

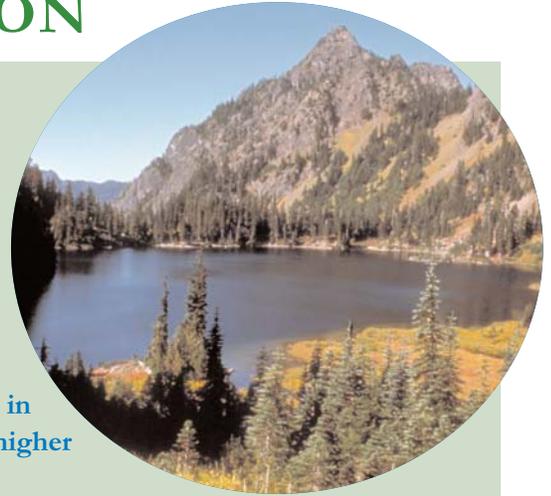


CHANGE THE FORECAST FOR WILDLIFE

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 Environmental Protection Agency estimates average temperatures in Washington could rise about 5 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.

- Coastal estuaries and tidal marshes could see an increase in salinity as sea level rises, which could cause a decline in the duck and geese populations that utilize these flats for habitat.
- The breeding range of the American goldfinch, Washington's state bird, could shrink or shift entirely out of the state in the coming years as warmer temperatures cause the bird to nest further north.
- 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 many salmon, steelhead and trout species.

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?

Global 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 2001, nearly 3 million people spent more than \$2.3 billion on hunting, fishing and wildlife viewing in Washington, which in turn created 45,205 jobs in the state.

“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 11,800 new energy technology jobs in Washington by the year 2020.
- Provide Washington with at least \$10 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 Washington's farmers by rewarding environmentally friendly farming and forestry practices.

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



Energy Northwest (NREL)

Washington's solutions to global warming

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

- In 2003, the governors of Washington, California and Oregon agreed to cooperate on policies to reduce global warming emissions in all three states, including encouraging renewable energy production, implementing uniform efficiency standards and developing a coordinated global warming emission inventory.
- 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.

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.

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