



**SARASOTA BAY
ESTUARY PROGRAM**

Restoring Our Bays

BIPARTISAN INFRASTRUCTURE BILL (BIL) FUNDS

Workplan and Proposed Budget for FY22 & FY23

(October 1, 2021 – September 30, 2023)

August 2022

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INTRODUCTION

In the fall of 2021, President Biden signed into law the \$1.2 trillion Infrastructure and Investment Jobs Act, aka the Bipartisan Infrastructure Law (BIL). The BIL contains more than \$50 billion in funding for the U.S. Environmental Protection Agency (EPA) for responding to national needs on drinking water, wastewater and stormwater infrastructure. About \$20 billion is proposed for the Drinking Water State Revolving Fund and \$15 billion for replacing lead pipes for water supplies (e.g., Flint, Michigan water supply issues). About \$12 billion is focused on Clean Water State Revolving Fund projects, which would deal with issues related to water quality such as wastewater upgrades, etc.

Of particular interest to the Sarasota Bay Estuary Program (SBEP) is that the infrastructure deal includes \$132 million for EPA's National Estuary Program (NEP) to be disbursed over five years, starting sometime in 2022. There are 28 NEPs across the country, and the language in the BIL says that all 28 NEPs would equally share in the funds. This would equal about \$943,000 per year per NEP. The language in the bill allows EPA 3% of the distribution to oversee these funds, which would bring the SBEP's anticipated funding to about \$909,800 per year for each of the next five years.

There is no local cost-share match requirement for FY22 and FY23 funds, and received guidance is that these funds would not all have to be entirely spent in the fiscal year in which they first become available. However, EPA guidance is that these funds are meant to be used for implementing projects consistent with each NEP's Comprehensive Conservation and Management Plan (CCMP). Further, BIL-funded projects should include elements that respond to climate change and resiliency and include outreach and educational efforts for underserved communities and environmental justice concerns, to the greatest extent possible. For the latter FY24 to FY26 funds, each of the 28 NEPs is expected to develop an equity strategy for BIL funds. To help quantify environmental justice aspects of the proposed projects, the SBEP used two draft screening tools. The first is EPA's Environmental Justice Screening and Mapping tool (Version 2.0) - [EJScreen \(epa.gov\)](https://www.epa.gov/ejscreen). and the second screening tool is a draft product from the White House Council on Environmental Quality, titled "Climate and Economic Justice Screening Tool" - [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](https://www.geoplatform.gov) .

ANTICIPATED USE OF BIL FUNDS

For FY22, which started in October of 2021, the SBEP has an operating budget based on \$700,000 from EPA and \$296,000 from our local sources (\$50,000 from Manatee County, \$50,000 from Sarasota County, \$33,000 from City of Sarasota, \$133,000 from SWFWMD – a match of the three original funding sources, as well as \$15,000 from the City of Bradenton, and \$15,000 from the Town of Longboat Key). That \$996,000 is roughly divided into thirds: a third on salaries, a third on programmatic expenses (rent, benefits, workers comp, audit services, office equipment, IT support, legal support, etc.) and about a third on projects (e.g., public outreach, monitoring and science, restoration projects, etc.).

As was agreed upon at the February 11, 2022, Policy Board meeting, the SBEP intends to spend the additional anticipated BIL funds for project implementation, rather than salaries, office expenses and/or additional studies or report writing. That said, habitat restoration and/or stormwater retrofit projects require funds spent for design, permitting, construction management and construction. Also, habitat restoration projects that the SBEP has funded traditionally include public access elements (e.g., boardwalks and trails) as well as educational elements (e.g., signage) and follow up monitoring of the success of completed projects.

The projects proposed for funding via the BIL will leverage existing efforts, so that the SBEP will spend BIL dollars on project implementation, rather than the earlier stages of design and permitting.

The SBEP intends to track BIL funds separate from our normal operating funds and expenditures. Staff time spent to manage these additional projects will not come from BIL funds but will be part of our regular job descriptions. In this

manner, SBEP anticipates that BIL funds will be spent entirely on paying for consultants and contractors needed to implement specific restoration and education/outreach efforts, as well as monitoring for project success.

This workplan outlines efforts the SBEP would commit to for FY22 and FY23 for three main projects: a shoreline habitat restoration and stormwater treatment project located east of Cortez, a stream restoration and stormwater pond restoration project located within GT Bray Park, in the City of Bradenton, and to expand on existing artificial reef deployments located in both Manatee and Sarasota County portions of upper Sarasota Bay. All projects will provide benefits to the bay's ecological health, and all three will include public education efforts and will expand public access to the natural features of Sarasota Bay's watershed and/or its open water features.

As outlined below, the anticipated cost of the three proposed projects is \$1,625,000, which is lower than the amount anticipated to be available to the SBEP for FY22 and FY23 through BIL appropriations.

RELEVANCE TO CCMP OBJECTIVES

The projects described below fall within the categories of CCMP sections on the Water Quality and Quantity (WQQ) Action Plan, as well as the Watershed Habitats (WH) and Fish and Wildlife (FW) Action Plans. Specifically, those projects that include elements associated with stormwater treatment fall within the CCMP categories of WQQ Objective 3 - "Improve and manage hydrology for a more natural pattern of timing, quantity and distribution of surface waters" as well as WQQ Objective 4 - "Reduce pollutant loading from stormwater." Those projects that mostly focus on restoration and/or maintenance of habitats (rather than stormwater treatment) implement WH Objective 4 - "Protect, enhance and restore coastal wetlands and improve shoreline resiliency," WH Objective 5 - "Protect, enhance and restore seagrass and other benthic habitats," and FW Objective 3 - "Protect, restore and enhance the diversity and abundance of native fish." Proposed projects also include both public access and educational signage, thus acting on the CCMP category of the Community Engagement (CE) Action Plan Objective 2 - "Improve public understanding of bay-related issues."

Consequently, the three proposed projects will address multiple CCMP objectives.

PROPOSED PROJECTS AND PRELIMINARY PROJECT COST ESTIMATES

The combination of FY22 and FY23 BIL funding is proposed to complete habitat restoration efforts at two sites, FISH Preserve Phase IV and GT Bray Park, and to allow the SBEP to continue its long-running efforts to supplement the bay's ecosystem health through the deployment of specially designed artificial reefs. Each project is described below in terms of its relevance to CCMP goals, a summary budget, a brief description of the project, the leads and/or partners involved in the project, and estimated milestones.

FISH PRESERVE PHASE IV

RELEVANCE TO CCMP GOALS

This project addresses the following CCMP objectives:

- WQQ Objective 3 - “Improve and manage hydrology for a more natural pattern of timing, quantity and distribution of surface waters”
- WQQ Objective 4 - “Reduce pollutant loading from stormwater”
- WH Objective 4 - “Protect, enhance and restore coastal wetlands and improve shoreline resiliency”
- CE Objective 2 - “Improve public understanding of bay-related issues”

SUMMARY BUDGET

Project elements	Previously spent	Ongoing efforts	BIL funds
Land purchase	\$0	\$0	\$0
Design and permitting	\$7,167	\$40,611	\$0
Construction and construction management	\$55,425	\$0	\$500,000

PROJECT DESCRIPTION

The proposed project is to build on prior habitat restoration projects on the property of the Florida Institute for Saltwater Heritage (FISH) located just east of Cortez, on the south side of Cortez Road. Project components include the removal of invasive exotic species (partially completed) as well as the restoration of tidal influences via expansion and/or creation of wetland features. An additional feature, added in the fall of 2021, is to route stormwater runoff from an adjacent 30-acre mobile home community (located on the east side of the property) into a sediment sump, with overflows then feeding into created wetlands that would then merge with the enhanced tidal creeks in the southern half of the project site. Public access will be via an entrance on the west side, which would connect with hiking trails.

The overall site plan is shown below in Figure 1.

Figure 1 – Overall site plan of proposed efforts for FISH Preserve Phase IV



Phase IV of the FISH Preserve stormwater retrofit and habitat restoration project is currently in the stages of permitting review, having completed “final” design (pending modifications from regulatory agencies.) The final designs and permits are anticipated during the summer of 2022. The proposed project would move forward with the construction and construction management of this wetland restoration and stormwater retrofit project

PROJECT LEAD AND PARTNERS

The property itself is owned by the Florida Institute for Saltwater Heritage (FISH), a local non-profit dedicated to promotion, education, and preservation of the historical commercial fishing village of Cortez and promoting “traditional maritime cultures” and the natural environment.

Prior restoration efforts on the property (Phases 1, 2 and 3) have been completed through the coordinated efforts of various entities, including Florida Fish and Wildlife Conservation Commission (FWC) and the Southwest Florida Water Management District (SWFWMD). Final design and permitting and clearance of exotic vegetation from the site have been overseen by SBEP staff.

ESTIMATED MILESTONES

Final design is complete and permitting is ongoing, with all relevant permits expected by summer to fall of 2022. Pending the availability of funds and final permits being received, the project could be bid out for construction in the fall of 2022. Construction itself would likely start in the winter of 2022 to early spring of 2023.

RELEVANCE TO ENVIRONMENTAL JUSTICE AND CLIMATE CHANGE RESILIENCE

The FISH Preserve Phase IV project site is located just east of Cortez. Cortez represents one of the last working waterfronts in Manatee and Sarasota Counties. Based on EPA's Environmental Justice Screening and Mapping tool (Version 2.0) - [EJScreen \(epa.gov\)](https://www.epa.gov/ejscreen) the census tract including the project site is characterized by very high unemployment rates (above the 90th percentile threshold) which reflects the irregular employment status of those engaged in commercial fishing. To the east of the project site is a 30-acre manufactured housing community, where most of the dwellings are less than 1,000 square feet in size, and where Zillow.com shows many units are listed at well under \$100,000. Using the White House Council on Environmental Quality's "Climate and Economic Justice Screening Tool" - [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](https://www.ejtool.org/) the census tract immediately across the street from the project site (Census Tract 12081001107) is classified as disadvantaged for the categories of climate change and health burdens.

The SBEP will use the FISH Preserve Phase IV project site for future outreach and education efforts, with a particular focus on underserved communities, building upon our current efforts to reach out to these populations via grant support for field trips for the 25 local Title 1 schools within a half hour drive of the project site. Designation as a Title 1 school represents the determination by the State of Florida and the US Government that a school has a "...high percentage of socioeconomically disadvantaged children." By expanding public access and educational opportunities from nearby communities, the project will provide direct support for the BIL goal of having project benefits extend to disadvantaged communities.

The project site is located within the Coastal Flood Hazard Zone, as identified by EPA's EJ Screening and Mapping Tool, and is classified as susceptible to impacts from climate change by the Council on Environmental Quality's Climate and Economic justice Screening Tool. Consequently, the project is designed to allow intertidal communities to migrate "upslope" within the project boundaries in response to future sea level rise, thus allowing these important natural resources to persist in a changing climate. The project will also have designated public access and educational signage to allow visitors to understand the value of such habitats, and the need to preserve and protect them.

GT BRAY PARK

RELEVANCE TO CCMP GOALS

This project addresses the following CCMP objectives:

- WQQ Objective 3 - “Improve and manage hydrology for a more natural pattern of timing, quantity and distribution of surface waters”
- WH Objective 4 – “Protect, enhance and restore coastal wetlands and improve shoreline resiliency”
- CE Objective 2 - “Improve public understanding of bay-related issues”

SUMMARY BUDGET

Project elements	Previously spent	Ongoing efforts	BIL funds
Land purchase	\$0	\$0	\$0
Design and permitting	\$36,345	\$26,370	\$0
Construction and construction management	\$0	\$0	\$850,000

PROJECT DESCRIPTION

The proposed project involves habitat restoration for a section of Cedar Hammock Creek, within the boundaries of GT Bray Park. The park is owned by the City of Bradenton but is operated by Manatee County Parks and Recreation. Project components include the removal of invasive exotic species, regrading of the stream bed, expansion of the creek to allow for wetland creation, and public access and educational signage.

The project is in an area not susceptible to future sea level rise, but educational signage will stress the fact that enhancing water quality by acting on watershed pollutant loads will increase the sustainability of the bay and its natural resources. The project is in a highly visible and much-used public park and will create public access to the on-site creek that is rarely noticed by most park visitors. Enhanced public access to the creek will be matched with educational signage to allow visitors to understand the value of such habitats, and the need to restore the creeks and waterways that eventually flow to Sarasota Bay. The SBEP will use the project site for future outreach and education efforts, with a particular focus on underserved populations, building upon our current efforts to reach out to these communities via grant support for field trips for the 25 Title 1 schools within a half hour drive of the project site.

The second component of the GT Bray Park project is to retrofit an existing stormwater treatment pond. This would involve removal of exotic invasive species along the shoreline, replanting the shoreline and establishing both a “no mow zone” along the upland fringe and an enhanced littoral fringe, as well as educational signage about the benefits of properly functioning stormwater ponds and enhanced access to the pond via trails and a potential shoreline lookout feature.

The overall site plan for the stream restoration effort is shown below in Figure 2, while the location of the existing stormwater pond is shown in Figure 3.

Figure 2 – Overall site plan of proposed stream restoration project for GT Bray Park

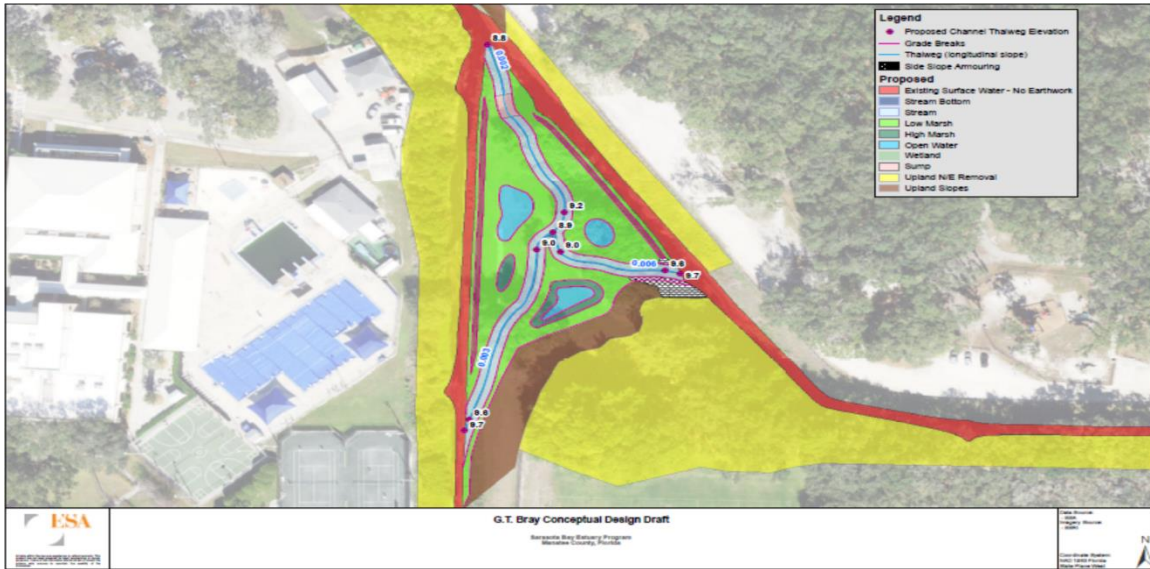


Figure 3 – Aerial view of the stormwater pond to be retrofitted and revitalized at GT Bray Park



The GT Bray stream restoration and stormwater pond retrofit project has gone through final design and is currently in the permit review stage. Aside from unforeseen issues, the SBEP expects to receive all required permits sometime during the summer to fall of 2022. The proposed project would move forward with the construction and construction management of this wetland restoration and stormwater retrofit project commencing after the development of bid documents and the procurement of qualified contractors.

PROJECT LEAD AND PARTNERS

The property itself is owned by the City of Bradenton but is managed by the Manatee County Parks and Recreation Department. The project design and permitting efforts for this project have been paid for and overseen by SBEP staff.

ESTIMATED MILESTONES

Final design and permitting is ongoing, with all relevant permits expected by summer to fall to winter of 2022. Pending the availability of funds and final permits being received, the project could be bid out for construction in the spring of 2023. Construction itself would likely start in the spring to summer of 2023.

RELEVANCE TO ENVIRONMENTAL JUSTICE AND CLIMATE CHANGE RESILIENCE

The GT Bray project site is in west Bradenton, in a neighborhood that is a mixture of working-class families and retirees. Based on EPA's Environmental Justice Screening and Mapping tool (Version 2.0) - [EJScreen \(epa.gov\)](#) the census tract including the project site is characterized by having many elderly residents (above the 90th percentile threshold for those aged 64 and over). This indicates the area around the project site includes a population that utilizes benefit programs such as Social Security and Medicare more than the US population. Census tract data also indicate that the area is in the upper 90th percentile for the incidence of heart disease, also reflecting the increased number of elderly residents living near the project site, which includes many features residents use for active recreation. Using the White House Council on Environmental Quality's "Climate and Economic Justice Screening Tool" - [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](#) GT Bray Park is located within 2 miles of four census tracts that are classified as disadvantaged. These include census tracts 12081000603 and 12081000604 (health burdens), census tract 12081000309 (sustainable housing) and census tract 12081000307 (workforce development). Bayshore High School is located approximately three miles south and east of GT Bray Park, which offers opportunities for field trips and educational outings from this close by Title 1 school. Designation as a Title 1 school represents the determination by the State of Florida and the US Government that Bayshore High School has a "...high percentage of socioeconomically disadvantaged children."

The project site is in a County Park that is highly visible and includes a swimming pool, pickleball, basketball and tennis courts, as well as a skate park and dog park and softball fields. The SBEP will use the GT Bray project site for future outreach and education efforts, with a particular focus on both elderly, retired residents, underserved communities, and students at Bayshore High School. More broadly, the SBEP will also build upon our current efforts to reach out to local populations via grant support for field trips for the 25 Title 1 schools within a half hour drive of the project site.

The project is designed to combine both habitat restoration and educational opportunities focused both on stream restoration and reducing downstream pollutant loads via enhancing an on-site regional stormwater pond. The land adjacent to both the stream restoration project and the stormwater pond are both located within the 100-year flood plain, as identified in EPA's Environmental Justice mapping tool - [EJScreen \(epa.gov\)](#). As such, the project will allow the neighborhood to better be able to handle those elements of climate change that might result in increased intensity of rain events by increasing the capacity of the watershed to handle stormwater runoff, while not compromising water quality by simply draining runoff more quickly to Sarasota Bay via hard-engineered solutions such as concrete-lined conveyance systems.

SARASOTA BAY ARTIFICIAL REEFS

RELEVANCE TO CCMP GOALS

This project addresses the following CCMP objectives:

- WH Objective 5 – “Protect, enhance and restore seagrass and other benthic habitats”
- FW Objective 3 - “Protect, restore and enhance the diversity and abundance of native fish”
- CE Objective 2 - “Improve public understanding of bay-related issues”

SUMMARY BUDGET

Project elements	Previously spent	Ongoing efforts	BIL funds
Land purchase	\$0	\$0	\$0
Design and permitting	\$36,345	\$0	\$0
Construction and construction management	\$112,600	\$0	\$275,000

PROJECT DESCRIPTION

Artificial reefs within Sarasota Bay offer fishing opportunities for residents and visitors who don’t have the means to travel offshore to catch fish. Also, these reefs can provide shelter and habitat for juveniles of recreationally important finfish (e.g., gag groupers and grey snapper) that live within the estuary the first few years of their lives before entering the offshore fishery. Prior research in Sarasota Bay has resulted in the development of specially designed reef modules that can support juvenile stages of recreationally important species for that portion of their lives that they spend residing in the bay.

The artificial reef project will build upon prior efforts, which involved a series of individual artificial reef deployments located in six geographically distinct locations (three each in Manatee and Sarasota County waters): Bayshore North, Bayshore South and Whale Key reefs in Manatee County (Figure 4) and Walkers Reef, Hart’s Family Reef, and Sportfish Anglers’ Club Reef in Sarasota County (Figure 5).

Figure 4 – Location of artificial reef complexes in Manatee County portion of Sarasota Bay

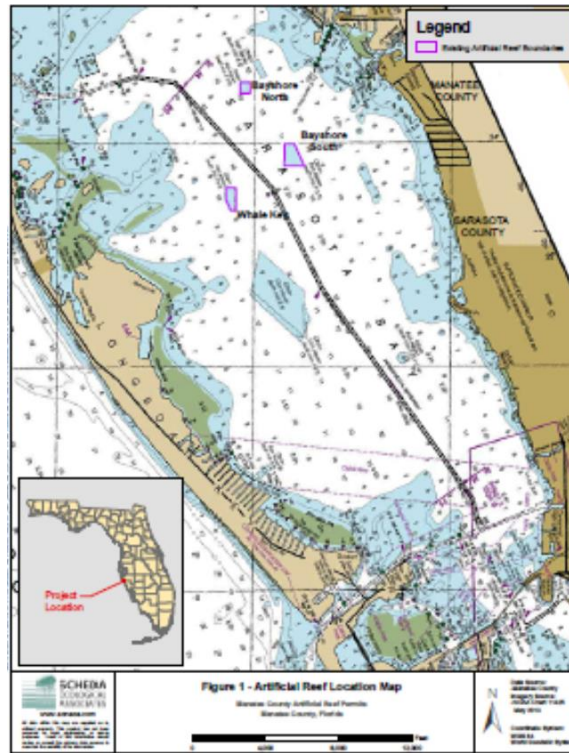


Figure 5 – Location of artificial reef complexes in Sarasota County portion of Sarasota Bay



The Walker’s Reef and Hart’s Family Reef complexes are in the open waters of Sarasota Bay and can be easily visited by small boats. In contrast, the Sportfish Anglers’ Club Reef complex is located much closer to shore and can be easily accessed by kayakers as well as small boats.

Research conducted in Sarasota Bay has determined that these artificial reefs provide habitat for both adult and juvenile stages of recreationally and commercially important species of finfish, as illustrated in Figure 5.

Figure 6 – Underwater photo of artificial reef at Hart’s Family Reef complex in Sarasota Bay, showing multiple individuals of the recreationally important species gray snapper (aka mangrove snapper; *Lutjanus griseus*)



This project will build off the SBEP’s prior experience, and will cover the costs to construct, deploy and monitor dozens of these reef modules at six permitted artificial reef locations in upper Sarasota Bay (three in Sarasota County and three in Manatee County).

PROJECT LEAD AND PARTNERS

As has been done previously, the artificial reef project will be overseen by SBEP staff, in full consultation with staff from both Manatee and Sarasota Counties, as well as the Florida Fish and Wildlife Conservation Commission.

ESTIMATED MILESTONES

The artificial reefs would be used to supplement existing reef complexes, therefore permitting is expected to be minimal, requiring only the re-opening of recently expired permits. The reef designs – called “deep covers” - are based on upgrades to previously used molds for cast concrete. Contractors that have previously assisted SBEP in prior reef module production and deployment are available for additional efforts. Pending the availability of funds, the artificial reefs should be constructed and deployed by the summer of 2023. Monitoring the use and usefulness of these deployed reefs would carry on for anywhere between one to three years, depending on the value of additional data that would be gathered.

RELEVANCE TO ENVIRONMENTAL JUSTICE AND CLIMATE CHANGE RESILIENCE

The artificial reef program is located within the open waters of Sarasota Bay, and they are not located within any census tract. Therefore, quantifying the benefit in terms of environmental justice is not possible, using EPA's Environmental Justice Screening and Mapping tool (Version 2.0) - [EJScreen \(epa.gov\)](https://www.epa.gov/ejscreen) or the White House Council on Environmental Quality's "Climate and Economic Justice Screening Tool" - [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](https://www.ejplatform.gov/) However, the artificial reefs in Sarasota Bay allow a wide variety of boaters and anglers to gain access to a fishery that would otherwise require larger boats to handle the rougher waters of the open Gulf of Mexico. Additionally, the Sportfish Anglers' Reef complex is accessible to anyone with a kayak. Kayaks are of course much less expensive than power boats, and so an artificial reef complex within kayaking distance from the shoreline allows people access to the experience of fishing offshore in the Gulf of Mexico without the costs required to do so.

The submerged artificial reefs in Sarasota Bay are not likely to be impacted by expected rates of sea level rise over the next few decades. However, they would help to contribute to the overall health of the fish populations in the bay, by providing habitat features that could be lost due to impacts to shoreline features from accelerated rates of sea level rise.