



CHANGE THE FORECAST FOR WILDLIFE SOLUTIONS TO GLOBAL WARMING

Global Warming and UTAH

Utah's growing population is putting pressure on the state's water resources like never before. Global warming may well make the state's water woes even more troubling in the decades to come. The Intergovernmental Panel on Climate Change estimates average temperatures in Utah could rise about 6.75 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 also mean less snowpack and earlier snowmelt in the mountains, which means more winter runoff and reduced summer flows in many Utah streams. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



Global warming effects on Utah wildlife

Utah is home to an incredible diversity of native wildlife species, including 296 birds, 126 mammals, 28 fish, 50 reptiles and 16 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 streamflows could significantly reduce habitat for cold-water fish species such as rainbow trout and cutthroat trout, which support a lucrative sportfishing industry in Utah.
- Rangelands of the Great Basin are already threatened by the expansion of non-native, weedy species such as European cheatgrass. Global warming could exacerbate such threats, as opportunistic exotic species are well-suited to take advantage of the ecosystem disturbances caused by warming temperatures.



- Increased evaporation rates and reduced freshwater inflow into the Great Salt Lake due to global warming could raise salinity levels and reduce critical stopover habitat for waterfowl and other migratory birds.
- Changes in precipitation could potentially reduce forest cover throughout Utah by 15-30 percent. Also, hotter, drier summers will increase the risk of wildfire in the state's ponderosa pine forests.

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 Utahns?

Residents of Utah may feel the heat of global warming, from poorer air quality in cities to shrinking tourism dollars from wildlife recreation.

- Streams, rivers and other freshwater oases that people and wildlife depend upon in Utah's arid landscape are highly vulnerable to evaporation under expected warmer and drier conditions. These changes could destroy or seriously degrade the few wetland habitats in the state, limiting Utah's ability to meet human water demands.
- Continued trends of higher average temperatures and declining snowpack could cause significant problems for the skiing industry in Utah, particularly for resorts at lower elevations.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, nearly 1.4 million people nearly \$1.2 billion on hunting, fishing and wildlife viewing in Utah. The industry in turn supported 29,432 jobs in the state.* (*Jobs are an average 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.



Utah's solutions to global warming

Utah has a number of incentive programs for businesses and individuals to become more energy efficient and use more renewable energy sources, one of the first steps to addressing global warming.

Equipment purchased to generate electricity from renewable sources is exempt from Utah sales tax. The state also provides an individual income tax credit of up to 25 percent the cost of installing a residential renewable energy system.

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.

- **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.
- **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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