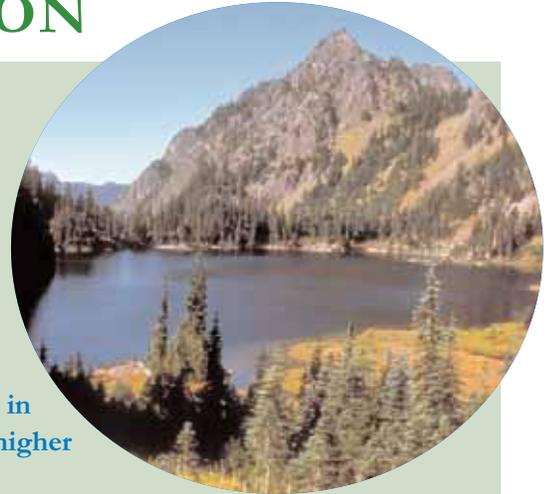




**CHANGE THE FORECAST FOR WILDLIFE**  
SOLUTIONS TO GLOBAL WARMING

## Global Warming and WASHINGTON

Washington's many mountains, lakes, river valleys and beaches make it one of the best places in America to hunt, fish and view wildlife. However, global warming is changing the fabric of the state's ecosystems, posing a serious challenge to wildlife species that abound in the state. The Intergovernmental Panel on Climate Change estimates average temperatures in Washington could rise about 5.4 degrees Fahrenheit by 2100 if global warming continues unabated. Warmer average temperatures are expected to reduce snowpack in the mountains, contributing to lower summer streamflows and higher river temperatures, placing additional stress on threatened and endangered salmon and steelhead. Sea level rise may also affect the state's low-lying estuaries, which are important habitat for waterfowl and other wildlife.



### Global warming effects on Washington wildlife

Washington is home to an incredible diversity of native wildlife species, including 372 birds, 127 mammals, 21 reptiles, 51 fish and 25 amphibians. Rising temperatures and sea level in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Scientists project that a 3-degree Fahrenheit rise in average August temperatures could cause up to 20 percent of the Columbia-Snake River Basin and coastal watersheds in Washington and Oregon to become too warm for salmon, steelhead and trout species.
- 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. Fish which feed on plankton and krill, and many seabirds which, in turn, feed on the fish, suffered drastic population declines. Tens of thousands of Brandt's Cormorants and Common Murres starved to death and Glaucous-Winged Gulls, which normally produce 8,000 to 10,000 chicks, fledged only 88 young. In 2004, the yearly run of Sockeyed Salmon was about 1/2 its normal number of fish a result of warmer waters.



- In 2004, there were numerous sightings of the Humbolt squid from Southern Washington to Whidbey Island. The squid normally lives near Mexico and Southern California. Its movement north is a clear sign of warmer water.

### 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 Washingtonians?

**G**lobal warming threatens not only to degrade the natural forest and aquatic ecosystems of Washington but also the health and economy of the state.

- As sea level increases and stream flows decrease, the quality of Washington's estuaries could decline, impacting oysters and clam populations and the state's \$77 million shellfish industry.
- Scientists have found that warmer temperatures caused by global warming can lead to higher concentrations of ground-level ozone pollution, a leading cause of respiratory problems, especially in children and seniors. Already, the Seattle-Tacoma area has had trouble meeting the national health standards for ozone.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, more than 3 million people spent more than \$2.6 billion on hunting, fishing and wildlife viewing in Washington, which in turn created 42,279 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/global\\_warming](http://www.nwf.org/global_warming).



Energy Northwest (NREL)

## Washington's solutions to global warming

Washington has been a leader in developing solutions to global warming.

- Seattle Mayor Greg Nickels is spearheading a nationwide Climate Protection Agreement, which has gained the support of more than 150 U.S. mayors. The agreement commits cities to meet or beat the global warming pollution reductions outlined in the Kyoto Protocol.
- Washington has the potential to generate 63 percent of its electricity needs from renewable energy sources including wind, biomass, geothermal and landfill gas.

### **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.
- **Visit [www.nwf.org/energy](http://www.nwf.org/energy) for more tips on energy efficiency.**

**Joelle Robinson**  
National Wildlife Federation  
206-285-8707  
[robinsonj@nwf.org](mailto:robinsonj@nwf.org)

**John McGlenn**  
Washington Wildlife Federation  
425-452-9629  
[johnmcglenn@earthlink.net](mailto:johnmcglenn@earthlink.net)

