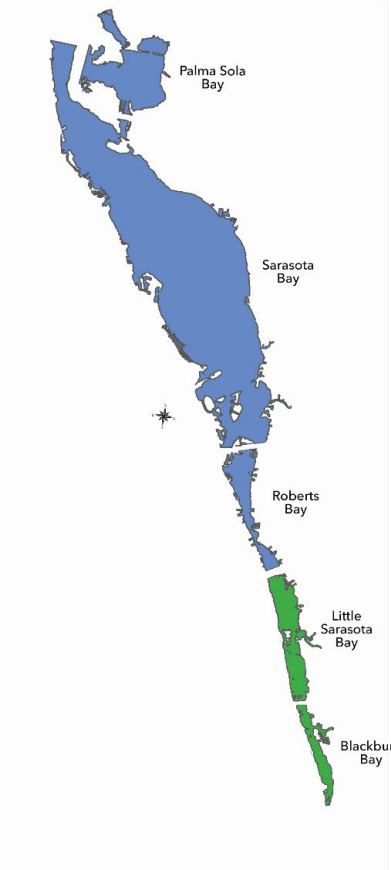


BAY REFLECTIONS

News from the Sarasota Bay Estuary Program

April 2022

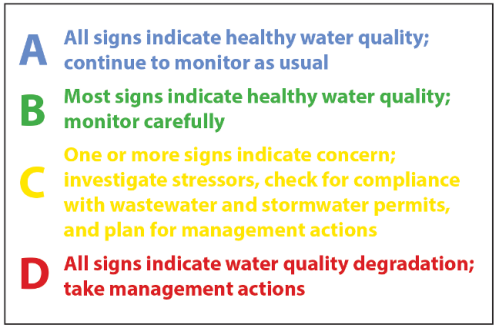
2022 Sarasota Bay Ecosystem Health Report Card indicates water quality is on the upswing



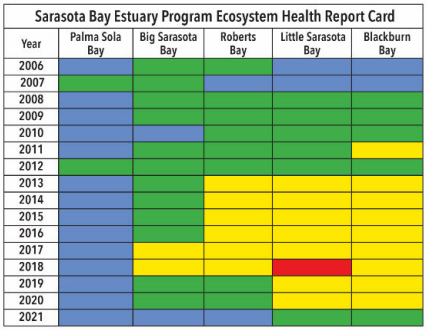
The 2022 Sarasota Bay Ecosystem Health Report Card is now available to view on the SBEP website. The report card shows improved ecosystem health conditions over the 2021 report card. SBEP uses four measurements, or indicators, of ecosystem health to assess conditions in our bays. Across the board, the 2022 Sarasota Bay Ecosystem Health Report Card indicates that water chemistry is on the upswing, hopefully setting the stage for eventual seagrass recovery.

In 2021, most signs indicated good ecosystem health overall in Palma Sola, Sarasota, and Roberts Bays despite lingering impacts from severe red tides, Hurricane Irma, and Piney Point discharges. Big Sarasota Bay lost a significant amount of seagrass acreage between 2018-2020, likely as an indirect result of the 2017 and 2018 red tides. However, other ecosystem health indicators suggest that conditions are improving. SBEP staff and partners will continue to monitor seagrass recovery in affected areas.

Ecosystem health in Little Sarasota and Blackburn Bays appears to be on an upward trajectory, likely due to management actions that have been taken to reduce wastewater discharges to these bays. SBEP expects this trend to continue as Sarasota County fulfills its commitment to investing in Advanced Wastewater Treatment upgrades at the Bee Ridge Wastewater Treatment Facility.



Sarasota Bay Ecosystem Health Report Card Legend



Sarasota Bay Ecosystem Health Report Card

Click here to read more about the 2022 Report Card

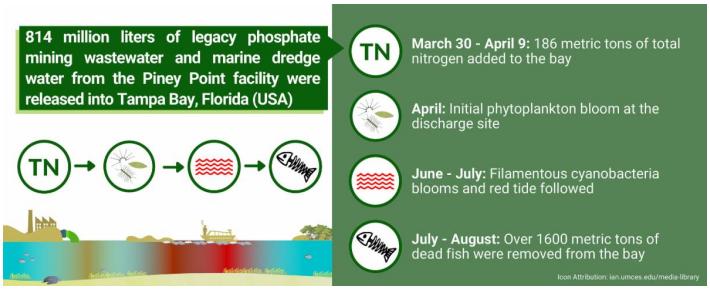
Peer-reviewed articles on Piney Point and red tide demonstrate impacts of nutrient inputs

Read more about Piney Point impacts:

Read the open-access article online: "Initial estuarine response to inorganic nutrient inputs from a legacy mining facility adjacent to Tampa Bay, Florida"

Download the article PDF from the SBEP website

Tampa Bay Times: What we know about Piney Point's impact on Tampa Bay

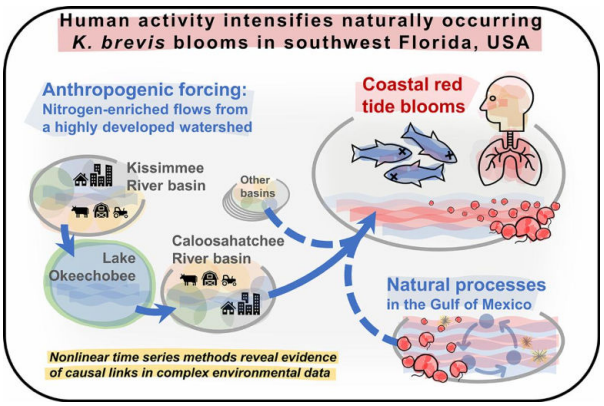


In April 2021, over 215 million gallons of phosphate mining water and marine dredge water, rich in algae-driving nitrogen, were released into lower Tampa Bay from the Piney Point facility. Led by the Tampa Bay Estuary Program, a group of scientists and managers immediately began to monitor the ecological impacts of the spill. A new peer-reviewed paper in the journal Marine Pollution Bulletin details the group's findings. Lead authors with the Tampa Bay Estuary Program along with co-authors representing the University of Florida, the University of South Florida, New College of Florida, the Florida Fish and Wildlife Conservation Commission, and the Sarasota Bay Estuary Program describe observations of diatom blooms and high levels of cyanobacteria and the red tide organism *Karenia brevis* in the impacted area in the months following the discharge.

Read more about the new red tide paper:

Read the article online: "Nitrogen-enriched discharges from a highly managed watershed intensify red tide (Karenia brevis) blooms in southwest Florida"

Download the article PDF from SBEP's Technical Reports page



University of Florida News: "Human activity 'helped fuel' red tide events, new study reveals"

WFLA: "Humans impact red tide intensity, new study finds"

Fort Myers News-Press: "Humans make red tide worse, nitrogen flows 'systematically intensify blooms' study says"

SBEP Executive Director Dr. David Tomasko, with researchers from the University of Florida and Sanibel-Captiva Conservation Foundation, co-authored a recent peer-reviewed article in the journal *Science of the Total Environment* titled "Nitrogen-enriched discharges from a highly managed watershed intensify red tide (*Karenia brevis*) blooms in southwest Florida." Offshore processes explain how red tides begin off the coast and move toward shore. Yet as blooms meet with the coast, human-contributed nutrients, specifically nitrogen, can influence bloom intensity and duration. This paper uses computational methods to connect discharges from the Caloosahatchee River to intensified red tide blooms in Southwest Florida between 2012 and 2021. The authors conclude that watershed-scale nutrient management will likely be necessary to reduce human impacts on red tide blooms in Southwest Florida.

New Green Living Toolkit website activates effective solutions for sustainable living



Sustainability experts from the **Science and Environment Council of Southwest Florida**, with support from the **Charles & Margery Barancik Foundation**, have curated a toolkit of resources to help residents get laser focused on the fifteen most effective and achievable solutions for sustainable living on the Suncoast. The Green Living Toolkit is the first-of-its-kind essential guide to sustainable energy, food, waste recovery, water protection and nature assembled all in one place. The Toolkit features step-by-step guides, tools, calculators, incentives, videos, expert advice, and a comprehensive sustainable events calendar. Not sure where to start? Sign up for the monthly Green Living Toolkit newsletter to receive ideas and activities for the most effective and achievable solutions for sustainable living, sustainable events happening around town, and more!

Click here to explore the Green Living Toolkit

Click here to sign up for the Green Living Toolkit newsletter

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Bay Partners Grant Project Highlight: Rivendell Community Association







Rivendell Community Association in Osprey, Florida received a 2021 **Sarasota Bay Partners Grant** to add native plants to fourteen stormwater retention ponds in the 400-acre community. To fulfill the community engagement aspect of the Bay Partners Grant, 33 Rivendell residents logged 294 hours of wildlife observations around the newly-planted ponds between November 13-21, 2021. During that period, dubbed “Rivendell Wildlife Week,” residents recorded over 4,000 observations of 80 different species.

In their grant report, Rivendell project managers wrote, "Rivendell Wildlife Week was a great success. It helped educate residents about the concept of healthy ponds and clean water, tied pond health to their interest in wildlife, and provided a way for all residents to get involved. We plan to continue the wildlife counts each fall and spring for the next several years, and hope to grow even greater community interest in the project over time.”

The Sarasota Bay Partners Grants Program makes awards to community organizations for projects that will benefit Sarasota Bay. **Read about other Bay Partners projects on the SBEP website**.

Testimonials from Rivendell residents:

Nancy D. writes, “We enjoy watching the wildlife, I love taking their pictures, and we're both interested in how the wildlife are benefiting from our LMZ (low maintenance zone) and all the many pond plantings. Several of the pictures that I took show that the wildlife LOVE those shoreline plantings since that seems to be where the best food is being ‘served.’"

Tim C. writes, “I enjoyed noticing the wildlife and trying to get pictures. I enjoyed this so much that I downloaded an app called **iNaturalist** so I can try to identify the wildlife I photograph with my cell phone.”

SBEP hiring Community Science Intern



SBEP seeks a part-time, paid intern to support several projects to increase community engagement in ecological monitoring and restoration projects in Sarasota Bay. Under the supervision of the SBEP Director of Planning and Communications and Staff Scientist, the intern will work with volunteers and other stakeholders to advance key public engagement initiatives, including the **Vertical Oyster Garden adoption program**, the **Eyes on Seagrass macroalgae monitoring program**, and the **Sarasota Bay Guardians Volunteers program**. The intern will be encouraged to explore new opportunities for public engagement and community science.

Please send a cover letter and resume with three references to Darcy Young, SBEP Director of Planning and Communications, at darcy@sarasotabay.org by 5:00 PM on Friday, May 6, 2022.

Click here for the full Community Science Internship description

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SBEP Citizens Advisory Committee seeks additional members

SBEP seeks interested Sarasota-Manatee community members to join the Citizens Advisory Committee! If you or someone you know would like to become more engaged with what's going on in and around Sarasota Bay, please consider submitting an application to become a member.

The Citizens Advisory Committee provides community input to SBEP and assists the Program in sharing information with the public. It also develops action plans to support SBEP programs and projects in an effort to influence public policies that impact the Bay and its resources. Members meet every other month on the first Monday from 4:30-6:30 to discuss the latest issues and updates and offer feedback. No prior board experience necessary.

Click here for more information about the Citizens Advisory Committee

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Green Jobs

- **Coastal & Heartland National Estuary Partnership: Finance & Grants Manager, Public Outreach Specialist, Conservation Associate Intern**
- **UF/IFAS Extension Sarasota County: Energy & Utility Specialist**
- **Sarasota County Environmental Specialist III – Petroleum Restoration**
- **Sarasota County Environmental Specialist II – Air and Water Quality**
- **Sarasota County Parks, Recreation and Natural Resources - P & R Specialist III**
- **Conservation Foundation of the Gulf Coast: Development Officer**
- **Conservation Foundation of the Gulf Coast: Events Manager**
- **Save Our Seabirds: Facilities and Grounds Manager**
- **Mote Marine Laboratory & Aquarium: multiple positions**
- **Resilience & Vulnerability Assessment Specialist, Land O'Lakes and New Port Richey, FL** (search "resilience")

SBEP Events & Volunteer Opportunities

Join SBEP for one of these upcoming events! Get your snorkel on for the annual Sarasota County Seagrass Survey, or if sitting back is more your speed, join SBEP Executive Director Dr. David Tomasko for a presentation at the Bishop Museum *think & drink / science.* Hungry? Head to Southface Sarasota for an Earth Day Extravaganza with food trucks and a side of electric vehicles - SBEP will be there with Bay-friendly tips. For the wildlife-curious, we will co-host a bioblitz of Leffis Key to document as many estuary species as we can for the **City Nature Challenge**. Then, grab your paddle or gardening gloves and join us for the Whitaker Bayou Healthy Communities event, featuring opportunities to celebrate and steward the neighborhoods surrounding Whitaker Bayou.

THE BISHOP Museum of Science and Nature

Thursday, April 21, 6:30 - 8:30 PM
think & drink / science
The Bishop Museum of Science & Nature
"Taking Care of Sarasota Bay: Current Conditions and Actions for a Healthier Future" $15 members/$20 public



Saturday, April 23, 10:00 AM - 2:00 PM
Earth Day Extravaganza!
Southface Sarasota
Exhibitors, music, food, electric vehicles, & more.



Saturday, April 30, 8:00 AM - 1:00 PM
Sarasota County Seagrass Survey and Festival
Sarasota Sailing Squadron
Marine themed exhibits, games, food, and more.



Monday, May 2, 9:00 AM - 12:00 PM
City Nature Challenge Leffis Key BioBlitz
Leffis Key Preserve
Document as many species as you can on the iNaturalist app.



Saturday, May 14, 9:30 AM - 1:30 PM
Whitaker Bayou Healthy Communities Event
Dr. Martin Luther King Jr. Park, City of Sarasota
Join us for a day dedicated to environmental & community health! Pick between a paddle cleanup of Whitaker Bayou or a workday at Orange Blossom Community Garden.

Community & Parner Events

Check out other upcoming green events on the Green Living Toolkit Community Events Calendar!

Click here for more sustainability events

Bite Sized Bay News



Sarasota County launches major expansion of Bee Ridge wastewater facility

"The facility, which produces reclaimed water for northern unincorporated Sarasota County, is going to be converted into an advanced wastewater treatment facility. This will make it more effective at removing harmful nutrients – including nitrogen and phosphorus – from wastewater."

Read more in the Sarasota Herald Tribune



State Awards Selby $1.4M for Shoreline Restoration

'"With this important funding, we will be able to protect the shoreline of our invaluable 30-acre Historic Spanish Point campus on Little Sarasota Bay, which is very vulnerable to storms and erosion,' said Jennifer Rominiecki, president and CEO of Selby Gardens."

Read more in SRQ Magazine



Conservation concepts roll out for Sarasota County-owned Quads land

"If all goes as envisioned on land just west of Celery Fields, snowbirds might one day be the only migratory creatures unable to tell where the already-established nature sanctuary ends and where a new project to “re-wild” a trio of adjacent county-owned parcels begins."

Read More in the Longboat Key Observer

Water Reading and Watching Around the Web

Florida women hope to 'diversify the lineup' for Black surfers



"From the deck of her parents' boat in Tampa Bay, GiGi Lucas grew up watching orange sherbet sunsets and the nautical wonders of the ocean. Lucas always loved being in the water, but it wasn't until she was 35 that she discovered the true beauty of learning to surf in it."

Read more in the Sarasota Herald Tribune

The urine revolution: how recycling pee could help to save the world



"Separating urine from the rest of sewage could mitigate some difficult environmental problems, but there are big obstacles to radically re-engineering one of the most basic aspects of life."

Read more in Nature

NOAA releases 2022 Sea Level Rise Technical Report

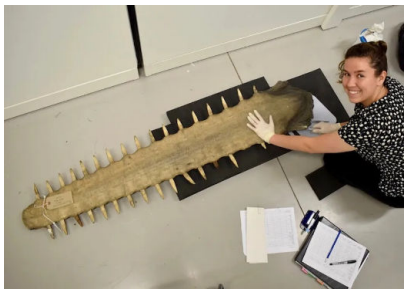


"This multi-agency effort, representing the first update since 2017, offers projections out to the year 2150 and information to help communities assess potential changes in average tide heights and height-specific threshold frequencies as they strive to adapt to sea level rise."

Read the 2022 Sea Level Rise Report

View Coastal County Snapshots

Antique Sawfish Rostra Yield Valuable DNA, Museum and Private Collections Aid Scientists



"The most direct way of quantifying any change in genetic diversity in sawfishes is to compare the levels of genetic diversity in contemporary populations to those from the past. Thankfully, old, dried sawfish rostra housed in public and private collections around the world contain the DNA of historic populations."

Read more on Seven Seas Media

Earth Month programming at WEDU



Tune in to WEDU this month for special Earth Month programming featuring deep dives into climate change, Florida's coastal dune lakes, and more. Click the image at right for a list of Earth Month programming, or visit WEDU.org.

See the online WEDU schedule

Book a Speaker from SBEP

SBEP staff members regularly speak to homeowner, neighborhood, and community groups and upper-level classrooms about Sarasota Bay ecology and restoration. Weekday and evening presentations are now being scheduled through Summer 2022.

Click here to request a speaker from SBEP

Follow us

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Sarasota, FL 34236

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