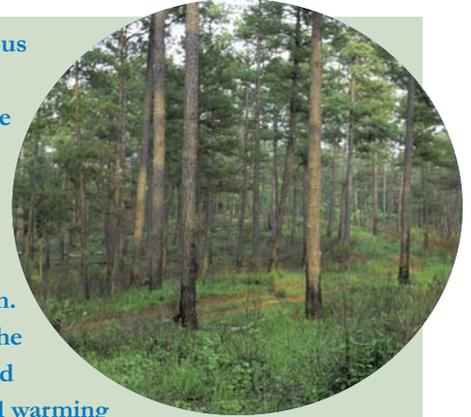




CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and SOUTH CAROLINA

South Carolina's diverse coastal and inland ecosystems face a serious threat from global warming. The Intergovernmental Panel on Climate Change estimates average temperatures in the state could rise about 5.4 degrees Fahrenheit by 2100 if global warming continues unabated. South Carolina's 2,876 miles of coastal shoreline has seen a 9-inch rise in sea level in the last century, and scientists are projecting that coastal sea level could rise by an additional 19 inches in the coming century, causing beach erosion and salt-water incursion. While South Carolinians may think they know how to take the heat, the extent to which global warming may threaten the state's resources and economy is enough to make anyone start to sweat. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



Global warming effects on South Carolina wildlife

South Carolina is home to an incredible diversity of native wildlife species, including 313 birds, 96 mammals, 120 fish, 72 reptiles and 66 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.

- At the rate temperatures are projected to increase, South Carolina's forests are not expected to be able to adapt fast enough and could change dramatically within 30-80 years. Loblolly pine forests will likely be replaced by oak and elm hardwoods or—in persistent drought conditions—by grassland.
- Cape Romain National Wildlife Refuge could shrink by 58 percent by 2100 due to sea level rise, cutting red-cockaded woodpecker habitat in half, and further threatening species like the brown pelican and loggerhead sea turtle.



- Higher average temperatures could significantly reduce habitat for brook trout in South Carolina, which is currently the southern limit of their distribution.
- Milder winters in states north of the Carolinas could mean that many of the ducks migrating to the area during the winter would stay farther north. On top of this, coastal erosion and a loss of coastal marshes due to sea level rise could reduce available habitat.

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 South Carolinians?

South Carolina is particularly vulnerable to the effects of global warming, especially along its coastal region, which not only provides critical habitat for shorebirds, migratory waterfowl and other wildlife, but is also an important source of tourism and hunting revenues for the state.

- Research from MIT shows that hurricanes and other major storms have increased in intensity and duration by about 50 percent since the 1970s and are linked to increases in average sea surface temperatures. Moreover, rising sea levels will leave beachfront development and coastal tourist spots more vulnerable to storm surges and coastal erosion.
- Insurance rates will likely continue to rise. In 2006, there was a 15-25 percent increase in insurance premiums across South Carolina's coast.
- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, more than 2.1 million people spent nearly \$2.1 billion on hunting, fishing and wildlife viewing in South Carolina. The industry in turn supported 39,753 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.”—

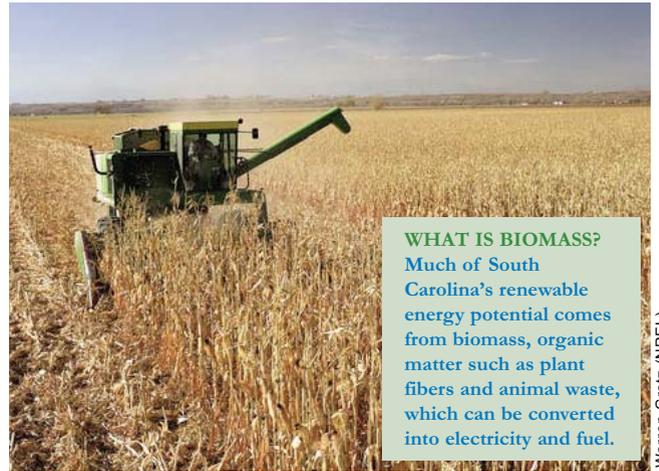
Larry Schweiger
President, CEO
National Wildlife Federation

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.



WHAT IS BIOMASS?
Much of South Carolina's renewable energy potential comes from biomass, organic matter such as plant fibers and animal waste, which can be converted into electricity and fuel.

Warren Greitz (NREL)

South Carolina's solutions to global warming

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

- In 2007, over 2/3 of the South Carolina House of Representatives and a bipartisan group of 21 state senators sent an open letter to the 2008 presidential candidates asking them to make energy and climate change a priority in their campaigns.
- In 2007, over 30 South Carolina mayors joined environmental groups to create South Carolina Mayors for Climate and Energy Leadership. The participating mayors declared their intention to take a lead on combating climate change and increasing energy efficiency in their local communities as well as pressing the state legislature for meaningful action.

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. 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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