



The Florida Senate

Local Funding Initiative Request - Fiscal Year 2018-2019

1. **Title of Project:** Coral Gables Waterway and Tributary Canals Water Quality Improvement Feasibility Assessment (Phase 1)

2. **Senate Sponsor:** Jose Rodriguez

3. **Date of Submission:** 11/09/2017

4. **Project/Program Description:**

Coastal systems throughout the State of Florida are widely acknowledged as over-enriched to varying degrees. In 2016, the extreme nitrogen and phosphorus over-enrichment in the St. Lucie River estuary in Martin County underscored in a dramatic manner how the health of the brackish canals and bays impacts millions of Florida residents and local economies. As a result of land-based nutrient over-enrichment to the St. Lucie River estuary, dense system wide algae blooms and water quality declines had significant negative impacts to tourism, marina activities and other common water based activities. Nutrient enrichment is the consequence of increasing development to support a growing population, without improved technologies to maintain the receiving waters that are so attractive to residents. The sources of this nutrient pollution are diverse, ranging from on-site septic system discharges, fertilizer use and runoff from impermeable surfaces. While water quality decline varies by estuary, the

5. **State Agency Contacted?** No

a. If yes, which state agency?

b. If no, which is the most appropriate state agency to place an appropriation for the issue being requested?
Department of Environmental Protection

6. **Amount of Non-recurring Requested for fiscal year 2018-19:**

Amount Requested for Operations	Amount Requested for Fixed Capital Outlay	Total Amount of Requested State Funds
	86,141	86,141

7. **Type, amount and percent of matching funds available for this project for fiscal year 2018-19:**

Type	Amount	Percent
Federal	0	0.0%
State (excluding the amount of this request)	0	0.0%
Local	0	0.0%
Other	57,000	39.8%
TOTAL	57,000	39.8 %



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8. Total Project Cost for fiscal year 2018-19 (including the Total Amount of Requested State Funds): 143,141

9. Previous Year Funding Details:

- Has funding been provided in a previous state budget for this activity? No
- In the previous 5 fiscal years, how many years was funding provided? (Optional)
- What is the most recent fiscal year the project was funded?
- Were the funds provided in the most recent fiscal year subsequently vetoed?
- Complete the following Worksheet.

FY:	Input Prior FY Appropriation for this project for FY 2017-18 (If appropriated in FY 2017-18 enter the appropriated amount, even if vetoed.)		
Column:	A	B	C
Funds Description:	Prior Year Recurring Funds *	Prior Year Nonrecurring Funds *	Total Funds Appropriated (Column A + Column B)
Input Amounts:			

10. Is future-year funding likely to be requested?

No

11. Program Performance:

- a. What is the specific purpose or goal that will be achieved by the funds requested?

To complete the initial analysis of the water quality in the Coral Gables Waterway and Tributary Canals

- b. What are the activities and services that will be provided to meet the intended purpose of these funds?

The investigation of the system will focus on areas that are dominated by brackish conditions (mix of salt and freshwater) down-gradient of SFWMD control structures. Water quality will be monitored at specific station locations situated throughout the waterway/canal system and moored dissolved oxygen and chlorophyll-a sensors will be deployed at strategic locations. These data are then synthesized to quantify the degree of water quality and habitat health/impairment. All data collected will be processed and synthesized in a technical report summarizing the findings with recommendations for next steps that the City of Coral Gables to consider in its long term planning process for mitigating the effects of nutrient loading to the waterway systems. Specific management actions will be assessed for discussion with the City. Over the past year a technical team was developed in partnership with NGO's, local schools, NOAA and the City of Coral Gables to collect the first-ever look at the nutr

- c. How will the funds be expended?

Spending Category	Description	Amount
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Administrative Costs		
<input type="checkbox"/> Executive Director/Project Head Salary and Benefits		
<input type="checkbox"/> Other Salary and Benefits		
<input type="checkbox"/> Expense/Equipment/Travel/Supplies/Other		
<input checked="" type="checkbox"/> Consultants/Contracted Services/Study	This project is to be performed as a collaborative effort between scientists from multiple public and non-profit institutions with local presence in Miami and the City of Coral Gables specifically. Those institutions include National Oceanographic and Atmospheric Administration (NOAA), Atlantic Oceanographic and Meteorological Laboratory; Coastal Systems Program (CSP), within the University of Massachusetts-Dartmouth (UMD), School for Marine Science and Technology.	86,141
Operational Costs		
<input type="checkbox"/> Salary and Benefits		
<input type="checkbox"/> Expense/Equipment/Travel/Supplies/Other		
<input type="checkbox"/> Consultants/Contracted Services/Study		
Fixed Capital Construction/Major Renovation		
<input type="checkbox"/> Construction/Renovation/Land/Planning Engineering		
TOTAL		86,141



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d. What are the direct services to be provided to citizens by the appropriations project?

The proposed assessment is designed to provide a detailed quantification of land-based nutrient loads at critical junctures throughout the brackish waterway/canal system and direct linkage to observed water quality conditions and associated key biological indicators of habitat impairment. In the short term, the assessment will allow planning towards restoration of canal system and receiving waters of Biscayne Bay via the most practical cost effective management options. Equally important, the results of this assessment of the Coral Gables waterway system is intended to link into the City of Coral Gables Sustainability Master Plan and assist the City of Coral Gables with nutrient management solutions and infrastructure planning. Given the decades long planning process for implementation of management solutions and municipal scale infrastructure improvement projects, the proposed assessment is a timely, critical and proactive first step for improving water quality in the canals of Coral

e. Who is the target population served by this project? How many individuals are expected to be served?

In addition to the 50,000 plus residents in the City of Coral Gables this project will also benefit the residents of Miami Dade County and the tourists that visit Biscayne Bay.

f. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

The project is envisioned to be conducted over a 2 year period in order to capture the inter-annual variation in water quality within the canal system due to seasonally dependent precipitation/temperature conditions as well as tidal variations driven by changing lunar cycles. Upon completion of the project, the City of Coral Gables will be provided: (1) a detailed assessment of water quality and nutrient related health/impairment of the various segments comprising the waterway system and (2) land-use nutrient loads affecting the Coral Gables partitioned by the functional subwatersheds comprising the land area contributing to the waterway system. The linkage of the land based nutrient sources to the water/habitat quality allows prioritization of types of source reduction and the spatial distribution of source reduction to have the best cost/benefit. The project as a whole will serve as a pilot for assessing other canal systems discharging directly to Biscayne Bay (e.g. Snapper Creek Can

g. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for in the contract?

n/a

12. The owner(s) of the facility to receive, directly or indirectly, any fixed capital outlay funding. Include the relationship between the owner(s) of the facility and the entity.

n/a

13. Requestor Contact Information:

- a. Name:** Eduardo Santamaria PE CGC
- b. Organization:** City of Coral Gables
- c. Email:** esantamaria@coralgables.com
- d. Phone Number:** (305)460-5001



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14. Recipient Contact Information:

a. **Organization:** City of Coral Gables

b. **County:** Miami-Dade

c. **Organization Type:**

- ☐ For Profit
- ☐ Non Profit 501(c) (3)
- ☐ Non Profit 501(c) (4)
- ☒ Local Entity
- ☐ University or College
- ☐ Other (Please specify)

d. **Contact Name:** Eduardo Santamaria PE CGC

e. **E-mail Address:** esantamaria@coralgables.com

f. **Phone Number:** (305)460-5001

15. If there is a registered lobbyist, fill out the lobbyist information below.

a. **Name:** Nelson Diaz

b. **Firm:** Southern Strategy

c. **Email:**

d. **Phone Number:** (305)421-6304

16. Have you applied for alternative state funding?

- ☐ Wastewater Revolving Loan
- ☐ Drinking Water Revolving Loan
- ☐ Small Community Wastewater Treatment Grant
- ☐ Other (Please describe)
- ☒ N/A

17. What is the population economic status?

- ☐ Financially Disadvantaged Community (ch. 62-552, F.A.C)
- ☐ Financially Disadvantaged Municipality (ch. 62-552, F.A.C)
- ☐ Rural Area of Economic Concern
- ☐ Rural Area of Opportunity (s. 288-0656, Florida Statutes)
- ☒ N/A

18. What is the status of construction?



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Construction of water quality monitoring stations has not commenced

19. What percentage of construction has been completed?

0%

20. What is the estimated completion date of construction?

n/a