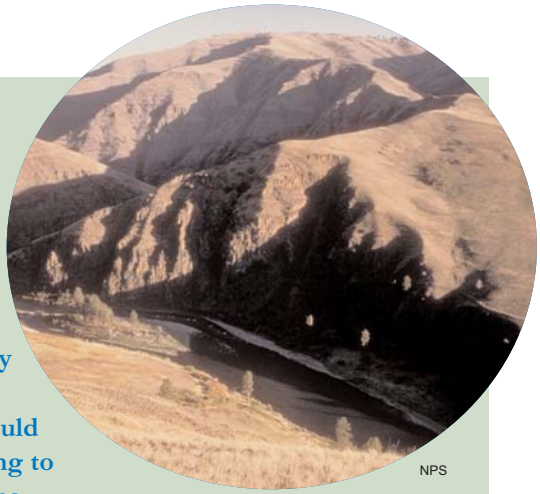
CHANGE THE FORECAST FOR WILDLIFE

SOLUTIONS TO GLOBAL WARMING

Global Warming and IDAHO



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Many of Idaho's ecosystems are under pressure from dams, logging, fire suppression and other man-made stresses. Global warming may well push them over the edge. Some of the first Idaho species to feel the heat may be salmon and steelhead. The Environmental Protection Agency estimates average temperatures in Idaho could rise 4-5 degrees Fahrenheit by 2100 if global warming continues unabated. This will likely bring hotter, drier summers. Scientists project that wildfires may increase, droughts may worsen, and rains—when they do come—will likely come in more severe downpours that cause flash flooding. Warmer temperatures could result in less snowpack in the mountains and earlier snowmelt, leading to more winter runoff and reduced summer flows in many Idaho streams.

Global warming effects on Idaho wildlife

Scott Church

Idaho is home to an incredible diversity of native wildlife species, including 284 birds, 105 mammals, 23 reptiles, 42 fish and 12 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Higher average temperatures and changes in rain and snowfall patterns are likely to significantly reduce average snowpack in the Rocky Mountain region, contributing to warmer stream temperatures and altered streamflows. These changes would be harmful to Idaho's salmon, steelhead and other cold-water fish.
- Idaho's high alpine species are particularly vulnerable to global warming because they are specially adapted to high altitude ecosystems. Warmer temperatures may change the nature of alpine ecosystems, leaving species such as the Arctic gentian, rosy finch and water pipit with nowhere to go.
- Global warming could alter forest habitat by contributing to more severe outbreaks of pests and diseases. Scientists project that the extent of forested areas in Idaho could decline by 15-30 percent, affecting wildlife dependent on a healthy ecosystem.

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 Idahoans?

The changes from global warming threaten not only to degrade the natural forest and aquatic ecosystems of Idaho but also the health and economy of the state.

- Global warming could cause potato yields to fall by 18 percent under severe conditions where temperatures rise beyond the tolerance level of the crop.
- Historically, years with less precipitation correlate to heavy fire seasons in Idaho. If global warming leads to less summer and fall precipitation, fire seasons could become more severe, raising the costs of fighting and suppressing fires.
- Scientists project warmer winter temperatures in Idaho could increase the lifespan of disease-carrying insects such as ticks and mosquitoes, causing increases in Lyme disease and West Nile virus.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2001, more than 868,000 people spent nearly $983 million on wildlife viewing, hunting and fishing in Idaho, which in turn supporting nearly 20,000 jobs in the state. In 2003, fishing alone generated $450 million.

"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."—

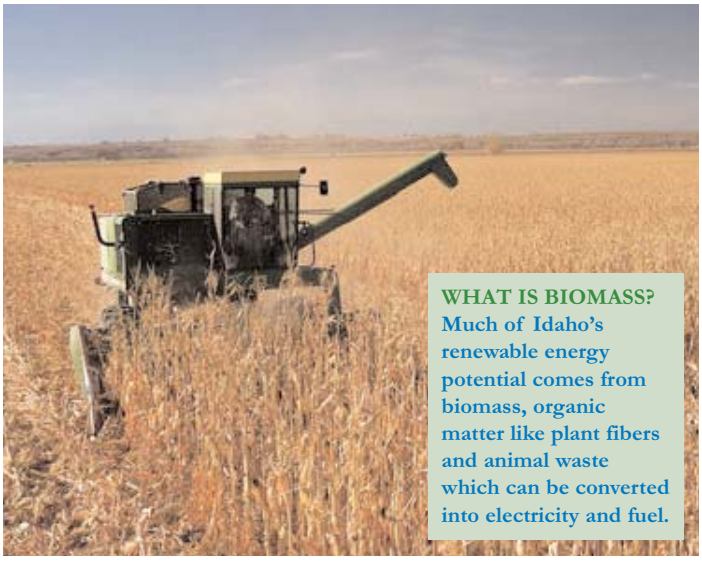
Larry Schweiger
President, CEO
National Wildlife Federation

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 2,600 new energy technology jobs in Idaho by the year 2020.**
- **Provide Idaho with at least $5.7 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 Idaho's farmers by rewarding environmentally friendly farming and forestry practices.**

Visit www.nwf.org/globalwarming or www.climatenetwork.org/csa for more information.



WHAT IS BIOMASS? Much of Idaho's renewable energy potential comes from biomass, organic matter like plant fibers and animal waste which can be converted into electricity and fuel.

Warren Gretz (NREL)

Idaho's solutions to global warming

Idaho's climate makes the state ideal to become a leader in renewable energy. Not only does it have great solar and wind potential; its large agriculture industry makes developing electricity from biomass another option, all of which would greatly reduce carbon pollution.

- Idaho has the potential to generate more than 600 percent of its electricity needs from renewable energy, mostly from biomass, geothermal and well-sited wind farms.
- The state offers taxpayers a 40-percent income tax deduction to offset the cost of solar, wind or geothermal devices used for heating or electricity generation.

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 to block the sun in summer and wind in winter can reduce your annual heating and cooling costs by an average of 40 percent.
- **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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NATIONAL WILDLIFE FEDERATION

Updated 05-01-06. Unless otherwise noted, all images courtesy of USFWS.