TBEP
TAMPA BAY ESTUARY PROGRAM
PARTNERSHIP FOR A HEALTHY BAY

PROGRAM ACCOMPLISHMENTS: 2016–2018

STATE OF THE BAY

TBEP
TAMPA BAY ESTUARY PROGRAM
PARTNERSHIP FOR A HEALTHY BAY

MESSAGE FROM OUR EXECUTIVE DIRECTOR

Tampa Bay is entering a new chapter in its recovery. Through 2018, the Program has experienced transitions, unique challenges and new opportunities for collaboration.

Long-time Program leaders Holly Greening and Nanette O'Hara retired, leaving a strong legacy, while Lindsay Cross pursued new leadership roles and became an external partner for restoring Florida's important habitats. We also welcomed new staff that have invigorated our research and outreach initiatives, including Gary Raulerson, Ecologist; Maya Burke, Science Policy Coordinator; and Joe Whalen, Communication and Outreach Coordinator. To address ongoing and emerging challenges, we continue to build on the strength of our partnerships and long-term programs, while implementing new techniques in emerging fields of research and environmental communication.

As Tampa Bay's population tops 3.1 million people, we remain mindful of the ecological balance needed to sustain a healthy Tampa Bay and watershed. The prolonged red tide event in 2017-18 affected broad swaths of the SW Florida coast, exposing new environmental and economical vulnerabilities for our region. It also reminded us that we need to remain vigilant in reducing all nutrient sources within Florida's coastal watersheds. To date, we've invested more than $2.5 billion in restoration and protection efforts, and engaged in new and effective collaborations.

Our nutrient management strategy and partnerships are paying off. Today, one in five jobs is dependent on a healthy Bay. Through new research, we better understand that the Bay's environment is resilient. Our seagrasses remain above our original recovery goal and historic 1950s levels; coastal habitats, like mangroves, salt barrens and oysters, are maintaining or expanding; and, with few exceptions, fish and wildlife resources remain robust. Our environmental research, management and policy community is evolving and remains committed to sustaining efforts and investments to further protect and restore Tampa Bay. This gives me great hope that, together, we can write many more chapters of Tampa Bay's environmental recovery story.

Ed Sherwood
Executive Director

TBEP
MISSION

The mission of the Tampa Bay Estuary Program (TBEP) is to build partnerships to restore and protect Tampa Bay through implementation of a scientifically-sound, community-based management plan.

A SMART
INVESTMENT
FOR THE REGION

$

1→11

Over the last three years, TBEP has returned about $11.09 to the Tampa Bay region for every $1 invested by local partners to our core Program.

ABOUT THE

TAMPA BAY ESTUARY PROGRAM

The Tampa Bay Estuary Program is one of 28 National Estuary Programs designated by Congress to restore and protect "estuaries of national significance." The program is administered by the U.S. Environmental Protection Agency under the Clean Water Act. Each program must develop a science-based plan using community input to protect and enhance the natural resources of its respective estuary and surrounding watershed.

WE ARE ONE OF

28

"estuaries of national significance" designated by Congress and administered by the U.S. Environmental Protection Agency.

The Tampa Bay Estuary Program was established in 1991. It is an effective intergovernmental partnership, comprised of Hillsborough, Manatee, Pasco and Pinellas counties; cities of Clearwater, St. Petersburg and Tampa; the Southwest Florida Water Management District; the Florida Department of Environmental Protection; and the U.S. Environmental Protection Agency. A Policy Board of elected officials or representatives from the listed entities guides the strategic direction of the program. The Policy Board considers recommendations from a Management Board of high-level environmental scientists and administrators, including the chairs of various program committees.

The mission is supported by several committees, including a Technical Advisory Committee of scientists and managers; a Community Advisory Committee of engaged citizens; and a Nitrogen Management Consortium of representatives from municipalities, industries, agricultural entities and regulatory agencies.

TBEP

POLICY BOARD MEMBERS

Commissioner Charlie Justice, Chair
Pinellas County

Commissioner Stacy White - Vice Chair
Hillsborough County

Commissioner Priscilla Trace
Manatee County

Commissioner Mike Wells
Pasco County

Councilman Guido Maniscalco
City of Tampa

Councilman Bob Cundiff
City of Clearwater

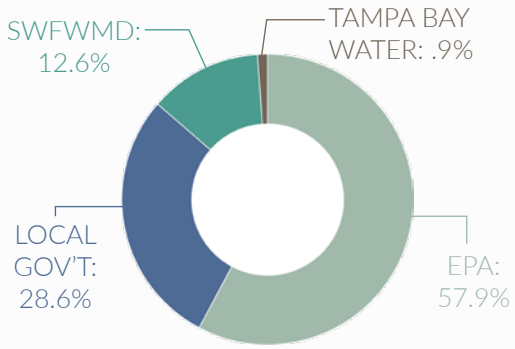
Councilmember Gina Driscoll
City of St. Petersburg

Jeff Adams
SWFWMD

District Director Mary Yeargan
FDEP

Mr. Tom McGill
U.S. Environmental Protection Agency

FUNDING AND MAJOR GRANTS



Over the past three years, TBEP agency-wide budget was an average of $2,091,603. Base funding support included $1,953,000 provided by the US EPA through congressional allocations. Our local government partners provided $965,298 and SWFWMD provided $425,466 toward base funding support. Tampa Bay Water also contributed $10,000 per year to our program.

In addition to our base funding, TBEP has three other principal revenue sources: The Tampa Bay Estuary specialty license plate, the Tampa Bay Environmental Restoration Fund (TBERF), as well as additional grants from granting agencies. Revenues from the license tag are returned to the community through our Bay Mini-Grants program, with a maximum of $5,000 per project. TBEP has been very successful in obtaining external grants to advance our key research and education priorities. From 2016–2018, we obtained more than $3.5 million in outside grants.

THE 2017

CCMP UPDATE

Tampa Bay, at 400 mi^2, is home to 200 species of fish; one-quarter of the Gulf Coast winter population of Florida manatees; and more than 26,000 pairs of herons, egrets and other colonial waterbirds that nest on bay islands each summer. Managing human and ecological needs, while supporting a strong economy, requires a strategic and forward-looking vision.

The Comprehensive Conservation and Management Plan (CCMP), also called "Charting the Course," is a collaboratively-developed, overarching document that guides the research, restoration and education efforts needed to sustain progress in bay restoration through the year 2027.

The second revision, finalized in 2017, includes 39 actions under three broad themes that address historical challenges and new or emerging concerns. And, for the first time, the vulnerability of each action to the effects of a changing climate was thoroughly assessed. The CCMP was developed with close input from the technical and community advisory committees and the management and policy boards. It reflects accomplishments made in the previous 10-year period and establishes specific, measurable goals for the next 10 years; including timelines, projected costs, and partners.

OUR THREE

GUIDING THEMES

INFORMED, ENGAGED AND RESPONSIBLE **community**

clean waters AND

THRIVING **habitats** AND ABUNDANT **wildlife**

The CCMP is divided into three major themes that guide the TBEP- and partner-led initiatives:

Inform and engage our partners and the public to appreciate, protect, and sustain Tampa Bay through responsible use, participation in restoration, and adoption of best practices.

Improve water quality by managing nutrient loads from urban, agricultural, and atmospheric sources and by reducing contaminants from spills and discharges.

Increase the number and diversity of healthy bay habitats through restoration and protection to support thriving fisheries and wildlife resilient to a changing climate.

UPDATE ON

WATER QUALITY

Water quality in Tampa Bay has improved steadily in recent decades due to pollution-reduction projects and restoration of bay habitats. Tampa Bay has generally met water quality standards in each bay segment since 2005.

Year	Old Tampa Bay	Hills. Bay	Middle Tampa Bay	Lower Tampa Bay
1991	Green	Yellow	Yellow	Yellow
1992	Yellow	Green	Yellow	Yellow
1993	Yellow	Green	Yellow	Yellow
1994	Yellow	Yellow	Red	Red
1995	Red	Yellow	Red	Yellow
1996	Yellow	Green	Yellow	Green
1997	Yellow	Green	Red	Yellow
1998	Red	Red	Red	Red
1999	Yellow	Green	Yellow	Yellow
2000	Green	Green	Yellow	Yellow
2001	Yellow	Green	Yellow	Yellow
2002	Yellow	Green	Green	Green
2003	Red	Yellow	Green	Yellow
2004	Red	Green	Green	Yellow
2005	Green	Green	Yellow	Yellow
2006	Green	Green	Green	Green
2007	Green	Green	Green	Green
2008	Yellow	Green	Green	Yellow
2009	Yellow	Yellow	Green	Green
2010	Green	Green	Green	Green
2011	Red	Green	Yellow	Green
2012	Green	Green	Green	Green
2013	Green	Green	Green	Green
2014	Green	Green	Green	Green
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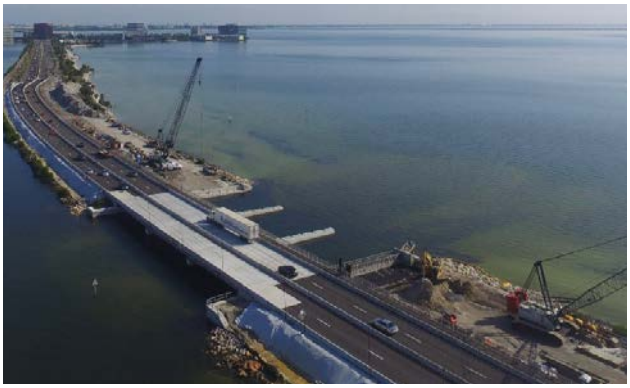
2016	Yellow	Green	Green	Green
2017	Yellow	Green	Green	Green
2018	Yellow	Green	Green	Green



Agencies from around the bay have monitored water quality since 1974. Currently, scientists sample more than 50 locations monthly, covering each of the four major bay segments. They measure light penetration and the amount of chlorophyll-a, indicators of clarity.

With the exception of "yellow" cautionary results in individual bay segments, water quality has been meeting standards and supports seagrass growth and expansion throughout the bay.

Old Tampa Bay exceeded the chlorophyll-a criteria in 2015 and 2017 and remained in a "cautionary" management state from 2015-2018. A bloom of the potentially toxic *Pyrodinium bahamense* algae has been detected in Old Tampa Bay during summer months, capitalizing on this segment's poor flushing. Reducing future blooms is a primary research and management priority for TBEP and numerous projects have focused on improving water quality and restoring habitats, primarily in Old Tampa Bay. TBEP and its partners are conducting algal bloom research and working on oyster restoration mitigation strategies to reduce the future occurrence and severity of blooms.

ACTION: Maintain progress in bay segments meeting water clarity standards. Direct additional research and restoration to Old Tampa Bay and other bay segments affected by algal blooms.

- **Green:** *"Stay the Course." Continue planned projects. Report data via annual progress reports and Baywide Environmental Monitoring Report.*
- **Yellow:** *"Caution Alert." Review monitoring data and nitrogen loading estimates. Begin/continue TAC and Management Board development of specific management recommendations.*
- **Red:** *"On Alert." Finalize development and implement appropriate management actions to get back on track.*

ABOUT THE

TBNMC

The Tampa Bay Nitrogen Management Consortium includes more than 50 partners, representing local municipalities, industry and agriculture. Members commit to reducing nitrogen discharges through a variety of projects and TBEP reports their collective reductions, along with water quality results, to the Florida Department of Environmental Protection (FDEP) and U.S. Environmental Protection Agency.

In 2017, FDEP recognized the Consortium for its exceptional work meeting water quality standards and the resulting increases in seagrass. As a result, Tampa Bay has been removed from the "impaired" list for nutrients. Continuing efforts to reduce nitrogen discharges will be required to maintain this designation.

THE TBEP

TARPON TAG

Landing a majestic, silvery tarpon is thrilling and unforgettable. As water quality in Tampa Bay improved, so has a robust recreational fishing industry. Chosen as an emblem of Tampa Bay's recovery, the tarpon splashes across the Tampa Bay Estuary license plate. Florida residents can show their support for Tampa Bay by "tagging up" with this specialty license plate. At just $17 after the 1st year, it's a great deal and 90% of revenue is returned directly to the community. Since 2000, more than $1.8 million of restoration and education projects have been funded through the Bay Mini-Grants program.

ACTION: Get your friends and neighbors to "Tag Up" with the Tampa Bay tarpon tag!

The cost is **$27** for the first year and **$17** for renewals—one of the lowest-cost plates in the state.

SINCE 2000, MORE THAN

$1.8 M

HAS GONE TO BAY RESTORATION AND EDUCATION PROJECTS (THROUGH THE MINI-GRANTS).

370 grants *have provided bay restoration and education projects since the year 2000.*

CHAMPIONING OUR COMMUNITIES THROUGH

BAY MINI-GRANTS

The award-winning Bay Mini-Grants program engages the community in protecting and restoring the bay. Revenues from the plate sales support grants up to $5,000 for neighborhood associations, schools, and other organizations to implement education and restoration projects. Examples include marine research and education curriculum at local schools, creation of community gardens, and development of web-based "apps" that help residents track marine debris. Each year the "Golden Mangrove" is awarded to the project that best exemplifies partnerships and accomplishes needed bay restoration or education.

THE VITAL IMPORTANCE OF

SEAGRASS

Tampa Bay continues to support more seagrass today than it did in the 1950s — a remarkable feat for an estuary that's seen an increase of 2.5 million residents over the same time period.

MANATEE GRASS

SHOAL GRASS

TURTLE GRASS

Seagrass symbols credit: Tracey Saxby, IAN Image Library (ian.umces.edu/imagelibrary/)

Seagrass is an important habitat for fish and other marine animals. It stabilizes sediments, produces oxygen, and reduces shoreline erosion. The coverage, species, and condition of seagrass are significant indicators of ecosystem health in Tampa Bay. Over the past 40-plus years, reductions in nutrient pollution (primarily nitrogen that fuel algal growth and cloud the water) by partners throughout the watershed have significantly improved water clarity, leading to increases in seagrass.

Tampa Bay has shown steady and consistent seagrass growth in recent decades. Since surpassing the 38,000-acre goal in 2014, seagrass coverage has stayed relatively stable, with 40,618 acres mapped in 2018. This is nearly double the acreage mapped in the early 1980s. Dense seagrass beds have also increased throughout the bay.

Some recent seagrass losses were measured in Old Tampa Bay and Hillsborough Bay. Seagrasses in these bay segments may be more susceptible to stormwater and river flow influences, as higher rainfall can contribute to reduced water clarity.

Maintaining current success will require improved stormwater and water quality management. Future expansion may be limited due to variable rainfall patterns, poor circulation in some areas and rising sea levels. Fortunately, as the proportion of dense seagrass beds increases in Tampa Bay, the beds may be better able to "weather" some years of poorer water quality or other threats.

ACTION: Identify causes of seagrass loss or slow recovery in "problem areas" throughout Tampa Bay and implement new strategies.

ABOUT THE

COMMUNITY ADVISORY COMMITTEE

An important component of the Tampa Bay Estuary Program's mission.

Community involvement is a hallmark of the Tampa Bay Estuary Program. The Community Advisory Committee (CAC) is comprised of engaged citizens nominated by Policy Board members or serving at large. As a voting member of the Management Board, the CAC advises the board and staff on critical issues and provides input on the program's management plans. In addition to attending community events such as Give-A-Day workdays and tabling at environmental festivals, the CAC reviews and selects recipients for the Bay Mini-Grants program.

A HASHTAG WITH PURPOSE:

#LOVETAMPABAY

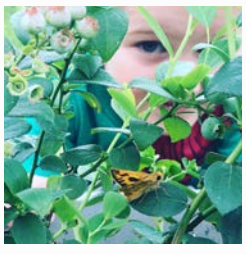
#LoveTampaBay is TBEP's latest community campaign, aimed at celebrating the beauty and wonder of Tampa Bay and its watershed. Residents and visitors are encouraged to DO MORE to protect the bay, LEARN MORE about how we depend on a healthy bay, and SHARE THE LOVE by posting photos showing how Tampa Bay inspires us. Next time you're fishing, paddling, hiking or picnicking around the bay, snap and share a picture on your social media accounts with the hashtag **#LoveTampaBay.**

RECOGNIZING OUR TOP THREE FINALISTS:

STATE OF THE BAY PHOTO CONTEST WINNERS

Guided by themes of wildlife, recreation, restoration, and education, Tampa Bay-based photographers submitted their best shots for a chance to be featured in this report. In addition to our cover page entry submitted by Joshua Broer (credit on back cover), we would like to recognize the remaining top entries below.

1ST PLACE:
Safety Harbor Sunrise
By Terrie Dahl-Thomas
Theme: Recreation



2ND PLACE:
Skipper on our Blueberry Bush
By Gloria Brooks Cannon
Theme: Education

TBERF

Since 2013, TBERF has funded 55 projects, including direct restoration of more than 1,000 acres of seagrass, wetlands and coastal uplands.

The Tampa Bay Environmental Restoration Fund (TBERF) awards grants annually for water quality improvement, habitat restoration, fish and wildlife protection, environmental education, and applied research and monitoring. The program leverages public and private dollars from 16 funders to achieve measurable conservation outcomes within the Tampa Bay watershed.

This successful partnership has secured over five million dollars, amplifying the work conducted through our traditional funding sources. Multiple TBERF projects are highlighted throughout this document.

ACTION: New funding partners are welcomed. Local, state and federal governments; non-profit organizations; and educational institutions are encouraged to apply.

ABOUT THE

TECHNICAL ADVISORY COMMITTEE

Setting the right research and restoration priorities for Tampa Bay requires the knowledge and expertise of those that monitor, model and manage the health of the bay day-in and day-out.

Scientists and managers, ranging from fisheries biologists and ecologists to climate scientists and habitat specialists, meet regularly as members of the Technical Advisory Committee (TAC). The group includes government, business, non-profit, and educational institutions, and is a voting member of the Management Board. Collectively, the TAC provides valuable input to the board and staff on research and restoration needed to maintain progress towards improving water quality, restoring habitats, and supporting healthy fish and wildlife populations.

SCORECARD TRACKING:

NEKTON INDEX

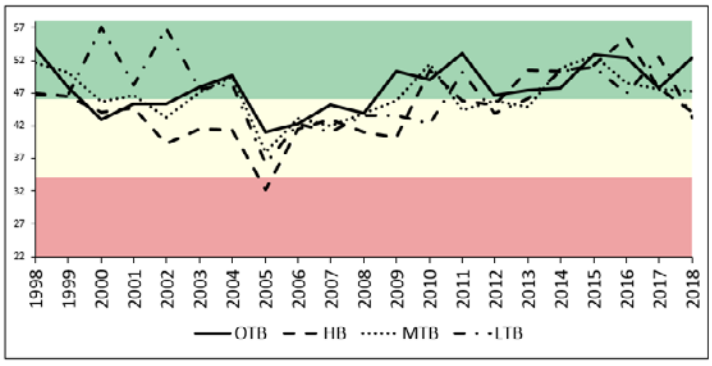
Fishing is one of the most popular recreational activities in Tampa Bay. A new scorecard communicates the health of fish and large invertebrates like shrimp and crabs, collectively called "nekton."

The nekton index, which is similar to the water quality scorecard, uses catch data from the State's Fisheries Independent Monitoring Program to track trends for representative species. With samples dating back to 1989, there is a long-term record that can be related to water quality and habitat characteristics. The index groups and assesses catch data according to habitat use, species composition and diversity, and feeding dynamics to understand trends in the fish community.

An annual "snapshot" of ecological health helps fisheries managers target efforts to improve habitat or other factors, if persistently low scores below "normal" conditions are detected. While the data period does not include "pristine" conditions, the community appears to be resistant to large-scale changes and resilient to episodic disturbances over the period the index was developed. "Yellow" cautionary scores in the mid-2000s and 2010/11 coincided with red tide or cold snaps, however, the index doesn't specifically point to these events as direct causes of declining scores. Regardless, nekton communities appear to have rebounded, with all four major bay segments receiving "green" scores the past four years.

ACTION: Continue monitoring nekton health annually and incorporate the index into habitat restoration planning.

NEKTON INDEX SCORES



Mean yearly small seine nekton index scores for each Tampa Bay Estuary Program bay segment (**OTB** = Old Tampa Bay, **HB** = Hillsborough Bay, **MTB** = Middle Tampa Bay, **LTB** = Lower Tampa Bay). Background colors are the "stoplight" color-coding.

THE BAY'S

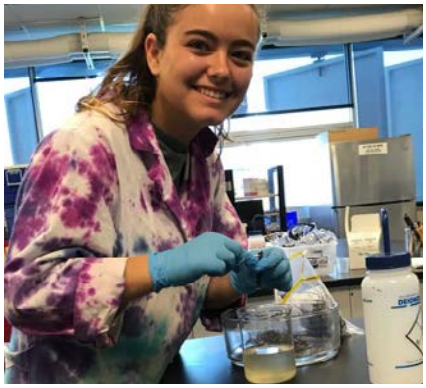
DREDGED HOLES

Tampa Bay is dotted with some 40 dredged holes — deeper areas created by excavating sediments for urban development. While some are inferior habitat due to lower oxygen levels or an accumulation of toxins in sediments; others are prized by fish and other animals that use them to rest, hide, or as warm water refuges.

Scientists monitored fish, water quality, sediments and bottom dwelling organisms, like worms and crustaceans, in and around 11 holes during a 2016/17 study. They recommended partial or complete filling of four holes (Bay Point, MacDill Docks, Ft. DeSoto and Culbreath South) to improve habitat characteristics. The remaining holes are providing adequate to excellent habitat and were recommended to remain unfilled.

MICROPLASTICS AWARENESS PROJECTS

Microplastics are tiny, often microscopic, fragments of plastic that can harm marine life. Several recent grants explored how much exists in our waterways and ways to reduce them.



Microplastics are very small (less than 5mm) and can come from larger plastics, like discarded recreational debris or fishing gear, breaking down. They are also found in personal care products and synthetic fabrics can break down while being washed, so sampling wastewater effluent can reveal the contribution from these sources.

Researchers sampled and analyzed microplastics from three wastewater discharges, seven open bay sites, and in nearby sediments. They measured the number, size, and type of microplastics and also examined the gut content of small crustaceans and deceased manatees to determine whether they had ingested plastics.

Microplastics were found in all water and sediment samples.

There were no clear trends but abundance was generally higher in middle to lower portions of the bay and during the summer. Microplastics were detected in the guts of all the crustaceans and half of the manatees sampled, indicating they are regularly ingested by marine animals.

On another front, educators attended community events at regional parks and preserves and shared ways the public can reduce plastics use. Citizens were encouraged to sign pledge cards and received reusable alternatives, such as metal straws or bamboo utensils. Of those that completed a follow-up survey, 80% shared information about microplastics with others and two-thirds now avoided using plastic straws.

ACTION: Continue sampling the bay for microplastics and discourage single use plastic products, especially when alternatives are available.

LITTLE MANATEE CORRIDOR PLAN

The Little Manatee River Corridor Plan assesses the current habitats and restoration opportunities within the 7,360-acre Little Manatee River Nature Preserve in Hillsborough County. Ecologists mapped and measured the health of native forested uplands, coastal wetlands, intertidal and open water areas, as well as negative impacts associated with agricultural production, non-native vegetation, and changes to historic water flow. Dividing the large preserve into 10 management areas, the holistic plan recommends specific restoration activities for each area, including how to best manage non-native plant species over the next 20+ years.

THE 2015

BASIS SUMMARY

The Bay Area Scientific and Information Symposium (BASIS) is the preeminent forum for sharing state-of-the-art research, habitat restoration techniques and educational tools focused on Tampa Bay and its watershed.

Started in 1982, the 6th symposium, held in 2015, drew more than 200 scientists, resource managers and students and featured 75 oral and poster presentations. The theme—Navigating Changing Tides—reflected 21st century environmental challenges and innovative strategies to address them.

Climate change was a major topic. Scientists presented new information about how it may affect the Tampa Bay region and ways that healthy wetland habitats can lessen its impacts. Anthropologists and educators shared ways to engage community members in talking about and preparing for climate change.

A session on emerging technologies explored ways to measure microplastics in the bay, how erosion on Egmont Key may impact tides and storm surge, and new forensic techniques that reveal the life history of fish.

Biologists exchanged techniques to improve habitat restoration and refine permitting. Attendees discussed ways to collaboratively involve business and industry in habitat and wildlife protection. Finally, managers debuted long-term watershed management plans and innovative tools to involve students and residents in reducing pollution in their communities.

The symposium was jointly developed with a partner steering committee and the Tampa Bay Regional Planning Council.

HARD BOTTOM/ OYSTERS

MAPPING UNIQUE BAY BOTTOM HABITATS

Amongst the sand- and mud-dominated bottoms of the bay are unique habitats teeming with life. Rocky substrates, called hard bottom, can be covered with sponges, soft corals, algae, and live rock, and attract commercially- and recreationally-important fish species. Oysters often form large bars amongst the Bay's shallow waters and man-made structures, and tidal flats are non-vegetated, shallow-water habitats, valued as feeding areas by wading birds.

Maps covering portions of Tampa Bay for these relatively rare habitat types have been created. While tidal flats have been mapped for decades, oysters were first identified on seagrass maps in 2014. To map hard bottom, often found in deeper portions of the bay, side-scan sonar that uses sound waves to detect habitat features was used. Results were verified with GIS and underwater videos.

ACTION: Use these maps and data to set habitat protection and restoration targets for these critical marine habitats.

THE IMPORTANCE OF

BLUE CARBON

Coastal wetlands may combat climate change impacts, in addition to providing habitat and food for marine animals, improving water quality, and protecting shorelines from flooding and storms.

The burning of fossil fuels and conversion of natural lands for urban development emit CO_2 and other greenhouse gases. Wetland and upland plants can store (or sequester) carbon, reducing its contribution to climate change.

The Tampa Bay Blue Carbon project documented the carbon storage capabilities of marine ecosystems, such as mangroves, tidal marshes and seagrasses. These remaining natural and undeveloped areas in the bay are estimated to store between 73-74 million tonnes of CO_2 from the atmosphere by 2100, the equivalent of removing approximately 15.5 million fossil-fueled vehicles from the roads by that time. Since 2006, restored wetlands have already removed 217,000 tonnes from the atmosphere.

Additional strategies to encourage better management and investment in habitat restoration and coastal adaptation projects are needed. This may include estimating how retaining and creating new wetlands could be developed through voluntary carbon markets and other finance programs.

ACTION: Restore key bay habitats and explore new mechanisms to finance restoration through a blue carbon market.

MEASURING CARBON THROUGH

CITIZEN SCIENCE "TEA BAGS"

The Tea Bag Index uses common tea bags to demonstrate how some habitats store carbon in soils. Building on a worldwide initiative, 40 volunteers and college students buried 136 tea bags in coastal uplands and mangroves in Manatee County. After 10 weeks, they dug up the bags and measured the remaining tea mass. Bags with more tea remaining indicate the habitat may store more carbon. Of the habitat types measured, mangroves were estimated to retain the most carbon.

COMMUNITY IMPACT

WHY WE ALL

GIVE-A-DAY FOR THE BAY

Volunteers put in "sweat equity" to clean and restore bay-area parks and preserves during frequent Give-A-Day events. From removing exotic vegetation to creating living shorelines, these interactive events encourage volunteers to get dirty, give back, and have fun!

973 VOLUNTEERS

REMOVED **25** TONS OF TRASH & INVASIVE PLANTS

PLANTED **28,500** NATIVE PLANTS

AND COLLECTED **145** POUNDS OF NATIVE SEEDS

DIVERSIFYING AUDIENCE AND IMPACT THROUGH

COLLEGE PARTNERSHIPS

TBEP teamed up with a senior marketing class from the University of Tampa to better engage college-aged audiences. This ongoing partnership has already produced valuable insights for marketing our Tarpon Tag and generated exciting ideas about how to use "influencers" to better position the TBEP within the social sphere.

2018-2023 STRATEGIC

COMMUNICATION PLAN

The 2018-2023 Strategic Communication Plan highlights four key recommendations for the TBEP to implement: diversify audiences and community impact; distill our digital/web presence; apply lessons-learned and social science research for assessment; and develop meaningful indicators and metrics to report on activities.

A BRIEF LOOK AHEAD

COMING IN 2019:

HABITAT MASTER PLAN

Protecting and restoring a diversity of habitats is critical to supporting abundant fish and wildlife species at all life stages. While development has led to losses, restoration efforts have returned more than 22,000 acres of valuable coastal and upland habitats. The Habitat Master Plan strategically outlines restoration priorities so that financial resources are used efficiently and effectively. The updated plan, anticipated in late 2019, will identify specific locations within the watershed that may be suitable for restoring a mosaic of habitats, taking into account continuing development, climate change, and sea level rise.

TBEP.ORG

WEBSITE

TBEP is embarking on a complete redesign of our website, integrating the program's many moving parts into one modern and concise platform. The new website will feature TBEP's core programs and products, highlight and report on the bay's current condition, and keep the public abreast of upcoming events and activities.

SSO

SANITARY SEWER OVERFLOWS

TBEP is developing a new social marketing campaign focused on encouraging homeowners to maintain and repair their privately-owned sanitary sewer lateral pipes. A goal of this project is to address the causes of sanitary sewer overflows. It will incorporate techniques and lessons-learned from the successful Be Floridian campaign to inspire specific behavior changes.

FLORIDA NEPs

RED TIDE SOCIAL MARKETING

Florida's NEPs are banding together to assess the public's understanding of red tide and employ social marketing tactics to plan and implement an outreach campaign focused on coastal nutrient management.

UNDERSTANDING

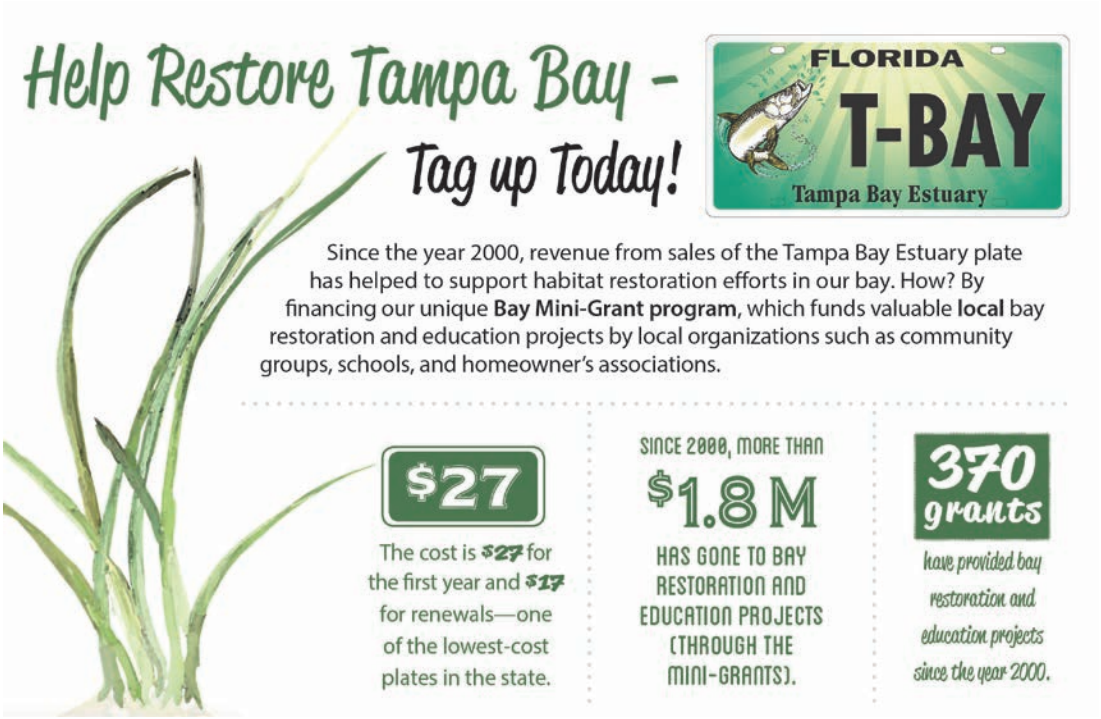
OCEAN ACIDIFICATION

New research from Tampa Bay shows that expanding seagrass beds can buffer changes in ocean chemistry that create an inhospitable environment for shellfish and other organisms. CO_2 absorbed in the ocean can lower pH levels, eventually dissolving the exterior of corals and shellfish. Since the 1980s, pH levels in Tampa Bay have risen in tandem with seagrass recovery, and despite increasing global CO_2 concentrations. New monitoring stations near Port Manatee and in the nearshore Gulf of Mexico will help scientists better understand pH trends and the beneficial role of healthy seagrass beds.

PROGRAM ACCOMPLISHMENTS: 2016–2018

STATE OF THE BAY REPORT

PHOTO CONTEST WINNER, 3RD PLACE
(See p. 8 "Photo Contest Winners"):
Juvenile Tarpon on Fly
By Joshua Broer
Theme: Recreation
Location: Little Manatee River



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