



**CHANGE THE FORECAST FOR WILDLIFE**  
SOLUTIONS TO GLOBAL WARMING

## Global Warming and COLORADO

Colorado's growing population is putting pressure on the state's water resources like never before. Global warming may well make the state's water woes even more troubling in the decades to come. The Environmental Protection Agency estimates average temperatures in Colorado could rise about 5 degrees Fahrenheit by 2100 if global warming continues unabated. This will likely bring hotter, drier summers. Wildfires may increase, droughts will get worse and rains—when they do come—will likely come in more severe downpours that may cause flash flooding. Warmer temperatures also mean less snowpack in the mountains. Earlier snowmelt would mean more winter runoff and reduced summer flows in many Colorado streams.



### Global warming effects on Colorado wildlife

Colorado is home to an incredible diversity of native wildlife species, including 371 birds, 133 mammals, 49 reptiles and 17 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Global warming could reduce habitat for Colorado's cool- and cold-water fish, including the endangered greenback cutthroat trout, whose habitat has already been significantly reduced due to competition with non-native fish species. While higher average water temperatures could improve the productivity of populations currently limited to the colder headwater reaches, those already at the edge of their tolerance levels could face declines.
- Much of the Platte River basin in Colorado, Wyoming and Nebraska depends on snowmelt and spring and summer rains as its primary sources of water. Higher average temperatures and reductions in average snowpack due to global warming would contribute to a

reduction in marshes that provide important roosting areas for migrating whooping cranes, sandhill cranes and waterfowl.

- Many alpine and sub-alpine species like the American pika may be threatened as tree lines rise by roughly 350 feet for each degree Fahrenheit of warming. Pikas spend their lives in high elevation islands on alpine peaks in the Rocky Mountains, giving them little option to escape the pressures of global warming.



JR Douglass (NPS)

### What is Global Warming?

When coal, gas and oil are burned, they produce carbon dioxide that builds up in the atmosphere and traps the sun's heat. Much of this greenhouse gas released today remains in the atmosphere after even 100 years, trapping more and more heat.

Since the mid-1800s, emissions of carbon dioxide have skyrocketed, and subsequently global temperatures have risen by about 1 degree Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

Unless we reduce the pollution that causes global warming, temperatures could climb between 2-10 degrees Fahrenheit this century. Such a rapid rise in temperature would fundamentally reshape the planet's climate, forever changing the landscape and water resources people and wildlife depend upon.



## What's at stake for Coloradans?

Over the last 100 years, precipitation has decreased by up to 20 percent in many parts of Colorado, putting a heavy strain on the state's water resources. These destructive weather events are just one way global warming will likely touch the lives of Coloradans, as the warmer climate resonates through tourism, agriculture, wildlife recreation and timber industries.

- The recent drought has left Colorado struggling with half-full reservoirs and the challenge of meeting the water needs of a growing population.
- The ski industry is taking note of the threat global warming poses to the sport. Fourteen ski resorts in Colorado have signed onto a letter supporting the Climate Stewardship Act and many have taken steps to reduce their own greenhouse gas emissions.
- EPA analyses show that global warming could cause yields of Colorado's two major crops, corn and wheat, to fall anywhere from 8-33 percent as water shortages lead to less soil moisture and less water for irrigation.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2001, more than 2.1 million people spent more than \$2 billion on hunting, fishing and wildlife viewing in Colorado, which in turn supported more than 41,000 jobs in the state.

**“Global warming poses an overriding challenge to our responsibility to protect wildlife for our children’s future. We must advance balanced solutions that work for people, wildlife and the economy to overcome this challenge.”—**

**Larry Schweiger**  
*President, CEO*  
*National Wildlife Federation*

### THE CLIMATE STEWARDSHIP ACT:

The Climate Stewardship Act is a bipartisan plan of action in Congress that sets achievable goals for reducing global warming pollution in the United States. The bill requires power plants, oil companies and other major sources to collectively reduce emissions of carbon dioxide and other greenhouse gases to what they emitted in the year 2000. The bill also allows businesses to implement their own solutions, using a flexible emissions trading system that has successfully reduced air pollution under the Clean Air Act at a fraction of the anticipated costs. The Act will:

- Create more than 10,000 new energy technology jobs in Colorado by the year 2020.
- Provide Colorado with at least \$10 million each year in additional wildlife conservation funding to help protect the state's wildlife from the impacts of global warming.
- Provide new income to Colorado's farmers by rewarding environmentally friendly farming and forestry practices.

For more information, visit:  
[www.nwf.org/globalwarming](http://www.nwf.org/globalwarming).



## Colorado's solutions to global warming

Colorado has a number of incentives to encourage people and businesses to incorporate alternative and renewable sources of energy into their daily lives, cutting carbon pollution and helping to slow global warming.

- In November, 2004, Colorado voters passed a landmark statewide renewable energy requirement. The law requires Colorado's large utility companies to provide 10 percent of their electricity sales from renewable sources by 2015.
- Colorado has the potential to generate more than 1,100 percent of its electricity needs from wind power and more than 35 percent from geothermal energy, giving it the potential to be a leader in the new renewable energy market.

Following some simple guidelines, you can cut your global warming pollution, become more energy efficient and give something back to nature.

- **Cut back on mowing:** If the 6 million people who buy new homes every year designed water-conserving landscaping, they would collectively save 250 billion gallons of water and prevent 2.2 million tons of carbon pollution from being emitted each year.
- **Convert to compact fluorescent bulbs:** If every household in America replaced its next burned out light bulb with a compact fluorescent, we would prevent more than 13 billion pounds of carbon dioxide from being emitted. That's the same as taking 1.2 million cars off the road for an entire year.
- **Act locally:** Contact your mayor and ask that (s)he sign the U.S. Mayors Climate Protection Agreement, committing your city or town to meet or beat the global warming pollution reductions outlined in the Kyoto Protocol, an international treaty being implemented by 141 countries, but not the United States.

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