

Save Our Indian River Lagoon Funding Application Short Form: Maritime Hammock Preserve Floating Vegetative Islands

Project Details

Entity: City of Cocoa Beach

Project Type:

Sub Lagoon: Banana River

Location: 1235 N Atlantic Ave, Cocoa Beach, FL 32931

Project Description: The Maritime Hammock Preserve is a community stormwater park complete with a stormwater wet detention pond, nature trails and wildlife observation deck. The wet detention pond captures stormwater from 128 acres of the surrounding area. The City completed aquatic vegetation harvesting at this site in 2022 and has since found it necessary to install floating vegetative islands to increase nutrient removal capacity of the pond as well as beautify the wet detention pond with native vegetation.

Education and Outreach: The City will post educational signage in the park to notify residents and visitors of the recent improvements and benefits of the floating vegetative islands to the Indian River Lagoon. The City will also post project details and lagoon benefits on the City's website and social media pages.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 174

Total Phosphorus Reduction (lbs/year): 36

Costs

Total Project Cost: \$8,500.00

Estimated Cost per Pound Total Nitrogen Removed: \$49.00

Estimated Cost per Pound Total Phosphorus Removed: \$236.00

Eligible Tax Funding Cost Share: \$71,166.00

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: The floating vegetative islands will help compete with invasive vegetation that tends to grow in wet detention ponds and that may enter the lagoon.

Transforming wet detention ponds into areas thriving with native wetland vegetation provide additional habitat for lagoon animal species such as wading birds. These ponds may serve as areas of refuge for these animals in times when the lagoon is experiencing intense algae blooms.

Notes: Completed aquatic vegetation harvesting at this site in 2022 and plan to install floating vegetative islands.

Save Our Indian River Lagoon Funding Application Short Form: Hamilton Ave Baffle Box

Project Details

Entity: City of Titusville

Project Type: Baffle Box

Sub Lagoon: North Indian River Lagoon

Location: 28°34'58.21"N; 80°48'23.48"W; Hamilton Ave, Titusville, FL

Project Description: Installation of a second generation baffle box fitted with nutrient reducing biosorption filtration media at Hamilton Avenue within the St Teresa Basin. This baffle box will treat 585 acres of highly developed land prior to the water discharging into the Indian River Lagoon. This project will remove 1551.23 lbs/yr of total nitrogen and 208.59 lbs/yr of total phosphorus.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 1,550

Total Phosphorus Reduction (lbs/year): 1,675

Costs

Total Project Cost: \$350,000.00

Estimated Cost per Pound Total Nitrogen Removed: \$226.00

Estimated Cost per Pound Total Phosphorus Removed: \$1,675.00

Eligible Tax Funding Cost Share: \$553,350.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: Second-generation baffle box treating 585 acres of highly developed land.

Save Our Indian River Lagoon Funding Application Short Form: C-10 Water Management Area

Project Details

Entity: St. Johns River Water Management District

Project Type: Stormwater

Sub Lagoon: Central Indian River Lagoon

Location: 27.98383, -80.74208

Project Description: The C-10 Water Management Area (WMA) is a proposed 1,300 acre stormwater treatment system located at the west end of Malabar Road in Brevard County. The project includes diversion of stormwater flows that currently drain to the Indian River Lagoon (IRL) west to the St. Johns River where it historically drained. The proposed diversions will reduce nutrient loads to the IRL, help restore the historic surface water flows within the Upper St. Johns River watershed, increase flood protection and improve resiliency to the local region. The C-10 WMA is a subsequent phase to the District's C-1 Re-diversion Project, also known as C-1/ Sawgrass Lakes Water Management Area (SLWMA). The C-1/SLWMA project has operated since 2015 and reduces nutrient loading to the IRL by an estimated 314,000 lbs/year Total Nitrogen (TN) and 33,000 lbs/year Total Phosphorus (TP). If constructed, the C-10 WMA will further reduce nutrient loading to the IRL by an additional 29,300 lbs/year TN and 1,300 lbs/year TP. Moreover, the project will restore an estimated 7.9 million gallons per day of surface water to the St. Johns River and thereby increase alternative water supply availability to downstream utilities, including the City of Melbourne. As an ancillary benefit, C-10 WMA will further support the community by making additional public recreational opportunities available in Brevard County similar to those found on existing District lands known as Three Forks Marsh Conservation Area and SLWMA, which are adjacent to the proposed C-10 WMA.

The project is nearly at 100% design, and permitting through the United States Army Corps of Engineers and Florida Department of Environmental Protection (FDEP) is in progress. The District is making one minor design modification to adjust the alignment of the north levee. The District will initiate the design modification in December 2023 and complete the design before the end of September 2024. Assuming all permitting and funding is secured, the District anticipates initiating construction in January 2026.

Education and Outreach: The District will engage stakeholders and the general public before construction and will hold a groundbreaking event. Notably, C-10 WMA was discussed before the District's Governing Board in the past. Pending receipt of all funding needed for construction, the District will provide regular updates to the Governing Board and post status updates on the District's webpage and social media platforms.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 29,300

Total Phosphorus Reduction (lbs/year): 1,300

Costs

Total Project Cost: \$61,000,000.00

Estimated Cost per Pound Total Nitrogen Removed: \$2,082.00

Estimated Cost per Pound Total Phosphorus Removed: \$46,923.00

Eligible Tax Funding Cost Share: \$10,460,100.00

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: \$1,000,000.00

Dollar Amount Secured Grant(s): \$20,000,000.00

Additional Information

Other Indian River Lagoon Benefits: The project will reduce sediment loads to the IRL by an estimated 159,000 lbs/year.

Notes: Proposing 1,300-acre stormwater treatment system diverting stormwater flows to St. Johns River.

Save Our Indian River Lagoon Funding Application Short Form: Riverview Park Baffle Box

Project Details

Entity: City of Melbourne

Project Type: Baffle Box

Sub Lagoon: Central Indian River Lagoon

Location: Lat 28.071601, Long -80.598968

Project Description: The Riverview Park Baffle Box project includes installation of a third-generation baffle box near Riverview Park. This basin is a mostly untreated mixed-use developed area with little to no stormwater treatment. The project has the potential to reduce the City's total nitrogen discharge by approximately 864 pounds per year and total phosphorous discharge by approximately 160 pounds per year.

Education and Outreach: A project sign installed at the park explaining how a baffle box works. This same information will be mailed to the properties within the drainage basin.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 863

Total Phosphorus Reduction (lbs/year): 168

Costs

Total Project Cost: \$951,500.00

Estimated Cost per Pound Total Nitrogen Removed: \$1,103.00

Estimated Cost per Pound Total Phosphorus Removed: \$5,664.00

Eligible Tax Funding Cost Share: \$308,091.00

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: \$642,599.00

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: This box will help reduce the amount of gross solids, i.e. trash, and sediment into the Lagoon.

Notes: Install a third-generation baffle box near Riverview Park.

Save Our Indian River Lagoon Funding Application Short Form: Cocoa Beach Golf Course Floating Vegetative Islands

Project Details

Entity: City of Cocoa Beach

Project Type:

Sub Lagoon: Banana River

Location: 500 Tom Warriner Blvd, Cocoa Beach, FL 32931

Project Description: The Cocoa Beach Golf Course is located directly next to the Banana River Lagoon. In FY24 the City will be harvesting aquatic vegetation from all 19 stormwater ponds located on the golf course. The addition of floating vegetative islands after aquatic vegetation harvesting will ensure increased nutrient removal capacity of the ponds as well as beautify the ponds with native wetland vegetation and prevent future use of aquatic herbicides.

Education and Outreach: The City will post educational signage at the golf course to notify golf course members and visitors of the recent improvements and benefits of the floating vegetative islands to the Banana River Lagoon. The City will also post project details and lagoon benefits on the City's website and social media pages.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 90

Total Phosphorus Reduction (lbs/year): 14

Costs

Total Project Cost: \$95,000.00

Estimated Cost per Pound Total Nitrogen Removed: \$1,056.00

Estimated Cost per Pound Total Phosphorus Removed: \$6,786.00

Eligible Tax Funding Cost Share: \$36,810.00

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: The floating vegetative islands will help compete with invasive vegetation that tends to grow in the ponds and that may enter the lagoon.

Transforming the ponds into areas thriving with native wetland vegetation provide additional

habitat for lagoon animal species such as wading birds. These ponds may serve as areas of refuge for these animals in times when the lagoon is experiencing intense algae blooms.

Notes: Add floating vegetative islands after aquatic vegetation harvesting.

Save Our Indian River Lagoon Funding Application Short Form: Ramp Road Park - Stormwater Improvements

Project Details

Entity: City of Cocoa Beach

Project Type: Stormwater

Sub Lagoon: Banana River

Location: 28° 18.560'N, 80° 36.845'W

Project Description: The Ramp Road Park improvements will include stormwater modifications to the existing parking area that is constructed of pervious pavement that has failed. The updated stormwater system will divert runoff to the adjacent stormwater pond. The stormwater pond will be modified to include beemats and sidebank filters.

Education and Outreach: The City is partnering with Brevard Public Schools for use of the Freedom 7 stormwater pond. The addition of Beemats and side bank filters will be used to educate students on the use of BMPs for stormwater treatment.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 41

Total Phosphorus Reduction (lbs/year): 8

Costs

Total Project Cost: \$1,500,000.00

Estimated Cost per Pound Total Nitrogen Removed: \$36,585.00

Estimated Cost per Pound Total Phosphorus Removed: \$187,500.00

Eligible Tax Funding Cost Share: \$16,769.00

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: \$800,000.00

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits:

Notes: Divert runoff to stormwater pond which will include beemats and side bank filters.

Save Our Indian River Lagoon Funding Application Short Form: Mims Rim Ditch Muck Removal Project

Project Details

Entity: Brevard County

Project Type: Muck Removal

Sub Lagoon: North Indian River Lagoon

Location: Area targeted for muck removal is a narrow channel located along the northern Indian River Lagoon's western shoreline from 28°40.885'N/80°49.600'W north to 28°44.025'N/80°50.375'W

Project Description: The Mims Rim Ditch Muck Removal Project will remove approximately 162,000 cubic yards (CY) of muck over a 37-acre narrow channel that runs north along the western shoreline of the Indian River Lagoon in Mims, FL.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 16,602

Total Phosphorus Reduction (lbs/year): 518

Costs

Total Project Cost: \$17,787,990

Estimated Cost per Pound Total Nitrogen Removed: \$1,071.00

Estimated Cost per Pound Total Phosphorus Removed: \$34,340.00

Eligible Tax Funding Cost Share: \$10,077,414.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: Muck removal will increase oxygen, reduce algae blooms, fish kills, and the accumulation of toxic hydrogen sulfide; and help preserve healthy, adjacent sediments that provide habitat for marine life and promote ecosystem services like coupled nitrification-denitrification to mitigate excess nitrogen.

Notes: Remove approximately 162,000 cubic yards of muck over a 37-acre narrow channel.

Save Our Indian River Lagoon Funding Application Short Form: Mims Rim Ditch Interstitial Water Treatment

Project Details

Entity: Brevard County

Project Type: Muck Removal

Sub Lagoon: North Indian River Lagoon

Location: Area targeted for muck removal is a narrow channel located along the northern Indian River Lagoon's western shoreline from 28°40.885'N/80°49.600'W north to 28°44.025'N/80°50.375'W

Project Description: This project includes scrubbing nutrients from the return water associated with the Mims Rim Ditch Muck Removal Project. The rim ditch has extensive muck accumulation and is impacting the Indian River Lagoon's water quality. The Mims Rim Ditch Muck Removal Project will remove approximately 162,000 cubic yards (CY) of muck over a 37-acre narrow channel that runs north-south along the western shoreline of the Indian River Lagoon in Mims, FL.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 15,700

Total Phosphorus Reduction (lbs/year): 1,292

Costs

Total Project Cost: \$1,784,135.00

Estimated Cost per Pound Total Nitrogen Removed: \$114.00

Estimated Cost per Pound Total Phosphorus Removed: \$1,381.00

Eligible Tax Funding Cost Share: \$1,946,800.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: Muck removal will increase oxygen, reduce algae blooms, fish kills, and the accumulation of toxic hydrogen sulfide; and help preserve healthy, adjacent

sediments that provide habitat for marine life and promote ecosystem services like coupled nitrification-denitrification to mitigate excess nitrogen.

Notes: Scrubbing nutrients from the return water associated with the Mims Rim Ditch Muck Removal Project.

Save Our Indian River Lagoon Funding Application Short Form: Shore View Lane Dredging

Project Details

Entity: Home Owner

Project Type: Muck Dredging

Sub Lagoon: Central Indian River Lagoon

Location: 1848 River Shore Dr Indialantic FL 32903 (my home in the middle of the canal)

Project Description: Muck removal from canal formed by rear property lines of properties off of Shore View Lane, Shore View Court, and River Shore Drive cul-de-sacs. (see aerial photo). This canal represents an extreme concentration of muck with a 3-3.5 ft depth of muck with only a 4-5 ft sand bottom depth per records thus an estimate of 60 to 75% of volume of canal is muck. There are three separate storm sewer feeds into this less than an acre canal. During heavy rains sediment, mud, etc is clearly visible dumping into the canal. This canal is often a breeding and calving location for manatees and has had blue crab and variety of other sea life - all now much less frequent. The manatee and dolphins that transit the canal often can not do so without becoming coated with muck

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 74

Total Phosphorus Reduction (lbs/year): 10

Costs

Total Project Cost: \$435,000.00

Estimated Cost per Pound Total Nitrogen Removed: \$5,878.00

Estimated Cost per Pound Total Phosphorus Removed: \$43,500.00

Eligible Tax Funding Cost Share: \$44,918.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: water clarity - especially following severe rains and direct discharge of stormwater from 3 stormwater pipes into the canal which disturbs the 2-3 ft of

muck in the canal. Addressing the canal muck situation would improve a known manatee breeding area and overall conditions for marine life.

Notes: Remove approximately 0.7 acres of muck from residential canal.

Save Our Indian River Lagoon Funding Application Short Form: Cocoa Zone C

Project Details

Entity: Brevard County

Project Type: Septic to Sewer

Sub Lagoon: North Indian River Lagoon

Location: 28.410419, -80.749375

Project Description: Update of the Cocoa Zone C Septic-to-Sewer Project. Reducing the project from 273 to 61 connections. Previously approved for \$800,000.00 for engineering.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 2,550

Total Phosphorus Reduction (lbs/year):

Costs

Total Project Cost: \$4,038,210.00

Estimated Cost per Pound Total Nitrogen Removed: \$1,584.00

Estimated Cost per Pound Total Phosphorus Removed:

Eligible Tax Funding Cost Share: \$3,960,150.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): 0

Additional Information

Other Indian River Lagoon Benefits: Removes source of phosphorus and pathogens.

Notes: Reduce project from 273 to 61 connections. Previously approved for \$800,000 (for engineering).

Save Our Indian River Lagoon Funding Application Short Form: Micco Zone B

Project Details

Entity: Brevard County

Project Type: Septic to Sewer

Sub Lagoon: Central Indian River Lagoon

Location: 27.850342, -80.497861

Project Description: Update to the Micco Zone B Septic-to-Sewer project. Reducing the project from 540 to 229 connections. Previously approved for \$9,000,000.00

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 6,484

Total Phosphorus Reduction (lbs/year):

Costs

Total Project Cost: \$14,569,652.00

Estimated Cost per Pound Total Nitrogen Removed: \$1,894.00

Estimated Cost per Pound Total Phosphorus Removed:

Eligible Tax Funding Cost Share: \$10,069,652.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): \$4,500,000.00

Additional Information

Other Indian River Lagoon Benefits: Project will remove a source of phosphorus and pathogens.

Notes: Reduce project from 540 to 229 connections. Previously approved for \$9,000,000.

Save Our Indian River Lagoon Funding Application Short Form: Sykes Creek Zone R

Project Details

Entity: Brevard County

Project Type: Septic to Sewer

Sub Lagoon: Banana River Lagoon

Location: 28.325429, -80.688029

Project Description: Update to existing project. Changing boundaries and adding more residential connections. Expand the project from 192 to 221 connections. Previously approved for \$4,387,500.00.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 5,040

Total Phosphorus Reduction (lbs/year):

Costs

Total Project Cost: \$16,765,897.00

Estimated Cost per Pound Total Nitrogen Removed: \$3,327.00

Estimated Cost per Pound Total Phosphorus Removed:

Eligible Tax Funding Cost Share: \$7,827,120.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): \$1,500,000.00

Additional Information

Other Indian River Lagoon Benefits: Project will remove a source of phosphorus and pathogens.

Notes: Expand project from 192 to 221 connections. Previously approved for \$4,387,500.

Save Our Indian River Lagoon Funding Application Short Form: North Merritt Island Zone E

Project Details

Entity: Brevard County

Project Type: Septic to Sewer

Sub Lagoon: North Indian River Lagoon

Location: 28.445844, -80.716079

Project Description: Update to existing project. Expanding project boundaries and adding additional residential connections. Expanding the project from 195 to 223 connections. Previously approved for \$3,811,500.00

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 3,287

Total Phosphorus Reduction (lbs/year):

Costs

Total Project Cost: \$14,481,227.00

Estimated Cost per Pound Total Nitrogen Removed: \$4,406.00

Estimated Cost per Pound Total Phosphorus Removed:

Eligible Tax Funding Cost Share: \$5,104,711.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): 0

Additional Information

Other Indian River Lagoon Benefits: Project will remove a source of phosphorus and pathogens.

Notes: Expand project from 195 to 223 connections. Previously approved for \$3,811,500.

Save Our Indian River Lagoon Funding Application Short Form: Merritt Island Zone G

Project Details

Entity: Brevard County

Project Type: Septic to Sewer

Sub Lagoon: Banana River Lagoon

Location: 28.289489, -80.677998

Project Description: Update to project. Reducing the project from 1,146 to 785 connections. Previously approved for \$16,617,000.00

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 7,588

Total Phosphorus Reduction (lbs/year):

Costs

Total Project Cost: \$41,099,476.00

Estimated Cost per Pound Total Nitrogen Removed: \$5,416.00

Estimated Cost per Pound Total Phosphorus Removed:

Eligible Tax Funding Cost Share: \$11,784,164.00

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): \$9,383,000.00

Additional Information

Other Indian River Lagoon Benefits: Project will remove a source of phosphorus and pathogens.

Notes: Reduce project from 1,146 to 785 connections. Previously approved for \$16,617,000.