## DISTRICT COURT, BOULDER COUNTY, COLORADO Court address: 1777 Sixth Street, Boulder, Colorado 80302 Phone Number: 303-441-3750 Plaintiff: XIUHTEZCATL MARTINEZ, a minor, by and through next friend and parent TAMARA ROSKE, HAIDEN DAVIS, a minor, by and through next friend and parent KATE INSKEEP, CECELIA KLUDING-▲ COURT USE ONLY ▲ RODRIGUEZ, ALEX BUDD, and WILDEARTH GUARDIANS V. Defendant: STATE OF COLORADO, GOVERNOR JOHN HICKENLOOPER, as Governor of the State of Colorado, COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. COLORADO AIR QUALITY CONTROL **COMMISSION, and COLORADO** DEPARTMENT OF NATURAL RESOURCES Case No. 2011-CV-491 Attorneys for Plaintiff: Div. 5 Ashley D. Wilmes WildEarth Guardians 827 Maxwell Avenue, Ste L Boulder, Colorado 80304 859-312-4162 wilmeslegal@gmail.com Atty. Reg #: 40798 James J. Tutchton WildEarth Guardians 6439 E. Maplewood Ave. Centennial, CO 80111 Tel. 720-301-3843 jtutchton@wildearthguardians.org Atty. Reg #: 21138

# PLAINTIFF'S FIRST AMENDED COMPLAINT FOR DECLARATORY JUDGMENT

#### INTRODUCTION

- 1. The Earth's climate is warming. In Colorado, temperatures have increased by approximately 2°F between 1977 and today. Increasing temperatures are affecting our State's water resources, causing more frequent heat waves, increasing illness from insect-borne diseases, shortening our ski season, reducing summer water flows, and increasing our irrigation needs. 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 Colorado, Governor John Hickenlooper, Colorado Department of Health and Environment, Colorado Air Quality Control Commission, and Colorado Department of Natural Resources (collectively the "State" or "State Defendants") have a fiduciary duty to protect the atmosphere from the effects of climate change and to hold this vital natural resource in "trust" for present and future generations of Colorado citizens. Plaintiffs Xiuhtezcatl Martinez, by and through his mother Tamara Roske, Haiden Davis, by and through his mother Kate Inskeep, Cecelia Kluding-Rodriguez, Alex Budd, and WildEarth Guardians ("Plaintiffs") bring this action to enforce the State Defendants' mandatory duty under the public trust doctrine, which imposes the duty to affirmatively preserve and protect Colorado's trust assets from damage or loss, and not to use the asset in a manner that causes injury to the trust beneficiaries, present and future.
- 3. The atmosphere, including the air, is one of the crucial assets of the public trust. Our atmosphere allows humans to exist and flourish on Earth. It contains a blanket of gases that keeps the Earth's climate in balance so that the planet is neither too hot nor too cold. But, when human activity disrupts that atmospheric equilibrium, jeopardizing the climate under which

human civilization developed, human life and the biodiversity of Earth are placed in grave danger.

- 4. Our atmosphere's necessary balance has been altered and is increasingly getting worse, accelerating over the last thirty 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. The people of Colorado, the United States, and the world are ever increasingly being subjected to the risk of an impending catastrophe.
- 5. The State Defendants must take action to protect our planet from the human-caused warming that is wasting our children's inheritance, before we reach the tipping point. If the State does not take immediate action to protect, preserve, and bring the atmosphere back into balance, all of nature is at risk. The Earth is already experiencing the effects of human-induced climate change, including increases in average surface temperatures, melting ice in the Arctic, melting glaciers around the world, increasing ocean temperatures, rising sea levels, acidification of the oceans due to excess carbon dioxide, changing precipitation patterns, changing patterns of ecosystem and wildlife functions, biodiversity loss, and extreme weather events.
- 6. The State is responsible, as perpetual trustee, for the protection and preservation of the atmosphere for the benefit of present and future generations. The State Defendants may not manage the trust resource in a way that substantially impairs the public interest in a healthy atmosphere. As keeper of the public trust, the State must mitigate direct greenhouse gas emissions and alter practices that either cause such emissions or that impair their sequestration by natural systems.

- 7. The State Defendants, by their inactions and their actions of causing, approving and allowing too many greenhouse gas emissions into Earth's atmosphere, have breached their public trust duties, resulting in climate change impacts in Colorado, including shorter and warmer winters, a shortened ski season, more wildfires, pine beetle infestations, droughts, and impacts to our water resources. The State Defendants have acknowledged the impacts of climate change, but have failed to take sufficient action to protect the atmosphere and have breached their duties as trustees. The State's ongoing breach of the duty to preserve and protect the atmosphere for present and future beneficiaries, which has not been abated or properly mitigated, will continue to adversely and irreparably injure the Plaintiffs unless the relief requested here is granted.
- 8. The State's fiduciary duty to protect the atmospheric trust must be guided by scientists' concrete prescriptions for necessary greenhouse gas emissions reductions. The most common greenhouse gas is carbon dioxide, and scientists have clearly expressed the minimum carbon dioxide reductions needed to restore the Earth's equilibrium, and the requisite timelines for implementation of those reductions.
- 9. The State may not disclaim its fiduciary duty to protect the atmospheric trust, and is subject to an ongoing mandatory duty to preserve and protect the atmospheric trust resource for current and future generations. Our atmosphere is not susceptible to private ownership, but is instead held by the sovereign government in trust for the benefit of the public. If the State Defendants do not take immediate action, the resulting droughts, wildfires, floods, storms, heat waves, mass extinctions, and other effects of climate change will be severe and devastating.
- 10. Our children and our children's children will suffer the harms and losses caused by the State's lack of necessary action. The citizens of Colorado are already experiencing

serious environmental, economic, physical, emotional and aesthetic injuries as a result of the State Defendants' actions and inactions. If our State continues to contribute to this atmospheric crisis, those injuries will intensify and expand. A failure to immediately take action to protect and preserve the Earth's climate will cause irreparable harm to Plaintiffs. Once we pass certain tipping points of energy imbalance and planetary heating, we will not be able to prevent the ensuing harm. A failure to act soon will ensure the collapse of earth's natural systems, resulting in a planet that is largely unfit for human life.

11. Plaintiffs thereby bring this action for declaratory relief to establish the atmosphere as a public trust resource, which imposes a continuing, mandatory obligation upon the State under the public trust doctrine to protect the atmosphere for the benefit of these Plaintiffs and all people of the State, an obligation that requires preservation of atmosphere for future generations.

## **PARTIES**

- 12. PLAINTIFF XIUHTEZCATL MARTINEZ is a minor residing in the city and county of Boulder, Colorado. TAMARA ROSKE is an individual residing in the City and County of Boulder, Colorado and is Xiuhtezcatl Martinez's natural mother and next friend. Xiuhtezcatl Martinez's claims herein are brought by and through Tamara Roske. Xiuhtezcatl Martinez is a person within the meaning of Colorado's Uniform Declaratory Judgments Law, C.R.S. § 13-51-101, et. seq.
- 13. Xiuhtezcatl Martinez is 11 years old. He is a beneficiary of the atmospheric trust and is owed a fiduciary duty by the State. He is keenly aware that the future effects are only part of the story because climate change is already affecting millions of people around the world, and the youngest generations will be hurt the most.

- 14. Climate change is adversely affecting Xiuhtezcatl Martinez now. For example, he has enjoyed playing and floating wooden boats in a stream near his house in Boulder, but the water levels have decreased over the past several years, which he is concerned is a result of human-induced climate change. He has also enjoyed hiking and playing in forests near Colorado's Brainard Lake that are now being impacted by pine beetles, as a result of human-induced climate change. He has experienced immense aesthetic enjoyment from this stream and these forests in the past and would like to continue to enjoy these places in the future, but is impaired in his ability to do so because of the devastation that is caused by climate change.
- 15. Xiuhtezcatl Martinez cares deeply about the protection of fish and wildlife in Colorado. He understands that accelerated climate change is the single biggest threat to wildlife. Xiuhtezcatl Martinez is gravely concerned about the impacts to ecosystems, habitats, and species in Colorado if the State does not take decisive action to reverse the impacts of climate change.
- 16. PLAINTIFF HAIDEN DAVIS is a minor residing in Gold Hill in the county of Boulder, Colorado. KATE INSKEEP is an individual residing in Gold Hill in the County of Boulder, Colorado and is Haiden Davis's natural mother and next friend. Haiden Davis's claims herein are brought by and through Kate Inskeep. Haiden Davis is a person within the meaning of Colorado's Uniform Declaratory Judgments Law, C.R.S. § 13-51-101, *et. seq*.
- 17. Haiden Davis is 12 years old. He is a beneficiary of the atmospheric trust and is owed a fiduciary duty by the State.
- 18. Climate change is adversely affecting Haiden Davis now. For example, he has enjoyed hiking, cross-country skiing, backpacking, mountain-biking, and walking in forests that are now being destroyed by pine beetles, as a result of human-induced climate change. Many of these forests are on public lands. He has experienced immense aesthetic enjoyment from these

forests in his past and would like to continue to enjoy the forests in the future, but is impaired in his ability to do so because of the devastation that is caused by climate change. Winter temperatures in recent years are not cold enough to kill off the beetles and, as a result, Haiden Davis has seen large areas of trees destroyed over the past five years. In the future, he may not be able to hike or cross-country ski on some of his favorite trails because of the danger of falling trees that have been killed by the pine beetle.

- 19. Haiden Davis is concerned that hotter, drier weather resulting from climate change will increase wildfires in Colorado. As pine forests become more susceptible to pine bark beetles and other pests, this also contributes to an increased wildfires. In September of 2010, of Gold Hill was September 2010, the Four Mile Canyon wildfire destroyed approximately 170 homes in and around Gold Hill, where Haiden Davis lives. Haiden Davis and his community are threatened by increased risk of wildfires due to climate change.
- 20. PLAINTIFF CECELIA KLUDING-RODRIGUEZ is an individual residing in the City and County of Boulder, Colorado. Cecelia is a person within the meaning of Colorado's Uniform Declaratory Judgments Law, C.R.S. § 13-51-101, *et. seq*.
- 21. Cecelia Kluding-Rodriguez is 18 years old. She is a beneficiary of the atmospheric trust and is owed a fiduciary duty by the State.
- 22. Climate change is adversely affecting Cecelia Kluding-Rodriguez now and will continue to cause her injury. She has asthma, which is exacerbated by climate change. More air pollution, more ozone, and more wildfires will worsen air quality, aggravating her asthma. A hotter climate also means earlier blooms in spring and a longer season for fall allergens such as ragweed and mugwort, which means more plants and more pollen, which can exacerbate asthma and respiratory diseases. Global warming poses a continuing threat to Cecelia Kluding-

Rodriguez's health.

- 23. Cecelia Kluding-Rodriguez cares deeply about the protection of fish and wildlife in Colorado. She enjoys being outdoors and fishing with her father near Boulder, Colorado. She understands that accelerated climate change is the single biggest threat to wildlife and is gravely concerned about the impacts to ecosystems, habitats, and species in Colorado if the State does not take decisive action to reverse the impacts of climate change.
- 24. PLAINTIFF ALEX BUDD is 18 years old. He is a beneficiary of the atmospheric trust and is owed a fiduciary duty by the State. Climate change is adversely affecting Alex Budd now and will continue to cause him injury.
- 25. Alex Budd enjoys and gains great educational scientific, aesthetic, and other benefits from hiking, backpacking, and camping in Colorado's forests and natural places. He enjoys the trees, wildlife, wildflowers, rivers, streams, and insects. He is acutely aware and concerned that all of these natural assets are at risk, and that many are already deteriorating, due to abnormal climate change. Alex Budd is being harmed currently by Defendants' failure to mitigate climate warming, and he will be further harmed in the future unless Defendants take action to protect the atmosphere, based upon the best available science.
- Alex Budd 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. Alex Budd is active in the "imatter campaign" and works to teach his peers about climate change and convince his government to protect the atmosphere for young and future generations.
  - 27. Xiuhtezcatl Martinez and Haiden Davis are also youth activists that work to

educate youth in Colorado about the imminence of the climate change crisis. They participate in global warming education demonstrations, in the hope of organizing their peers, parents, and community to take urgent action to protect the Earth from the dire consequences of climate change. Xiuhtezcatl Martinez, Haiden Davis, Cecelia Kluding-Rodriguez, and Alex Budd are passionately driven to take action to protect the atmosphere and combat human-induced climate change because they have learned how the burning of fossil fuels and increased emission of greenhouse gases melt snowpacks and glaciers, cause droughts and reduce water supplies, and compromise food production, putting their future and the lives of hundreds of millions of people in danger.

- 28. Plaintiff WILDEARTH GUARDIANS ("Guardians") is a non-profit conservation organization, with Colorado offices in Boulder and Denver. Guardians is dedicated to protecting and restoring wildlife, wild rivers, and wild places in the American West, and to safeguarding the Earth's climate and air quality. 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 Colorado and are beneficiaries of the public trust. Guardians is a person within the meaning of Colorado's Uniform Declaratory Judgments Law, C.R.S. § 13-51-101, et. seq.
- 29. Guardians' scientific and recreational interests in Colorado's surface waters and associated ecosystems will be irreparably harmed if the State fails to curb emissions of GHGs 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 Colorado'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 Colorado. Guardians' river and ecosystem restoration work has resulted in significant, measureable 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 Colorado's rivers and streams.

- 30. Plaintiffs bring this action because their personal and economic well-being is directly and uniquely dependent upon clean air, water, land, wilderness, fish and wildlife, and forests; and is threatened with injury from climate change due to increasing temperatures and excessive heat, rising sea levels, loss of water resources, diseases and pests, loss of agricultural productivity, wild fire, changes in precipitation patterns, extreme weather events, flooding, and other consequences of climate change.
- 31. The survival, health, recreational, scientific, cultural, inspirational, spiritual, educational, aesthetic, emotional well-being and other rights and interests of Plaintiffs are and will be increasingly adversely and irreparably injured by the State Defendants' failure to protect our State's public trust resources, unless the relief requested here is granted. Likewise, the ongoing breach of the duty to preserve and protect the atmosphere for present and future beneficiaries, which has not been abated or properly mitigated, will continue to adversely and irreparably injure the plaintiffs unless the relief requested here is granted. These are actual,

concrete injuries to Plaintiffs to a legally protected interest that would be redressed by the relief sought.

- 32. DEFENDANT STATE OF COLORADO is a sovereign State of the United States and, as trustee, holds the duty to protect and manage public trust resources for the benefit of its people, including future generations. Defendant State of Colorado has failed in its fiduciary duty to recognize and protect our atmospheric public trust resource, thereby injuring these Plaintiffs.
- 33. GOVERNOR JOHN HICKENLOOPER ("Gov. Hickenlooper") is sued in his official capacity as the Governor of the State of Colorado. He is vested with the supreme executive power of the state and shall take care that the laws be faithfully executed. Colorado Constitution, Art. 4, § 2. As Chief Executive Officer of the State of Colorado, Gov. Hickenlooper is charged with overseeing State actions, including the State's implementation of its public trust duties. Gov. Hickenlooper has failed to preserve and protect the atmosphere and has failed to effectively implement and enforce the laws under its jurisdiction for this purpose, for present and future generations, causing injury to these Plaintiffs.
- 34. DEFENDANT COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT ("CDPHE") is the Colorado regulatory Department with jurisdiction to "establish and enforce standards for exposure to environmental conditions . . . that may be deemed necessary for the protection of the public health." C.R.S. § 25-1.5-101(1)(1). CDPHE's mission is to protect and preserve the health and environment of the people of Colorado. CDPHE includes the Air Quality Control Division, which administers the State air quality programs; develops air quality attainment and maintenance plans to keep Colorado in compliance with the National Ambient Air Quality Standards; collects and analyzes ambient air quality data; and performs complex modeling analysis of air pollution impacts. Because it has

allowed greenhouse gas pollution at a rate that far outpaces what the atmosphere can naturally correct for, Defendant CDPHE has failed to carry out its duties under the Public Trust Doctrine, thereby injuring Plaintiffs.

- 35. DEFENDANT AIR QUALITY CONTROL COMMISSION ("Commission") was created by the legislature within CDPHE. C.R.S. § 25-7-104. The Commission develops air pollution control policy, implements the Colorado Air Pollution Prevention and Control Act, and regulates pollution sources, and conducts hearings involving violations of the state's air pollution laws. The nine-member citizen board is appointed by the governor, for three year terms, with the consent of the Senate. The Commission has failed to develop an air pollution control policy and to regulate pollution sources in a manner that protects the atmospheric trust resources from harm, thereby injuring Plaintiffs.
- 36. DEFENDANT COLORADO DEPARTMENT OF NATURAL RESOURCES ("DNR") is a state agency whose mission is to develop, preserve and enhance the state's natural resources for the benefit and enjoyment of current and future citizens and visitors. Defendant DNR has contributed to the waste of trust assets and otherwise failed to preserve and protect the atmosphere for current and future citizens, injuring the Plaintiffs.

#### **JURISDICTION AND VENUE**

- 37. Jurisdiction is based on the Colorado Constitution, Art. VI, § 9. Further, this court has jurisdiction over the subject matter of this case pursuant to Colorado's Uniform Declaratory Judgments Law, C.R.S. § 13-51-101, et. seq., and the public trust doctrine.
- 38. Venue is proper pursuant to C.R.C.P. 98(b), as the events or omissions giving rise to Plaintiffs' claims, or part thereof, arose in Boulder County, where Plaintiffs Xiuhtezcatl Martinez, Haiden Davis, and Cecelia Kluding-Rodriguez reside and their injuries have occurred.

- 39. Pursuant to C.R.C.P. Rule 57(j), all persons have been made parties who have or claim any interest that would be affected by the declaration requested herein.
- 40. An actual justiciable controversy exists between the parties sufficient to invoke this court's judicial power to enter a declaratory judgment. The declaratory relief sought would terminate this controversy.

## FACTUAL BACKGROUND

## **The Atmospheric Climate Emergency**

- 41. Over the past 200 years, the burning of fossil fuels, such as coal and oil, together with worldwide deforestation, have caused a substantial increase in the atmospheric concentrations of heat-trapping greenhouse gases ("GHGs"), particularly carbon dioxide (CO2), methane, and nitrous oxide. These gases prevent heat from escaping to space, like the glass panels of a greenhouse.
- 42. The average concentrations of GHGs had reached a natural balance over the past 800,000 years that fostered our ecosystems and led to civilization and agriculture as we now know it. Although the extent of GHGs changed and fluctuated, concentrations were never higher than 300 parts per million ("ppm"), and Earth's safe climate-zone was maintained.
- 43. The last century and a half of industrialization altered this balance. We have changed the atmosphere and its climate system by engaging in activities that add GHGs into the atmosphere at a rate that outpaces their removal through natural processes. These activities include burning fossil fuels, driving cars, raising livestock on an industrial scale, and cutting down forests. Although much excess CO2 is absorbed by the oceans and by plants (chiefly forests), the increase of GHG concentrations resulting from historic and current human activities has altered the Earth's ability to maintain the delicate balance of the energy it receives from the

sun and radiates back into space. This human-induced global energy imbalance has caused most of the global warming over the last 50 years.

- 44. We are continuing to add GHGs into the atmosphere at a rate that outpaces their removal through natural processes. In particular, the current and projected CO2 increase in the atmosphere is about a hundred times faster than has occurred over the past 800,000 years. This increase has to be considered in light of the lifetime of CO2 in the atmosphere. A substantial portion of every ton of CO2 emitted by humans persists in the atmosphere for as long as a millennium or more. Therefore, the concentration of CO2 in the atmosphere is the cumulative result of historic and current emissions.
- 45. CO2 emitted in the burning of fossil fuels is, according to best available science, the main cause of global warming in the past century. There are many heat-trapping gases (from methane to water vapor), but CO2 puts us at the greatest risk of irreversible changes if it continues to accumulate unabated in the atmosphere. From 1990 through 2009, the primary GHG emitted by human activities in the United States was CO2, representing approximately 84 percent of total GHG emissions. Climate scientists therefore focus on CO2 emission levels and reductions when defining targets for the long-term stabilization of atmospheric GHG concentrations.
- 46. The current CO2 concentration in our atmosphere is 390 ppm (compared to the pre-industrial concentration of 280 ppm). For March 2011, the monthly average concentration of CO2 in the atmosphere, as recorded at Mauna Loa, Hawaii, was 392.40 ppm. Current atmospheric CO2 concentrations greatly exceed the natural range of the last 800,000 years, which was 180 to 300 ppm. And, as the concentrations of GHGs continue to increase in the atmosphere, the Earth's temperature is climbing above our planet's safe climate-zone.

- 47. Concentrations of other GHGs in the atmosphere have also increased from human activities. Since 1750, atmospheric concentrations of methane ( $CH_4$ ) and nitrous oxide ( $N_2O$ ) have increased by over 148 percent and 18 percent, respectively.
- 48. Colorado's GHG emissions are rising more quickly than those of the nation as a whole. Colorado's GHG emissions in 2005 were 35 percent higher than in 1990 and, under a business-as-usual scenario, are projected to grow to 81 percent above 1990 levels by the year 2020.
- 49. U.S. Environmental Protection Agency ("EPA") recently found that 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). The EPA also concluded that "[t]he evidence points ineluctably to the conclusion that *climate change is upon us* as a result of greenhouse gas emissions, that climate changes are already occurring that harm our health and welfare, and that the effects will only worsen over time in the absence of regulatory action." 74 Fed. Reg. 18,886, 19,904 (April 24, 2009).
- 50. Increases in the release of greenhouse gases by human activities have intensified the greenhouse effect, leading to climate change. According to a U.S. Global Change Research Program report entitled <u>Global Climate Change Impacts in the United States</u>:

Observations show that warming of the climate is unequivocal. The global warming observed over the past 50 years is due primarily to human-induced emissions of heat-trapping gases. These emissions come mainly from the burning of fossil fuels (coal, oil, and gas) with important contributions from the clearing of forests, agricultural practices, and other activities.

51. 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. However, the acceleration of that increase has intensified over the last 30 years. In fact, eight of the ten warmest years during the period of instrumental records have occurred since 2001. As a result of this accelerated global warming, the Earth is now within 1.8°F (1°C) of its highest temperature in the past million years.

- 52. 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 warned that "[w]arming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level" and there is "very high confidence" that this warming is due to human activities. Further, the IPCC has concluded 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."
- 53. Scientists are already observing many other examples of climate-related changes in the United States and its coastal waters, including increases in heavy downpours, rising temperature and sea level, rapidly retreating glaciers, thawing permafrost, lengthening growing seasons, lengthening ice-free seasons in the ocean and on lakes and rivers, earlier snowmelt, and alterations in river flows.
- 54. In Colorado, climate change is already occurring, resulting in shorter and warmer winters, with a thinner snowpack and earlier spring runoff; less precipitation overall, and more falling as rain than snow; longer periods of drought; more wildfires, burning twice as many acres each year than before 1980; widespread beetle infestations wiping out pine forests, and die-off in aspen stands; and the rapid spread of West Nile virus due to higher summer temperatures. These impacts will intensify if there is a further increase of average annual temperatures.

- 55. 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 our State government 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° F (on average) above current levels.
- 56. The local and global impacts of anthropomorphic climate change are predicted to be severe. They include, but are not limited to an increase in global surface temperatures; significant changes in annual and seasonal temperatures; significant sea level rise; more frequent and intense heat waves; change in precipitation patterns; wildfires; hurricanes, typhoons, and other storms; flooding; degradation of air quality; drought; harms to water resources; harm to wildlife ecosystems; mass extinction of species; harm to agriculture; harm to humans in the form of increase in asthma, cardiovascular disease and stroke, heat-related morbidity and mortality, foodborne diseases, neurological disease and disorders, and displacement.
- 57. 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 Bureau of Reclamation concluded that climate change is likely to diminish already scarce water supplies in the Western United States, exacerbating problems for millions of water users in the West. Specific projections for the 21<sup>st</sup> century in western states included: a temperature increase of 5-7 degrees Fahrenheit; a precipitation increase over the northwestern and north-central portions of the western United States and a decrease over the southwestern and south-central areas; a decrease for almost all of the April 1st snowpack, a standard benchmark measurement used to project river basin runoff; and an 8 to 20 percent decrease in average annual stream flow in several river basins, including the Colorado, the Rio Grande, and the San

Joaquin. The report notes that projected changes in temperature and precipitation are likely to impact the timing and quantity of stream flows in all western basins, which could impact water available to farms and cities, hydropower generation, fish and wildlife, and other uses such as recreation.

- According to Colorado's Climate Action Plan, scientists project that Colorado and neighboring western states will see: temperatures increasing by **3 to 4° F by 2030**; longer and more intense wildfire seasons; midwinter thawing and much earlier melting of snowpack, resulting in flooding, a shortened ski season by three to six weeks, and added stress on reservoirs; much lower flows in rivers in the summer months and a greater vulnerability to drought; water shortages and heat stress for irrigated agriculture; slower recharge in groundwater aquifers; movement of plant and animal species to higher elevations and latitudes; less snow cover and more winter rain on farm lands; more weeds, and insect attacks in forests.
- 59. Global heating is significantly and adversely impacting the Earth's climate. Although some degree of global heating is a normal natural phenomenon, the trend of global heating in the past several decades has occurred largely 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.
- 60. Changes in climate are occurring faster than even the most pessimistic scenarios presented at the 2007 IPCC. 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 threaten the planet's habitability for humans as well as countless other species.
  - 61. Climate models project Colorado will warm 2.5°F [+1.5 to +3.5°F] by 2025,

relative to the 1950–99 baseline, and 4°F [+2.5 to +5.5°F] by 2050. Multiple studies conclude that a further increase of average annual temperatures of 2° C (3.6° F) above current levels would cause severe, widespread and irreversible impacts.

- evidence and grave concern that Earth's temperature has already increased to the extent that "tipping points" are now upon us. The "tipping point" concept is that climate can reach a point where, without any additional forcing (eg: releases of CO2 into the atmosphere) rapid changes proceed out of our control. Within this concept, the *tipping level* is the global climate forcing that, if long maintained, gives rise to a specific consequence; and *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.
- 63. Today's atmospheric CO2 levels exceed 390 ppm and are continuing to rise. This is already too high to maintain the climate to which humanity, wildlife, and the rest of the biosphere are adapted. Continued growth of CO2 emissions, for just another decade, practically eliminates the possibility of near-term return of atmospheric composition beneath the tipping level for catastrophic effect.
- 64. Based upon the best available science by leading climatologists, including Dr. James Hansen of the NASA Goddard institute for space studies and Columbia University Earth Institute, atmospheric CO2 levels must be reduced to at most 350 ppm by the end of the century, if humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted.

- 65. The best available science also shows that to protect Earth's natural systems, average global peak surface temperature must not exceed 1° C above pre-industrial temperatures this century. To prevent global heating greater than 1° C and to protect Earth's oceans (an essential harbor of countless life forms and absorber of GHGs), concentrations of atmospheric CO2 must decline to less than 350 ppm by the end of this century.
- 66. To reduce CO2 in the atmosphere to 350 ppm by the end of the century, best available science concludes that CO2 emissions need to peak no later than 2012 and begin to decline at a global average of at least 6% each year, beginning in 2013, through 2050. After 2050, CO2 emissions could decline at 5% per year. However, if CO2 emissions continue to rise until 2020, CO2 emissions must decline by 12% per year to reach 350 ppm by the end of the century. The sooner the State Defendants take the necessary action to draw down the excessive CO2 from the atmosphere and to fulfill the State's public trust responsibilities, the easier these reductions will be.
- 67. Today, CO2 concentrations have already exceeded 390 ppm and are projected to exceed 400 ppm by 2020. To prevent this from happening and to reach 350 ppm by 2100, it is essential that we draw down the carbon dioxide from the atmosphere by immediately and also undertaking significant reforestation.
- 68. To return Earth's energy balance, to protect our atmosphere, and to fulfill the State's fiduciary responsibilities, the State Defendants must significantly reduce Colorado's fair share of annual CO2 emissions, in order to draw down atmospheric CO2 to less than 350 ppm by the end of this century. The public trust doctrine requires this action and the Plaintiffs and future generations of this State deserve no less.

## **Colorado's Climate Change Initiatives and Failures**

- 69. The State Defendants' existing climate change plans are insufficient to meet the State's public trust obligations to protect the atmosphere. Further, the State Defendants are not on course to meet the goals set forth in the Colorado Climate Action Plan.
- 70. The State has acknowledged that Colorado's greenhouse gas emissions are steadily climbing, contributing to a worldwide climate change crisis. The State has also expressly admitted that climate change is real and poses an imminent and growing threat to the lives and livelihood of the citizens of Colorado.
- 71. In November 2007, Governor Bill Ritter, Jr., announced the Colorado Climate Action Plan. Described by the governor as a first installment and a living document, it outlines actions to be taken to achieve the climate-protection goals at its centerpiece: a 20% reduction in Colorado's emissions of GHG emissions by 2020 and an 80% reduction by 2050, both in comparison to 2005 levels.
- 72. On April 22, 2008, Governor Bill Ritter issued Executive Order D 004 08, "Reducing Greenhouse Gas Emissions in Colorado," which established reduction goals for greenhouse gas emissions (20 percent by 2020 and 80 percent by 2050, both from 2005 levels); directed CDPHE to develop regulations mandating the reporting of GHG emissions; requested the Public Utilities Commission to require each utility under its jurisdiction to submit electric resource plans for meeting GHG reduction goals; and directed CDPHE to propose regulations requiring reduced GHG emissions from passenger motor vehicles.
- 73. Executive Order D 004 08 directed State agencies to join in a statewide effort, coordinated by CDPHE, the Department of Natural Resources, the Department of Agriculture, Governor's Energy Office, and the Governor's Office of Policy and Initiatives, to achieve the

following greenhouse gas emissions reduction goals: by 2020, to reduce greenhouse gas emissions in Colorado to 20% below its 2005 level, and by 2050, to reduce greenhouse gas emissions in Colorado to 80% below its 2005 levels.

- 74. Governor Ritter also signed Executive Order D 010 08, establishing an agricultural sequestration offset program, and Executive Order B 007 08, establishing the Colorado Climate Advisory Panel.
- 75. The reduction goals set forth in Executive Order D 004 08 (20 percent by 2020 and 80 percent by 2050, both from 2005 levels) are not sufficient to reduce the State of Colorado's fair share of annual carbon dioxide emissions in order to draw down atmospheric carbon dioxide by at approximately 40 ppm by the end of this century.
- 76. Further, Colorado is not on course to meet the GHG reduction goals set forth in Executive Order D 004 08. The State Defendants have not taken sufficient action to meet the goals set forth therein.
- 77. Pursuant to the Colorado Air Pollution and Prevention Control Act ("Act"), C.R.S. § 25-7-100, et seq., it is the policy of the State of Colorado to "achieve the maximum practical degree of air purity in every portion of the state, to attain and maintain the national ambient air quality standards, and to prevent the significant deterioration of air quality in those portions of the state where the air quality is better than the national ambient air quality standards" for the purpose of fostering "the health, welfare, convenience, and comfort of the inhabitants of the state of Colorado and to facilitate the enjoyment and use of the scenic and natural resources of the state." C.R.S. § 25-7-102. Further, our legislature declared "that the prevention, abatement, and control of air pollution in each portion of the state are matters of statewide concern and are affected with a public interest and that the provisions of this article are

enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, safety, and general welfare of the people of this state. <u>Id.</u>

- 78. The Commission has the authority to regulate GHG, including CO2, under the Act, but has failed to do so. The Commission is responsible for promulgating rules and regulations that are consistent with this legislative declaration and "necessary for the proper implementation and administration" of the Act. C.R.S. § 25-7-105. CO2 is subject to regulation by the Commission because it is an "air pollutant" under Act, which is defined as "any fume, smoke, particulate matter, vapor, or gas or any combination thereof which is emitted into or otherwise enters the atmosphere . . ." C.R.S. § 25-7-105.
- 79. The State Defendants have failed to use their authority for the protection of the atmosphere, a valuable public trust resource that belongs to present and future generations of Colorado citizens.

## **LEGAL FRAMEWORK**

- 80. 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. 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).
- 81. 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 . . . " 2

William Blackstone, <u>Commentaries on the Laws of England</u> 4 (1766). 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. Following the American Revolution, the public trust doctrine was likewise adopted into the American common law.

- 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 Central Railroad v. Illinois, 146 U.S. 387, 13 S.Ct. 110 (1892)("The state can no more abdicate its trust over property in which the whole people are interested . . . than it can abdicate its police powers in the administration of government and the preservation of the peace. . . "); see also Geer v. State of Conn., 161 U.S. 519, 534 (1896)("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."), over'd 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).
- 83. 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, 958 P.2d 273 (Wash. 1998).

- 84. 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 to protect the public trust run to all three branches of the government, and cannot be abdicated by any branch.
- 85. The duty to protect includes the duty to ensure the continued availability and existence of trust resources for present and future generations and the duty to promote the development and utilization of trust resources in a manner consistent with their conservation. When damage or injury is done to elements of the public trust, or to the public values and uses, impairment has occurred.
- 86. The public trust doctrine imposes an affirmative, inalienable obligation on the State to preserve and protect the people's trust assets from damage or loss, and not to use the asset in a manner that causes injury to present and future trust beneficiaries.

## **Public Trust Doctrine in Colorado**

87. The Colorado legislature has recognized the public trust doctrine, declaring that "[i]t is the policy of the state of Colorado that the natural, scenic, scientific, and outdoor recreation areas of this state are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and visitors of this state." C.R.S. § 33-10-

- 101(1). Further, "[i]t is the policy of the state of Colorado that the wildlife and their environment are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and its visitors." C.R.S. § 33-1-101(1).
- 88. The Colorado general assembly has also recognized and declared that "certain lands and waters of this state representing diverse ecosystems, ecological communities, and other natural features or phenomena, which are our natural heritage, are increasingly threatened with irreversible change and are in need of special identification and protection and that it is in the public interest of present and future generations to preserve, protect, perpetuate, and enhance specific examples of these natural features and phenomena as an enduring resource." C.R.S. § 33-33-102.
- 89. The preamble to the Colorado Constitution declares that our constitution is established, in part, to "promote the general welfare" of "ourselves and our posterity."
- 90. As Colorado law requires protection and preservation of this state's natural resources for the benefit of the people and future generations, application of the public trust doctrine to the atmosphere is appropriate.
- 91. In Colorado, our statutory mandates regarding protection of the state's natural resources, wildlife, and environment leave no doubt that the atmosphere is squarely within the domain of the public trust. The atmosphere is a navigable space that is not subject to private ownership. As such, the State has an affirmative statutory and common law duty to protect the atmospheric trust for current and future generations.
- 92. The atmosphere is a fundamental natural resource that is essential to all facets of civilization and human survival. Protection of a resource necessary for our survival is a public benefit. The atmosphere is "a subject of public concern to the whole people of the state."

<u>Illinois Central</u>, 146 U.S. at 455. Our atmosphere is a fundamental natural resource entrusted to the care of our governments, in trust, for its preservation and protection as a common property interest.

- 93. Whether the public trust doctrine applies to the resource in question is a question of state law. Although this question is an issue of first impression in Colorado, other jurisdictions have recognized the applicability of the public trust doctrine to air generally.

  National Audubon Society v. Superior Court of Alpine County, 658 P.2d 709, 720 (1983)

  (recognizing that the "purity of air" is protected by the public trust); Majesty v. City of Detroit, 874 F.2d 332, 337 (6<sup>th</sup> 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).
- 94. The public trust is an attribute of sovereignty that cannot be abrogated. As long as the sovereign exists, so do its public trust duties. As trustee of this shared atmosphere, the State has a fiduciary and ongoing affirmative duty to preserve and protect it for its present citizens and future generations as beneficiaries of this trust asset.
- 95. Defendants' public trust duty is a continuous one. Presently, injury exists to atmospheric resources, and it is the State's continuous and ongoing duty to correct this injury for the benefit of its people.

- 96. The sovereign's fiduciary duty in this instance is defined by scientists' concrete prescriptions for GHG emission reductions, particularly for CO2. Scientists have clearly expressed the minimum CO2 reductions that are needed to restore the Earth's climate equilibrium, and the requisite timelines for implementation of those reductions. State Defendants may not disclaim this fiduciary duty, and are subject to an ongoing mandatory duty to preserve and protect these resources.
- 97. The atmosphere is necessarily within the ambit of the public trust doctrine. The State Defendants have an affirmative common law and statutory duty to protect the atmospheric trust for current and future generations. Now is the hour to breathe life into the public trust doctrine and recognize that its historical origins have as much effect today as they did 1,500 years ago.

## PLAINTIFFS' CLAIM FOR RELIEF

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

- 98. Plaintiffs incorporate the allegations in all preceding paragraphs of this Complaint as if set forth in full herein.
- 99. The State Defendants are subject to the public trust duty as trustee of the natural resources of Colorado, including the atmosphere.
- 100. The State of Colorado, as a sovereign state, has an affirmative duty as trustee to protect and preserve the atmosphere, a public trust asset.
- 101. The State's fiduciary duty to protect the atmospheric trust can only be defined by the best available scientists' concrete prescriptions for reductions in greenhouse gas emissions, including carbon dioxide emissions.

- 102. The State Defendants' existing climate change plans are insufficient to meet the State's public trust obligations to protect the atmosphere.
- 103. The State Defendants, by their actions of causing, approving and allowing too many carbon emissions into the atmosphere and by failing to reduce greenhouse gas emissions based upon the best available science, have breached and are continuing to breach their duty as trustees.
- 104. The State Defendants' waste of, and failure to preserve and protect the atmosphere public trust asset has caused and will continue to cause imminent injuries as described above from increased greenhouse gas emissions, global heating and adverse impacts to Colorado's natural resources.
- 105. The State Defendants have an affirmative and ongoing duty to protect and preserve the atmosphere as a public trust resource, including establishing and enforcing limitations on the levels of greenhouse gas emissions based up on the best available science, and as necessary to prevent climate change from denying these Plaintiffs a livable future.
- 106. Because the State's failure to act to protect public trust resources violates the public trust doctrine, and its statutory and common law underpinnings, the Plaintiffs are entitled to a judgment declaring such actions in violation of the law.
- 107. Plaintiff hereby seeks declaratory relief, pursuant to the Colorado Declaratory Judgments Law, §§ 13-51-101 et seq., and C.R.C.P. Rule 57.
- 108. In requesting this declaratory relief, plaintiff is requesting an interpretation of the rights, legal status and relationships of the parties under the above law and facts.
- 109. Such interpretation is appropriate under the provisions of the Uniform Declaratory Judgments Law, §§ 13-51-101 et seq., and C.R.C.P. Rule 57.

#### PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the court:

- A. Declare the public trust doctrine is operative in Colorado and, pursuant to this doctrine, the State holds the atmosphere in trust for the public;
- B. Declare that the State Defendants have a fiduciary duty to protect the natural resources they hold in trust for the benefit of the citizens of Colorado;
- 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 Defendants, by their actions of causing, approving and allowing too many carbon emissions into the atmosphere, and by failing to reduce greenhouse gas emissions based upon the best available science, have breached and are continuing to breach their duty as trustees.
- E. Declare that the State's ongoing fiduciary duty to protect the atmosphere as a trust resource is defined by the best available science;
- F. Declare that to meet the State's ongoing fiduciary responsibilities under the public trust doctrine, the State Defendants must significantly reduce Colorado's greenhouse gas emissions based upon the best available science;
- G. Grant such other relief as the Court deems appropriate or necessary.

WHEREFORE, Plaintiffs request that the Court determine the rights, status or other legal relations of the parties under the above law and facts, and for all other relief to which Plaintiffs may be entitled.

# Respectfully submitted,

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Dated: May 20, 2011

By: Signature of Ashley D. Wilmes is on file at the office of Ashley D. Wilmes. Signature of James J. Tutchton is on file at the office of James J. Tutchton.