

**STATE OF NEW MEXICO  
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

**IN THE MATTER OF THE PETITION FOR )  
HEARING TO ADOPT NEW REGULATIONS )  
AND TO AMEND VARIOUS SECTIONS OF )  
20.2.1, 20.2.2, 20.2.70, and 20.2.72 NMAC, )  
STATEWIDE CAP ON GREENHOUSE GAS )  
EMISSIONS )  
\_\_\_\_\_ )**

**No. EIB 08-19(R)**

**ENTRY OF APPEARANCE OF  
Amigos Bravos, Inc.**

COMES NOW Amigos Bravos, Inc., and pursuant to Rule 20.1.1.303 hereby enters its appearance in this proceeding. In support thereof Amigos Bravos states the following:

1. Amigos Bravos is a nationally recognized New Mexico river conservation organization guided by social justice principles and dedicated to preserving and restoring the ecological and cultural integrity of New Mexico’s rivers and watersheds. Amigos Bravos’ mission is *to return New Mexico’s rivers to drinkable quality wherever possible; to see that natural flows are maintained and that artificial flows are regulated to protect and reclaim the river ecosystem; to preserve and restore native riparian biodiversity; to support environmentally sound and sustainable traditional ways of life; and to ensure that environmental and social justice go hand-in-hand.*

2. Amigos Bravos has identified the impacts of global warming to be a primary threat to the sustainability of New Mexico’s rivers. During Amigos Bravos’ most recent Strategic Plan process (11/07), participants declared climate change as one of three pressing action issues and urged Amigos Bravos to “develop water-related policies, management priorities, and restoration initiatives that will offset impacts of global warming and climate change.”

2. Amigos Bravos supports the Petition and deems it necessary that New Mexico

establish a mandatory, science-based cap on global warming pollution. The cap should be set at levels consistent with what science tells us is necessary to prevent the worst impacts of global warming. At minimum, New Mexico needs to reduce total emissions by 25 percent below 1990 levels by 2020 and 80 percent by 2050. To assist in this goal, strong public policies designed to accelerate the transition to 100 percent clean renewable energy are needed.

3. Globally, the year 2007 tied for the second warmest year on record, behind the record warmth of 2005. This warmth is part of a long-term trend toward rising temperatures and extreme weather events resulting from global warming. Global average surface temperatures have increased by more than 1.4°F since the mid-19th century. In 2007, the United Nations' Intergovernmental Panel on Climate Change concluded that the evidence of global warming is "unequivocal" and that human activities are responsible for most of this rise in temperature. To examine recent temperature patterns in the United States, Environment New Mexico compared temperature data for the years 2000–2007 with the historical average, or "normal," temperature for the preceding 30 years, 1971–2000

([http://www.environmentnewmexico.org/uploads/\\_z/Q9/\\_zQ94E2NXsp07HUP3SZ6hA/feeling\\_the\\_heat\\_nm.pdf](http://www.environmentnewmexico.org/uploads/_z/Q9/_zQ94E2NXsp07HUP3SZ6hA/feeling_the_heat_nm.pdf)). Data was collected at 255 weather stations—those with the highest quality data—in all 50 states and Washington, DC. Overall, temperatures were above the 30-year average across the country, indicating pervasive warming. New Mexico average temperature degrees above normal from 2000-2007:

- Albuquerque—3 degrees
- Clayton—1.4
- Roswell—1.8

The above-average temperatures in 2007 are consistent with the trend toward rising temperatures

in states across the country. For example, between 2000 and 2007, Arizona experienced its 3rd, 6th, 7th, 8th, and 10th warmest years on record; Colorado its 4th, 5th, 6th, and 9th warmest years; New Mexico its warmest, 4th warmest, and 9th warmest years; and Utah its 2nd, 3rd, 5th, and 6th warmest years. (National Oceanic & Atmospheric Administration, National Climatic Data Center, generated using query system at “Climate at a Glance,” U.S. Statewide Analysis, accessed at [www.ncdc.noaa.gov/oa/climate/research/cag3/state.html](http://www.ncdc.noaa.gov/oa/climate/research/cag3/state.html) on 23 September 2008)

4. Climate scientists applying global models to the American West have concluded that it is warming faster than many other regions of the globe. The West is 2-3° warmer than the 100-year average (the earth as a whole is about 1° warmer). Computer models show that annual average temperatures in the West will be up 4-5° by mid-century, causing serious long-term drought and dropping stream flows as much as 20% by 2050. By the end of the century, the average temperature could be as much as 7-8° higher than the 100-year average.

5. In December 2008, the US Geological Survey (USGS) issued a new report updating current understanding of four types of rapid climate change that have happened in the past and assessing the likelihood that these abrupt changes could happen again – or, in some cases, may have already begun (<http://downloads.climate-science.gov/sap/sap3-4/sap3-4-final-report-all.pdf>). The USGS report concluded that, “the southwestern United States may be beginning an abrupt period of increased drought”. New highly-sophisticated models indicate that this “permanent” (long-term) drying will take place by mid-21<sup>st</sup> century, if it has not already begun. The predicted changes in global hydroclimates will result in arid and semi-arid regions (such as in New Mexico and across the Southwest) experiencing highly-stressed water supplies and increased intensity of storm events. The latest regional study, *Colorado River Basin Water Management* (<http://www.nap.edu/catalog/11857.html>) reveals that water management plans in

the Colorado River Basin were based on several abnormally wet decades and suggests that future droughts will recur and may exceed the severity of historical droughts.

6, The April 2007 International Panel on Climate Change (IPCC) report also included new regional reports, based on better modeling capacity. Richard Seager, senior geophysicist at the Lamont Doherty Earth Observatory at Columbia University, warned that, "according to the models, in the Southwest a climate akin to the 1950s drought becomes the new climate within the next few years to decades." In other words, the climate in the Southwest will not be marked by periodic droughts; instead, it will "transition" within a few decades to a condition of "permanent" (centuries-long) drought as the "base" climate. (See: "Permanent dust bowl could be NM future", <http://www.abqjournal.com/news/state/552715nm04-06-07.htm>; "Permanent drought predicted for Southwest", <http://www.latimes.com/news/nationworld/nation/la-sci-swdrought6apr06,1,1875684.story>).

7. Taking the analysis down to the state level, the New Mexico Environment Department ([http://www.nmenv.state.nm.us/aqb/cc/Potential\\_Effects\\_Climate\\_Change\\_NM.pdf](http://www.nmenv.state.nm.us/aqb/cc/Potential_Effects_Climate_Change_NM.pdf)) concluded that impacts on New Mexico could be even more severe than in the West as a whole. Projected climate changes by mid- to late-century include:

- average air temperatures warmer by 6-12°F
- more intense storm events and flash floods
- winter precipitation falling more often as rain, with less snowpack
- an expected severe multi-year drought worsened by higher evaporation rates
- water supply systems with no storage (many acequia systems) or limited storage (small municipal reservoirs) suffering seasonal shortages in summer
- riparian ecosystems experiencing decline, with a reduction in species diversity

- forests likely to experience more catastrophic wildfires and more massive dieback
- potential impacts disproportionately affecting communities of color and low- income communities, raising issues of environmental justice; traditional subsistence systems (farming, grazing, hunting) are likely to be severely impacted by climate change and local extinctions of plants and animals integral to the cultural and spiritual life of Native American communities will be highly disruptive to their cultural identity

In July 2006, the Office of the State Engineer (OSE) released its own study

(<http://www.nmdrought.state.nm.us/>), in which it warns of lasting changes to water flows and supplies. “Climate change will likely have a significant impact on the availability of and demand for New Mexico’s water during the next century.”

8. According to Technical Report #45 “Climate Change and Its Implications for New Mexico’s Water Resources and Economic Opportunities” published by New Mexico State University (August 2008; available at: <http://agecon.nmsu.edu/bhurd/hurdhome/index.htm>), “(s)ocial, economic and environmental systems in water-scarce New Mexico and throughout the arid southwest are vulnerable to disruptions in water supplies that are likely to accompany future climate changes.” The Report goes on to state that “(w)hile total annual economic losses are estimated in the vicinity of \$300 million, under severe climate changes, where run off is reduced by nearly 30%, both economic and non-economic losses are estimated to be significantly higher.” In fact, the report notes that non-economic losses – losses of cultural practices and traditional life ways and losses of environmental services – are really incalculable.

9. In the last 150 years, human activities— primarily the burning of fossil fuels— have substantially increased the concentration of greenhouse gases in the atmosphere. The burning of fossil fuels—coal, oil, and natural gas—produces the majority of U.S. emissions of

heat-trapping gases. According to initial government estimates of 2007 emissions, energy-related carbon dioxide emissions grew by 1.6 percent in 2007. From 1990 to 2007, total U.S. carbon dioxide emissions from energy use increased by approximately 19 percent. (U.S. Department of Energy, Energy Information Administration, U.S. Carbon Dioxide Emissions from Energy Sources, May 2008.) The United States is responsible for far more of the carbon dioxide in the atmosphere than any other country. From the beginning of the Industrial Revolution through 2005, the United States emitted approximately 28 percent of the carbon dioxide released into the earth's atmosphere.

10. Global warming is the defining environmental and economic challenge of our time. The latest climate science tells us that the United States and the world must break its dependence on fossil fuels and transition rapidly to 100 percent clean, renewable energy if we hope to avoid the most catastrophic effects of global warming.

11. The effects of global warming are accelerating climate change at a rate that raises the issue to the top of the world environmental agenda. With so much to do, and so little time, New Mexico cannot afford to ignore the implications of global warming on the state's water resources. New Mexico is expected to experience a significant change in the spring hydrograph (affecting both riverine and riparian ecosystems and agricultural functions) and considerable reduction in river flows due both to reduced and altered precipitation and to increasing rates of evapo-transpiration. Water quantity changes will lead to water quality changes as increased water temperature, decreased flows, and more severe storm events increase levels of contaminants in the water. Amigos Bravos works to restore key functions of the watershed in ways that will help address the effects of climate change. We do this through watershed restoration, calls for better local and state water and land-use planning (and their

interconnection), codifying the right to a clean and healthy environment, and a wide range of policy and regulatory initiatives. However, while Amigos Bravos can and does act to help our rivers and watersheds – and the communities they sustain – through both mitigation and adaptation efforts, we all need to go further and address the root cause: human-induced climate change and disruption.

12. Amigos Bravos, Inc. enters its appearance in this proceeding to examine and present comments, evidence and argument concerning this matter.

13. Amigos Bravos, Inc. should be served with copies of all pleadings and other documents filed in this proceeding by any participant. Service should be provided to:

Amigos Bravos  
PO Box 238 / Taos NM 87571  
Phone: 575-758-3874; 505-362-1063 (cell)  
E-Mail: [mjensen@amigosbravos.org](mailto:mjensen@amigosbravos.org)

WHEREFORE, for the foregoing reasons, Amigos Bravos, Inc. enters its appearance in this proceeding.

Respectfully submitted,

Amigos Bravos, Inc.



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Dated: March 31, 2009