



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and WYOMING

Wyoming's glaciers are melting at a rapid pace due to milder temperatures brought on by global warming. The Intergovernmental Panel on Climate Change estimates average temperatures in Wyoming could rise about 6.75 degrees Fahrenheit by 2100 if global warming continues unabated. This will likely cause most, if not all, of the state's glaciers to disappear. Wildfires may increase, droughts could get worse and rains—when they do come—will likely come in more severe downpours that may cause more flash flooding. Warmer temperatures also mean less snowpack in the mountains and earlier snowmelt, leading to more winter runoff and reduced summer flows in many Wyoming streams. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



Global warming effects on Wyoming wildlife

Wyoming is home to an incredible diversity of native wildlife species, including 295 birds, 109 mammals, 56 fish, 22 reptiles and 13 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- The milder winters expected under global warming scenarios could contribute to more severe outbreaks of insects such as the pine bark beetle, which can kill trees and make forests more vulnerable to wildfires.
- Global warming is likely to alter essential habitat in the Greater Yellowstone Ecosystem. Not only will the risk of wildfires increase, but warmer, drier conditions could reduce whitebark



pine forests by as much as 90 percent within 50 years, significantly reducing a critical food source for red squirrels and other wildlife.

- Researchers at the University of Wyoming estimate that a 5.4-degree Fahrenheit increase in average July temperatures could eliminate 50 percent of currently viable trout stream habitat in the Rocky Mountain region before the end of this century.

Global Warming Pollution

Burning coal, gas and oil produces carbon dioxide, which is a greenhouse gas that warms the planet as it builds up in the atmosphere. Some of the carbon dioxide 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, causing global temperatures to rise by about 1° Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

A Global Solution

The U.S. must lead the world by passing global warming legislation at home and working with other nations at the Copenhagen climate summit at the end of 2009 to sign a new climate treaty that keeps further warming below 2° Fahrenheit. With

a global solution, we can avoid the worst impacts of global warming.



What's at stake for Wyomingites?

Global warming threatens not only to degrade the natural forest and aquatic ecosystems of Wyoming but also the health and economy of the state.

- Warmer winters could seriously hurt Wyoming's ski industry, as less snow and reduced snowpack lead to more unpredictable seasons. To compensate, resorts would have to spend more money on costly snow-making.
- Snowpack also stores much of Wyoming's clean water supply for drinking, agriculture and wildlife. Any reduction would increase pressures on this valuable and scarce resource.
- As a result of global warming, plants and animals adapted to warmer climates are beginning to shift the environmental balance in places like Yellowstone National Park. This crowds out native species, impacting the entire ecosystem.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, 977,000 people spent more than \$904 million on hunting, fishing and wildlife viewing in Wyoming. The industry in turn supported 16,105 jobs in the state.* (*Jobs are an average of 2001 and 2006 data.*)

“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

GLOBAL WARMING NATIONAL POLICY SOLUTION:

A federal legislative solution can drive American ingenuity, create millions of green jobs, and restore America's global leadership on global warming. Legislation should:

- * Include ambitious targets to reduce America's global warming pollution as swiftly and deeply as possible. Scientists say that developed countries as a whole need to reduce their global warming pollution by at least 80% from 1990 levels by 2050 to avoid the worst impacts of global warming.
- * Move America toward a 100% clean electricity future by maximizing energy efficiency, modernizing the electric power grid, expanding power generation from renewable energy resources, and investing in clean transportation infrastructure.
- * Invest in natural resources. Forests, coasts, wetlands, clean air and clean water are already being impacted by global warming. Funding is needed to safeguard the natural resources that are critical to wildlife populations and human health.
- * Lead a worldwide effort to finance clean energy technology, forest conservation, and adaptation to unavoidable impacts of global warming.

For more information, visit: www.nwf.org/globalwarming.



Tom Hall (DOE)

Wyoming's solutions to global warming

Wyoming has a number of incentive programs and tax breaks to encourage businesses and individuals to become more energy efficient and use renewable energy sources such as wind and solar power, a key step to reducing harmful carbon pollution.

- The state's Photovoltaic Grant Program offers grants of \$3,000 or 50 percent, whichever is less, to residents who install photovoltaic or photovoltaic hybrid systems on their homes. Both off-grid and grid-connected systems are eligible.
- Wyoming has the potential to generate more than 2000 percent of its electricity needs from wind power, giving it the potential to be a leader in the growing wind power market.

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

- **Plant shade trees:** The Department of Energy says planting three trees strategically around your home can reduce your annual heating and cooling costs by an average of 40 percent.
- **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.
- **Become a Green Tag subscriber:** Many states now offer options for homeowners to buy electricity from clean, renewable sources such as wind, solar and biomass that produce little or no global warming pollution. Green energy can also be purchased through the National Wildlife Federation by visiting www.nwf.org/energy.
- **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.

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