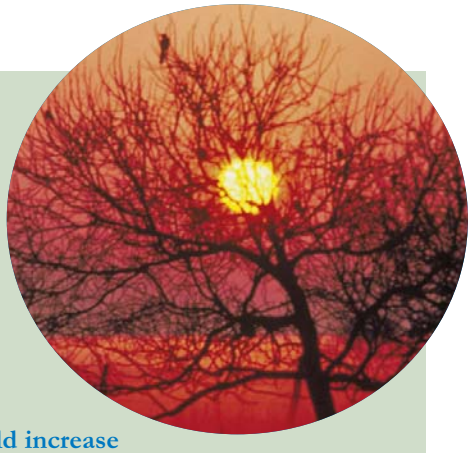
CHANGE THE FORECAST FOR WILDLIFE

SOLUTIONS TO GLOBAL WARMING

Global Warming and OKLAHOMA



Oklahoma's diverse ecosystems—from the tall and short-grass prairies to the southeastern forests of the Mississippi River floodplain to the Arkansas, White and Red River basins—have been significantly degraded from agriculture, development and other man-made changes. They are also among the state's ecosystems most vulnerable to global warming. By 2100, the Intergovernmental Panel on Climate Change estimates average temperatures in Oklahoma could rise about 6.75 degrees Fahrenheit. This could trigger more fluctuations in precipitation, causing more extreme weather events such as droughts and floods and hurting the state's grasslands, forests and water resources. Hotter, drier conditions could increase the need for irrigation for agriculture, and the need for more water for growing communities. We can solve global warming and revitalize our economy by rebuilding America with clean energy.

Global warming effects on Oklahoma wildlife

Oklahoma is home to an incredible diversity of native wildlife species, including 346 birds, 104 mammals, 171 fish, 80 reptiles and 51 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 make conditions more favorable for invasive species such as the red imported fire ant, which has increasingly become a problem in Oklahoma. Wildlife at particular risk to ant attacks include newly-born fawns as well as hatchling quail and ground-nesting waterfowl chicks.
- The American redstart and grasshopper sparrow are among 30 songbird species whose breeding ranges may shift out of Oklahoma if global warming continues.

Jim Occi (BugPics)

- Higher average temperatures could lead to greater evaporation rates and reduced water availability in the Playa Lakes region, an important stopover site for ducks and other migrating waterfowl.

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 Oklahomans?

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

- Global warming could reduce wheat yields by as much as 27-37 percent as temperature rises above the crop's climate threshold. In addition, drier conditions could result in less soil moisture and cause farmers to rely more on irrigation, increasing the competition for water in the state.
- Models project increases in Oklahoma's average summer heat index and more heat waves, where temperatures climb above 90 degrees Fahrenheit for three days in a row or more. This could cause more cases of heat stress for both people and livestock.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, almost 2 million people spent nearly $1.3 billion on wildlife viewing, hunting and fishing in Oklahoma. The industry in turn supported 26,530 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.**

Zilkha Renewable Energy, LLC

Oklahoma's solutions to global warming

A number of private-sector initiatives to reduce carbon pollution have been started in Oklahoma, inspiring the use of renewable and alternative forms of energy.

- In 2001, the state passed the Oklahoma Carbon Sequestration Enhancement Act, a voluntary program allowing agriculture and industry to join forces in reducing harmful carbon pollution by restoring vegetation that absorbs carbon dioxide in the soil.
- Oklahoma ranks eighth in the nation in terms of its potential to produce wind energy, with the ability to provide 17 times the state's entire annual electricity consumption through well-sited wind farms.

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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