Upper Sarasota Bay showing worst signs of degradation in all of Sarasota Bay, city commissioners learn

Sarasota Bay Estuary Program executive director presents 'report card' on conditions, including health of seagrass



Bays included on Scorecard

- Palma Sola
- Upper Sarasota
 - Roberts
- Little Sarasota
 - Blackburn

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A graphic shows the portions of Sarasota Bay studied for the 'report card.' Image courtesy Sarasota Bay Estuary Program

Ten years ago, Sarasota Bay was a much healthier water body than it is today, the executive director of the Sarasota Bay Estuary Program (<u>SBEP</u>), told the Sarasota city commissioners this week.

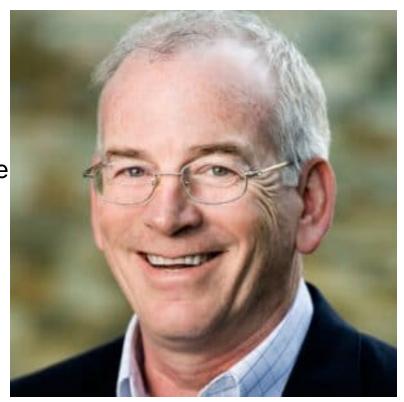
The Upper Bay area, especially, seems to be most affected by the April dumping of approximately 215 million gallons of effluent from the former Piney Point fertilizer plant, David Tomasko said during a June 7 presentation.

The red tide event that began in the fall of 2017 and lingered into early 2019 "had devastating effects on seagrasses" in the Upper Bay, he pointed out, referring to the area of the water body north of Siesta Drive. That event, he said, "liberated a lot of nutrients that used to be held in the seagrasses."

Overall, he continued, the amount of seagrass in the various parts of the bay is down 22% from its peak in 2016. "So we've lost a lot of habitat for about 40 million fish, most likely. ... We've lost all the recovery that we had between 1988 and 2014."

Tomasko explained, "Seagrass is a biological indicator of a health bay."

He called the Upper Bay "the problem child now. ... That's the epicenter of the problem."



David Tomasko. Image courtesy Sarasota Bay Estuary Program

The Lower Bay's seagrass loss possibly has stabilized, Tomasko said.

The effluent that state leaders allowed to be pumped from Piney Point into Tampa Bay — in an effort to prevent a greater environmental disaster and destruction of homes — "had a nutrient concentration 10 times higher than the worst performing wastewater treatment plant in Florida," Tomasko emphasized.

Red tide researchers have identified nitrogen as the primary food for the red tide algae, *Karenia brevis*.

"We don't know where it all went," Tomasko pointed out of the Piney Point discharge. "We don't know what it all did."

University of South Florida researches expected the effluent "would be



This is a photo of Lyngya in a body of water. Image Agricultural Sciences (UF/IFAS)

entrained into the northern part of Sarasota Bay," he pointed out, and that part of the water body has been experiencing the worst issues.

In the area of Anna Maria Sound, Tomasko continued, an algae called <u>Lyngbya</u> which also is known as "gumbo" — has appeared. It "looks like fecal material" and washes up in rafts, he noted. It uses up all from the University of Florida/Institute of Food and the oxygen in the water, resulting in an order "like rotten eggs," he added. "It's

growing in the bottom of the bay and moving its way up in the water column. ... We don't know for sure that it came from Piney Point," Tomasko pointed out, "but, anecdotally, the same thing happened in 2001," when 170 million gallons of effluent from Piney Point ended up in the bay.

Thus, Tomasko noted, as of early this week, problems originally expected to show up in Tampa Bay, as a result of the Piney Point discharge, have been localized in Sarasota Bay. (Red tide was reported later in the week off the Pinellas County shoreline.)

Replying to a question from Commissioner Liz Alpert about action the board could take in response to the Sarasota Bay situation, Tomasko said, "No. 1, shut down Piney Point. Never let it happen again. ... It should have been gone 20 years ago." (On April 13, Gov. Ron DeSantis announced plans to close Piney Point and directed the Florida Department of Environmental Protection to develop a plan to do so. Additionally, the 2021 state budget included \$100 million to clean up the facility.)

Local governments spend millions of dollars upgrading their wastewater treatment plants, Tomasko told the city commissioners, but circumstances like those associated with Piney Point counter such efforts.

The state does offer contracts to local governments that wish to get Lyngbya out of the water, Tomasko continued. Scooping out just 2 acres of the algae, he said, would rid the bay of 100 pounds of nitrogen.

The latest SBEP 'report card'

At the outset of his presentation — what the SBEP calls a "report card" on the state of the bay — Tomasko pointed to the importance of the health of the water body not only to the quality of life of Sarasota County residents but also to the economy.

"We have a very tourism-centered economy," he said. "People will pay to be next to the bay" when it is clean, "but not when it smells like a sewer."

About 20,000 jobs are associated with activities in the bay, he added.

From 2006 to 2012, Tomasko noted, the bay experienced a 28% increase in seagrass coverage.

burn

	Report Card for Sarasota Bay	Year	Palma Sola	Upper Bay	Roberts	Little Sarasota	Blackbur
	Report Card for Sarasota bay	2006	3.33	3.50	3.25	3.50	4.00
	Palma Sola Bay appears to be in good condition – but close to Piney Point Upper Sarasota Bay was mostly good conditions, until recent red tide	2007	2.67	3.25	3.50	3.50	4.00
		2008	3.67	3.25	3.75	3.25	2.75
		2009	3.67	3.00	3.50	3.75	3.25
		2010	3.67	3.75	3.00	2.75	2.25
	events, especially 2018 to 2019 –	2011	4.00	3.50	3.00	2.75	2.75
	monitor its ability to recover from that event, and potential effects from	2012	3.00	3.25	3.50	3.00	3.00
	Piney Point	2013	4.00	3.00	2.00	2.25	2.25
	Roberts, Little Sarasota and Blackburn	2014	4.00	3.50	2.75	2.25	2.50
	Bays (all impaired as per NNC) require – and are receiving – management actions to restore their ecosystem health	2015	3.67	3.25	2.00	2.00	2.00
		2016	3.67	3.00	1.50	1.75	2.00
		2017	3.33	2.75	1.75	2.00	2.25
		2018	3.67	1.75	1.25	1.25	1.00
		2019	3.67	2.25	2.50	1.50	1.50

These are more data from the report card. Image courtesy Sarasota Bay Estuary Program

The SBEP report card provides scores from 1 to 4, he said, with 4 the best. A

slide he showed the commissioners said that a score of 3.5 or higher indicates apparently healthy conditions; 2.5 to 3.49 indicates potential concerns; a score of 1.5 to 2.49 means conditions are problematic; and any score under 1.5 is a sign of multiple factors leading to degradation of the ecosystem.

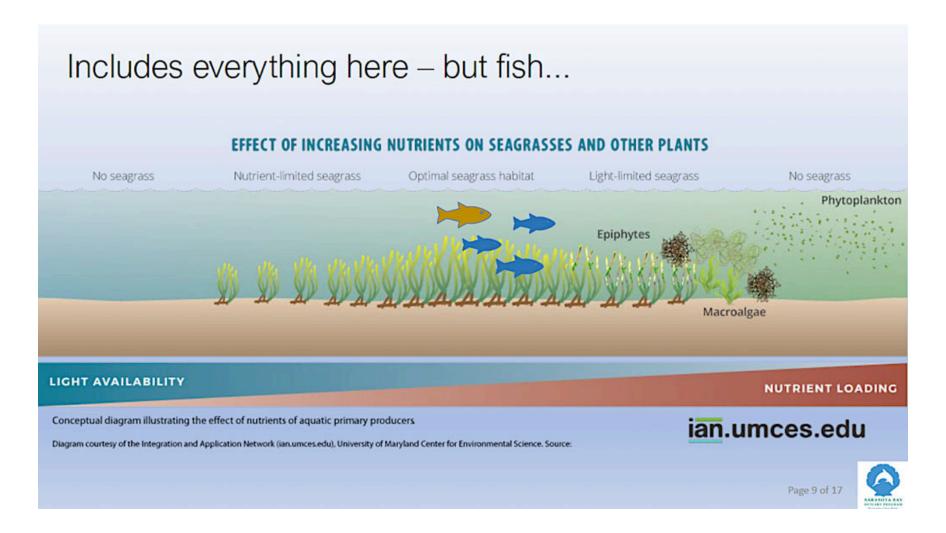
The areas at the focus of the report card are Palma Sola, Upper Sarasota, Roberts, Little Sarasota and Blackburn bays, he pointed out.

Referring to Palma Sola, he continued, "It's still a healthy system," with scores primarily higher than 3 from 2006 to 2019.

In 2018, the slide showed, the score for the Upper Bay dropped to 1.75; in 2019, it was 2.25.

Roberts, Little Sarasota and Blackburn bays have "been bad for seven years," he said.

The slide noted that management actions are underway in those bays in an effort to restore their health.



Commissioner Jen Ahearn-Koch asked him what she can tell constituents who want more information about how to improve the situation. Tomasko replied that people may <u>email him</u> or call his cell phone: 813-597-3897.

Commissioner Kyle Scott Battie told Tomasko that the information provided "is extremely concerning to me," especially in light of the continued population growth in the county. "Is there anything more we can do?"

"I think the city is doing a really good job," Tomasko told Battie.

The City of Sarasota's wastewater treatment plant, which operates with an advanced system, produces effluent with about 1.6 milligrams of nitrogen per liter, Tomasko explained to the commissioners. The Piney Point effluent had about 230 milligrams of nitrogen per liter, he added.

The city's wastewater treatment facility is one of the best in Florida, Tomasko pointed out, noting that it had received recognition statewide. "But you're surrounded by a lot of places."

Biggest losses (in red)
between 2018 and 2020
are in areas where the
report card suggested
conditions were
trending in the wrong
direction



Tomasko alluded to problems that Sarasota County experienced in recent years, including illegal discharges of millions of gallons of treated wastewater. The county is committed to upgrading its facilities to advanced treatment processes, he noted. (Under the terms of a 2019 Consent Order with the Florida Department of Environmental Protection, the county's largest water reclamation facility, the Bee Ridge plant, is slated to be upgraded to that status before the end of 2025.)

"I think we can actually get over this," Tomasko added of the degraded water quality in the bay. "I really do."

Mayor Hagen Brody told Tomasko that the commissioners are committed to ensuring that the stormwater that flows into the bay will be cleaner. (Battie referenced the stormwater project planned in conjunction with the Bobby Jones Golf Club upgrades. The Southwest Florida Water Management District Governing Board recently agreed to award the city a grant of more than \$1.5 million for that undertaking on 18 acres.)

"I feel like we have a heightened sense of responsibility" to improving the quality of water in the bay, Brody added.