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HOME/NEWS

# Sea-level dilemmas quietly swelling on First Coast as planners chart steps

By **Steve Patterson** Mon, Dec 8, 2014 @ 10:13 pm | updated Tue, Dec 9, 2014 @ 9:58 am



Bob.Mack@jacksonville.com  
 Bob.Mack@jacksonville.com Patrick Hamilton was part of a three-year study/community discussion of seal-level rise impacts on the Guana Tolomato Matanzas National Estuarine Research Reserve. He says that places like Summer Haven south of Crescent Beach are in peril from changing ocean levels.



Bob.Mack@jacksonville.com  
 Parts of Summer Haven have been cut off from the road and some city utilities.

**AREA WEATHER**

**Current Doppler radar**

About 75 square miles of Northeast Florida real estate could be inundated by rising seas within 25 years. Or not.

Water to cover that ground might not arrive for another 50 years, maybe longer.

But almost certainly, it will get here.

That realization prompts a corps of First Coast residents – some in local governments, some activists or policy nerds – to chart steps communities can take now to avoid being caught unprepared when the tide rises.

**SEE ALSO: [Emergency proclamation issued in St. Johns County due to coastal storm erosion](#)**

Their answers have run a gamut, from lobbying for coastal property-insurance reforms to moving Green Cove Springs' police station to

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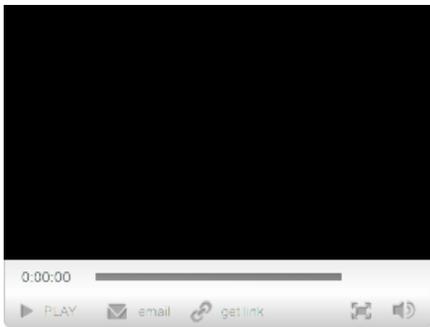


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First Coast News weather outlook



Main weather page | Tides | Area traffic



192 square miles – worth \$6.4 billion, according to estimates the Regional Council delivered to a follow-up committee of business people and government types with the wonky name P2R2 (Public/Private Regional Resiliency).

The committee, which meets again Friday, was asked to think about steps to “incentivize population and private development to locate outside of vulnerable areas.”

Talks like that often deliberately sidestep volatile questions about how much man-made pollution is driving climate changes.

Ocean levels are changing, say backers of planning efforts like the Regional Council’s, and how to handle the rising seas is problem enough for today.

“We are experiencing sea-level rise today, and we have been,” said Sarah Owen Gledhill, a St. Augustine-based planning advocate for the Florida Wildlife Federation. “We’re not debating whether sea-level rise was caused by human action or not, but we know it is

higher ground and learning steps to help Fernandina Beach’s historic properties manage flooding, a situation that a prominent science group says could happen dozens of times a year within 30 years in that town – and even more in Jacksonville.

People who backed those projects don’t know how much water to expect. But they’re trying to get ready, just the same.

“It’s kind of like insurance. If you do this stuff, you’re insuring against it,” said David Reed, a JEA employee who chaired a committee of volunteers that researched lessons about sea-levels for the Regional Community Institute of Northeast Florida, a nonprofit started by a regional planning council.

Their findings were adopted almost verbatim last year by the Northeast Florida Regional Council, a seven-county panel of elected officials who agreed they should prepare for seas rising somewhere between six inches and six feet.

When Hurricane Sandy slammed into New York City in 2012, flooding subways and causing an estimated \$19 billion in losses, the impact from a 14-foot storm surge was magnified by high tides and by a 20-inch increase in seas since the late 18th century, scientists concluded last year. University of Florida geologists said this month that sea-level rise was helping erode dunes that protect two launch pads at Kennedy Space Center, although NASA has built replacement dunes.

An extra foot of sea-level in Northeast Florida would cover about 75 square miles of private property as well as inundate a lot of parkland, starting with chunks of the Timucuan Ecological and Historic Preserve. A six-foot rise would cover 123,000 acres of privately owned land –

3:27pm

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3:52pm

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happening and the scientists say it will get worse.”

Seas rose about eight inches globally since 1880, and are expected to rise another one to four feet by 2100, the federal government’s National Climate Assessment reported this year. Two factors – the fact that water expands when it gets warmer and the melting of polar ice as temperatures rise – are commonly named as main reasons for rising seas. Tide gauge readings taken at Mayport between 1928 and 2006 rose some months and dropped others, but overall suggested changes of about nine and a half inches per century.

Ordinary people haven’t been expected to say much about plans yet, because they haven’t been told much.

“Public education has not really begun in Northeast Florida,” a report produced through Reed’s committee said last year. It described a sort of survey being taken then and said that “the committee consciously designed them for public officials. Planners, city engineers, public works staff and utility staff made up the bulk of participants at assessments.”

But talk about sea level is percolating into more corners of the First Coast, a shift that St. Johns County resident Patrick Hamilton noticed when a staffer from the Army Corps of Engineers office in Jacksonville came to his Rotary club to talk.

“He painted a stark picture,” said Hamilton, a Realtor from Crescent Beach, who said members had split reactions. “When we went outside, some of them said ‘dang,’ and some said ‘I don’t believe that.’”

Hamilton, a longtime environmental advocate, was already thinking about the subject. This year, he wrapped up a role in a three-year review of how higher seas will impact areas around the sprawling Guana-Tolomato-Matanzas National Estuarine Research Reserve in St. Johns and Flagler counties. The answer, in a nutshell, was that water would build up in areas where a barrier stops its advance, then would eventually become high enough to get over that barrier and would start covering another area in a process called “terracing.” Drainage systems and sewer lines built below that terrace would back up and roadbeds would be undermined.

While there’s still time, Hamilton would like to see land preserved – there’s a proposal in the works now – so a Matanzas estuary that currently teems with fish can move inland through undeveloped areas as the ocean advances. To show how coastlines can change, he points to Summer Haven in southern St. Johns, where the road called Old A1A was washed out and closed decades ago, and more recent storms filled the Summer Haven River with enough sand that what’s left is barely a creek.

Others are focused on houses that a rising ocean would soak.

A lot are near the water already, and not building more in vulnerable areas would be a good step, said Gledhill, the Wildlife Federation advocate.

Congress decades ago started blocking federally-backed flood insurance for new homes in so-called “coastal high hazard” areas, but Gledhill said Florida continued to insure new construction in vulnerable areas. That changed in July because of passage of a law backed by a coalition of environmental groups, tax-watchers and business groups including the Florida Chamber of Commerce and the Associated Industries of Florida that barred state-backed Citizens Property Insurance Corp. from insuring houses in environmentally sensitive coastal areas.

Backers say the change could keep investors from building oceanfront homes that can be washed away before mortgages are paid off.

“If you’re going to develop there, that’s fine. But do it on your own dime,” Gledhill said.

St. Johns officials declared a local state of emergency Monday, saying in a release that “recent severe wind, lunar tides, and high waves have caused erosion that poses an immediate threat of substantial property damage to habitable structures.” The declaration

triggers a state law letting the county issue temporary armoring permits for homes in imminent danger.

There's a lot less sea level risk in Clay County, but the chance of flooding beside a rising St. Johns River still helped convince Green Cove Springs officials to put a new police station on Florida 16, well west of the old station beside the town's Spring Park along the river.

The new station, which opened in April, also houses an emergency operations center, and getting that out of the town's flood plain just made too much sense, said city manager Danielle Judd.

Fernandina Beach has gone farther than most First Coast towns in thinking about sea-level rise, writing into its comprehensive plan for 2030 that it "recognizes sea-level rise as a potential coastal hazard, and shall work with Nassau County and state and regional entities ... to develop strategies for responding."

Those steps could include analyzing sea-levels effects on wetlands, estuaries and beaches; identifying areas put at risk by higher water; and evaluating effects on the water table, public water systems and sewer systems.

A Jacksonville planner tracks Regional Council action on sea-level policies, but the city hasn't adjusted any of its own plans yet, said Kristen Sell, a city spokeswoman. The city is working with state emergency management offices to see whether sea-level rise should affect its emergency plans, she said.

JEA had scheduled a review this year of how sea-level rise will affect its water systems, but pushed that back to the utility's 2015-16 budget year, said spokeswoman Gerri Boyce.

One group is forecasting a lot of work for agencies that deal with flooding in Jacksonville and Fernandina, saying both communities are likely to be affected by changes along the East Coast. The Union of Concerned Scientists said in October that instances of flooding could triple in 15 years at most of the 52 cities its researchers examined between Maine and the Gulf Coast.

The forecast assumed the same sea-level increase for both cities – 4.7 inches by 2030 and 10.5 inches by 2045. That was based on projections about Fernandina by the website [Climatecentral.org](http://Climatecentral.org).

If that forecast is right, the Concerned Scientists researchers said instances of coastal flooding in Jacksonville could rise from an average of seven per year now to 25 in 2030 – and 101 in 2045.

The forecast said Fernandina would move from two flooding days per year to eight by 2030 and 37 in 2045.

Fernandina's community development director, Adrienne Burke, said she'd like to arrange for someone from the Concerned Scientists to visit and talk more about the research.

But before the report came out, she was already trying to research how rising tides can be managed in historic areas like Fernandina, where buildings' foundations have been in place a century or more and can't get out of the way now. She's taking advice from places that are already feeling effects, like the 18th-century section of Alexandria, Va., where the Potomac River periodically washes into historic buildings.

The subject came up recently at a project to restore a brick train depot built on Centre Street in 1899. One member of the restoration team was interested in a way to make the building more flood-resistant, while another focused on preserving its original design. The best answer they could settle on was to leave the doors open during floods so the water would pass through, and leave, as fast as possible.

Concerned Scientists raised concerns in the spring about the potential for sea-level damage in a range of historic areas, using St. Augustine's Castillo de San Marcos as its poster child

of threatened buildings.

Burke said there's a lot still to work through about how residents should handle changing water levels, but it's important to start the conversation.

"We already do see some flood events, and the community is aware of it," Burke said. "We're just beginning to talk about it."

Steve Patterson: (904) 359-4263



PREV

Clay School Board hires interim attorney

NEXT



Night of protests and arrests followed by peaceful morning in Jacksonville

9 COMMENTS

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Libertariandude

Tuesday, December 9, 2014 @ 10:10 pm

MORE

3533 points

most of its members to ignore a near total consensus of scientists' predictions and recommendations about global warming, and particularly the causes of global warming. -----Absolute false, their is no near total consensus of scientist, never has been.



To Max's point, you can dig in places inland around Florida and find dead coral.

Funny how this story pops up after a northeastern, magnified by a full moon.



Max mutt

Tuesday, December 9, 2014 @ 8:35 pm

MORE

9502 points

Hate to explain it to you guys but Florida used to be under water!

Yep, that's right.

Hey, even Kansas was under water!

And California has been a desert for centuries.

Atmospheric CO2 levels have ranged from about 250 ppm to 7000 ppm and we recently hit 400.

HMMMMMM ... makes ya think don't it.

Maybe the real environmentalists let the earth do what it does and that is vary in oxygen and CO2 levels and have significant temperature swings just like it has for 4 billion years.

If that results in a decrease in the human population, isn't that what you guys want anyway - you know less CO2 emitters!

Look at it as an investment opportunity. Greenland property is dirt cheap but it won't be for long, right!

Go buy it up and make a bundle in your lifetime or maybe you don't want to put your money up?

Hey, if we're lucky, maybe the dinosaurs will make a comeback and we really can go to Jurassic Park.



jnsu

Tuesday, December 9, 2014 @ 7:12 pm

MORE

2075

Snakepilot - Far and away the biggest hoax of the century has been the Republican Party convincing most of its members to ignore a near total

points

consensus of scientists' predictions and recommendations about global warming, and particularly the causes of global warming. Based upon, what? That's it's bad for business and inconvenient? It's irresponsible and reprehensible for public officials to so recklessly ignore overwhelming evidence based upon credible scientific research.



I say again, Shame, Shame, Shame.

Are you really dumb enough to believe that the world's scientists have gotten together and secretly decided to perpetrate a hoax? Or perhaps you need to go back on your meds, or visit a doctor who can prescribe some meds that, hopefully, can bring you back to reality. Sheesh.



### Snakepilot

Tuesday, December 9, 2014 @ 10:21 am

MORE

1730 points

Sea level rise and climate change ( aka global warming) is the biggest hoax of the 21st century so far. If H.L. Mencken were alive he would have a field day.



Summer Haven has been this way for over 40 yrs. You see the sea is trying to cut a new entrance into Matanzas, but real estate owners want it the way it is currently. The area has been building and eroding for centuries much as it was during the time of Pedro Menendez. Mr.Hamilton is a good dresser.



### jnfsu

Tuesday, December 9, 2014 @ 10:20 am

MORE

2075 points

The Republican plan is the same as the folks on Wall Street before the collapse: "I'll be gone, you'll be gone."



I don't believe the Republican leadership doesn't believe the scientists, I think they're just too greedy and selfish to care because they figure they'll be dead and gone before things get bad.

Shame, shame, shame!

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