



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

## Global Warming and PENNSYLVANIA

From its mountaintops to its river valleys, Pennsylvania is one of the best places in America to hunt, fish and view wildlife. But global warming is changing the fabric of the state's ecosystems, posing a serious challenge to wildlife. The Union of Concerned Scientists Northeast Report estimates that by 2100, average summer temperatures in the state could increase between 6.5-12.5 degrees Fahrenheit depending on the extent to which greenhouse gas emissions are curbed. This could trigger more extreme fluctuations in precipitation, with some parts of the state experiencing an increase in rainfall of up to 50 percent while other areas experience drought conditions as hotter temperatures cause more water to evaporate from the soil. Warmer conditions could affect everything from agriculture yields to human health, touching the lives of all Pennsylvanians. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



### Global warming effects on Pennsylvania wildlife

Pennsylvania is home to an incredible diversity of native wildlife species, including 267 birds, 68 mammals, 163 fish, 37 reptiles and 36 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Scrub oaks and southern pines that flourish in warmer weather may push out maple, beech and birch forests found in northern Pennsylvania, throwing the ecosystems out of balance and hurting the wildlife that call the forests home.
- The breeding range of many species of songbirds—including several different flycatchers, swallows and warblers—may be pushed out of Pennsylvania. These birds are important to the state not only for their beautiful sounds, but for their appetite for gypsy moths, tent caterpillars and other invasive pests that harm vegetation.



- Global warming is expected to contribute to higher water temperatures in the state's lakes and streams. This is likely to cause a significant decline in viable habitat for cold-water fish species, including brook and rainbow trout.

### 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 Pennsylvanians?

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

- In Philadelphia, one study projects that by 2050, heat-related deaths during a typical summer could increase by 90 percent, from about 130 deaths per summer to more than 240.
- Currently, "red alert" air quality days happen an average of two days each summer in Pittsburgh. By mid century, this number could climb to five. Additionally, the city's ozone levels already exceed the EPA's healthy standard 10 days out of the year. This could climb to 22 days due to global warming, meaning more cases of respiratory diseases such as asthma.
- Warmer fall and winter temperatures in northern regions would make it unnecessary for waterfowl to fly south through Pennsylvania to find ice-free water and suitable food, reducing hunting opportunities in the region.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, nearly 6 million people spent nearly \$4 billion on hunting, fishing and wildlife viewing in Pennsylvania. The industry in turn supported 73,334 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](http://www.nwf.org/globalwarming).



Lyle Rawlings (First, Inc.)

## Pennsylvania's solutions to global warming

Reducing emissions that contribute to global warming presents an economic opportunity for the Commonwealth. New investments in clean energy technologies, such as wind, solar and other alternative sources, will create new, quality jobs for Pennsylvanians and help protect the environment and public health. Here's how the state is taking steps toward creating a cleaner energy future.

- In February 2007, Governor Rendell announced an Energy Independence Strategy designed to drive major investments in energy efficiency, conservation and alternative fuels.
- In 2006, Pennsylvania finalized a Clean Vehicles Program that will bring more fuel efficient cars to the Commonwealth, saving Pennsylvanians money, cleaning our air and reducing global warming pollution.

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](http://www.nwf.org/energy).
- **Act locally:** Contact your mayor and ask that (s)he sign the U.S. Mayors Climate Protection Agreement, committing your city or town to meet or beat the global warming pollution reductions outlined in the Kyoto Protocol.

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