

## **Progress is clear, challenges remain in planning for First Coast sea-level change**

By [Steve Patterson](#) Mon, Sep 8, 2014 @ 8:24 pm

MARINELAND – When the ocean rises along First Coast beachfronts, some of the first land to go under should be here.

So plans to deal with that needed to start there, too.

“No, we’re not ready. Yes, we have some plans ... That’s the good news,” Crescent Beach resident Pat Hamilton told a crowd that showed up Monday to talk about planning for sea-level rise that could move shorelines inland and turn some woodlands into marshes.

Some projections have said seas could rise 3 feet by 2100, though they rose less than 10 inches in the previous century and no one truly knows what changes are coming.

Despite the uncertainty, local officials have been thinking about possible effects on assets such as water supplies, roads and drainage systems. A lot of St. Johns County’s planning is done in five-year increments, and plans may need to look much further, maybe 50 years forward, to anticipate some problems, county environmental director Jan Brewer told groups, who rotated in and out of the Whitney Lab for Marine Biosciences for a planning workshop organized with staff from the Guana, Tolomato and Matanzas National Estuarine Research Reserve.

Impacts from rising waters will vary a lot from spot to spot because ridges will hold the water back, for a while, then they’ll stop, said Greg Kiker, a University of Florida professor of agriculture and biological engineering who managed computer modeling of how water would build up around the Matanzas River basin.

Out of 44 animal species that researchers studied, 39 were projected to lose habitat. Some of that would happen when marshes were permanently flooded and became open waterways. Farther inland, land that’s now pinelands was projected to become marshland, forcing black bears, gopher tortoises and some other uplands species to move somewhere else, maybe to suburban neighborhoods.

Researchers from UF and the research reserve have worked for three years on ways to think through the effects around the Matanzas — but lessons from that sort of work could be needed elsewhere.

Arlington resident Lad Hawkins, part of a group that visited for the workshop, said he's thinking about the effects of sea level rise on the miles of marshes near the mouth of the St. Johns River in Jacksonville. Hawkins said he expects a lot of those marshes to be lost to rising water, and noted that the property surrounding the marshes already have houses on them that will keep the shoreline from moving back easily.

How to handle situations like that has started to get attention around the First Coast.

Late last year, a committee of volunteers from the Northeast Florida Regional Council finished drafting a thin "action plan" of steps the council's seven member counties could all take to help handle expected impacts from water-level changes in the ocean and the St. Johns River.

That plan was entirely focused on steps that could be taken locally, not counting on anything being done in Washington or farther afield, said Margaret Moehring, the council's director of policy and planning.

People are coming around to talking about issues tied to sea-level changes, Hamilton said.

When the Matanzas basin project started three years ago, he said, people around it were reluctant to say the words climate change, focusing instead on practical questions like what to do when water rises.

The final report from that project is scheduled to be delivered to the research reserve by the end of the year.

Hamilton told people at the workshop that was a sign of the progress that's been made, but said more ordinary people need to help prepare.

"Are we ready?" he asked a group during the workshop. "Absolutely not. We're not ready."

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