Global Warming and NEW YORK

Global warming poses a threat to both wildlife and people throughout New York. The Environmental Protection Agency estimates average temperatures in the state could rise about 4 degrees Fahrenheit by 2100, affecting everything from New York's forests and coastal ecosystems to the health of its residents. People living along the coast of Manhattan and Long Island could face expensive sand replenishment projects to protect their from beaches from sea level rise. Those living in cities could face more respiratory problems from increased smog, as well as more heat-related deaths. The state as a whole emits more global warming pollution than all of Central America and Mexico combined, but it has an important resource—its people—who have the opportunity to lead the way in finding solutions to global warming, reducing the impact on future generations.

Global warming effects on New York wildlife

New York is home to an incredible diversity of native wildlife species, including 327 birds, 91 mammals, 159 fish, 35 reptiles and 32 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.

- Lower summer stream flows and higher stream temperatures due to global warming could significantly reduce viable habitat for brook trout and other cold-water fish in New York. Already, fish habitat in the Northeast is in decline due to water pollution, competition from invasive species and loss of habitat from development.

- The breeding range of many species of songbirds— including several different flycatchers, swallows and warblers—may be pushed out of New York's borders. Cape May and bay-breasted warblers are among some important predators of pests such as the eastern spruce budworm, which can cause major damage to the state's forests. Fewer birds mean more bugs.

- A warmer climate will likely favor more invasive species, parasites and pathogens such as the woody adelgid that is attacking hemlocks in New York's forests.

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 New Yorkers?

Whether it's fishermen on Long Island, maple farmers in the Adirondacks, hoteliers who count on annual fall foliage tourism or residents of the Big Apple, the people of New York will be affected by global warming in a number of ways in the coming decades.

- In New York City, one study projects that a 1-degree rise in average temperatures could more than double heat-related deaths during a typical summer, from about 300 to more than 700.
- By mid-century, the number of summer days in Buffalo with "good" air quality could drop 17 percent, from an average of 51 days per summer to 42 days per summer. "Red alert" air quality days could increase from 2 per summer today to 5 per summer.
- The make-up of forests in New York is expected to change as the climate warms faster than tree species can adapt. Sugar maples, one of the dominant species of the state's mixed forests, may disappear entirely from the state by the end of the century.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2001, more than 4.6 million people spent nearly $3.5 billion on hunting, fishing and wildlife viewing in New York, which in turn supported 60,505 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 Regional Greenhouse Gas Initiative:

The Regional Greenhouse Gas Initiative, or RGGI, is a cooperative effort to reduce carbon dioxide emissions from Northeastern and Mid-Atlantic states, and was originally proposed by Governor Pataki. In December 2005, New York was one of seven states which agreed to institute a mandatory cap and trade system for global warming pollution emitted from power plants. The Regional Greenhouse Gas Initiative requires carbon dioxide emissions to be stabilized by 2015, with a 10% reduction by 2019, and eventually achieve sharp reductions in all greenhouse gases.

Current states under the program are Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont. Legislation was passed in April 2006 that required Maryland to join the RGGI cooperative by June 2007. Pennsylvania, Massachusetts, and Rhode Island are observing the process and are likely to join in the future.

Visit www.nwf.org/globalwarming or www.rggi.org for more information.

Mary Kate Pillefein (NREL)

New York's solutions to global warming

New York beats out entire nations, including the Netherlands and Sweden, in the amount of carbon dioxide the state produces. Gov. George Pataki is working with counterparts in eight northeastern states to cut global warming pollution from power plants through the Regional Greenhouse Gas Initiative. An analysis conducted for the governor shows that—particularly when combined with energy efficiency and new clean energy sources like wind and solar—cutting power plant emissions is an achievable and practical strategy to tackle global warming.

- The Cap Carbon Coalition is urging Gov. Pataki and other governors to cut carbon emissions from power plants in the region at least 25 percent below current levels by 2020.
- New York adopted a "renewable portfolio standard" that requires 24 percent of the state's energy to come from renewable sources such as wind and biomass by 2013.
- The state has the potential to meet nearly 84 percent of its electricity needs with renewable energy such as wind. New wind farms are in the works, including one off Long Island.

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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