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As Sarasota Bay water quality improves, El Niño could bring red tide blooms in 2024

WUSF | By **Jessica Meszaros**

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From left to right: Barbara Kirkpatrick, senior adviser with Gulf of Mexico Ocean Observation System; Dave Tomasko, executive director of the Sarasota Bay Estuary Program; Sandy Gilbert, chairman and CEO of Solutions to Avoid Red Tide; and Charlie Hunsicker, director of the Manatee County Department of Natural Resources.

Florida is expected to take five water bodies near Sarasota off

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wastewater treatment plants and stormwater infrastructure, said one expert during a panel on red tide.

Sarasota Bay's water quality is improving, and scientists say it's due to upgrades to the surrounding area's wastewater infrastructure.

David Tomasko, with the Sarasota Bay Estuary Program, was one of several experts who spoke during a red tide panel discussion Monday at the University of South Florida's Sarasota-Manatee campus.

The wastewater factor

Tomasko said stormwater and other factors can affect water quality in the bay, but wastewater overflow causes the most damage.

"Our worst water quality was not because it rained a lot. Our worse water quality was not because we had stormwater runoff. Our worst water quality is when our wastewater infrastructure failed us," he said.

Between 2015 and 2017, Tomasko said over 400 million gallons of wastewater flowed into Sarasota Bay.

But municipalities in the area collectively are spending over \$300 million to upgrade wastewater treatment plants and large regional stormwater infrastructure.

Manatee County recently spent \$25 million on upgrades to reduce nitrogen concentrations by 40% at their Southwest Water Reclamation Facility.

"If we have an El Niño that rains a lot, and we have a hurricane when the water gets warmer, it could be a really bad year."

David Tomasko, Sarasota Bay Estuary Program

Sarasota County, with the help of the U.S. Environmental Protection Agency, is currently spending \$250 million on the Bee Ridge Wastewater Treatment Plant to increase its capacity by 50% and reduce the nitrogen content in its effluent by 75% to 90%.

It's also costing the City of Sarasota and the Southwest Florida Water Management District \$3 million for the nearly complete regional stormwater treatment project at Bobby Jones golf course, which treats 9 square miles of the Phillippi Creek watershed.

As a result of these efforts and more, Florida is expected to take five area water bodies off of its nutrient polluted water body list: Sarasota Bay, Little Sarasota Bay, Bowlees Creek, Roberts Bay, and Blackburn Bay.

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This isn't official however, until the Florida Department of Environmental Protection secretary signs off on them.

Tomasko said he doesn't anticipate any issues that would prevent these de-listings from being formally approved.



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A dead fish is seen onshore in 2018. David Tomasko, with the Sarasota Bay Estuary Program, said said heavy rainfall from Hurricane Irma in 2017 was followed by a severe red tide event that lasted into early 2019.

Even with the positive improvements, Tomasko said warmer waters and heat waves will likely continue to be an issue.

Sarasota Bay used to be hotter than 68 degrees about nine months of the year — now it's increased to 10 months.

If the climate continues to get hotter, Tomasko said, the bay may never drop below 68 degrees.

"Which means the water temperature can help speed up the growth of algae," he said. "And if it never gets cold again, then it could be that we're going to actually be more sensitive to nutrient loads."

Along with temperature, nutrients from over-fertilized lawns, grass clippings, dog poop, and sewage from leaky septic tanks are known to feed toxic red tide algae blooms in the Gulf of Mexico.

"The nutrient loads coming into Southwest Florida's waters are two-to-three times what they were at predevelopment," said Tomasko.

And the state of Florida recommends reducing nutrient loads by 23% within a 15-year period, although he said nothing significant has been done to achieve that goal.

"But if we could, it looks like we might be able to knock the red tide duration back by about a month. So overall, humans have made red tide last longer would be our conclusion," Tomasko said.

Making matters worse this coming year, Tomasko says we can expect an El Niño, which is a climate pattern that brings a lot more rain.

He said heavy rainfall from Hurricane Irma in 2017 was followed by a severe red tide event that lasted into early 2019.

"If we have an El Niño that rains a lot, and we have a hurricane when the water gets warmer, it could be a really bad year," Tomasko said.

A healthy bay is important to the economy, he said, as there are 20,000 jobs at stake.

“So, getting red tides under control is definitely good for our economy,” Tomasko said. “It's good for our water quality.”

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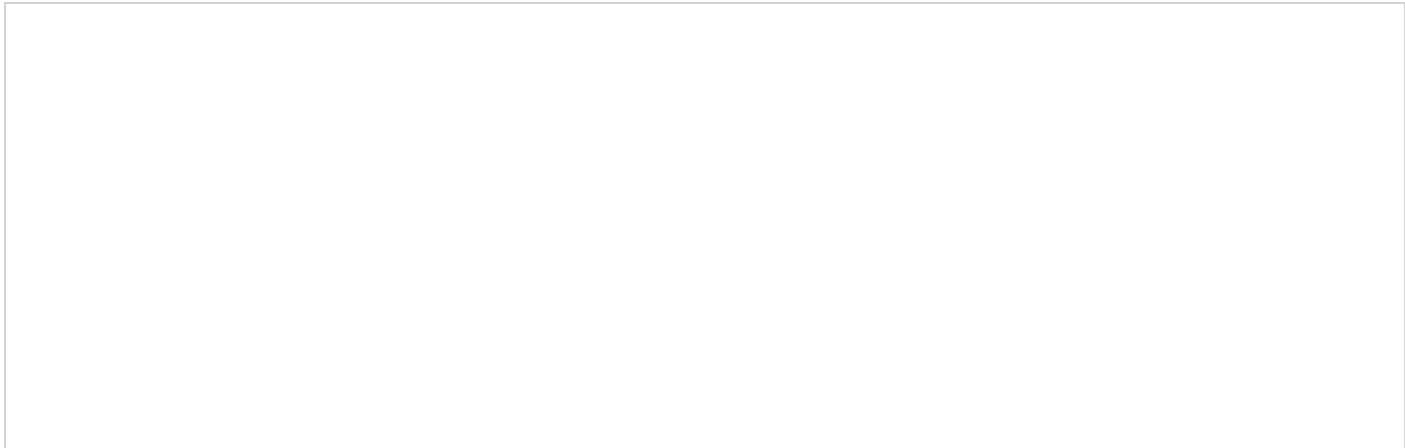
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Jessica Meszaros

Since 2012, I've been a voice on public radio stations across Florida - in Miami, Fort Myers, and now Tampa.

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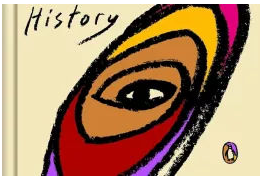
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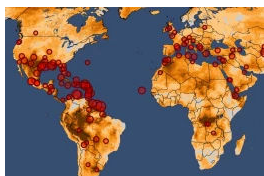
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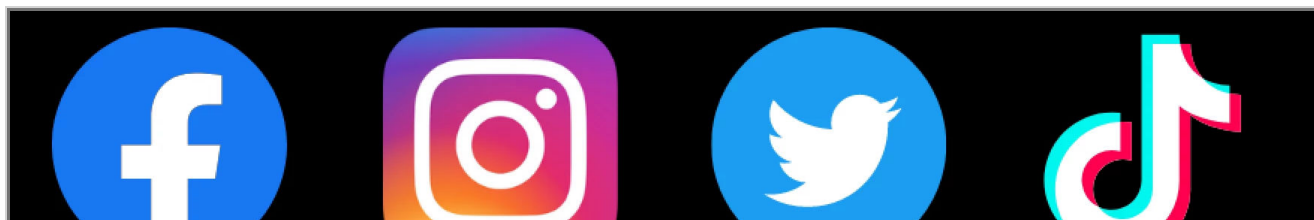
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