



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and NEBRASKA

Global warming now joins development, agriculture and pollution as a serious threat to Nebraska's diverse ecosystems and the wildlife they support. The Intergovernmental Panel on Climate Change estimates average temperatures in the state could rise about 6.75 degrees Fahrenheit by 2100 if global warming continues unabated. This could provide further challenges for places like the Sandhills Prairie in north-central Nebraska, one of the largest contiguous dune areas in the Western Hemisphere. Besides changes in precipitation patterns that could alter the makeup of this unique ecosystem, the sandhills could see an increase in destructive wildfires, thereby altering this unique area and its wildlife. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



Global warming effects on Nebraska wildlife

Nebraska is home to an incredible diversity of native wildlife species, including 346 birds, 83 mammals, 87 fish, 47 reptiles and 13 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Global warming could contribute to a 20-50 percent decline in forested area, particularly in eastern Nebraska, where grasslands and savanna could replace forests and woodlands.
- The breeding range of 41 songbird species—including the willow flycatcher, red-breasted nuthatch and eight species of sparrows—could shift out of Nebraska's borders due to warmer temperatures.



- Increased drought in the Great Plains and decreased snowpack in the Rocky Mountains could reduce water flow in the Platte River and other streams, which are used by sandhill cranes, endangered whooping cranes and many species of waterfowl as they migrate north in the spring.

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 Nebraskans?

No one wants to re-live the "Dust Bowl" of the 1930s, but scientists expect hotter, drier weather in Nebraska by the end of the century because of global warming, which could affect crops and water supply. About 40 percent of Nebraska's farmed acres are irrigated.

- Drier summer conditions could cause crop failures and increasing competition for irrigation, ultimately hurting Nebraska's agriculture economy.
- Warmer weather could increase the lifespan of mosquitoes carrying malaria and ticks carrying Lyme disease in Nebraska.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, 807,000 people spent more than \$514 million on hunting, fishing and wildlife viewing in Nebraska. The industry in turn created 11,809 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:

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.



Warren Grez (NREL)

Nebraska's solutions to global warming

As is the case for the nation as a whole, the primary source of Nebraska's global warming pollution is the burning of fossil fuels. However, reducing greenhouse gas emissions and developing renewable energy sources could greatly reduce the impact of global warming on the state in the coming century.

- Nebraska has the potential to generate nearly 1.4 billion kilowatts of renewable energy, enough to meet and exceed its electricity needs. Most of this comes from wind power, as the state is ranked fifth in the nation for wind energy potential.
- The state has adopted various incentive programs that offer tax breaks for improved energy efficiency and alternative fuel use.

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.
- **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. That's the same as taking 1.2 million cars off the road for an entire year.
- **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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