

**FIRST JUDICIAL DISTRICT COURT  
STATE OF NEW MEXICO  
COUNTY OF SANTA FE**

AKILAH SANDERS-REED,  
by and through her parents Carol  
and John Sanders-Reed, and  
WILDEARTH GUARDIANS,

Plaintiffs,

vs.

Case No. D-101-CV-2011-01514

SUSANA MARTINEZ,  
in her official capacity as Governor  
of New Mexico, and  
STATE OF NEW MEXICO,

Defendants.

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**AMENDED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF**

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**INTRODUCTION**

1. The best available science on climate change shows that the Earth's climate is warming due to continuously increasing levels of human-caused greenhouse gas emissions. In New Mexico, temperatures have increased by approximately 2° Fahrenheit ("F") between the mid-20th century and today. Increasing temperatures are affecting our State's water resources, causing more frequent heat waves, shortening our ski season, reducing summer water flows, and increasing drought. However, it is our children and our children's children who will face the full consequences of the global warming crisis.

2. The atmosphere, essential to human existence, is an asset that belongs to all people. Defendants the State of New Mexico and Governor Susana Martinez (collectively “the State”) have a fiduciary duty under the public trust doctrine to protect the atmosphere so as to minimize the harmful effects of climate change because the State holds this vital natural resource in “trust” for present and future generations of New Mexicans. Plaintiffs bring this action to compel the State to fulfill its mandatory duty under the public trust doctrine to prevent substantial impairment of the natural resources held in “trust” for citizen beneficiaries, including Plaintiffs and present and future generations of New Mexicans. The duty to protect public trust resources mandates the use of the trust resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

3. The atmosphere is one of the crucial assets of the public trust. Accordingly, the State has a fiduciary obligation to protect and manage the atmosphere in furtherance of the best interests of its beneficiaries, including New Mexico’s children and future generations of the State. The atmosphere allows humans to exist and flourish on earth. It contains a blanket of gases that regulates and balances the Earth’s climate so the planet is neither too hot nor too cold. When human activity disrupts atmospheric equilibrium, jeopardizing current climatic conditions, human civilization is placed in grave danger.

4. The necessary balance of the atmosphere has been altered and the atmospheric energy imbalance is increasingly getting worse, accelerating over the last 30 years to a climate that is warmer than has been experienced on Earth for 800,000 years. This acceleration has been caused primarily by human activity and, if continued, will result in a changed world that

threatens destruction of nature and human existence as we know it. Already, the atmosphere is substantially impaired because it contains carbon dioxide levels of over 390 parts per million and is thus unable to maintain the energy balance and stable climate that humans have enjoyed for thousands of years. Scientific evidence shows that the atmosphere will remain substantially impaired until those carbon dioxide levels are reduced to 350 ppm or lower. The people of New Mexico, the United States, and the world are ever increasingly being subjected to the risk of an impending catastrophe.

5. The public trust doctrine is an inalienable attribute of sovereignty of the State. It holds the State government responsible, as perpetual trustee, for the protection and preservation of the atmosphere for the benefit of the public trust beneficiaries, both present and future generations. The State government may not manage the atmospheric trust resource in a manner that substantially impairs the public interest in a healthy atmosphere or substantially impairs the State's water resources. The State is encumbered with the legal duty, as a trustee of the atmosphere, to mitigate direct greenhouse gas emissions and alter practices that either cause such emissions or that impair their sequestration by natural systems.

6. The State's fiduciary duty to protect the atmospheric trust necessarily includes recognition of scientists' concrete prescriptions for reductions in greenhouse gas emissions, particularly carbon dioxide. Scientists have clearly calculated the minimum carbon dioxide reductions needed to restore atmospheric equilibrium, and the requisite timelines for implementation of those reductions. The State may not disclaim its fiduciary duty to protect the atmospheric trust. The State is subject to an ongoing mandatory duty to prevent substantial

impairment of the atmospheric trust resource for current and future generations of New Mexicans who are the trust beneficiaries.

7. The State, by causing, approving and allowing excessive greenhouse gas emissions into the Earth's atmosphere, has breached its public trust duty resulting in climate change impacts in New Mexico including shorter and warmer winters, a shortened ski season, more wildfires, droughts, and impacts to our water resources. Despite studies undertaken by agencies such as the Office of the State Engineer and the U.S. Bureau of Reclamation acknowledging the impacts of climate change in New Mexico resulting from human-caused greenhouse gas emissions, Governor Martinez has repeatedly stated her belief that science has not established a link between climate change and human activities. This erroneous belief has led the Governor and the State to repeal the preliminary measures put in place by the previous administration to address the human causes of climate change in New Mexico. The State's ongoing breach of its duty to preserve and protect the atmosphere for present and future beneficiaries will continue to adversely and irreparably injure the Plaintiffs unless the relief requested here is granted.

8. The Plaintiffs respectfully request this Court to enter judgment declaring: (1) the public trust doctrine is operative in New Mexico and, pursuant to this doctrine, the State holds the atmosphere in trust for the public; (2) the State has a fiduciary duty to protect the atmosphere it holds in trust for the benefit of the citizens of New Mexico; (3) that the State's fiduciary duty is enforceable by the citizen beneficiaries of the public trust who represent present and future generations; (4) that the State's failure to investigate the threat posed by unlimited greenhouse

gas emissions into the atmosphere, as it relates to climate change, is a breach of trust; and (5) that the State's failure to devise a means to prevent substantial impairment to the atmosphere that would mitigate the effects of climate change is a breach of trust. The Plaintiffs also respectfully request this Court to order the State: (1) to produce an assessment of the degree of impairment to the atmosphere from current greenhouse gas levels and the concomitant climate change impacts in New Mexico based on current climate change science; and (2) to produce a plan for redressing and preventing further substantial impairment to the atmosphere and mitigating the effects of climate change on the State's trust resources. Because of the urgency of the crisis and the need for quick and decisive action, Plaintiffs also respectfully request that the Court impose a timeline for the preparation of the assessment and plan.

#### **PARTIES**

9. Plaintiff AKILAH SANDERS-REED is a citizen of the United States who resides in Sandia Park, New Mexico. She is 17 years old. Akilah Sanders-Reed, a minor, brings this action by and through her parents, Carol Sanders-Reed and John ("Jack") Sanders-Reed, who also reside in Sandia Park, New Mexico.

10. Akilah Sanders-Reed is a beneficiary of the atmospheric trust and is owed a fiduciary duty by the State. Climate change is adversely affecting Akilah Sanders-Reed now. Akilah is a skiing enthusiast and has been skiing regularly for the last 8 years. Over that time, Akilah has seen a decrease in the snowpack on the ski slopes of Taos and Santa Fe. The snowpack on those slopes has been thin and generally not good for skiing. Akilah plans to continue skiing, and to teach her younger brother to ski. Therefore, she is concerned that if the

quality and amount of snowpack on the Taos and Santa Fe ski slopes continues to decline, she will have fewer opportunities to ski during the already abbreviated ski season in New Mexico.

11. Reduced snowpack from climate change also results in reduced stream flow to local streams where Akilah Sanders-Reed recreates and plans to continue recreating in the immediate future. Since she was very young, Akilah has enjoyed playing in the stream fed by Cienega Canyon spring in the national forest near her house. Akilah plans to continue her aesthetic enjoyment of that stream in the near future. Portions of the stream fed by Cienega Canyon spring were dry this year. If this drying trend, brought on by increased warming and decreased precipitation, continues it will impede Akilah's future aesthetic use and enjoyment of the stream.

12. Akilah Sanders-Reed also has conservation, recreational, and aesthetic interests in the Rio Grande. Akilah swims in the Rio Grande at the Bosque and at Heron Lake. She also regularly bikes along the Bosque bike path with her family. Akilah also has a broader conservation interest in the Rio Grande and its associated ecosystem. To pursue this interest, she has participated in erosion control projects along the Rio Grande including planting trees along the Bosque and building rock check dams along channels draining into the Rio Grande from the Wind River Ranch and Albuquerque Academy Campus. She returned to the check dams one year later to make sure they were still working properly. Akilah is gravely concerned that her efforts to protect and preserve the Rio Grande and its ecosystem for herself and future generations will be negated by the impacts of climate change on the River such as reduced stream flow and water quality. Akilah is also gravely concerned that lower flows in the Rio

Grande resulting from climate change will threaten the survival of local farming operations that grow the organic produce on which she depends for a healthy diet.

13. Akilah Sanders-Reed is a youth activist for a nonprofit organization called Kids vs. Global Warming, which works to educate the youth of the world about the imminence of the climate change crisis, in the hope of organizing youth and their parents to take urgent action to protect the Earth from the dire consequences of climate change. Akilah Sanders-Reed works to teach her peers about climate change and convince her government to protect the atmosphere for young and future generations. As part of these efforts, on December 6, 2011 Akilah voiced her opposition to repeal of New Mexico's greenhouse gas regulations during the repeal hearings before the Environmental Improvement Board.

14. Akilah Sanders-Reed loves New Mexico and plans to continue to protect, preserve, and enjoy the State's natural resources. However, Akilah is gravely concerned about the decrease in quality of life she and other New Mexicans are experiencing as a result of climate change. Akilah believes that further decreases in her quality of life are inevitable if the State does not take decisive action to reverse the impacts of climate change in New Mexico.

15. Plaintiff WILDEARTH GUARDIANS is a nonprofit conservation organization based in Santa Fe, New Mexico. WildEarth Guardians ("Guardians") protects and restores the wildlife, wild places, and wild rivers of the American West. Towards this end, Guardians and its members work to replace fossil fuels with clean, renewable energy in order to safeguard public health, the environment, and the Earth's climate for future generations. Guardians brings this action on its own behalf and on behalf of its adversely affected members. Guardians has

approximately 4,500 members, many of whom live, work, or recreate in New Mexico.

Guardians is a person within the meaning of New Mexico's Declaratory Judgment Act, NMSA 1978, § 44-6-3.

16. Guardians' scientific and recreational interests in New Mexico's surface waters and associated ecosystems will be irreparably harmed if the State fails to curb emissions of greenhouse gases—particularly carbon dioxide—into the atmosphere, which cause changes in climate resulting in deleterious alterations to surface waters and their associated ecosystems. Over the past decade, Guardians has worked to actively restore the State's degraded waters. To support this effort, Guardians has secured over \$2 million in state and federal grants to restore surface water ecosystems, create wetlands and improve poor water quality conditions on streams and rivers throughout New Mexico. Guardians' river and ecosystem restoration work has resulted in significant, measurable environmental improvements to water quality. Climate change can potentially alter water temperatures, flow, runoff rate, and physical characteristics of watersheds, which would affect the capacity of surface water ecosystems to remove pollutants and improve water quality. By degrading water quality, such impacts from climate change will undo all of Guardians' previous work to restore surface water ecosystems, thereby harming Guardians' and its members' scientific, aesthetic, and recreational interests in New Mexico's rivers and streams.

17. The survival, health, recreational, scientific, cultural, inspirational, educational, aesthetic, emotional well-being and other rights and interests of Plaintiffs are and will be increasingly adversely and irreparably injured by the State's failure to curb high levels of



greenhouse gas emissions—particularly carbon dioxide—into the atmosphere unless the relief requested here is granted. Likewise, the State’s ongoing breach of its duty to preserve and protect the atmosphere for present and future trust beneficiaries will continue to adversely and irreparably injure the Plaintiffs unless the relief requested here is granted. These are actual, concrete injuries to Plaintiffs that would be redressed by the relief sought.

18. Defendant GOVERNOR SUSANA MARTINEZ is sued in her official capacity as Governor of New Mexico. Governor Martinez is the Chief Executive Officer of the State of New Mexico. She is vested with the supreme executive power of the State and shall take care that the laws be faithfully executed. New Mexico Constitution Art. 5, § 4. As Chief Executive Officer, Governor Martinez is charged with overseeing State actions, including the State’s implementation of its public trust duties. Governor Martinez has failed to prevent substantial impairment to the atmosphere and has failed to effectively implement and enforce the laws under her jurisdiction for this purpose causing injury to these Plaintiffs.

19. Defendant STATE OF NEW MEXICO is a sovereign State of the United States and, as trustee, holds all natural resources within the State’s borders, including the atmosphere, in trust for the people of New Mexico. Defendant State of New Mexico has failed in its fiduciary duty to recognize and prevent substantial impairment to the atmospheric public trust resource, thereby injuring these Plaintiffs.

#### **JURISDICTION AND VENUE**

20. This court has jurisdiction over the subject matter of this case pursuant to the Declaratory Judgment Act, NMSA 1978, § 44-6-1 *et seq.* and New Mexico common law.

21. An actual justiciable controversy exists between the parties sufficient to invoke this court's judicial power to enter a declaratory judgment. The declaratory and injunctive relief sought would terminate this controversy.

22. Venue is properly located in this judicial district pursuant to NMSA 1978, § 38-3-1(G).

## LEGAL FRAMEWORK

### **I. The Scope of the Public Trust Doctrine is Broad and Far Reaching.**

23. The public trust doctrine is an ancient legal mandate establishing a sovereign obligation in states to hold critical natural resources in trust for the benefit of their citizens. "The theory underlying [the public trust] doctrine can be traced from Roman Law through Magna Carta to present day decisions." Montana Coalition for Stream Access, Inc. v. Curran, 210 Mont. 38, 47, 682 P.2d 163, 167 (1984). Published in 533, the Roman Institutes of Justinian codified the right of public ownership of important natural resources: "The things which are naturally everybody's are: air, flowing water, the sea, and the sea-shore." Caesar Flavius Justinian, The Institutes of Justinian, Book II, Title I, Of the Different Kind of Things (533).

24. Likewise, under English common law, "There are some few things which, notwithstanding the general introduction and continuance of property, must still unavoidably remain in common . . . Such (among others) are the elements of light, air, and water . . ." William Blackstone, 2 BL Comm. 14. The public trust doctrine element of the English common law was incorporated into the colonial charters when the American colonies were first established, thereby providing the same protection for natural resources in America as provided

by the crown in England. See Martin v. Waddell, 41 U.S. 367, 413 (1842) (discussing the public trust doctrine in colonial charters). Following the American Revolution, the public trust doctrine was likewise adopted into the American common law.

25. More than a century ago, the United States Supreme Court recognized the public trust doctrine was needed as a bulwark to protect resources too valuable to be disposed of at the whim of the legislature. See Illinois Cent. Railroad v. Illinois, 146 U.S. 387, 13 S.Ct. 110 (1892). “The ownership of the sovereign authority is in trust for all the people of the state; and hence, by implication, it is the duty of the legislature to enact such laws as will best preserve the subject of the trust, and secure its beneficial use in the future to the people of the state.” Geer v. Connecticut, 161 U.S. 519, 534 (1896), overruled on other grounds by Hughes v. Oklahoma, 99 S.Ct. 1727 (1979)(overruling the state ownership doctrine, but not the state’s public trust duty discussed in Geer).

26. Original American public trust doctrine cases focused on navigable waters and submersible lands. Over time, the public trust doctrine expanded to different geographic areas and beyond original societal concerns of commerce and navigation to other modern concerns. Indeed, courts have emphasized the flexibility of the doctrine to meet changing societal concerns. “The public trust by its very nature, does not remain fixed for all time, but must conform to changing needs and circumstances.” In re Water Use Permit Applications, 9 P.3d 409, 447 (Haw. 2000). “Archaic judicial responses are not an answer to a modern social problem. Rather, we perceive the public trust doctrine not to be ‘fixed or static,’ but one to be ‘molded and extended to meet changing conditions and needs of the public it was created to

benefit.” Matthews v. Bay Head Improvement Ass’n, 471 A.2d 355, 365 (N.J. 1984) (internal citations omitted). “Since as early as 1821, the public trust doctrine has been applied throughout the United States ‘as a flexible method for judicial protection of public interests . . .’” Weden v. San Juan County, 135 Wash.2d 678, 698, 958 P.2d 273 (1998) (internal citations omitted); see also State v. Central Vermont Ry., Inc., 571 A.2d 1128, 1130 (Vt. 1990).

## **II. New Mexico’s Public Trust Doctrine is Inherent in the Constitution and Statutes.**

27. The public trust doctrine is inherent in Article XX, § 21 of the New Mexico Constitution:

The protection of the state’s beautiful and healthful environment is hereby declared to be of fundamental importance to the public interest, health, safety and the general welfare. The legislature shall provide for control of pollution and control of despoilment of the air, water, and other natural resources of the state, consistent with the use and development of these resources for the maximum benefit of the people.

28. The New Mexico legislature has implicitly recognized the public trust doctrine with respect to surface water, declaring that “all natural waters flowing in streams and watercourses, whether such be perennial, or torrential, within the limits of the state of New Mexico, belong to the public and are subject to appropriation for beneficial use.” NMSA 1978, § 72-1-1.

29. The New Mexico legislature has also implicitly recognized the public trust doctrine with respect to groundwater, declaring that “[t]he water of underground streams, channels, artesian basins, reservoirs or lakes, having reasonably ascertainable boundaries, is

declared to belong to the public and is subject to appropriation for beneficial use.” NMSA 1978, § 72-12-1.

30. The New Mexico legislature has also implicitly recognized the public trust doctrine with respect to moisture in the atmosphere, declaring “that the state of New Mexico claims the right to all moisture in the atmosphere which would fall so as to become a part of the natural streams or percolated water of New Mexico, for use in accordance with its laws.” NMSA 1978, § 75-3-3.

31. The New Mexico legislature has also implicitly recognized the public trust doctrine with respect to the state’s salt lakes and salt, declaring that “[a]ll the salt lakes within this state, and the salt which has, or may accumulate on the shores thereof, is, and shall be free to the citizens, and each one shall have power to collect salt on any occasion free from molestation or disturbance.” NMSA 1978, § 72-11-1.

32. Considering the purposes of the public trust doctrine, New Mexico’s constitutional provision requiring the legislature to protect the state’s natural resources and the environment for the benefit of the people, and specific statutes declaring various natural resources as belonging to the public, application of the doctrine to the State’s waters and the atmosphere is appropriate. The atmosphere is “a subject of public concern to the whole people of the state.” Illinois Central, 146 U.S. at 455.

33. Whether the public trust doctrine applies to the resource in question is typically treated as a question of state law. Montana v. United States, 450 U.S. 544, 551 (1981). While this question of whether the atmosphere is part of the public trust is an issue of first impression in

New Mexico, other jurisdictions have recognized the applicability of the public trust doctrine to air generally. Nat'l Audubon Soc'y v. Superior Court of Alpine Cnty., 658 P.2d 709, 720 (Cal. App. 1983) (recognizing that the “purity of air” is protected by the public trust); Majesty v. Detroit, 874 F.2d 332, 337 (6th Cir. 1989) (public trust includes air, water and other natural resources); Haw. Const. art. XI, §1 (stating, “All public natural resources are held in trust by the State for the benefit of the people . . . including land, water, air, minerals and energy resources”); La. Const. art. IX, §1 (“natural resources of the state, including air and water ... shall be protected ....”); State ex rel. Town of Westerly v. Bradley, 877 A.2d 601, 606 (R.I. 2005); Pa. Const. art. I, §27 (declaring public trust duty to conserve natural resources, and expressing citizens' right to clean air).

34. New Mexico’s constitution and statutes mandating protection of the state’s natural resources and the environment leave no doubt that the atmosphere is squarely within the domain of the public trust. As such, the State of New Mexico has an affirmative sovereign, constitutional, statutory, and common law duty to protect the atmospheric trust for current and future generations.

**III. As Trustee of the Environment for Future Generations, the State has a Fiduciary Obligation to Protect the Atmospheric Trust from Degradation.**

35. The public trust doctrine imposes an affirmative, inalienable obligation on the State to protect public trust resources, and not to use the asset in a manner that causes injury to present and future trust beneficiaries. See Natl. Audubon Soc’y, 658 P.2d at 728. See also N.J. Dep’t of Env’tl. Protection v. Jersey Central Power & Light Co., 336 A.2d 750, 759 (N.J. 1975)

(“The State has not only the right but also the affirmative fiduciary obligation to ensure that the rights of the public to a viable marine environment are protected, and to seek compensation for any diminution in that trust corpus.”)

36. The sovereign trustee has an affirmative fiduciary duty to prevent waste, to use reasonable skill and care to preserve the trust property and to maintain trust assets. These obligations of the State of New Mexico to protect the public trust run to all three branches of the government, and cannot be abdicated by any branch. See Illinois Central, 146 U.S. at 460; see also Ariz. Ctr. for Law in the Pub. Interest v. Hassell, 837 P.2d 158, 169 (Ariz. Ct. App. 1991) (“Just as private trustees are judicially accountable to their beneficiaries for dispositions of the res, so the legislative and executive branches are judicially accountable for their dispositions of the public trust.”)

37. The duty to protect has been defined as: “the duty to ensure the continued availability and existence of [trust] resources for present and future generations,” and “incorporates the duty to promote the development and utilization of [trust] resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the state.” Kelly v. 1250 Oceanside Partners, 140 P.3d 985, 1003 (Haw. 2006).

38. The State’s fiduciary duty to protect the atmospheric trust from impairment by human-caused greenhouse gas emissions must be guided by the best available scientific prescriptions for the reductions in greenhouse gas emissions necessary to restore the resource and climate stability.

39. In the case of the public trust, the citizens are the trust beneficiaries. Any beneficiary of the public trust has “standing to sue to protect the public trust.” Nat’l Audubon Soc’y, 658 P.2d at 716; see also Ctr. for Biological Diversity v. FPL Group, Inc., 83 Cal. Rptr. 3d 588, 601 (Cal. Ct. App. 2008); Kapiolani Park Preservation Soc’y v. City & Cnty. of Honolulu, 751 P.2d 1022, 1025 (Haw. 1989).

## FACTUAL ALLEGATIONS

### I. THE ATMOSPHERIC CLIMATE EMERGENCY.

#### A. The Relationship between Greenhouse Gases and the Earth’s Temperature.

40. Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are recognized as greenhouse gases. The U.S. Environmental Protection Agency (“EPA”) found that these “six greenhouse gases taken in combination endanger both the public health and the public welfare of current and future generations.” 74 Fed. Reg. 66,496 (Dec. 15, 2009).

41. Over the past 200 years, the burning of fossil fuels such as coal and oil, together with worldwide deforestation have caused an enormous increase in the atmospheric concentrations of heat-trapping greenhouse gases, particularly carbon dioxide (“CO<sub>2</sub>”), methane, and nitrous oxide. These gases prevent heat from escaping to space, like the glass panels of a greenhouse.

42. Climate change has been intensively studied and acknowledged at the global, national, and regional scales. The Nobel Prize-winning Intergovernmental Panel on Climate Change (“IPCC”) has determined that “[w]arming of the climate system is unequivocal” and,



further, that “[o]bservational evidence from all continents and most oceans shows that many natural systems are being affected by regional climate changes, particularly temperature increases.”

43. According to data from the National Oceanic and Atmospheric Administration (“NOAA”) and the National Aeronautics and Space Administration (“NASA”), the Earth’s average surface temperature has increased by about .67° to .8°C (1.2 to 1.4°F) in the last 100 years. The acceleration of that increase has intensified over just the last 30 years. In fact, the ten warmest years on record (since 1850) have all occurred since 1995. Coupled with the increase in the temperature of the earth, other aspects of the climate, such as rainfall and snowmelt patterns, are also changing and those changes are likewise intensifying.

44. The current CO<sub>2</sub> concentration in our atmosphere is 390 ppm (compared to the pre-industrial concentration of 280 ppm). Current atmospheric greenhouse gas concentrations are likely the highest in at least the past 800,000 years.

45. Concentrations of other greenhouse gases in the atmosphere have also increased from human activities. Atmospheric concentrations of methane have increased nearly 150 percent since the pre-industrial period. These methane levels are higher than at any time in at least the last 800,000 years. Nitrous oxide concentrations have also increased.

46. Humans are continuing to add greenhouse gases into the atmosphere at a rate that outpaces their removal through natural processes. The current and projected CO<sub>2</sub> increase, for example, is about a hundred times faster than has occurred over the past 800,000 years.

47. Climate changes are currently occurring faster than even the most pessimistic scenarios presented in the 2007 IPCC Report. Several scientific studies conclude that a further increase of average annual temperatures of 2° C (3.6° F) above current levels will cause severe, widespread and irreversible impacts. If the State does not accept its sovereign responsibility and duties and if immediate action is not taken, the future is likely to bring increases of 3 to 11 degrees F (on average) above current levels. The irreversible consequences will include mass extinctions, melting of the polar ice sheets, and sea level rise. Other consequences include increased intensity and frequency of drought, wildfire, heat waves, storms, and flooding.

**B. The Best Available Science Shows Earth's Temperature Has Reached the Tipping Point.**

48. Although some degree of global heating is a normal natural phenomenon, the present rate of global heating is occurring as a result of human activities that release heat-trapping greenhouse gases and intensify Earth's natural greenhouse effect at an accelerated rate, thereby changing Earth's climate. This abnormal climate change is unequivocally human-induced, is occurring now, and will continue to occur unless drastic measures are taken to curtail it. Climate change is damaging natural and human systems, and if unrestrained, will alter the planet's habitability.

49. There is strong evidence that Earth's temperature has already increased to the extent that deleterious positive feedback loops or "tipping points" are now upon us. The "tipping point" concept is that climate can reach a point where, without any additional forcing (e.g., releases of CO<sub>2</sub> into the atmosphere) rapid changes proceed practically out of our control. There

are two definitions within the term “tipping point.” First, the *tipping level* is the global climate forcing that, if long maintained, gives rise to a specific consequence. Second, *the point of no return* is a state beyond which the consequence is inevitable even if climate forcings are reduced. A point of no return can be avoided, even if the tipping level is temporarily exceeded. But, climate forcing must be returned below the tipping level before irreversible changes have occurred.

50. Dr. James Hansen, a leading climate scientist with the NASA Goddard Institute for Space Studies and Columbia University Earth Institute, has addressed the issue of tipping points as recently as January 2011. In light of the inaction to reduce greenhouse gas emissions over the last 30 years, Hansen concludes that the present level of 390 ppm of CO<sub>2</sub> in the atmosphere is deleterious because it has already taken the Earth out of equilibrium.

51. At 390 ppm CO<sub>2</sub>, Earth is presently out of energy balance. With the heat already in the pipeline, to avoid the consequences of *the point of no return* and to preserve the climate requires that most remaining fossil fuel CO<sub>2</sub> is never emitted into the atmosphere. Hansen and his colleagues, the top climate scientists in the world, have set an initial target of returning to no higher than 350 ppm of CO<sub>2</sub> concentrations in the atmosphere by the end of the century. That target has to be reassessed as the effects of ongoing warmth on ice sheet mass are observed and it may indeed be too high.

**C. Action Necessary to Avoid Catastrophic Climate Change Impacts.**

52. The best available science for climate change also shows that to protect Earth’s natural systems, average global surface heating increases must be limited to 1°C. To prevent

global heating greater than 1°C, concentrations of atmospheric CO<sub>2</sub> must decline to less than 350 ppm. The best available science also concludes that to protect Earth's oceans—an essential absorber of greenhouse gases—atmospheric CO<sub>2</sub> levels must decline to less than 350 ppm by the end of this century.

53. To reduce CO<sub>2</sub> in the atmosphere to 350 ppm in this century, best available science concludes that CO<sub>2</sub> emissions need to peak in 2012 and begin to decline at a global average of at least 6 percent each year beginning in 2013 through 2050. After 2050, CO<sub>2</sub> emissions could decline at 5 percent per year. However, if CO<sub>2</sub> emissions continue to rise until 2020, CO<sub>2</sub> emissions must decline by at least 12 percent per year to reach 350 ppm by the end of the century. The sooner the State takes the necessary action to fulfill the State's public trust responsibilities and draw down the excessive CO<sub>2</sub> from the atmosphere, the easier and more feasible these reductions will be.

54. Atmospheric CO<sub>2</sub> levels are currently on a path to reach over 400 ppm by 2020. Absent immediate action to reduce CO<sub>2</sub> emissions, atmospheric CO<sub>2</sub> could reach levels as high as about 1000 ppm and a temperature increase of up to 5°C by 2100. Life as we know it is unsustainable at these levels.

55. Atmospheric CO<sub>2</sub> will decrease if people stop or greatly reduce the burning of fossil fuels. Although most of the CO<sub>2</sub> is removed by natural processes, after 500 years almost one-fifth of the atmospheric CO<sub>2</sub> from fossil fuels will still be in the atmosphere. Because of this persistence, it is imperative to reduce CO<sub>2</sub> emissions immediately, with substantial reductions at

the earliest possible time. Any more delay by the State risks irreversible and unacceptable consequences for generations to come.

## **II. CLIMATE CHANGE IMPACTS IN NEW MEXICO**

56. The State of New Mexico prepared a 2005 Report entitled Potential Effects of Climate Change on New Mexico. The 2005 Report identifies substantial and specific impacts from climate change to New Mexico's: (a) water resources; (b) infrastructure; (c) agriculture; (d) natural systems; (e) outdoor recreation and related tourism; (f) environmental quality and health; and (g) environmental justice and native peoples.

57. In 2006, the New Mexico Office of the State Engineer and the Interstate Stream Commission published a report entitled The Impact of Climate Change on New Mexico's Water Supply and Ability to Manage Water Resources ("2006 OSE Water Report"). The 2006 report identified consensus-based findings that New Mexico will witness: (1) an increase in temperature and potentially, extreme heat waves; (2) a trend towards a higher freezing altitude and reduction in snowpack with delays in the arrival of snow season, acceleration of spring snowmelt, a decrease in total snowfall, and rapid and earlier seasonal runoff; (3) uncertain changes to precipitation, overall, but intensified evaporative losses from temperature increases that could counteract any increase in precipitation; (4) severe droughts; and (5) an increase in flood events.

58. In its Statement of Reasons for adopting Greenhouse Gas Cap and Trade Provisions issued on November 10, 2010, the New Mexico Environmental Improvement Board acknowledged that "[c]limate change caused by anthropogenic emissions of GHGs will have a

particularly severe impact o[n] the American Southwest, including New Mexico. The warming trends in this region are double the annual global average.”

59. According to the 2006 Greenhouse Gas Inventory for New Mexico, on a per capita basis, New Mexico produces nearly twice the greenhouse gas emissions as the national average. CO<sub>2</sub> and methane comprise the bulk of greenhouse gas emissions. New Mexico’s high per capita emissions are largely the result of its greenhouse gas-intensive gas, oil, and electricity production industries. Together, the production of electricity and fossil fuels accounted for two-thirds of New Mexico’s gross greenhouse gas emissions in the year 2000. This percentage remained the same when the emissions inventory was updated in 2007.

60. The State’s Climate Change Advisory Group projected that total direct greenhouse gas emissions, particularly CO<sub>2</sub>, in New Mexico will increase 30 percent above 2000 levels by 2020.

**A. Localized Impacts of Global Climate Change Already Occurring in New Mexico include Decreased Stream Flow and Reduced Snowpack.**

61. The 2006 OSE Water Report indicates “significant” impacts to New Mexico waters resulting from climate change. These impacts include changes in water volume and timing of water availability, decreased spring runoff volumes and/or earlier runoff, and increased evaporative losses from stream flows and reservoirs from hotter and dryer conditions.

62. In New Mexico, annual mean temperatures have been increasing in the mountains during the winter and early spring. As a result, snowpack is already below average in the Colorado and Rio Grande River basins. If this warming trend continues, regional climate models

predict there will be no sustained snowpack south of Santa Fe and the Sangre de Cristo range by the end of this century.

63. Increases in annual mean temperatures may shift the peak of snowmelt-driven stream flow to earlier in the year and may also decrease total stream flow. Lower flow levels and changes in the timing of peak flows will curtail water use that typically occurs in June at the peak of irrigation season.

64. Climate change ultimately results in decreasing water availability in the Rio Grande, exacerbating current water availability issues prompted by an already scarce water supply.

65. Increases in annual mean temperatures also decrease soil moisture levels resulting in increased vegetation death rates, and increase the frequency and severity of wildfires in the State.

66. In a recent report by the U.S. Department of the Interior, Reclamation, SECURE Water Act Section 9503(c) – Reclamation Climate Change and Water, Report to Congress (April 2011), the U.S. Bureau of Reclamation (“BOR”) assessed climate change risks and how these risks would impact western water resources, including the Rio Grande. The BOR projected a temperature increase of 5-6°F for the Upper Rio Grande Basin in the 21<sup>st</sup> century, accompanied by a decrease in precipitation. These changes will result in reduced April 1<sup>st</sup> snowpack, especially in lower lying areas of the Basin.

67. Reduced snowpack will lead to decreased April-July stream flows in the Upper Rio Grande Basin, and these declines are expected to become greater in magnitude over the

course of the 21<sup>st</sup> century. For the current century, the BOR predicts a 1 to 2.5 percent decrease in mean April-July runoff in the Rio Grande by 2020, a 13 to 15 percent decrease in runoff by 2050, and a 20 percent decrease in runoff by 2070.

68. Climate change, if left unaddressed, will also have large economic costs for New Mexico. These costs are estimated at \$3.2 billion per year, or \$3,430 per household in 2020, rising to \$5,410 per household in 2040. A study by Sandia National Laboratory concluded that between 2010 and 2050, climate change in New Mexico would result in the loss on \$12.7 to \$26.1 billion in Gross State Product.

**B. New Mexico Does Not Have a Regulatory Structure to Protect Its Citizens from the Impacts of Climate Change.**

69. During the administration of Governor Richardson, the State took some preliminary measures toward reducing greenhouse gas emissions. The Environmental Improvement Board (“EIB”) promulgated Cap-and-Trade provisions, Greenhouse Gas reporting provisions that established requirements for the annual reporting of greenhouse gas emissions to the New Mexico Environment Department (“NMED”), and regulations for a Greenhouse Gas Reduction Program to establish greenhouse gas reduction requirements for certain sources emitting 25,000 metric tons or more of carbon dioxide annually.

70. During her first days in office in 2011, Governor Martinez attempted to block the publication of the greenhouse gas rules. At the same time, Governor Martinez announced that she would keep New Mexico from joining a regional cap-and-trade program. The Governor also removed all of the members of the EIB because she believed the Board was anti-business.



71. In July 2011, industry groups and the City of Farmington petitioned the EIB to repeal the Greenhouse Gas Cap-and-Trade provisions, reporting provisions, and reduction provisions promulgated by the EIB in December 2010. These petitions sought to abolish New Mexico's existing regulatory scheme for emission of greenhouse gases into the atmosphere.

72. The State, through NMED, participated in the consolidated repeal proceedings for these regulations. The State supported repeal of these regulations.

73. The State's primary reasons for supporting repeal of the existing greenhouse gas regulatory scheme are that the State would prefer that the Federal government address climate change issues by promulgating regulations that would apply to all 50 states and that State regulation of greenhouse gases would increase the operating costs for greenhouse gas-emitting industries.

74. In supporting the repeal of New Mexico's existing regulatory scheme for greenhouse gas emissions, the State did not consider whether and to what degree such a repeal would impair the atmosphere or other public trust resources and values in New Mexico. In supporting the repeal, the State also did not consider the best available science with respect to effects of current greenhouse gas emission levels on climate change.

75. On February 6, 2012, the EIB voted unanimously to repeal the Greenhouse Gas Cap-and-Trade, reporting, and verification provisions. The EIB is scheduled to vote on the repeal of the Greenhouse Gas emission reduction rule on March 16, 2012. The February 6 vote abolished all but one provision of the regulatory scheme for greenhouse gas emissions into the atmosphere.

76. Governor Martinez and the State are taking no action to manage and protect the atmospheric trust for present and future generations of New Mexicans. Failure to protect the atmospheric trust also causes impairment to New Mexico's water resources. New Mexico's waters are public trust resources. Instead, Governor Martinez and the State have abdicated their public trust responsibilities by supporting, and ultimately achieving, repeal of the existing regulatory mechanisms to control greenhouse gas emissions.

77. Governor Martinez and the State have no comprehensive plan to reduce the State's greenhouse gas emissions or otherwise mitigate its contribution to climate change. Governor Martinez and the State have not assessed the climate change impacts to the State's public trust resources that will be severely impacted by climate change—water and the atmosphere. Governor Martinez and the State have also not assessed the timing of such impacts to water resources and the atmosphere, and the means by which the State may mitigate these impacts in the absence of a statutory or regulatory scheme to prevent unlimited greenhouse gas emissions from entering the atmosphere.

78. Governor Martinez and the State have failed to use their authority to prevent substantial impairment to those natural resources held in trust for the Plaintiffs and public that will be severely impacted by climate change. These trust resources include the State's waters and the atmosphere.

## **PLAINTIFFS' CLAIM FOR RELIEF**

### **Violations of the Public Trust Doctrine**

79. Plaintiffs incorporate by reference the allegations in all preceding paragraphs.

80. The State and Governor are subject to the public trust duty as trustees of the natural resources of New Mexico, including the State's waters and the atmosphere.

81. The State and Governor are trustees of the public trust resources, including the State's waters and the atmosphere, pursuant to the Article XX, Section 21, of the New Mexico Constitution.

82. The State and Governor are trustees of public trust resources, including the State's waters and the atmosphere, at common law.

83. New Mexico, as a sovereign state, has an affirmative duty as trustee to prevent substantial impairment to public trust assets. The public trust is an attribute of sovereignty that cannot be abrogated. As long as the sovereign exists, so do its public trust duties.

84. To prevent substantial impairment of New Mexico's trust resources, including its waters and the atmosphere, the State must implement enforceable measures to limit the levels of greenhouse gas emissions, especially carbon dioxide, into the atmosphere.

85. The State has allowed, facilitated, and contributed to the waste of public trust resources and otherwise failed to prevent substantial impairment to these resources, including the State's waters and the atmosphere, by allowing the atmosphere to become polluted with high levels of human-caused greenhouse gases that are twice the national average. The State has also

facilitated waste of public trust resources by repealing the existing regulatory mechanisms to limit levels of greenhouse gases in the atmosphere.

86. The State's waste of, and failure to prevent substantial impairment to New Mexico's public trust resources has caused and will continue to cause imminent injuries as described above from increased greenhouse gas emissions, global heating and adverse impacts to the State's natural resources. These impacts include reduced stream flow, reduced snowpack, and increased air pollution.

87. Because the State's failure to prevent substantial impairment to public trust resources violates the Public Trust Doctrine, and its constitutional, statutory and common law underpinnings, the Plaintiffs are entitled to a judgment declaring such actions in violation of the law and injunctive relief requiring the State to meet its public trust obligations.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs respectfully request that the court:

- A. Declare the public trust doctrine is operative in New Mexico and, pursuant to this doctrine, the State holds its waters and the atmosphere in trust for the public;
- B. Declare that the State has a fiduciary duty to protect its waters and the atmosphere it holds in trust for the benefit of the citizens of New Mexico;
- C. Declare that the State's fiduciary duty is enforceable by the citizen beneficiaries of the public trust who represent present and future generations;

- D. Declare that the State's failure to investigate the threat posed by unlimited greenhouse gas emissions into the atmosphere, as it relates to climate change, is a breach of trust;
- E. Declare that the State's failure to devise a means to prevent substantial impairment to the atmosphere that would mitigate the effects of climate change is a breach of trust;
- F. Order the State to produce an assessment of the degree of impairment to the atmosphere from current greenhouse gas levels in New Mexico and the concomitant climate change impacts based on current climate change science,
- G. Order the State to produce a plan for redressing and preventing further substantial impairment to the atmosphere and mitigating the effects of climate change on the State's trust resources;
- H. Order the State to produce the assessment and the plan by reasonable dates certain, factoring into the timeline the ongoing impairment of the atmospheric resource, the urgency of the climate crisis and the need for quick and decisive action by sovereign governments; and
- I. Grant such other relief as the Court deems appropriate or necessary.

Respectfully submitted on this 16th day of February 2012.

/s/ Samantha Ruscavage-Barz

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## CERTIFICATE OF SERVICE

I hereby certify that on February 16, 2012, I electronically filed the foregoing FIRST AMENDED COMPLAINT FOR DECLARATORY RELIEF through the State of New Mexico's E-Filing system. I also hereby certify that on February 16, 2012, I mailed a true and correct copy of the foregoing FIRST AMENDED COMPLAINT FOR DECLARATORY RELIEF via U.S. Mail to the following counsel of record:

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