

Southeast Editorial Board/Opinion Page Briefer:

**OUR CHANGING CLIMATE: SCIENTISTS TO WARN OF
STARK IMPACTS FOR AGRICULTURE AND HEALTH
THE LONGER WE DELAY CURBING CARBON POLLUTION**

*Prepared by the Natural Resources Defense Council
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Hurricane Irene pounded North Carolina's coast in August, 2011, with driving rain and high winds, leaving a half million people without power.

Flooding in 2012 turned pricey homes in South Florida into islands surrounded by moats, while extreme weather has caused nearly two-thirds of Virginia's small businesses to temporarily shut their doors, and forced many to lay off employees.

And while Old Man Winter visited the Southeast with particular vengeance this year, the weather worldwide continues to warm. In fact, the 15 hottest years on record have occurred since 1998.

What's happening?

In short, this is what climate change looks like.

Similar to the effect of steroids on athletes' performance, the effect of global warming on our climate has set the stage to supercharge storms, and already is fueling more intense heat, dry conditions and extreme weather.

And there are signs things will get much worse if we don't address climate change now.

More evidence is expected in the next couple weeks with release of the National Climate Assessment from the U.S. Global Change Research Program. Congressionally mandated and with participation from 13 federal agencies, more than 240 scientists contributed to this definitive source for climate information in the United States.

The National Climate Assessment, based on preliminary findings from a January 2013 public draft, is expected to conclude that climate change, once considered a far-off issue for the future, is here now. People across the Southeast, and across our entire country, already are seeing and feeling its effects. And the impacts will get much worse if we don't take action now to substantially curb the carbon pollution driving climate change, the report is expected to say.

The climate assessment report is expected to show that climate change isn't just about warming temperatures. Carbon pollution ringing our Earth is expected to lead to climate disruptions that will affect our health, agriculture and food systems.

This alarming news comes on the heels of warnings from other scientific panels making the case for action now.

The American Association for the Advancement of Science recently said: “The evidence is overwhelming: Levels of greenhouse gases in the atmosphere are rising. Temperatures are going up. Springs are arriving earlier. Ice sheets are melting. Sea level is rising. The patterns of rainfall and drought are changing. Heat waves are getting worse, as is extreme precipitation. The oceans are acidifying.”

The World Health Organization says air pollution is already killing millions now: In 2012, about 7 million people died—one-eighth of the total global deaths—from exposure to air pollution, more than double previous estimates, according to WHO estimates. Reducing carbon pollution leads to reduced levels of other associated air pollutants, and reduced risk of climate change and its threats to health.

And a recent report from the Intergovernmental Panel on Climate Change forecast global climate disruption ahead: “Throughout the 21st century, climate-change impacts are projected to slow down economic growth, make poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger.”

The National Climate Assessment will help provide additional critical information that can help you communicate with your readers and viewers about climate change, the gravest environmental challenge of our time.

Here are some key NCA draft report findings from January for the Southeast—including Virginia, North Carolina and Florida—that will be finalized in the upcoming final report. See more here:

<http://ncadac.globalchange.gov/>

Heat

- If carbon emissions continue to increase, regional temperatures rise up to 6 degrees Fahrenheit higher by the 2080s — a dramatic change in the climate likely to bring harmful and unforeseen consequences.
- The Southeast, which is already warm and humid, will see the largest regional increase in the heat index. The higher the heat index, the more dangerous the heat wave.
- As temperature and humidity increase, “bad air” days will also increase—leading to more heat- and air pollution-related hospital admissions and deaths in the region’s largest cities.
- More heat can be harmful to agriculture. Dairy production may become impossible in some areas by the end of the century.

Sea Level Rise

- As sea levels are rising, large parts of the low-lying Southeast coast are sinking. This makes the region that much more vulnerable to sea level rise—including iconic cities like Virginia Beach.
- Rising seas will impact water supplies and food production in the Southeast. Saltwater contamination has already forced the closure of water wells in Hallandale Beach, Florida. Two feet of sea level rise would cover 37,500 acres of cropland across the state.

Storms

- Atlantic hurricanes are expected to intensify as carbon pollution increases. Strong hurricanes can displace tens of thousands of people. For instance, 200,000 people migrated to Houston when Hurricane Katrina hit Louisiana

And here are some [state-specific impacts](#) from changes in our climate:

Virginia

- More than 25 disasters amounting to \$1 billion in damages have hit Virginia since 1980.
- In recent years, the state has been crippled by a series of damaging ice storms, windstorms, and other extreme events. Virginia declared a state of emergency in 2011 and 2012 due to damage from Hurricane Sandy and Hurricane Irene.
- Temperature and precipitation patterns can affect the life cycle and distribution of insects, many of which transmit disease that already pose problems to public health in Virginia. In 2010, there were 911 cases of Lyme disease in the state.
- Sea level rise, dangerous storm surges and intense hurricanes already pose serious threats to coastal cities in the Southeast, and climate change will intensify these impacts. The Southeast experienced two billion-dollar extreme weather events in 2012.

North Carolina

- North Carolina experienced seven billion-dollar weather events in 2011 and 2012, including Hurricane Irene and Superstorm Sandy.
- Seventy-one percent of North Carolina's coastline is at high or very high vulnerability to sea level rise.
- In North Carolina, there were more than 10,100 hospital admissions for asthma in 2011, with an average charge of over \$13,600 for each stay. Climate change affects ground-level ozone smog in ways that can further threaten health for asthmatics

Florida

- Florida experienced its wettest summer on record in 2012, in part due to Hurricane Isaac and Tropical Storm Debby.
- Over eighty percent of vulnerable populations who live in flood-hazard areas along the Southeast coast of the Atlantic - including the elderly, children younger than five, and people with an income below the poverty line-- are Floridians.
- In Florida, there were more than 29,700 hospital admissions for asthma in 2011, with an average charge of over \$25,700 for each stay. Climate change affects ground-level ozone smog in ways that can further threaten health for asthmatics.
- In 2009, there were 3,323 emergency room visits in Florida due to heat stress.

The good news is that most Americans know we're in trouble, and that there's something we can do about it.

We recognize this is the most urgent and dangerous environmental crisis of our time. In fact, seven in 10 Americans favor the U.S. Environmental Protection Agency putting limits on carbon pollution from power plants, a new [Greenberg Quinlan Rosner Research poll](#) shows.

That's exactly what President Obama directed the EPA to do in the National Climate Action Plan he announced last June. EPA Administrator Gina McCarthy has promised standards that will give states maximum flexibility to reduce carbon pollution in the most cost-effective way.

Using its authority Congress approved under the Clean Air Act, the EPA has already proposed carbon pollution limits for future power plants. **And this June, EPA is expected to follow with proposed limits on the roughly 1,000 power plants in the U.S. that emit carbon pollution, a key milestone in our country's efforts to reduce the threat of climate change.**

NRDC has plenty of resources to help with your ongoing coverage. For starters, see:

Our Web site dedicated to global warming and climate change:

<http://www.nrdc.org/globalwarming/>

NRDC President Frances Beinecke's recent blog on climate change in America and beyond:

http://switchboard.nrdc.org/blogs/fbeinecke/climate_change_hits_home_with.html

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