



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

## Global Warming and MONTANA

Nowhere in the lower 48 states is global warming more apparent than at Glacier National Park. Park officials report that warmer temperatures are causing the glaciers to melt at an alarming rate. Future temperature projections are not encouraging. The Intergovernmental Panel on Climate Change estimates average temperatures in Montana could rise about 6.75 degrees Fahrenheit by 2100 if global warming continues unabated. In addition to melting glaciers, this will likely increase wildfires and bring more extreme droughts. Rain—when it does come—will likely come in more severe downpours that may cause more flash flooding. Warmer temperatures will also mean less snowpack in the mountains and earlier snowmelt, leading to more winter runoff and reduced summer flows in many Montana streams. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



Glacier National Park

### Global warming effects on Montana wildlife

Montana is home to an incredible diversity of native wildlife species, including 285 birds, 56 fish, 104 mammals, 17 reptiles and 14 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- The number of glaciers in Glacier National Park has decreased from an estimated 150 in the mid-nineteenth century to about 50 today. If these trends continue, it is estimated that no glaciers will be found in the park by as early as the 2030s.
- Snowpack in Montana holds about 75 percent of the state's water supply and acts as a reservoir that keeps streams flowing in the summer months. Over the last 50 years, this snowpack has declined 15-30 percent. Global warming is projected to increase this melting, harming habitat for trout and other cold-water fish and restricting water sources even further.



Bryan Harry (NPS)

- Scientists project that drier conditions could significantly reduce the number of prairie pothole wetlands in the north-central U.S., including those in northeastern Montana. This could lead to a 9-69 percent decline in the number of ducks breeding in the region, significantly affecting populations of mallards, gadwall, blue-winged teal and northern pintails.

### 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 Montanans?

Global warming is likely to have a significant impact on the people of Montana in the coming decades, affecting everything from wildlife tourism to agriculture.

- Global warming could lead to a significant decrease in habitat for cold-water fish species such as brook and rainbow trout, not only creating a problem for the ecosystems, but also reducing revenues from recreational fishing and related activities.
- Drier conditions in summer months are projected to increase the frequency and intensity of wildfires. Recent research suggests that Montana could see a five-fold increase in the amount of acreage burned by 2100 if global warming continues unabated.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, more than 1 million people spent more than \$910 million on hunting, fishing and wildlife viewing in Montana, which in turn created 21,863 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](http://www.nwf.org/globalwarming).



## Montana's solutions to global warming

Montana has the potential to be a leader in developing solutions to global warming.

- Montana law provides an exemption from property taxes for buildings that use renewable energy to generate their electricity needs. Residential taxpayers can receive a tax credit for up to \$500 for installing a new renewable energy generating system in their home.
- In 2005, the Montana legislature passed a bill that requires Northwestern Energy to get at least 15 percent of its power from renewable sources by 2015.

### **The Western Climate Initiative**

The Western Climate Initiative is a collaboration between Arizona, California, New Mexico, Oregon, Washington, Utah, Montana, British Columbia and Manitoba to develop regional strategies to address climate change. WCI is identifying, evaluating and implementing collective and cooperative ways to reduce greenhouse gases in the region. The partners set an overall regional goal to reduce greenhouse gas emissions 15% below 2005 levels by 2020. By August 2008 the Partners will also complete the design of a market-based mechanism to help achieve that reduction goal.

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

- **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](http://www.nwf.org/energy).

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