1. **Title of Project:** FIU- Water Quality and Economic Prosperity

2. **Senate Sponsor:** Anitere Flores

3. **Date of Submission:** 02/21/2019

4. **Project/Program Description:**
   
   Develop an early warning system that includes water quality sensors, analytic tests for early indicators of nutrient and other contaminants in S. Florida fresh and coastal waters. These data will be disseminated on web-based platforms in near, 'real-time'.

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

   State Agency Contacted? No

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>4,390,000</td>
</tr>
<tr>
<td>Fixed Capital Outlay</td>
<td></td>
</tr>
<tr>
<td><strong>Total State Funds Requested</strong></td>
<td><strong>4,390,000</strong></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>4,390,000</td>
<td>100.00%</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>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total Project Costs for Fiscal Year 2019-2020</strong></td>
<td><strong>4,390,000</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

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

9. **Is future-year funding likely to be requested?** Yes

   a. If yes, indicate non-recurring amount per year. 4,390,000

10. **Details on how the requested state funds will be expended**

    | Spending Category         | Description | Amount |
    |---------------------------|-------------|--------|
    | Administrative Costs:     |             |        |
Executive Director/Project Head Salary and Benefits  | We request partial salary to support a Project Director to oversee the development, deployment, maintenance and operations of the various water quality monitoring and measuring activities described. | 45,000

Other Salary and Benefits  | We request salary for a Database Manager to collate and disseminate all data associated with the water quality activities as described. | 150,000

Expense/Equipment/Travel/Supplies/Other  | We request funds for the Project Director and Data Base Manager to travel to various venues to report and discuss water quality findings and issues. We also request funds for Operations and Management of our Sensor Network System. | 85,000

Consultants/Contracted Services/Study

**Operational Costs:**

Salary and Benefits  | We request partial salary for an Instrumentation Coordinator, 3 field technicians for Buoy Sensor Array Deployment, 3 Graduate Students and 3 Post Docs for Freshwater, Florida and Biscayne Bay monitoring. | 680,000

Expense/Equipment/Travel/Supplies/Other  | We request funds for upkeep of the instrumented sensing network, field deployment expenses, sensors, other water quality supplies. We also seek a ONE-TIME request for the development of our Micro-array system for HAB epigenetic early warning as well as for the construction of our Buoy Sensor Array System | 3,250,000

Consultants/Contracted Services/Study  | We request funds for water quality analysis costs through FIU Recharge Facilities (http://research.fiu.edu/facilities/recharge/) in particular those related to water quality testing. These funds will also be used for QA/QC for validation of our Early-Warning Buoy Sensor System. | 180,000

**Fixed Capital Construction/Major Renovation:**

Construction/Renovation/Land/Planning Engineering

**Total State Funds Requested (must equal total from question #6)** | **4,390,000**

11. Program Performance:

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

   Enhanced monitoring of water quality and sources of contaminants and pollutants. Provide 'real-time', early warning of water quality issues for management actions. Data include information on seagrass health, coral bleaching, fish kills.

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

   Identify areas with harmful levels of contaminants and pollutants and provide real-time data to the public.
c. **What are the direct services to be provided to citizens by the appropriations project?**
   Provide early warning of when outbreaks of harmful algal blooms and red-tide events may occur

d. **Who is the target population served by this project? How many individuals are expected to be served?**
   Citizens of Florida and tourists

e. **What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?**
   Implementation of the local measures of water quality contamination in the long run will reduce the outbreaks of harmful algal blooms and red-tide events. This will lead to the restoration and future improvements of economic activity.

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?**
   No future funding

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.**

   FIU

13. **Requestor Contact Information:**
   a. **Name:** Todd Crowl
   b. **Organization:** FIU, Institute of Water and Environment
   c. **E-mail Address:** tcrowl@fiu.edu
   d. **Phone Number:** (305)348-1666

14. **Recipient Contact Information:**
   a. **Organization:** FIU
   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:** Todd Crowl
   e. **E-mail Address:** tcrowl@fiu.edu
   f. **Phone Number:** (305)348-1666

15. **Lobbyist Contact Information**
a. Name: Chris Cantens
b. Firm Name: FIU
c. E-mail Address: ccantens@fiu.edu
d. Phone Number: (305)348-3505

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)
     - [X] 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)
     - [X] N/A

18. What is the status of construction? N/A.

19. What percentage of construction has been completed? None.

20. What is the estimated completion date of construction? Undetermined.