

# Leonard Berry: Climate change preparation must start now in Florida

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President Obama's recent speech on new climate change initiatives has important implications for Florida, both in terms of our energy use and in adapting to the impacts of sea level rise and other aspects of our changing climate. His climate change plan focuses heavily on the reduction of greenhouse gas emissions, which is important because our current warming trend can be directly attributed to them.

It's critical for Florida to get on board and become active in this new emphasis on emission reduction and greater use of clean energy.

The greatest potential impact is planned restrictions is on coal-fired plants in Central Florida. At the same time, it's likely to provide a boost for the development of new energy resources within the state. In the short term, we should be focusing on wind and solar, but long-term plans could include big ideas such as harnessing energy from the Gulfstream, which is currently being examined by Florida Atlantic University and its partner agencies.

The President's remarks on preparation for and adaptation to our changing world will hopefully resonate with all Floridians. The harsh reality is that Florida is among the most vulnerable states, and is already experiencing impact from climate change with a measured rise in sea level. The ocean has risen 8"-9" in the last 100 years.

As a result, during high tide events, sea waters frequently rise through the drainage systems, flooding low-lying urban areas in Broward and Miami-Dade counties with polluted water. As sea level continues to rise, possibly at accelerated rates, these problems may become daily threats. Meanwhile, saltwater has already intruded on coastal drinking water wells, and some drainage canals, designed fifty years ago, no longer function as they should because the sea has risen eight inches since the time of their construction, changing the flow dynamics.

As an indicator of things to come, erosion associated with Hurricane Sandy removed a section of A1A in Ft. Lauderdale with a repair bill of millions of dollars. A freak October storm in 1991 destroyed sections of the same road in Palm Beach, causing it to be closed for repairs for months.

South Florida is familiar with the problems relating to changing climate and recognizes that it must plan for a complicated future. In 2006, scientists at FAU recognized that sea level rise impacts were clearly apparent and on their way to becoming a critical issue for the region. FAU responded by making climate change and sea level rise impacts a central, university-wide research and outreach priority.

The local community and our elected officials responded by creating the Southeast Florida Climate Change Compact to plan for regional adaptation. The more recently created Seven50 initiative received federal support to develop a 50-year regional plan for the seven Southeastern Florida counties, which will include a long-term plan to address the impacts of sea level rise on the region.

The problems we are facing in Florida will impact almost all facets of life: how we maintain our beaches; how we insure and protect our homes and communities and the transportation links between them; how we revitalize our economy; and how we create a sustainable environment. It may sound like a formidable challenge, but the time for preparation and planning is now.

With these considerations in mind, there are two important events coming up this fall. During the 2nd Annual Sea Level Rise Summit ([www.ces.fau.edu/SLR2013](http://www.ces.fau.edu/SLR2013)), FAU, along with numerous partners, will be focusing on innovative ways our communities can evolve in the face of sea level rise and work towards building a resilient and sustainable future. Then, in November, the Southeast Florida Climate Change Compact will explore the important policy and planning issues which will guide our region into the future.

We recognize regional initiatives are critical, but South Florida is a vital part of the economy and well-being of the state and the nation. In addition to ongoing efforts, we are hopeful that this new directive will generate attention and resources for the State of Florida.

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