1. **Title of Project:** Satellite Beach and Indian Harbour Beach Muck Dredging

2. **Senate Sponsor:** Debbie Mayfield

3. **Date of Submission:** 02/13/2019

4. **Project/Program Description:**

   This project includes dredging the canal areas in the City of Indian Harbour Beach and Satellite Beach, all of which have extensive muck accumulated and are impacting the water quality of the Banana River Lagoon, and ultimately the Indian River Lagoon. While the Indian River Lagoon (IRL) is considered to be an Outstanding Florida Water as well as an Estuary of National Significance, the severe degradation of its water quality within the past decade has led to its classification as an impaired waterbody under Section 303(d) of the Federal Clean Water Act and has been the focus of national and international news. The estuary experienced numerous, recurring algae super-blooms and extensive fish kills in recent years due to excess nutrients. Runoff from the watershed has been converted to muck over the past five decades. The Save Our Lagoon Plan has identified muck as a significant source of nutrients for algal blooms and the decline of sea grasses.

5. **State Agency to receive requested funds:** Department of Environmental Protection

6. **Amount of the Nonrecurring Request for Fiscal Year 2019-2020**

<table>
<thead>
<tr>
<th>Type of Funding</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>Fixed Capital Outlay</td>
<td>7,300,000</td>
</tr>
<tr>
<td><strong>Total State Funds Requested</strong></td>
<td>7,300,000</td>
</tr>
</tbody>
</table>

7. **Total Project Cost for Fiscal Year 2019-2020 (including matching funds available for this project)**

<table>
<thead>
<tr>
<th>Type of Funding</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total State Funds Requested (from question #6)</td>
<td>7,300,000</td>
<td>27.33%</td>
</tr>
<tr>
<td>Federal</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>State (excluding the amount of this request)</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Local</td>
<td>16,414,432</td>
<td>61.44%</td>
</tr>
<tr>
<td>Other</td>
<td>3,000,000</td>
<td>11.23%</td>
</tr>
<tr>
<td><strong>Total Project Costs for Fiscal Year 2019-2020</strong></td>
<td>26,714,432</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

8. **Has this project previously received state funding?** No

<table>
<thead>
<tr>
<th>Fiscal Year (yyyy-yy)</th>
<th>Recurring Amount</th>
<th>NonRecurring Amount</th>
<th>Specific Appropriation #</th>
<th>Vetoed</th>
</tr>
</thead>
</table>

9. **Is future-year funding likely to be requested?** No
10. Details on how the requested state funds will be expended

<table>
<thead>
<tr>
<th>Spending Category Administrative Costs:</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Costs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executive Director/Project Head Salary and Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Salary and Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expense/Equipment/Travel/Supplies/Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultants/Contracted Services/Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational Costs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary and Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expense/Equipment/Travel/Supplies/Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultants/Contracted Services/Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Capital Construction/Major Renovation:</td>
<td>Dredging operations including sediment removal, treatment of interstitial water, and management/restoration of disposal area.</td>
<td>7,300,000</td>
</tr>
</tbody>
</table>

**Total State Funds Requested (must equal total from question #6)** 7,300,000

11. Program Performance:

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

   To improve the overall water quality of canals connected to the Banana River, which ultimately leads into the Indian River Lagoon, an Outstanding Florida Waterbody and an Estuary of National Significance. This request will remove over 60,000 lbs of nitrogen and 1200 lbs of phosphorus each year from the Lagoon by dredging the muck in the cities' canal systems which continually releases these nutrients to the IRL. These canals all have an average of 3 feet of muck, ranging from 1 to 5 feet. In total, the cities are proposing to remove 499,156 cubic yards of muck from the finger canals and the Grand Canal. The Grand Canal work will extend Brevard County's current Grand Canal project, and the Cities' project will be managed in partnership with Brevard County.

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

   Removal of muck accumulation and treatment of interstitial water within 23 canals along the Banana River. The cities will be supporting the dredging project with outreach to local citizens to educate them on how their activities, specifically preventing grass clippings from being disposed of in the canals, can avoid additional muck creation.

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

   The removal of muck will serve as a way to improve not just the water quality in the Banana River, but to the Indian River Lagoon as a whole. Improved water quality would allow for increased protection of human health and increased opportunities for recreational activities, such as fishing, boating, kayaking, etc., within the Lagoon. Muck accumulation has been identified by the Save Our Lagoon Plan scientists as the top contributor of algae blooms in the lagoon, and many of these blooms originate in the canals. As such, the reducing the amount, severity and frequency of the blooms is a top priority.
d. Who is the target population served by this project? How many individuals are expected to be served?

The target population for this project is the general public, both local residents within the community as well as individuals who come to the area for tourism, to enjoy all that is offered by the Indian River Lagoon.

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

There are various benefits expected to arise from this project: 1) increased water quality, 2) reduction of nutrients, 3) reduction of emerging contaminants, 4) increased fisheries and wildlife populations, and 5) increase in habitat availability and quality. The first three benefits would be measured using pre- and post-dredging monitoring events and would be carried out by the Cities of Indian Harbour Beach and Satellite Beach. The fourth benefit would be measured using data obtained from monthly fisheries survey performed by FWCC and marine mammal stranding reports provided by FWCC's Marine Mammal Stranding Network for pre- and post-dredging periods. The fifth benefit could be measured using annual seagrass survey data collected by the SJRWMD. The measurement of seagrass growth in adjacent areas would serve as an indicator of increased habitat availability while seagrass density could serve as an indicator of increased habitat quality. Increased boating will have economic benefits.

f. 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?

The liquidated damages in the contract for failure to meet contractual obligations is $1,088 per calendar day the contractor goes beyond the approved timeline. Further the County requires a performance bond for the entire cost (100%) of the project.

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.

This project will clean up canals that are primarily on state owned sovereign submerged lands that are under the management jurisdiction of the Cities of Satellite Beach and Indian Harbour Beach.

13. Requestor Contact Information:
   a. Name: Courtney Barker
   b. Organization: City of Satellite Beach
   c. E-mail Address: cbarker@satellitebeach.org
   d. Phone Number: (321)773-4407

14. Recipient Contact Information:
   a. Organization: Cities of Satellite Beach and Indian Harbour Beach
   b. County: Brevard
   c. Organization Type:
      ○ For Profit
      ○ Non Profit 501(c) (3)
      ○ Non Profit 501(c) (4)
      ○ Local Entity
O University or College
O Other (Please specify)

d. Contact Name: Courtney Barker
e. E-mail Address: cbarker@satellitebeach.org
f. Phone Number: (321)773-4407

15. Lobbyist Contact Information
a. Name: Cari Roth
b. Firm Name: Dean Mead & Dunbar
c. E-mail Address: croth@deanmead.com
d. Phone Number: (850)999-4100

Please complete the questions below for Water Projects only

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? Not initiated

19. What percentage of construction has been completed? 0%

20. What is the estimated completion date of construction? December 31, 2021