the life cycle of grain and oilseed crops will likely progress more rapidly. But, as temperature rises, these crops will increasingly begin to experience failure, especially if climate variability increases and precipitation lessens or becomes more variable." In addition, certain other crops—*e.g.*, tomatoes, onions, and fruits—are "very likely to be more sensitive to climate change than grain and oilseed."

65. Besides impending crop failures, the report asserted, "[c]limate change is likely to lead to a northern migration of weeds. Many weeds respond more positively to increasing CO_2 than most cash crops, particularly C3 'invasive' weeds. Recent research also suggests that glyphosate, the most widely used herbicide in the United States, loses its efficacy on weeds grown at the increased CO_2 levels likely in the coming decades."

66. In addition to substantial problems with weeds, earlier springs and warmer winters caused by climate change, which will facilitate the proliferation and higher survival rates of pathogens and parasites, will likely increase disease pressure on crops and domestic animals. Further, regional variations in warming and rainfall will affect the spatial and temporal distribution of agricultural diseases.

67. Finally, the report concluded, grazing lands will likely be negatively affected: "Climate change-induced shifts in plant species are already under way in rangelands. Establishment of perennial herbaceous species is reducing soil water availability early in the growing season. Shifts in plant productivity and type will likely also have significant impacts on livestock operations."

CEQ and the 2008 Petition

68. CEQ is charged with issuing NEPA's implementing regulations, which are applicable to and binding on all federal agencies. Scientific studies have unequivocally indicated that climate change is having, and will continue to have, catastrophic impacts on the natural environment, and correspondingly on human health. However, despite that evidence, CEQ has failed to provide instruction to federal agencies by requiring that they address climate change risks in their NEPA documents.

69. On February 28, 2008, Petitioners submitted a petition for rulemaking to CEQ. The 2008 Petition summarized the already substantial scientific evidence of global climate change and its current and future adverse effects on the natural environment. As the 2008 Petition documented, the global scientific consensus on the anthropogenic causes of climate change and its current and future impacts necessitated prompt action to integrate climate change analyses into federal agency planning. Critically, the 2008 Petition observed, the extent to which agencies consider climate change impacts in planning their actions and make efforts to mitigate such impacts will strongly affect the possibility that climate change and its consequential dangers can be limited or avoided in the coming century.

70. The 2008 Petition also was a legal blueprint for CEQ's needed actions, explaining that because climate change impacts are legally cognizable as "reasonably foreseeable" effects that must be analyzed under NEPA, that statute mandates consideration of climate change as part of each federal agency's NEPA process. Consequently, the 2008 Petition called on CEQ, as the statutory overseer of NEPA, to clarify that NEPA and CEQ's NEPA implementing regulations require agencies to analyze the reasonably foreseeable climate change effects of their actions.

71. Specifically, pursuant to the U.S. Constitution, the APA, NEPA, and CEQ's NEPA regulations, the 2008 Petition requested that CEQ clarify federal agencies' climate change responsibilities by doing the following:

a. Amending its NEPA regulations to include language clarifying that NEPA and CEQ's implementing regulation require that climate change effects be addressed in NEPA compliance documentation; and

b. Issuing a CEQ Memorandum further clarifying that NEPA and CEQ regulations require that climate change effects be addressed in NEPA compliance documentation.

72. Concerning CEQ's NEPA regulations, the 2008 Petition explained that the agency should amend 40 C.F.R. § 1508.8, which defines what is an "effect" for purposes of NEPA, to include reference climate change impacts; 40 C.F.R. § 1508.27, which defines "significantly," to include climate change impacts as a factor in determining the significance of a project's impacts; and 40 C.F.R. § 1502.16, which delineates what environmental consequences agencies must discuss in Environmental Impact Statements, to include reference to climate change impacts.

73. In addition to amending the regulations, the 2008 Petition requested that CEQ otherwise provide instructions to federal agencies on how, where, and when to best integrate climate change analyses into their respective NEPA processes, through memoranda or other means.

CEQ's 2010 Draft Guidance

74. On February 18, 2010, CEQ issued a "Draft Guidance for Greenhouse Gas Emissions and Climate Change" for public comment.[12]

75. CEQ's 2010 Draft Guidance recognized that "[i]t is now well established that rising global GHG emissions are significantly affecting the Earth's climate." According to CEQ, EPA has determined that climate change "endanger[s] public health and welfare." Specifically, CEQ's 2010 Draft Guidance reported that climate change impacts are predicted to include "more frequent and intense heat waves, more severe wildfires, degraded air quality,

[12] Council on Envtl. Quality, *National Environmental Policy Act Draft Guidance: Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* (Feb. 18, 2010), *available at* http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf (last visited Feb. 28, 2014).

more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, harm to water resources, harm to agriculture, and harm to wildlife and ecosystems." Those impacts have "the potential to accentuate the disparities already evident in the American health care systems as many of the expected health effects are likely to fall disproportionately on the poor, the elderly, the disabled, and the uninsured."

76. Further, CEQ's 2010 Draft Guidance stated that, as the 2008 Petition had argued, NEPA and CEQ's regulations *do apply to GHGs and climate change impacts*: "This draft guidance affirms the requirements of [NEPA] and regulations and their applicability to GHGs and climate change impacts." Thus, the 2010 Draft Guidance "*propose[d] that the NEPA process should incorporate consideration of both the impact of an agency action on the environment through the mechanism of GHG emissions and the impact of changing climate on that agency action*." (Emphasis added). Specifically, "for Federal actions that require an [environmental assessment] or [environmental impact statement] the direct and indirect GHG emissions from the action should be considered in scoping and, to the extent that scoping indicates that GHG emissions warrant consideration by the decision maker, quantified and disclosed in the environmental document."

77. CEQ's 2010 Draft Guidance acknowledged that "[m]any projects and programs proposed by the Federal government have the potential to emit GHGs."

78. On information and belief, CEQ still has not issued a revised or final guidance, so the 2010 Draft Guidance has now languished for more than four years.

79. CEQ has not claimed, in the 2010 Draft Guidance or elsewhere, that the 2010 Draft Guidance was a formal response to the 2008 Petition.

Other Post-Petition Events

80. Since Petitioners filed the 2008 Petition, numerous events have demonstrated an increase in the urgency of climate change, and the government has continued to acknowledge that it must analyze and address climate change impacts.

81. As noted, in September 2013, the IPCC released a report on the physical basis of climate change, which reaffirmed its conclusions that climate change is occurring and will likely have devastating environmental impacts.[13] As if to underscore that report, September 2013 was the 343rd consecutive month with global temperatures warmer than the 20th century average.

82. Earlier this week, on March 31, 2014, the IPCC released a new report on climate change impacts and vulnerability, reiterating that climate change is "already occurring on all continents and across the oceans," and that climate change seriously jeopardizes human health and the environment.[14]

83. Numerous other recent events have demonstrated the urgency of climate change. For example, in 2012 in the United States alone, droughts and heat waves, which affected approximately eighty percent of agricultural land, cost an estimated thirty billion dollars. Relatedly, the last few years have brought, among other billion-dollar, climate-related disasters, historic flash flooding in Colorado (September 2013), Hurricane Sandy in the Northeast (October 2012), Hurricane Isaac in Louisiana (August 2012), unprecedented wildfires in the West (June 2012, May 2011), Hurricane Irene over the Mid-Atlantic Coast (August 2011), Missouri River flooding (June 2011), Mississippi River flooding (May 2011), and the Groundhog Day Blizzard (February 2011). This year, the strain from climate change on agricultural productivity can be seen in California, which produces forty-eight percent of the nation's vegetables and fifty-two percent of our fruits and nuts but is currently experiencing its worst drought in recorded history.

84. In May 2013, carbon dioxide levels in the atmosphere over Hawaii touched 400 parts per million (ppm) for the first time in at least 800,000 years. One National Aeronautics

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[13] IPCC, *Climate Change 2013: The Physical Science Basis*.

[14] IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability*.

and Space Administration (NASA) scientist stated that passing 400 ppm "should be a psychological tripwire for everyone."[15] And another NASA science opined, "This milestone is a wake up call that our actions in response to climate change need to match the persistent rise in CO_2. Climate change is a threat to life on Earth and we can no longer afford to be spectators."[16] However, carbon dioxide levels continue to climb, and scientists predict that our atmosphere will reach 450 ppm of carbon dioxide within the next few decades. Scientific consensus has concluded that 350 ppm is the safest upper limit for avoiding runaway climate change.

85. Recognizing the urgency of tackling climate change, in October 2009 President Obama issued an executive order instructing federal agencies to evaluate climate risks,[17] and then, in June 2013 he announced a comprehensive plan to slow the effects of climate change.[18]

86. Nevertheless, despite unprecedented scientific and political recognition of the necessity of taking action on climate change, as well as numerous climate-related disasters, CEQ has neither formally responded to the 2008 Petition nor taken other final action to address climate change under NEPA.

CEQ's Failure to Respond to the 2008 Petition

87. More than six years have passed since Petitioners filed their legal petition demanding that CEQ take action to address climate change under NEPA. Yet CEQ still has not formally responded to the 2008 Petition.

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[15] Nat'l Aeronautics & Space Admin., *NASA Scientists React to 400 ppm Carbon Milestone*, http://climate.nasa.gov/400ppmquotes/ (last visited Feb. 28, 2014) (quoting Dr. Michael Gunson, Global Change and Energy Program Manager; Project Scientist, Orbiting Carbon Observatory-2 satellite mission—NASA Jet Propulsion Laboratory).

[16] *Id.* (quoting Dr. Erika Podest, Carbon and Water Cycle Research Scientist).

[17] Exec. Order No. 13514, 74 Fed. Reg. 52,117 (Oct. 5, 2009).

[18] Exec. Office of the President, *The President's Climate Action Plan* (June 2013), *available at* http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf.

88. In the wake of CEQ's inaction, federal agencies have repeatedly taken actions that impose significant, long-term, and irreparable impacts on climate, without direction from CEQ on how to address those impacts pursuant to NEPA.

Harm to Plaintiffs

89. CEQ's unlawful delay in responding to Petitioners' 2008 Petition injures Plaintiff organizations by, *inter alia*, denying them important and urgently needed information about CEQ's climate change oversight in the form of a petition response, a response to which the petitioners are statutorily entitled under the APA. By denying Petitioners the vital and urgent information in a petition response, CEQ's failure to respond to the 2008 Petition has violated Petitioners' procedural and substantive rights under the APA. Additionally, CEQ's failure to act on the petition directly harms Plaintiffs' concrete organizational interests by impeding their abilities as public interest nonprofit organizations to facilitate public involvement in governmental decision-making, and by foreclosing the statutory right that allows for public participation through petitions for rulemaking. As such, CEQ's failure to act has effectively negated Plaintiffs' right to petition a federal agency for rulemaking under the APA. Further, CEQ's continued failure to respond to the 2008 Petition deprives Plaintiff organizations of a decision on the Petition's merits and, if necessary, the opportunity to seek judicial review of CEQ's final decision.

90. Plaintiffs' members' concrete interests in their health, environmental protection, and economic security are being and will be adversely affected by CEQ's continued failure to respond to the 2008 Petition. Specifically, Plaintiffs' members are suffering or will suffer an ongoing threat to their health, their children's health, and the health of their environment as long as climate change remains unaddressed by CEQ.

91. The requested relief will redress these harms by requiring CEQ to respond to the Petition, resulting either in a response that fulfills CEQ's statutory duties by protecting public health and the environment from the risks of climate change, and/or a final agency action that Plaintiffs may challenge if they disagree with the agency's response, in whole or in part. Both

results would provide Plaintiff organizations with APA-mandated information, and also secure their procedural right to receive a timely response to a legal petition for rulemaking.

CLAIM FOR RELIEF

CEQ's Failure to Timely Respond to the 2008 Petition Violated the APA

92. Plaintiffs incorporate by reference all allegations contained in paragraphs 1 through 91 *supra*.

93. CEQ is an "agency" for purposes of the APA. *See* 5 U.S.C. §§ 551(1), 701(b)(1).

94. The APA requires agencies to "give an interested person the right to petition for the issuance, amendment, or repeal of a rule." *Id.* § 553(e); *see also id.* § 551(4) (defining "rule" as "the whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy"). The APA right to petition encompasses the right to petition for a new, revised, or final rule concerning CEQ oversight of NEPA. *See id.* §§ 551, 553(e).

95. Upon receipt of an APA petition, CEQ has a duty to provide a timely response to the petitioners. *Id.* § 555(e) ("Prompt notice shall be given of the denial in whole or in part of a written application, petition, or other request of an interested person . . ."). Such response must be substantive—*i.e.*, it must either grant or deny the petition.

96. The APA grants a right of judicial review to "a person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action." *Id.* § 702. Plaintiffs and their members are adversely affected by CEQ's past and continued failure to respond to the 2008 Petition.

97. The APA states that a reviewing court "shall" interpret statutes and "compel agency action unlawfully withheld or unreasonably delayed." *Id.* § 706(1). CEQ's failure to respond to and take action on the 2008 Petition constitutes unlawfully withheld and unreasonably delayed agency action.

RELIEF REQUESTED

WHEREFORE, Plaintiffs respectfully request that this Court enter an Order:

(1) Declaring that CEQ has violated the APA by failing to provide a timely response to the 2008 Petition;

(2) Declaring that CEQ continues to be in violation of the APA by failing to respond to the 2008 Petition;

(3) Ordering CEQ to respond to the 2008 Petition as soon as reasonably practicable;

(4) Retaining jurisdiction of this action to ensure compliance with this Court's decree;

(5) Awarding Plaintiffs attorneys' fees and all other reasonable expenses occurred in pursuit of this action; and

(6) Granting other such relief as the Court deems just and proper.

Respectfully submitted this 2nd day of April 2014,

/s/ Peter T. Jenkins

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