

Tampa Bay Estuary Program



RETURN ON INVESTMENT

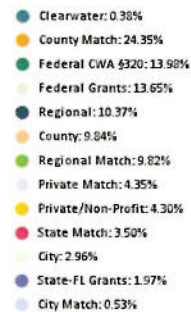


For every **\$1** contributed
by the City of Clearwater

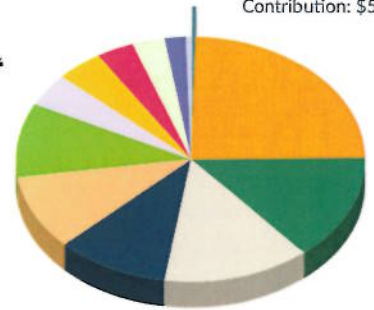
TBEP leveraged \$260

Total leveraged from all funding sources: **\$15.28 Million**

TBEP Funding Sources
2021-2023



Total Clearwater
Contribution: \$58,619



National Meets Local at BASIS7-ANEP Conference

TBEP hosted the joint Bay Area Scientific Information Symposium (BASIS7)/ Association of National Estuary Programs (ANEP) conference in February 2022. Nearly 300 attendees joined from across the country to share research, education, management, and policy findings. Video recordings of the sessions are available at tbep.org. Proceedings will be published in the journal *Florida Scientist*.



State of the Bay

The State of the Bay summarizes data from 2019 to 2021 to provide a snapshot of the successes and challenges for each of the Program's priorities. Key takeaways from the report include:

- Upper Tampa Bay has clear indicators of stress. Investment in projects that enhance water quality, reduce nutrient pollution, and improve tidal circulation are top priorities.
- Availability of habitat restoration opportunities continue to decline as a result of urbanization, emphasizing the importance of securing remaining land opportunities for critical habitat restoration efforts.
- Community attention to the health of Tampa Bay has increased in recent years, due in part to environmental challenges like Piney Point, red tide, and state-wide manatee mortalities. Engaging communities for long-term bay protection is vital.



Redesigning Causeways for Resilience

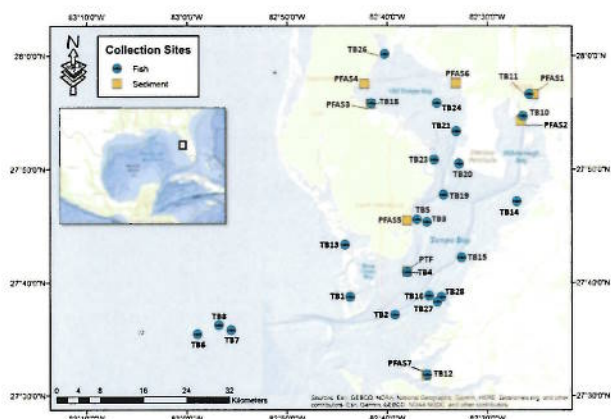
Causeways in Old Tampa Bay reduce the natural and necessary flushing of water in and out of the Bay. These conditions contribute to recurring blooms of the harmful alga *Pyrodinium bahamense* which affect water quality and seagrass growth.

The “Genetic Algorithm for the Selection of Causeway Cuts in Old Tampa Bay” project developed a mathematical approach to determine the most effective locations for potential causeway breaches. The proof-of-concept focused on the effects of various cut through options on the western span of the Courtney Campbell Causeway to maximize flushing near Old Tampa Bay.

Future efforts to build upon this work will combine hydrodynamic, water quality, and biological models to assess the potential of causeway modifications to reduce summertime algae blooms and provide other benefits to bay resources. These models will be used to identify causeway modifications that optimize costs and benefits to water quality.

PFAS in Tampa Bay

A new University of South Florida study that was supported by the Tampa Bay Environmental Restoration Fund (TBERF) assessed the concentration and distribution of per- and polyfluoroalkyl substances (PFAS) within Tampa Bay. These chemical compounds are found in fire-fighting foams, food packaging, stain-resistant products, and non-stick coatings and can be toxic to both people and wildlife. Sediment and fish were sampled and data showed that PFAS pollution was highest in Old Tampa Bay and lowest in Terra Ceia Bay.



Results suggest that these substances accumulate in the food web and that some recreational fish species caught in portions of the bay have relatively high PFAS concentrations which may pose an elevated health risk for people who consume three or more meals per week of locally-harvested fish. Expanding this pilot study to concentrate on the recreational fish species that are most commonly consumed by people who rely on subsistence fishing for food, especially from Old Tampa Bay, was recommended.

Thank you for your continued support!

TBEP is a partnership of Hillsborough, Manatee, Pasco, and Pinellas counties; the cities of Clearwater, St. Petersburg, and Tampa; the Southwest Florida Water Management District; the Florida Department of Environmental Protection; and the US Environmental Protection Agency.



tbep.org