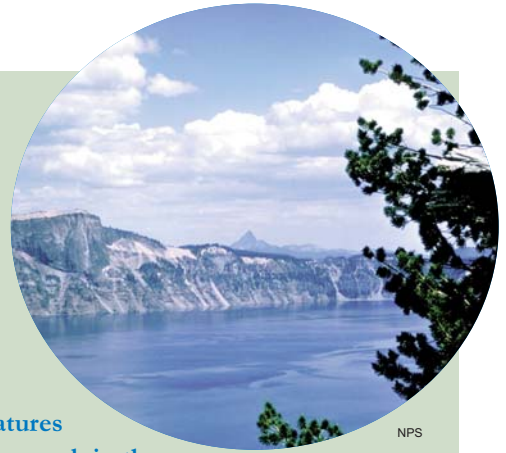




CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and OREGON

From its rugged coastlines to its highest peaks, Oregon's natural resources are invaluable to people and wildlife that depend on them. But global warming threatens to change entire ecosystems throughout the state. The Intergovernmental Panel on Climate Change estimates average temperatures in Oregon could rise about 5.4 degrees Fahrenheit by 2100 if global warming continues unabated. This will likely bring hotter, drier summers. 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 are also expected to lead to a significant reduction in average snowpack in the mountains and earlier snowmelt, which means more winter runoff and reduced summer flows in many Oregon streams. Moreover, sea level rise may also affect people and wildlife along low-lying



Global warming effects on Oregon wildlife

Oregon is home to an incredible diversity of native wildlife species, including 338 birds, 150 mammals, 32 reptiles, 31 amphibians and 65 fish. Rising temperatures and sea level in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- In summer 2005, coastal ocean temperatures were 2-5 degrees above normal, resulting in huge declines of phytoplankton and krill, which thrive in cold water. That year, migrating gray whales, which feed primarily on krill and other small crustaceans, were so malnourished that their bodies were deformed by the time they reached the Oregon coast.
- Scientists project that a 3-degree rise in average August temperatures, which is plausible by 2040, could mean that up to 20 percent of the streams in the Columbia-Snake River Basin and coastal watersheds of Oregon may become too warm for many salmon, steelhead and trout species. In 2005, scientists trawling for young salmon found counts extremely low in the spring and fall seasons.



- Warmer temperatures are expected to alter the alpine ecosystems of Oregon's Crater Lake National Park, affecting wildlife such as the black bear, elk, bald eagle, peregrine falcon and pine marten.

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 Oregonians?

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

- Warmer winter temperatures could mean less snowfall, more winter rain and faster, earlier snowmelt. This could result in lower water supplies in the summer and fall, reducing hydropower production as well as the water resources for fish, wildlife and people of Oregon.
- Global warming could cause yields of one of Oregon's major crops, the potato, to fall by 17 percent as temperatures rise above the vegetable's tolerance level.
- The lifespans of disease-carrying insects are projected to expand with warmer conditions, causing more cases of West Nile virus and Lyme disease in northern states.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, more than 2 million people spent more than \$1.6 billion on hunting, fishing and wildlife viewing in Oregon, which in turn supported 41,129 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:

2% POLLUTION REDUCTION PER-YEAR

A federal legislative solution can drive American ingenuity, create a new generation of American jobs, and meet our moral responsibility to confront global warming.

A GLOBAL WARMING BILL SHOULD:

- * Reduce U.S. global warming pollution 2% per year, or 20% per decade, and on the order of 80% by the middle of this century. Scientists say the United States must cut our pollution at least this much to avoid the most catastrophic impacts of global warming.
- * Encourage innovation and prevent facilities from being built that lock us into many years using old, inefficient technology.
- * Provide funding to protect wildlife and their habitat. Global warming is already adding new wildlife management burdens. Funding is needed to help continue the long tradition of fish and wildlife associated recreation.

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



Eugene Water and Electric Board

Oregon's solutions to global warming

The state has been a leader in developing solutions to global warming.

- In 1997, Oregon enacted a landmark law that established a carbon dioxide standard for all new natural gas-fired power plants of 25 megawatts or more. The standard requires a reduction of emissions to 17 percent below the most efficient gas-fired plant then operating in the United States.
- Oregon has the potential to generate enough electricity from wind, biomass and geothermal energy to meet and exceed its electricity needs.

The Western Climate Initiative

The Western Climate Initiative is a collaboration between seven states (Arizona, California, New Mexico, Oregon, Washington, Utah, and Montana) and three Canadian provinces (British Columbia, Manitoba, and Quebec) to develop regional strategies to address climate change. The Partners set an overall regional goal to reduce greenhouse gas emissions 15% below 2005 levels by 2020 using a combination of regional market-based strategies and state policies to meet this goal. In September 2008 the Partners released the final set of design recommendations for the WCI Regional Cap-and-Trade Program. More information is available at www.nwf.org/westernclimateinitiative.

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.
- **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.

Nic Callero
National Wildlife Federation
206-285-8707
calleron@nwf.org

