MEMORANDUM

TO: Policy Board Members

Commissioner Charlie Justice - Chair - Pinellas County
Commissioner Stacy White - Vice Chair - Hillsborough County
Commissioner Priscilla Trace - Manatee County
Commissioner Mike Wells - Pasco County
Councilmember Gina Driscoll – City of St. Petersburg
Councilman Guido Maniscalco - City of Tampa
Councilman Bob Cundiff – City of Clearwater
Mr. Jeff Adams – SWFWMD
Mr. Tom McGill – EPA
District Director Mary Yeargan - FDEP

FROM: Ed Sherwood, Executive Director
DATE: May 1, 2019
SUBJECT: May 17th Policy Board Meeting

Enclosed please find the agenda packet for the next TBEP Policy Board Meeting scheduled for May 17, 2019 at:

Tampa Bay Regional Planning Council
4000 Gateway Centre Blvd., Suite 100
Pinellas Park, Florida
9:00 A.M. to 12:00 P.M.

The main items of discussion will be:

- Final FY2020 EPA Work Plan Submittal and Budget Approval
- Acceptance of Annual Audit Report
- Ship Wake Impact Study in Tampa Bay
- Tampa Bay Environmental Restoration Fund 2019 Projects Approval

We look forward to seeing you at the meeting.

cc: Felicia Burks, EPA; Don Conn, TBEP Legal Counsel, Jan Mclean, City of Tampa
AGENDA

TAMPA BAY ESTUARY PROGRAM
POLICY BOARD MEETING

DATE/TIME: Friday, May 17, 2019, 9:00 a.m.

LOCATION: Tampa Bay Regional Planning Council
4000 Gateway Centre Blvd., Suite 100
Pinellas Park, FL 33782

Call to Order
Roll Call

1. Approval of changes to agenda
2. Approval of Minutes of February 15, 2019 Policy Board Meeting
3. General Citizens’ Comments

ACTION ITEMS

4. Acceptance of Annual Audit Report
   (Final Audit presentation at Board meeting) Scott Anderson
   Cherry, Bekaert
   Action Recommended: Accept Annual Audit report.

5. Acceptance of Quarterly Financial Reports Ron Hosler
   Action Recommended: Accept Quarterly Financial Reports.

6. Acceptance of the Mid-Year Budget Proposal Ron Hosler
   Action Recommended: Accept Mid-Year Budget Proposal.

7. Approval of 2020-2021 TBEP Legal Services Contract Ed Sherwood
   Action Recommended: Approve 2020-2021 TBEP Legal Services Agreement.

8. Final FY2020 EPA Work Plan Submittal and Budget Approval Ed Sherwood
   Actions Recommended:
   a) Approve the Final FY2020 Annual EPA Work Plan & Budget.
   b) Authorize Executive Director to submit Final FY2020 Annual EPA Work Plan to EPA
      Region 4 as a new EPA Cooperative Agreement.
9. **TBERF 2019 Projects Approval**  
   **(additional information)**  
   
   **Actions Recommended:**  
   a) Approve the list of projects and budgets for 2019 TBERF awards.  
   b) Authorize Executive Director to enter into contracts for 7 (of 8) recommended projects.  
   c) Authorize Executive Director to amend Scope and Budget (up to $25,000) for contract(s), if additional funds become available.

10. **Approval of TBEP Participation in Tampa Bay Regional Resiliency Coalition**  
   **Ed Sherwood/Maya Burke**  
   
   **Action Recommended:**  
   Authorize TBEP’s formal participation in the Tampa Bay Regional Resiliency Coalition.

**EXECUTIVE DIRECTOR AND STAFF REPORTS**

11. **Executive Director and Staff Reports**  
   **TBEP Staff**

**DISCUSSION ITEMS**

12. **Ship Wake Impact Study in Tampa Bay**  
    **Dr. Mark Luther/Dr. Steve Myers**

13. **TBEP Communications & Marketing Update**  
    **Joe Whalen/Misty Cladas**

**INFORMATION ITEMS**

14. **Quarterly Progress Report to the Boards**  
    **Ron Hosler**

The next Management Board meeting will be August 16, 2019 at the Tampa Bay Regional Planning Council.

**Adjournment**

Please note that if a person(s) decides to appeal any decision made by the Management Board with respect to any matter considered at the above cited meeting or hearing they will need a record of the proceedings, and for such purpose, they may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

**THIS MEETING IS OPEN TO THE PUBLIC**
DESIGNATION OF ALTERNATE
TO
TAMPA BAY ESTUARY PROGRAM
POLICY BOARD

I, ____________________________, a member of the Tampa Bay Estuary Program’s Policy Board, hereby designate: ___________________________ to serve as an alternate representing ___________________________ at the upcoming Policy Board meeting scheduled for ________________ with full authority to act or vote on any issue.

☐ I also designate: ___________________________ to serve, in my absence, as an alternate at all future meetings with the full authority to act or vote on any issue.

Signed: ___________________________

Date: ___________________________

Please return form by email or mail to:

Ron Hosler at ron@tbep.org
or
Tampa Bay Estuary Program
263 13th Avenue S., Suite 350
St. Petersburg, FL 33701
DATE/TIME: Friday, February 15, 2019
9:00 a.m.

LOCATION: Tampa Bay Regional Planning Council
4000 Gateway Centre Blvd, Suite 100
Pinellas Park, Florida

Commissioner Justice chaired the meeting.

Call to order: Mr. Ron Hosler took Roll Call:

Commissioner Charlie Justice – Chair Pinellas County
Commissioner Stacy White - Vice Chair Hillsborough County
Commissioner Priscilla Trace Manatee County
Mr. Keith Wiley for
Commissioner Mike Wells Pasco County
Councilman Guido Maniscalco City of Tampa
Councilman Bob Cundiff City of Clearwater
Councilwoman Gina Driscoll City of St. Petersburg
Mr. Randy Smith for Mr. Jeff Adams SWFWMD
District Director Mary Yeargan FDEP
Ms. Burks for
Mr. Tom McGill US Environmental Protection Agency

Others in attendance included:
Mr. Ed Sherwood TBEP
Ms. Misty Cladas TBEP
Mr. Ron Hosler TBEP
Dr. Gary Raulerson TBEP
Ms. Maya Burke TBEP
Mr. Joe Whalen TBEP
Mr. Don Conn TBEP Legal Counsel

Dr. Brandt Henningsen Citizen
Ms. Courtney Vandenberg BOCC Pinellas County

1. Approval of changes to the agenda

Mr. Ed Sherwood noted updated handouts for agenda items #4, #8 at member’s places. He stated additional handouts related to other agenda items were also provided.

2. Approval of Minutes of November 16, 2018 Management Board Meeting
Motion and second to approve the Minutes of the November 16, 2018 Policy Board Meeting. Motion passed unanimously.

3. Citizen's Comments

There were no Citizen Comments.

4. Champion of Tampa Bay Proclamations

Mr. Sherwood introduced this item and announced that TBEP would like to present Mr. Brandt Henningsen and Mr. Robin Lewis with Champion of Tampa Bay Proclamations. Mr. Sherwood introduced Mr. Henningsen and presented him with the Proclamation and a Plaque, photos were taken. Mr. Sherwood also announced that he would be mailing the Proclamation and Plaque to Mr. Lewis’s family to recognize his efforts posthumously.

5. Acceptance of Financial Reports

Mr. Ron Hosler asked members to refer to the handout at their places and explained the current financial reports noting that this covered the period ending December 31, 2018. He stated revenues of membership dues in the amount of $330k, EPA funds and specialty license plate funds are 25% and 28%, respectively. The contract expense category is at about 16% (slightly below expectations), as the year had just begun. He also mentioned that the audit was about halfway complete and has now billed 48% of that expense category. The travel expense category included two conferences at the beginning of the fiscal year, in October and November, so that is reflected in this financial report.

Motion by Commissioner White to accept the Financial Reports and seconded by Councilman Maniscalco. Motion passed unanimously.


Mr. Sherwood explained the work plan stating it is an annual requirement by US EPA to receive funding. EPA has not yet finalized appropriations, but suggested using federal appropriations of $600,000 for planning purposes for this work plan year. Many of TBEP’s ongoing technical and outreach programs will continue for FY2020. Projects on the technical side include benthic, seagrass and flow monitoring, technical support and data management, harmful algal bloom assessment, and support for Ocean Acidification Monitoring. Outreach projects will include website enhancements, support for Bay Soundings or similar online environmental journal, an adaptation action plan, and support for a niche social marketing campaign(s), such as private lateral line outreach and education.
Mr. Sherwood outlined the funding components for the work plan stating $600,000 from US EPA is estimated, $548,000 in local dues which will require an in-kind project of $84,000 or more. A $3,177 reduction in operating expenses from last year is primarily due to an additional $105,000 in grant funds to cover salary and fringe. This is inclusive of an anticipated hiring of another position. Currently TBEP is managing $16.2M in projects.

Members discussed the possibility of additional funding for harmful algal bloom projects, as well as, working with the Sarasota Bay NEP to potentially refresh the Be Floridian campaign in support of reducing the potential for future HAB events.

Mr. Sherwood stated that the final workplan will be presented at their May, 2019 meeting for final approval of submittal to the EPA.

Motion by Mr. Jeff Adams to conceptually approve the Draft 2019-2020 Annual EPA Work Plan and Budget and seconded by Councilman Maniscalco. Motion passed unanimously.

7. Website Design & Internet Support Services Contract Approval

Mr. Sherwood explained this item stating the Program released an RFP to refresh its web presence, redesign the many websites managed by staff and consolidate the social media platforms for an amount not to exceed $30,000. TBEP received 9 proposals and the top ranked respondent was Tangram LLC. Per Mr. Conn’s recommendations, Tangram LLC will need to become a certified business in Florida prior to contract negotiations. The respondent proposal will also need to ensure the new website is ADA and GDPR compliant being that TBEP is a government entity.

Motion by Councilman Cundiff to:

a. Authorize Executive Director to negotiate scope and enter into contract with Tangram 3DS for an amount not to exceed $30,000.
b. Authorize Executive Director to amend scope and budget (up to $25,000 for initial contract), if additional funds become available.
c. Authorize Executive Director to renew agreement for up to 2 additional cycles, pending future TBEP Work Plan approval by the Policy Board.

And seconded by Councilman Maniscalco. Motion passed unanimously.

8. Technical Support & Data Management Services Contract

Dr. Raulerson explained this item stating that a RFP was released in December 2018 and was posted on multiple sites in an effort to broadly advertise the proposal solicitation. However, TBEP received only one proposal from respondent: Janicki Environmental. Their proposal included tasks for project planning, tracking of CCMP indicators, creating technical reports and documents and technical support on an as-needed basis. The duration of a new contract was anticipated to be 36 months. A review committee
included several recommendations instructing TBEP staff to negotiate more specific
detail on several items with any contract pursued with Janicki Environmental.

**Motion by Commissioner White to:**

a. Negotiate scope and enter into contract with Janicki Environmental, Inc. for an
   amount not to exceed $89,160.

b. Authorize Executive Director to amend scope and budget (up to $25,000 for
   initial contract), if additional funds become available.

c. Authorize Executive Director to renew agreement for up to 2 additional cycles,
   pending future TBEP Work Plan approval by the Policy Board.

And seconded by Councilman Cundiff. Motion passed unanimously.

9. **TBNMC 2022 Reasonable Assurance Update Technical Support**

Ms. Burke explained this item stating that a RFP was released in December 2018 and was
also posted on multiple sites in an effort to broadly advertise the RFP. Similarly, TBEP
received one proposal from respondent, Janicki Environmental. Included in their proposal
were the necessary tasks for assisting TBEP and the TBNMC in developing
documentation for inclusion in the 2022 Reasonable Assurance Update, facilitating
TBNMC discussions among diverse and disparate stakeholder groups, updating TN load
reductions and project management. The duration of a new contract for this work is
anticipated to begin March 1, 2019 and end December 31, 2022. Funding for this project
is primarily from contributions of the Tampa Bay Nitrogen Management Consortium
participants.

**Motion by Commissioner Maniscalco to:**

a. Authorize Executive Director to negotiate scope and enter into contract with
   Janicki Environmental, Inc. for an amount not to exceed $161,800.

b. Authorize Executive Director to amend scope and budget (up to $25,000 for
   initial contract), if additional funds become available.

And seconded by Mr. Adams. Motion passed unanimously.

10. **Policy Board Chair & Vice Chair Elections for 2019-2021**

Commissioner Justice introduced the election item then asked Mr. Conn, TBEP Legal
Counsel, to facilitate the election discussion. A nomination was made for Commissioner
Charlie Justice to continue as TBEP Policy Board Chair. Nomination was seconded,
motion passed unanimously.

A nomination was made for Commissioner Stacy White to continue as TBEP Policy Board
Vice-Chair. Nomination was seconded, motion passed unanimously.

11. **Executive Director and Staff Reports**
Mr. Sherwood thanked both Commissioner Justice and Commissioner White for their continued effort and support as the TBEP Policy Board Chair and Vice-Chair, respectively.

Mr. Sherwood introduced Mr. Joe Whalen, the new Communication and Outreach Coordinator. Mr. Whalen introduced himself and noted that he began in November 2018. Mr. Sherwood announced that the Tampa Bay Estuary Program specialty license plate saw an increase in sales late last year, a possible indication of Joe’s work to enhance our messaging regarding the license plate.

Mr. Sherwood explained that the 4 FL NEPs are continuing work through the Florida Estuaries Alliance. Early state legislation has focused funding towards the Indian River Lagoon Program and it’s hoped that bill amendments would expand state funding to other NEPs.

Ms. Maya Burke announced that both she and Dr. Raulerson attended the Restore America Estuaries Conference in CA in December 2018, and they both gave presentations on TBEP projects at the conference. She also announced that the Tampa Bay Environmental Restoration Fund (TBERF) is open to accept grant applications and the deadline for submittal is March 15, 2019. Ms. Burke mentioned that some changes to the TBERF application that were requested by the Boards last year were implemented in this year’s application.

Ms. Misty Cladas announced that the J. Crayton Pruitt Foundation donated to the Program again this year. Last year the donation was for $10k and this year the fund generously donated $25k, which will be used to fund bay restoration projects under both the Bay Mini-Grant and TBERF programs in 2019.

Mr. Sherwood announced that he will be traveling to Washington, DC in March to attend a joint EPA-ANEP conference and meet with US Congressional delegates and their staff.

12. Final Dredged Hole Management Recommendations

Dr. Raulerson presented the final 2019 Dredged Hole management recommendations and discussed the findings from the recently completed Dredged Hole Assessment Project. The project, which looked at a total of eleven dredged holes in Tampa Bay, utilized similar same methods to the 2005 study conducted by the TBEP. Bathymetric surveys, sediment analysis, benthic characterization, fisheries population assessment, and a recreational fishing guide survey were used to understand the current condition of each hole and objectively determine whether additional restoration activities would be beneficial. Four dredged holes - Bay Point, MacDill Docks, Fort DeSoto, and Culbreath South - may be targeted for future restoration activities after significant additional planning and discussions with interested user groups is pursued. These recommendations emanate from several years of work and stakeholder discussions were completed by the TBEP and its partners including: commercial fishing guides, the Environmental Protection
Commission of Hillsborough County, the Florida Wildlife Research Institute, and the US Army Corps of Engineers.

13. **2018 Water Quality and Seagrass Assessment Results**

Dr. Raulerson presented the annual water quality and seagrass assessment results using the 1-page handout at member’s places. He stated no segments exceeded FDEP or EPA regulatory thresholds in 2018. However, the Old Tampa Bay segment is still exceeding TBEP management targets. Preliminary 2018 SWFWMD seagrass mapping results, as reported by Mr. Aaron Brown, indicate that the bay contains just over 41k acres, which was a small loss from 2016 estimates. These results were from surveys which were flown prior to the red tide blooms.

14. **Give-A-Day for the Bay Opportunities**

Ms. Cladas asked members to view the handout at their places. She explained there are two workdays scheduled in the next few months. March 23**rd** will be at Clam Bayou Nature Preserve, and TBEP will partner with Keep Pinellas Beautiful and the City of St. Petersburg for this event. On April 13**th**, the workday will take place behind Stewart Middle Magnet School on the Hillsborough River for a living shoreline cleanup event. Ms. Cladas asked members to contact her directly, if they have any areas that could use the Give-A-Day group.

15. **Quarterly Progress Report to the Boards**

Mr. Hosler directed members to the report in their packets and asked members to call him should there be any questions. He also stated that the new format of the report now contains links to final report documents and deliverables for each project.

An announcement was made regarding a Red Tide Summit that will take place on March 28, 2019 at the Sheraton Sand Key. The Summit is free to the public, but you must register, as attendance is limited to 150 people.

Mr. Sherwood also thanked Mr. Wiley for his attendance at the meeting, representing Pasco County.

Mr. Sherwood also welcomed Commissioner Driscoll to the Policy Board, and thanked Commissioner Trace for her continuing participation on the Board.

Meeting adjourned at 10:11 a.m.

The next meeting of the Management Board is scheduled for May 17, 2019 at the Tampa Bay Regional Planning Council offices beginning at 9:00 a.m.
Acceptance of the Annual Audit Report

Action Recommended:
Accept annual audit report.

(Presentation by Scott Anderson, Cherry Bekaert. Audited financial statements attached.)
TAMPA BAY ESTUARY PROGRAM

FINANCIAL STATEMENTS AND COMPLIANCE SECTION

As of and for the Year Ended September 30, 2018

And Reports of Independent Auditor
# TAMPA BAY ESTUARY PROGRAM

## TABLE OF CONTENTS

### REPORT OF INDEPENDENT AUDITOR

1-2

### MANAGEMENT’S DISCUSSION AND ANALYSIS

3-5

### BASIC FINANCIAL STATEMENTS

#### Government-Wide Financial Statements:
- Statement of Net Position ........................................................................................................ 6
- Statement of Activities ................................................................................................................ 7

#### Fund Financial Statements:
- Balance Sheet – General Fund ................................................................................................. 8
- Reconciliation of the Balance Sheet – General Fund to the Statement of Net Position ............ 9
- Statement of Revenues, Expenditures, and Changes in Fund Balance – General Fund ........... 10
- Reconciliation of the Statement of Revenues, Expenditures, and Changes in Fund Balance – General Fund ................................................................................................................ 11
- Schedule of Revenues, Expenditures, and Changes in Fund Balance – General Fund .......... 12

### REQUIRED SUPPLEMENTARY INFORMATION

#### Schedule of Proportionate Share of Net Pension Liability – Florida Retirement System Pension Plan ........................................................................................................ 28

#### Schedule of Contributions – Florida Retirement System Pension Plan .................................... 28

#### Schedule of Proportionate Share of Net Pension Liability – Health Insurance Subsidy Pension Plan .................................................................................................................. 29

### COMPLIANCE SECTION

#### Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards .............................................................................. 30-31

#### Schedule of Findings and Responses .......................................................................................... 32

#### Corrective Action Plan ............................................................................................................. 33

#### Independent Auditor’s Management Letter ............................................................................... 34-35

#### Report of Independent Accountant on Compliance with Local Government Investment Policies .................................................................................................................... 36
Report of Independent Auditor

Members of the Board
Tampa Bay Estuary Program
St. Petersburg, Florida

Report on the Financial Statements
We have audited the accompanying financial statements of the governmental activities and the general fund of the Tampa Bay Estuary Program (the “Estuary Program”) as of and for the year ended September 30, 2018, and the related notes to the financial statements, which collectively comprise the Estuary Program’s basic financial statements as listed in the table of contents.

Management’s Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor’s Responsibility
Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions
In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and the general fund of the Estuary Program as of September 30, 2018, and the respective changes in financial position and the respective budgetary comparison for the general fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.
Other Matters

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the management’s discussion and analysis, the schedules of proportionate share of net pension liability, and the schedules of contributions, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management’s responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards
In accordance with Government Auditing Standards, we have also issued our report dated April 25, 2019, on our consideration of the Estuary Program’s internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Estuary Program’s internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Estuary Program’s internal control over financial reporting and compliance.

Tampa, Florida
April 25, 2019
As management of the Tampa Bay Estuary Program (the “Estuary Program”), we offer readers of the Estuary Program’s financial statements this narrative overview and analysis of the financial activities of the Estuary Program for the fiscal year ended September 30, 2018. We encourage readers to read the information presented herein in conjunction with additional information furnished in the Estuary Program’s financial statements following this narrative.

Financial Highlights

The Estuary Program’s net position is $738,385, an increase of $49,713 over the previous year. Net position serves as both a contingency and rainy-day fund for the Estuary Program as well as a source of matching funds for grants for high priority projects.

During the year, total expenses were $1,963,180 versus total revenue of $2,012,893.

Using this Annual Report

The report consists of three components: 1) government-wide financial statements providing information about the activities of the Estuary Program as a whole; 2) fund financial statements providing information about the significant funds of the Estuary Program; and 3) notes to the financial statements providing supplementary and explanatory information. This report also includes required supplementary information in addition to the basic financial statements.

Government-Wide Financial Statements - The first two statements on pages 6 and 7, “Statement of Net Position” and “Statement of Activities,” are designed to provide a broad overview of the Estuary Program’s finances, similar in format to a financial statement of a private-sector business. The government-wide statements provide information about the Estuary Program’s financial status as a whole. These statements include details of income during the year and a breakdown by category of expenses for activities and administration of the Estuary Program. The statements include all assets, deferred outflows of financial resources, liabilities, and deferred inflows of financial resources using the accrual basis of accounting. This means that all of the current year’s revenues and expenses are taken into account regardless of when cash is received or paid.

These two statements report the Estuary Program’s net position and changes in net position. The net position – the difference between assets and deferred outflows and liabilities and deferred inflows – is an important measure of the Estuary Program’s financial health.

Fund Financial Statements - The next five statements on pages 8 through 12 provide a detailed look at the Estuary Program’s major fund. The Estuary Program, like all government entities, uses fund accounting to ensure and reflect compliance (or noncompliance) with finance related legal requirements. The fund statements do not reflect the activities of the Estuary Program as a whole. All of the funds of the Estuary Program are included in only one category: governmental funds. All activities of the governmental funds are included in only one fund: General Fund.
## Tampa Bay Estuary Program - Net Position

<table>
<thead>
<tr>
<th></th>
<th>Governmental Activities</th>
<th>Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2017</td>
</tr>
<tr>
<td>Current and other assets</td>
<td>$1,839,271</td>
<td>$1,879,937</td>
</tr>
<tr>
<td>Capital assets</td>
<td>431</td>
<td>1,171</td>
</tr>
<tr>
<td>Total Assets</td>
<td>1,839,702</td>
<td>1,881,108</td>
</tr>
<tr>
<td>Deferred outflow of resources</td>
<td>236,552</td>
<td>288,846</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>646,200</td>
<td>766,989</td>
</tr>
<tr>
<td>Long-term liabilities</td>
<td>582,701</td>
<td>662,768</td>
</tr>
<tr>
<td></td>
<td>1,228,901</td>
<td>1,429,757</td>
</tr>
<tr>
<td>Deferred inflow of resources</td>
<td>108,968</td>
<td>51,525</td>
</tr>
</tbody>
</table>

### Net Position:

- **Net investment in capital assets**: 431 - 1,171 = $(740)
- **Restricted for specialty license plate related expenditures**: 342,608 - 248,368 = 94,240
- **Unrestricted**: 395,346 - 439,133 = $(43,787)

Total Net Position:

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
<th>Increase (Decrease)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$738,385</td>
<td>$688,672</td>
<td>$49,713</td>
</tr>
</tbody>
</table>

## Tampa Bay Estuary Program - Changes in Net Position

<table>
<thead>
<tr>
<th></th>
<th>Governmental Activities</th>
<th>Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2017</td>
</tr>
</tbody>
</table>

### Revenues:

**Program revenue:**

- **Operating grants and contributions**: $1,352,464 - $1,397,495 = $(45,031)
- **Charges for services**: 656,245 - 832,206 = $(175,961)

**General revenues:**

- **Interest**: 4,184 - 2,345 = 1,839

Total Revenues:

<table>
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<tr>
<th></th>
<th>2018</th>
<th>2017</th>
<th>Increase (Decrease)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2,012,893</td>
<td>2,232,046</td>
<td>$(219,153)</td>
</tr>
</tbody>
</table>

### Functional/Program Expenses:

**Physical environment**: 1,963,180 - 2,326,733 = $(363,553)

Total Functional/Program Expenses:

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
<th>Increase (Decrease)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1,963,180</td>
<td>2,326,733</td>
<td>$(363,553)</td>
</tr>
</tbody>
</table>

Increase (decrease) in net position:

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
<th>Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$49,713</td>
<td>$(94,687)</td>
<td>$144,400</td>
</tr>
</tbody>
</table>
Governmental Activities

Revenues for the Estuary Program’s activities totaled $2,012,893, a decrease of $219,153 from the previous year. The significant changes in charges for services is due to decreased activity related to non-federal projects as compared to the prior year.

Expenses totaled $1,963,180, a decrease of $363,553 from the previous year.

<table>
<thead>
<tr>
<th>General Fund Balance Sheet</th>
<th>Governmental Activities</th>
<th>Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2017</td>
</tr>
<tr>
<td>Current and other assets</td>
<td>$ 1,839,271</td>
<td>$ 1,879,937</td>
</tr>
<tr>
<td>Liabilities</td>
<td>$ 646,200</td>
<td>$ 766,989</td>
</tr>
<tr>
<td>Fund balance</td>
<td>$ 1,193,071</td>
<td>$ 1,112,948</td>
</tr>
<tr>
<td>Total liabilities and fund balance</td>
<td>$ 1,839,271</td>
<td>$ 1,879,937</td>
</tr>
</tbody>
</table>

Fund balance increased this year by $80,123 to $1,193,071.

Budgetary Highlights

During the fiscal year, Estuary Program revises the budget on two occasions. Generally, budget amendments fall into one of three categories: 1) amendments made to adjust the estimates that are used to prepare the initial budget once exact information is available; 2) amendments made to recognize new funding amounts from external sources, such as Federal and State grants; and 3) increases in appropriations that become necessary to maintain services.

Economic Factors and the 2017-2018 Budget

The $600,000 in Section 320, federal funding for fiscal year 2018 was a reduction from fiscal year 2017, but the reduction was anticipated. Regardless, additional federal, state, and local funding, as noted below, allowed the Estuary Program to add several additional technical and outreach projects to support CCMP implementation.

Continued local government and industry support for the Tampa Bay Environmental Restoration Fund and the Tampa Bay Nitrogen Management Consortium, as well as the 2015 Amended Interlocal Agreement funding schedule has improved stability of funding for base program operations.

Additionally, in August 2018, the Gulf Coast Ecosystem Restoration Council Comprehensive Plan Component (RESTORE) awarded the Estuary Program a significant grant in the amount of $1,459,909, approximately $100,000 of which will be used to support staff and program operations.

Section 320 federal funding for fiscal years 2018 - 2020 will remain consistent at the $600,000 level, but there is some confidence that Section 320 funding for fiscal year 2021 may increase due to enhanced congressional support for the National Estuary Programs.

Lastly, specialty license plate revenue remained stable between fiscal years 2017 and 2018.
## Assets

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$1,037,725</td>
</tr>
<tr>
<td>Investments</td>
<td>133,761</td>
</tr>
<tr>
<td>Receivables</td>
<td>325,177</td>
</tr>
<tr>
<td>Capital assets, net of accumulated depreciation</td>
<td>431</td>
</tr>
<tr>
<td>Restricted cash</td>
<td>253,982</td>
</tr>
<tr>
<td>Restricted investments</td>
<td>88,626</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td><strong>1,839,702</strong></td>
</tr>
</tbody>
</table>

## Deferred Outflows of Resources

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred amounts related to pensions</td>
<td>236,552</td>
</tr>
</tbody>
</table>

## Liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>188,614</td>
</tr>
<tr>
<td>Unearned revenue</td>
<td>457,586</td>
</tr>
<tr>
<td>Noncurrent liabilities:</td>
<td></td>
</tr>
<tr>
<td>Accrued compensated absences</td>
<td></td>
</tr>
<tr>
<td>Net pension liability</td>
<td>527,602</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td><strong>1,228,901</strong></td>
</tr>
</tbody>
</table>

## Deferred Inflows of Resources

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred amounts related to pensions</td>
<td>108,968</td>
</tr>
</tbody>
</table>

## Net Position

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net investment in capital assets</td>
<td>431</td>
</tr>
<tr>
<td>Restricted for specialty license plate related expenditures</td>
<td>342,608</td>
</tr>
<tr>
<td>Unrestricted</td>
<td>395,346</td>
</tr>
<tr>
<td><strong>Total Net Position</strong></td>
<td><strong>$738,385</strong></td>
</tr>
</tbody>
</table>
TAMPA BAY ESTUARY PROGRAM  
STATEMENT OF ACTIVITIES  

YEAR ENDED SEPTEMBER 30, 2018

The notes to the financial statements are an integral part of this statement.
TAMPA BAY ESTUARY PROGRAM
BALANCE SHEET – GENERAL FUND

SEPTEMBER 30, 2018

<table>
<thead>
<tr>
<th>ASSETS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$1,037,725</td>
</tr>
<tr>
<td>Investments</td>
<td>133,761</td>
</tr>
<tr>
<td>Receivables - funding agencies</td>
<td>325,177</td>
</tr>
<tr>
<td>Restricted cash</td>
<td>253,982</td>
</tr>
<tr>
<td>Restricted investments</td>
<td>88,626</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$1,839,271</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIABILITIES AND FUND BALANCE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Liabilities:</td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>$188,614</td>
</tr>
<tr>
<td>Unearned revenue</td>
<td>457,586</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>646,200</td>
</tr>
</tbody>
</table>

| Fund Balance:                               |       |
| Restricted for specialty license plate related expenditures | 342,608|
| Assigned for grant matching funds for future years  | 504,158|
| Unassigned                                   | 346,305|
| **Total Fund Balance**                      | 1,193,071|
| **Total Liabilities and Fund Balance**      | $1,839,271|

The notes to the financial statements are an integral part of this statement.
TAMPA BAY ESTUARY PROGRAM
RECONCILIATION OF THE BALANCE SHEET – GENERAL FUND 
TO THE STATEMENT OF NET POSITION

SEPTEMBER 30, 2018

<table>
<thead>
<tr>
<th>Total fund balance - general fund</th>
<th>$ 1,193,071</th>
</tr>
</thead>
</table>

Amounts reported for governmental activities in the statement of net position are different because:

The cost of acquiring capital assets financed from the general fund are reported as expenditures in the year they are incurred, and the assets do not appear on the balance sheet. However, the statement of net position includes capital assets of the Estuary Program as a whole, and their original costs are expensed annually over their useful lives.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original cost of capital assets</td>
<td>$ 26,621</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(26,190)</td>
</tr>
<tr>
<td></td>
<td>431</td>
</tr>
</tbody>
</table>

Deferred outflows and inflows of resources related to pensions are applicable to future periods and, therefore, are not reported in the funds.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred outflows of resources related to pensions</td>
<td>236,552</td>
</tr>
<tr>
<td>Deferred inflows of resources related to pensions</td>
<td>(108,968)</td>
</tr>
</tbody>
</table>

Compensated absences are long-term liabilities that are not due and payable in the current period and, therefore, are not reported in the general fund.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensated absences</td>
<td>(55,099)</td>
</tr>
</tbody>
</table>

Net pension liability is a long-term liability that is not due and payable in the current period and, therefore, is not reported in the general fund.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net pension liability</td>
<td>(527,602)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total net position - governmental activities</th>
<th>$ 738,385</th>
</tr>
</thead>
</table>
# TAMPA BAY ESTUARY PROGRAM

## STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE – GENERAL FUND

### YEAR ENDED SEPTEMBER 30, 2018

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
</tr>
<tr>
<td>Federal grants</td>
<td>$594,787</td>
</tr>
<tr>
<td>Member dues</td>
<td>493,432</td>
</tr>
<tr>
<td>State specialty license plate</td>
<td>108,873</td>
</tr>
<tr>
<td>Fees/contracts</td>
<td>656,245</td>
</tr>
<tr>
<td>In-kind services</td>
<td>131,568</td>
</tr>
<tr>
<td>Interest income</td>
<td>4,184</td>
</tr>
<tr>
<td>Other revenues</td>
<td>23,804</td>
</tr>
<tr>
<td><strong>Total Revenues</strong></td>
<td><strong>2,012,893</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expenditures:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Current:</strong></td>
<td></td>
</tr>
<tr>
<td>Physical environment - conservation and resource management</td>
<td>1,932,770</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td><strong>1,932,770</strong></td>
</tr>
<tr>
<td>Deficit of revenues over expenditures</td>
<td>80,123</td>
</tr>
<tr>
<td>Fund balance - beginning of year</td>
<td>1,112,948</td>
</tr>
<tr>
<td><strong>Fund balance - end of year</strong></td>
<td><strong>$1,193,071</strong></td>
</tr>
</tbody>
</table>

The notes to the financial statements are an integral part of this statement.
TAMPA BAY ESTUARY PROGRAM
RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES, AND
CHANGES IN FUND BALANCE – GENERAL FUND TO THE STATEMENT OF ACTIVITIES

YEAR ENDED SEPTEMBER 30, 2018

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net change in fund balance - total general fund</td>
<td>$ 80,123</td>
</tr>
<tr>
<td>Amounts reported for governmental activities in the statement of</td>
<td></td>
</tr>
<tr>
<td>activities are different because:</td>
<td></td>
</tr>
<tr>
<td>Capital outlays are reported as expenditures in the general fund.</td>
<td></td>
</tr>
<tr>
<td>However, in the statement of activities, the cost of assets is</td>
<td></td>
</tr>
<tr>
<td>allocated over their estimated useful lives and reported as</td>
<td></td>
</tr>
<tr>
<td>depreciation expense. This is the amount of depreciation expense</td>
<td></td>
</tr>
<tr>
<td>in the current period.</td>
<td>(740)</td>
</tr>
<tr>
<td>In the statement of activities, the cost of compensated</td>
<td></td>
</tr>
<tr>
<td>absences is measured by the amounts earned during the year,</td>
<td></td>
</tr>
<tr>
<td>while in the General Fund expenditures are recognized based on</td>
<td></td>
</tr>
<tr>
<td>the amounts actually paid for leave used. This is the net</td>
<td></td>
</tr>
<tr>
<td>amount of vacation, sick leave, and other incremental salary-</td>
<td></td>
</tr>
<tr>
<td>related payments used in excess of the amount earned in the</td>
<td></td>
</tr>
<tr>
<td>current period.</td>
<td>13,483</td>
</tr>
<tr>
<td>In the statement of activities, cost of pension benefits is</td>
<td></td>
</tr>
<tr>
<td>measured by the decrease in the net pension liability during the</td>
<td></td>
</tr>
<tr>
<td>year, while the governmental funds, expenditures are recognized</td>
<td></td>
</tr>
<tr>
<td>based on the amounts actually paid for the pension expense.</td>
<td></td>
</tr>
<tr>
<td>This is the amount of the decrease in the net pension liability</td>
<td></td>
</tr>
<tr>
<td>in excess of the amount paid in the current period.</td>
<td>(43,153)</td>
</tr>
<tr>
<td>Change in net position of governmental activities</td>
<td>$ 49,713</td>
</tr>
</tbody>
</table>

The notes to the financial statements are an integral part of this statement.
## Tampa Bay Estuary Program

### Schedule of Revenues, Expenditures, and Changes in Fund Balance – Budget to Actual – General Fund

**Year Ended September 30, 2018**

<table>
<thead>
<tr>
<th></th>
<th>Original Budget</th>
<th>Final Budget</th>
<th>Actual</th>
<th>Variance Favorite (Unfavorable)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal grants</td>
<td>$706,768</td>
<td>$308,075</td>
<td>$594,787</td>
<td>$286,712</td>
</tr>
<tr>
<td>Member dues</td>
<td>493,432</td>
<td>493,432</td>
<td>493,432</td>
<td>-</td>
</tr>
<tr>
<td>State specialty license plate</td>
<td>90,000</td>
<td>106,218</td>
<td>108,873</td>
<td>2,655</td>
</tr>
<tr>
<td>Fees/contracts</td>
<td>728,000</td>
<td>700,435</td>
<td>656,245</td>
<td>(44,190)</td>
</tr>
<tr>
<td>In-kind services</td>
<td>131,568</td>
<td>131,568</td>
<td>131,568</td>
<td>-</td>
</tr>
<tr>
<td>Other revenues and interest income</td>
<td>2,500</td>
<td>16,786</td>
<td>27,988</td>
<td>11,202</td>
</tr>
<tr>
<td><strong>Total Revenues</strong></td>
<td>2,152,268</td>
<td>1,756,514</td>
<td>2,012,893</td>
<td>256,379</td>
</tr>
</tbody>
</table>

| **Expenditures:**    |                 |              |        |                                 |
| Current:             |                 |              |        |                                 |
| Physical environment - conservation and resource management | 2,031,036 | 1,896,977 | 1,932,770 | (35,793) |
| Capital outlay       | 3,000           | 1,018        | -      | 1,018                           |
| **Total Expenditures** | 2,034,036      | 1,897,995    | 1,932,770 | (34,775) |

| **Excess (deficiency) of revenues over expenditures** | $118,232 | $(141,481) | 80,123 | $221,604 |

| Fund balance - beginning of year | $1,112,948 |
| Fund balance - end of year       | $1,193,071 |

The notes to the financial statements are an integral part of this statement.
Note 1—Organization and summary of significant accounting policies

Organization - The Tampa Bay Estuary Program (the “Estuary Program”) is a tax-exempt association of cities, counties, and other non-federal agencies, which is organized to achieve the goals adopted in the Comprehensive Conservation and Management Plan for Tampa Bay through detailed action plans prepared by each member agency of the association.

The Estuary Program was established by interlocal agreement February 28, 1998 pursuant to the authority of Section 163.01, Florida Statutes. The basic operations of the Estuary Program are financed primarily through grants from the Environmental Protection Agency and member dues/contributions from the member cities and counties and four Basin Boards of the Southwest Florida Water Management District.

Reporting Entity - The financial reporting entity consists of the primary government and any organizations for which the primary government is financially accountable in accordance with the provisions described in Governmental Accounting Standards Board (“GASB”) of Statement No. 61, The Financial Reporting Entity: Omnibus an Amendment of GASB Statements No. 14 and No. 34. This statement defines component units as legally separate organizations for which the elected officials of the primary government appoint the majority of the organization’s board and in which a financial benefit and burden relationship between the primary government and the organization exist. Based on the application of these criteria, no potential component units were identified.

Government-Wide Financial Statements - The government-wide financial statements (i.e., the statement of net position and the statement of activities) report information on the primary government.

The government-wide statements are prepared using the economic resources measurement focus and the accrual basis of accounting. Revenue is recognized when earned, and expenses are recognized when incurred, regardless of the timing of related cash flows. Grants are recognized in the fiscal year in which all eligibility requirements are met.

Governmental Fund Financial Statements - The governmental fund financial statements are presented using the current financial resources and modified accrual basis of accounting. Under this method, revenues are recognized when measurable and available. The Estuary Program considers all revenues available if they are collected within 60 days after year-end, with the exception of grant and contract fees for which the period is nine months. Expenditures are recorded when the related fund liability is incurred, except for compensated absences, which are recognized as expenditures to the extent they have matured. Capital asset acquisitions are reported as expenditures in governmental funds.

Under the terms of grant agreements, the Estuary Program funds certain programs by a combination of specific cost-reimbursement grants, other grants, and general revenues. Therefore, when program expenses are incurred and there are restricted and unrestricted net positions available to finance the program, it is the Estuary Program’s policy to first apply cost-reimbursement grant resources to such programs, followed by other grants and then general revenues.

The Estuary Program reports one major governmental fund. The general fund is used to account for the accumulation and expenditure of resources that are used for general purposes of the Estuary Program and do not require the establishment of any other type of fund.

Investments - Investments are recorded at fair value, except for amounts invested with the State Board of Administration’s (“SBA”) Local Government Surplus Funds Trust Fund, a 2a7-like investment pool, which are recorded at amortized cost, which approximates fair value.
Note 1—Organization and summary of significant accounting policies (continued)

Budgeting - The annual budget is prepared on a basis consistent with accounting principles generally accepted in the United States of America. A tentative budget is adopted by the Policy Board after appropriate public hearing in June of each year covering the proposed operations and requirements for the ensuing fiscal year. By September 30, the Policy Board, after the appropriate public hearing, adopts the final budget. Budgetary control is maintained at the program level. The governing body may, at any time within a fiscal year or up to 60 days following the end of the fiscal year, amend a budget for that year by resolution.

Estimates - The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the basic financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Receivables - At September 30, 2018, there was no allowance for doubtful accounts since all receivables were deemed collectible by management.

Capital Assets - Purchased or constructed capital assets are reported at cost. Donated capital assets are reported at acquisition value at the date of donation. Minimum capitalization costs are $500 for all asset categories. The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend an asset’s life is not capitalized. Depreciation is provided on a straight-line method over the estimated useful lives of the assets, generally 3 to 10 years.

Unearned Revenue - Unearned revenue represents membership fees collected in advance of the membership period and grants received before eligibility requirements are met.

Deferred Outflows and Inflows of Resources - In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period and will not be recognized as an expense or expenditure until then. In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period and so will not be recognized as revenue until then. The Estuary Program presents amounts related to pensions as deferred outflows of resources and deferred inflows of resources.

Pensions - In the government-wide statement of net position, pension liabilities are recognized for the Estuary Program’s proportionate share of each pension plan’s net pension liability. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Florida Retirement System (“FRS”) defined benefit plan and the Health Insurance Subsidy (“HIS”) defined benefit plan and additions to/deductions from the FRS’s and the HIS’s fiduciary net position have been determined on the same basis as they are reported by the FRS and HIS plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

Net Position - Net position in government-wide financial statements is classified as net investment in capital assets, restricted, and unrestricted. Restricted net position represents constraints on resources that are either externally imposed by creditors, grantors, contributors, or laws or regulations of other governments or imposed by law through state statute.

Fund Balances - In the fund financial statements, fund balance for governmental funds is reported in classifications that comprise the limitations on the funds in accordance with GASB No.54, Fund Balance Reporting and Governmental Fund Type Definition. The fund balance is reported in five components – nonspendable, restricted, committed, assigned, and unassigned.
Note 1—Organization and summary of significant accounting policies (continued)

Nonspendable includes amounts that cannot be spent because they are either not in spendable form or are legally or contractually bound. Restricted consists of amounts that have constraints placed on them either externally by third parties (creditors, grantors, contributors, or laws or regulations of other governments) or by law. Committed consists of amounts that can only be used for specific purposes pursuant to constraints imposed by formal action of the Estuary Program. Assigned consists of amounts that are constrained by the Estuary Program’s intent to be used for specific purposes, but are neither restricted nor committed. The authority for assigning fund balance is expressed by the Estuary Program Board. Unassigned represents amounts that have not been restricted, committed, or assigned to specific purposes within the general fund.

The Estuary Program’s fund balance consists of the following categories.

(a) Nonspendable - this classification includes amounts that cannot be spent because they are not in spendable form, such as prepaid expenses.

(b) Restricted for specialty license plate related expenditures – portion of fund balance reserved for the specialty license plate program. Expenditures are made according to Florida Statutes 320.08056 and 320.08058.

(c) Assigned for grant matching funds – portion of the fund balance not available for appropriation because it represents the year-end fund balance reserved for expenditures related to fiscal year 2018 grant matching requirements.

(d) Assigned for grant matching funds for future years – portion of the fund balance not available for appropriation because it represents the year-end fund balance reserved for expenditures related to grant matching requirements after fiscal year 2018.

(e) Unassigned - This classification includes the residual fund balance for the general fund.

The Estuary Program would typically use restricted fund balance first, followed by committed resources, and then assigned resources, as appropriate opportunities arise, but reserves the right to selectively spend unassigned resources first to defer the use of these other classified funds.

In-Kind Revenue - The Estuary Program records in-kind revenue and expense if the services create or enhance long-lived assets or require specialized skills, are provided by individuals possessing those skills, and would typically need to be purchased.

Note 2—Deposits and investments

Deposits
At September 30, 2018, the book balance of deposits was $1,291,507 and the bank balance was $1,302,501. The Estuary Program had $200 petty cash on hand at year-end. Deposits are covered by federal depository insurance and, for the amount in excess of such federal depository insurance, by the State of Florida’s Security for Public Deposits Act (the “Act”). Provisions of the Act require that public deposits may only be made at qualified public depositories. The Act requires each qualified public depository to deposit with the State Chief Financial Officer acting as State Treasurer, eligible collateral equal to or in excess of the required collateral as determined by the provisions of the Act. In the event of a failure by a qualified public depository, losses in excess of federal depository insurance and proceeds from the sale of the securities pledged by the defaulting depository are assessed against the other qualified public depositories of the same type as the depository in default.
Note 2—Deposits and investments (continued)

Investments

*Florida Statutes* authorize the Estuary Program to invest in the State Board of Administration’s Local Government Investment Pool, certain obligations of the U.S. Treasury and U.S. Agencies, repurchase agreements, and interest-bearing time deposits and savings accounts held in banks and savings and loans.

The Estuary Program invests funds throughout the year with the SBA Local Government Surplus Funds Trust Fund, under the regulatory oversight of the State of Florida. Investments in the SBA consist of the Florida PRIME.

The Florida PRIME has met the criteria as a “2a7-like” pool; this pool was assigned a rating of “AAAm” by the Standard and Poor’s Rating Service. The investment policy of Florida PRIME is to manage the weighted average maturity to 60 days or less. As of September 30, 2018, the Estuary Program had a balance of $222,387 in the Florida PRIME.

Additional information regarding Florida PRIME may be obtained from the Florida State Board of Administration at [http://www.sbafla.com/prime](http://www.sbafla.com/prime).

*Interest Rate Risk* - The Estuary Program has no specific policy regarding interest rate risk.

Note 3—Capital assets

Capital asset activity for the year ended September 30, 2018 was as follows:

<table>
<thead>
<tr>
<th>Governmental activities:</th>
<th>Beginning Balance</th>
<th>Increases</th>
<th>Decreases</th>
<th>Ending Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital assets being depreciated:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>$56,286</td>
<td>$</td>
<td>$ (29,665)</td>
<td>$26,621</td>
</tr>
<tr>
<td>Less accumulated depreciation for:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>(55,115)</td>
<td>(740)</td>
<td>29,665</td>
<td>(26,190)</td>
</tr>
<tr>
<td>Total capital assets being depreciated, net</td>
<td>$1,171</td>
<td>$ (740)</td>
<td>$-</td>
<td>$431</td>
</tr>
</tbody>
</table>

Note 4—Compensated absences

*Compensated Absences* - Employees with five years of service become eligible to receive 25% of accumulated sick leave upon termination and employees with ten years of service become eligible to receive 50% of accumulated sick leave upon termination. The actual payout of accumulated sick leave upon termination is limited to 150 hours. Other sick pay benefits are paid only in the event of actual sickness. At September 30, 2018, accrued vested benefits of $18,562 are reported in the financial statements.

The Estuary Program has also accrued $6,035 of estimated payroll taxes related to sick pay benefits and vacation payable at September 30, 2018.

Vacation pay can be accumulated by an employee up to one and one-half times the normal amount earned for one year and is payable, if not used, upon termination. At September 30, 2018, accrued vacation payable of $30,502 was reported in the financial statements.
Note 4—Compensated absences (continued)

A summary of changes in accrued compensated absences follows:

<table>
<thead>
<tr>
<th></th>
<th>Balance October 1, 2017</th>
<th>Net Adjustments and Payments</th>
<th>Balance September 30, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 68,582</td>
<td>$ (13,483)</td>
<td>$ 55,099</td>
</tr>
</tbody>
</table>

Note 5—Lease commitments

The Estuary Program has entered into operating lease agreements for office space and office equipment. Minimum noncancellable lease commitments are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$37,044</td>
</tr>
<tr>
<td>2020</td>
<td>35,694</td>
</tr>
<tr>
<td>2021</td>
<td>36,762</td>
</tr>
<tr>
<td>2022</td>
<td>18,654</td>
</tr>
<tr>
<td>Total</td>
<td>$128,154</td>
</tr>
</tbody>
</table>

Total rental expense for all operating leases for the year ended September 30, 2018 was $37,276.

Note 6—Employee retirement plans

The Estuary Program provides retirement benefits to its employees through the FRS and a Deferred Retirement Option Program ("DROP"), as well as state approved other post-employment benefits in the form of subsidized health insurance premiums.

*Florida Retirement System Overview* – The Estuary Program participates in the FRS for all employees. The FRS was created in Chapter 121, *Florida Statutes*, to provide a defined benefit pension plan for participating public employees. The FRS was amended in 1998 to add the DROP under the defined benefit plan and amended in 2000 to provide a defined contribution plan alternative to the defined benefit plan for FRS members effective October 1, 2002. This integrated defined contribution pension plan is the FRS Investment Plan. Chapter 112, *Florida Statutes*, established the Retiree HIS Program, a cost-sharing multiple-employer defined benefit pension plan, to assist retired members of any state-administered retirement system in paying the costs of health insurance.

Essentially all regular employees of the Estuary Program are eligible to enroll as members of the State-administered FRS. Provisions relating to the FRS are established by Chapter 121 and 122, *Florida Statutes*; Chapter 112, Part IV, *Florida Statutes*; Chapter 238, *Florida Statutes*; and FRS Rules, Chapter 60S, *Florida Administrative Code*; wherein eligibility, contributions, and benefits are defined and described in detail. Such provisions may be amended at any time by further action from the Florida Legislature.

The FRS is a single retirement system administered by the Florida Department of Management Services, Division of Retirement, and consists of the two cost-sharing, multiple-employer defined benefit plans and other nonintegrated programs. A comprehensive annual financial report of the FRS, which includes its financial statements, required supplementary information, actuarial report, and other relevant information is available from the Florida Department of Management Services’ website (http://www.dms.myflorida.com).
Note 6—Employee retirement plans (continued)

FRS Pension Plan

Plan Description - The FRS Pension Plan (“FRS Plan”) is a cost-sharing, multiple-employer defined benefit pension plan with DROP for eligible employees. The general classes of membership are as follows:

- Regular Class - Members of the FRS who do not qualify for membership in the other classes.
- Elected County Officers Class - Members who hold specified elective offices in local government.
- Senior Management Service Class (SMSC) - Members in senior management level positions.
- Special Risk Class - Members who are employed as law enforcement officers and meet the criteria to qualify for this class.

Employees enrolled in the FRS Plan prior to July 1, 2011 vest at six years of creditable service and employees enrolled in the FRS Plan on or after July 1, 2011 vest at eight years of creditable service. All vested members, enrolled prior to July 1, 2011, are eligible for normal retirement benefits at age 62 or at any age after 30 years of service (except for members classified as special risk who are eligible for normal retirement benefits at age 55 or at any age after 25 years of service). All members enrolled in the FRS Plan on or after July 1, 2011, once vested, are eligible for normal retirement benefits at age 65 or any time after 33 years of creditable service (except for members classified as special risk who are eligible for normal retirement benefits at age 60 or at any age after 30 years of service). Members of the FRS Plan may include up to four years of credit for military service toward creditable service.

The FRS Plan also includes an early retirement provision; however, there is a benefit reduction for each year a member retires before his or her normal retirement date. The FRS Plan provides retirement, disability, death benefits, and annual cost-of-living adjustments to eligible participants.

DROP, subject to provisions of Section 121.091, Florida Statutes, permits employees eligible for normal retirement under the FRS Plan to defer receipt of monthly benefit payments while continuing employment with an FRS employer. An employee may participate in DROP for a period not to exceed 60 months after electing to participate, except that certain instructional personnel may participate for up to 96 months. During the period of DROP participation, deferred monthly benefits are held in the FRS Trust Fund and accrue interest. The net pension liability does not include amounts for DROP participants, as these members are considered retired and are not accruing additional pension benefits.

Benefits Provided - Benefits under the FRS Plan are computed on the basis of age and/or years of service, average final compensation, and service credit. Credit for each year of service is expressed as a percentage of the average final compensation. For members initially enrolled before July 1, 2011, the average final compensation is the average of the five highest fiscal years’ earnings; for members initially enrolled on or after July 1, 2011, the average final compensation is the average of the eight highest fiscal years’ earnings. The total percentage value of the benefit received is determined by calculating the total value of all service, which is based on the retirement class to which the member belonged when the service credit was earned. Members are eligible for in-line-of-duty or regular disability and survivors’ benefits.
Note 6—Employee retirement plans (continued)

The following chart shows the percentage value for each year of service credit earned:

<table>
<thead>
<tr>
<th>Class, Initial Enrollment, and Retirement Age/Years of Service</th>
<th>% Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular Class members initially enrolled before July 1, 2011</strong></td>
<td></td>
</tr>
<tr>
<td>Retirement up to age 62 or up to 30 years of service</td>
<td>1.60</td>
</tr>
<tr>
<td>Retirement at age 63 or with 31 years of service</td>
<td>1.63</td>
</tr>
<tr>
<td>Retirement at age 64 or with 32 years of service</td>
<td>1.65</td>
</tr>
<tr>
<td>Retirement at age 65 or with 33 or more years of service</td>
<td>1.68</td>
</tr>
<tr>
<td><strong>Regular Class members initially enrolled on or after July 1, 2011</strong></td>
<td></td>
</tr>
<tr>
<td>Retirement up to age 65 or up to 33 years of service</td>
<td>1.60</td>
</tr>
<tr>
<td>Retirement at age 66 or with 34 years of service</td>
<td>1.63</td>
</tr>
<tr>
<td>Retirement at age 67 or with 35 years of service</td>
<td>1.65</td>
</tr>
<tr>
<td>Retirement at age 68 or with 36 or more years of service</td>
<td>1.68</td>
</tr>
<tr>
<td><strong>Elected County Officers</strong></td>
<td></td>
</tr>
<tr>
<td>Service as Supreme Court Justice, district court of appeal judge, Circuit court judge, or county judge</td>
<td>3.33</td>
</tr>
<tr>
<td>Service as Governor, Lt Governor, Cabinet Officer, Legislator, state attorney, public defender, elected county official, or elected official of a city or special district that chose EOC membership for its elected officials</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>Senior Management Service Class</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td><strong>Special Risk Regular</strong></td>
<td></td>
</tr>
<tr>
<td>Service from December 1, 1970 through September 30, 1974</td>
<td>2.00</td>
</tr>
<tr>
<td>Service on and after October 1, 1974</td>
<td>3.00</td>
</tr>
</tbody>
</table>

As provided in Section 121.101, Florida Statutes, if the member is initially enrolled in the FRS before July 1, 2011, and all service credit was accrued before July 1, 2011, the annual cost-of-living adjustment is 3% per year. If the member is initially enrolled before July 1, 2011, and has service credit on or after July 1, 2011, there is an individually calculated cost-of-living adjustment. The annual cost-of-living adjustment is a proportion of 3% determined by dividing the sum of the pre-July 2011 service credit by the total service credit at retirement multiplied by 3%. FRS Plan members initially enrolled on or after July 1, 2011 will not have a cost-of-living adjustment after retirement.

Contributions - The Florida Legislature establishes contribution rates for participating employers and employees. All participating employers must comply with statutory contribution requirements. Employer contribution rates under the uniform rate structure (a blending of both the pension plan and investment plan rates) are recommended in an annual actuarial valuation, but set by the Florida Legislature. Effective July 1, 2011, all plan members, except those in DROP, are required to make a 3% employee contribution on a pretax basis to the FRS.
Note 6—Employee retirement plans (continued)

Employer contribution rates are as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>July 1, 2018 - September 30, 2018</th>
<th>October 1, 2017 - June 30, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRS, Regular</td>
<td>8.26%</td>
<td>7.92%</td>
</tr>
<tr>
<td>FRS, Elected County Officers</td>
<td>48.70%</td>
<td>45.50%</td>
</tr>
<tr>
<td>FRS, Senior Management Service</td>
<td>24.06%</td>
<td>22.71%</td>
</tr>
<tr>
<td>FRS, Special Risk Regular</td>
<td>24.50%</td>
<td>23.27%</td>
</tr>
<tr>
<td>DROP - Applicable to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members from All of the Above Classes</td>
<td>14.03%</td>
<td>13.26%</td>
</tr>
</tbody>
</table>

(1) Employer rates include 1.66% for the postemployment health insurance subsidy. Also, employer rates other than for DROP participants, includes 0.06% for administrative costs of the Investment Plan.

(2) Employer rates include 1.66% for the postemployment health insurance subsidy. Also, employer rates other than for DROP participants, includes 0.06% for administrative costs of the Investment Plan.

The Estuary Program’s contributions to the Pension Plan totaled $30,058 for the fiscal year ended September 30, 2018.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - The Estuary Program reported a liability of $382,889 for its proportionate share of the Board’s Pension Plan’s net pension liability as of September 30, 2018. The net pension liability for each fiscal year was measured as of June 30, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation in each year as of July 1. The Estuary Program’s proportionate share of the net pension liability was based on the Estuary Program’s fiscal year contributions relative to the same fiscal year contributions of all participating members of the Estuary Program. At June 30, 2018, the Estuary Program’s proportionate share was .00127%, which was a decrease of .00015% from its proportionate share of 0.00142%, measured as of June 30, 2017.
Note 6—Employee retirement plans (continued)

For the fiscal year ended September 30, 2018, the Estuary Program recognized pension expense of $146,033 related to the Plan. In addition, the Estuary Program reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

<table>
<thead>
<tr>
<th>Description</th>
<th>Deferred Outflows of Resources</th>
<th>Deferred Inflows of Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences between expected and actual experience</td>
<td>$32,436</td>
<td>$1,177</td>
</tr>
<tr>
<td>Changes in assumptions</td>
<td>125,110</td>
<td>-</td>
</tr>
<tr>
<td>Net differences between projected and actual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>earnings on FRS pension plan investments</td>
<td>-</td>
<td>29,583</td>
</tr>
<tr>
<td>Changes in proportion and differences between the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estuary Program’s FRS contribution and proportionate share of contributions</td>
<td>37,960</td>
<td>34,467</td>
</tr>
<tr>
<td>The Estuary Program’s FRS contributions subsequent to the</td>
<td>7,284</td>
<td>-</td>
</tr>
<tr>
<td>measurement date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$202,790</td>
<td>$65,227</td>
</tr>
</tbody>
</table>

The deferred outflows of resources related to pensions, totaling $7,284, resulting from Estuary Program contributions to the Plan subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the fiscal year ending September 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<table>
<thead>
<tr>
<th>Fiscal Year Ending September 30</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$49,668</td>
</tr>
<tr>
<td>2020</td>
<td>$34,070</td>
</tr>
<tr>
<td>2021</td>
<td>$5,220</td>
</tr>
<tr>
<td>2022</td>
<td>$22,868</td>
</tr>
<tr>
<td>2023</td>
<td>$15,472</td>
</tr>
<tr>
<td>Thereafter</td>
<td>2,981</td>
</tr>
<tr>
<td></td>
<td>$130,279</td>
</tr>
</tbody>
</table>
Note 6—Employee retirement plans (continued)

Actuarial Assumptions - The FRS pension actuarial valuation was determined using the following actuarial assumptions, as of July 1, 2018, applied to all periods included in the measurement:

- Inflation: 2.60%
- Salary increases: 3.25%, average, including inflation
- Investment rate of return: 7.00%, net of pension plan investment expense, including inflation

Mortality rates were based on the Generational RP-2000 with Projection Scale BB.

The actuarial assumptions used in the July 1, 2018 valuation were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2013.

Long-Term Expected Rate of Return - The long-term expected rate of return on pension plan investments was not based on historical returns, but instead is based on a forward-looking capital market economic model. The allocation policy’s description of each asset class was used to map the target allocation to the asset classes shown below. Each asset class assumption is based on a consistent set of underlying assumptions, and includes an adjustment for the inflation assumption. The target allocation and best estimates of arithmetic and geometric real rates of return for each major asset class are summarized in the following table:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Target Allocation (1)</th>
<th>Annual Arithmetic Return</th>
<th>Compound Annual (Geometric) Return</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>1.0%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Fixed income</td>
<td>18.0%</td>
<td>4.4%</td>
<td>4.3%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Global equity</td>
<td>54.0%</td>
<td>7.6%</td>
<td>6.3%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Real estate (property)</td>
<td>11.0%</td>
<td>6.6%</td>
<td>6.0%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Private equity</td>
<td>10.0%</td>
<td>10.7%</td>
<td>7.8%</td>
<td>26.5%</td>
</tr>
<tr>
<td>Strategic investment</td>
<td>6.0%</td>
<td>6.0%</td>
<td>5.7%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumed inflation - Mean</td>
<td></td>
<td></td>
<td>2.6%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Note: (1) As outlined in the Plan’s investment policy

Discount Rate - The discount rate used to measure the total pension liability was 7.00% for the FRS plan. The projection of cash flows used to determine the discount rate assumed that employee and employer contributions will be made at the rate specified to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.
Note 6—Employee retirement plans (continued)

Pension Liability Sensitivity - The following presents the Estuary Program’s proportionate share of the net pension liability calculated using the discount rate of 7.00%, as well as what the Estuary Program’s proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

<table>
<thead>
<tr>
<th>Discount Rate</th>
<th>Current Estuary Program’s proportionate share of the net pension liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00%</td>
<td>$698,789</td>
</tr>
<tr>
<td>7.00%</td>
<td>$382,889</td>
</tr>
<tr>
<td>8.00%</td>
<td>$120,516</td>
</tr>
</tbody>
</table>

Pension Plan Fiduciary Net Position - Detailed information about the Pension Plan’s fiduciary net position is available in the separately issued FRS Pension Plan and Other State Administered Systems Comprehensive Annual Financial Report.

Payables to the Pension Plan - The Estuary Program reported no payables for the outstanding amount of contributions to the Plan required for the fiscal year ended September 30, 2018.

The Retiree HIS Program

Plan Description - The Retiree Health Insurance Subsidy Program ("HIS Plan") is a cost-sharing, multiple-employer defined benefit pension plan established under section 112.363, Florida Statutes, and may be amended by the Florida Legislature at any time. The benefit is a monthly payment to assist retirees of State-administered retirement systems in paying their health insurance costs and is administered by the Division of Retirement within the Florida Department of Management Services, Division of Retirement.

Benefits Provided - For the fiscal year ended September 30, 2018, eligible retirees and beneficiaries received a monthly HIS payment of $5 for each year of creditable service completed at the time of retirement, with a minimum HIS payment of $30 and a maximum HIS payment of $150 per month, pursuant to Section 112.363, Florida Statutes. To be eligible to receive a HIS Plan benefit, a retiree under a State-administered retirement system must provide proof of health insurance coverage, which may include Medicare.

Contributions - The HIS Plan is funded by required contributions from FRS participating employers as set by the Florida Legislature. Employer contributions are a percentage of gross compensation for all active FRS members. For the fiscal year ended September 30, 2018, the contribution rate was 1.66% of payroll pursuant to Section 112.363, Florida Statutes. The Estuary Program contributed 100% of its statutorily required contributions for the current and preceding three years. HIS Plan contributions are deposited in a separate trust fund from which payments are authorized. HIS Plan benefits are not guaranteed and are subject to annual legislative appropriation. In the event the legislative appropriation or available funds fail to provide full subsidy benefits to all participants, benefits may be reduced or canceled. The Estuary Program’s contributions to the HIS Plan totaled $7,034 for the fiscal year ended September 30, 2018.
Note 6—Employee retirement plans (continued)

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - At September 30, 2018, the Estuary Program reported a net pension liability of $144,713 for its proportionate share of the HIS Plan’s net pension liability. The current portion of the net pension liability is the Estuary Program’s proportionate share of benefit payments expected to be paid within one year, net of the Estuary Program’s proportionate share of the pension plan’s fiduciary net position available to pay that amount. The net pension liability was measured as of June 30, 2018 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2018. At June 30, 2018, the Estuary Program’s proportionate share was 0.00137%, which was a decrease of 0.00027% from its proportionate share of 0.00164% measured as of June 30, 2017.

For the fiscal year ended September 30, 2018, the Estuary Program recognized pension expense of $16,352 related to the HIS Plan. In addition, the Estuary Program reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

<table>
<thead>
<tr>
<th>Description</th>
<th>Deferred Outflows of Resources</th>
<th>Deferred Inflows of Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences between expected and actual experience</td>
<td>$2,215</td>
<td>$246</td>
</tr>
<tr>
<td>Changes in assumptions</td>
<td>16,094</td>
<td>15,300</td>
</tr>
<tr>
<td>Net differences between projected and actual earnings on HIS pension plan investments</td>
<td>87</td>
<td>-</td>
</tr>
<tr>
<td>Changes in proportion and differences between the Estuary Program’s HIS contribution and proportionate share of contributions</td>
<td>13,827</td>
<td>28,195</td>
</tr>
<tr>
<td>The Estuary Program’s HIS contributions subsequent to the measurement date</td>
<td>1,539</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$33,762</strong></td>
<td><strong>$43,741</strong></td>
</tr>
</tbody>
</table>

The deferred outflows of resources related to the HIS Plan, totaling $1,539, resulting from Estuary Program contributions to the HIS Plan subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the fiscal year ending September 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<table>
<thead>
<tr>
<th>Fiscal Year Ending September 30</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$(5)</td>
</tr>
<tr>
<td>2020</td>
<td>$(12)</td>
</tr>
<tr>
<td>2021</td>
<td>$(606)</td>
</tr>
<tr>
<td>2022</td>
<td>$(1,683)</td>
</tr>
<tr>
<td>2023</td>
<td>$(3,933)</td>
</tr>
<tr>
<td>Thereafter</td>
<td>$(5,279)</td>
</tr>
<tr>
<td></td>
<td><strong>$(11,518)</strong></td>
</tr>
</tbody>
</table>
Note 6—Employee retirement plans (continued)

**Actuarial Assumptions** - The total pension liability in the July 1, 2018, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

- Inflation 2.60%
- Salary increases 3.25%, average, including inflation
- Investment rate of return 3.87%

Mortality rates were based on the Generational RP-2000 with Projected Scale BB tables. The actuarial assumptions used in the July 1, 2018 valuation were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2013.

**Discount Rate** - The discount rate used to measure the total pension liability was 3.87%. In general, the discount rate for calculating the total pension liability is equal to the single rate equivalent to discounting at the long-term expected rate of return for benefit payments prior to the projected depletion date. Because the HIS benefit is essentially funded on a pay-as-you-go basis, the depletion date is considered to be immediate, and the single equivalent discount rate is equal to the municipal bond rate selected by the HIS Plan sponsor. The Bond Buyer General Obligation 20-Bond Municipal Bond Index was adopted as the applicable municipal bond index.

**Sensitivity of the Estuary Program’s Proportionate Share of the Net Pension Liability to Changes in the Discount Rate** - The following presents the Estuary Program’s proportionate share of the net pension liability calculated using the discount rate of 3.87%, as well as what the Estuary Program’s proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.87%) or 1-percentage-point higher (4.87%) than the current rate:

<table>
<thead>
<tr>
<th></th>
<th>1% Decrease</th>
<th>Current</th>
<th>1% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.87%</td>
<td>3.87%</td>
<td>4.87%</td>
</tr>
<tr>
<td>Estuary Program's proportionate share of</td>
<td>$164,820</td>
<td>$144,713</td>
<td>$127,953</td>
</tr>
<tr>
<td>the net pension liability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pension Plan Fiduciary Net Position** - Detailed information about the HIS Plan’s fiduciary net position is available in the separately issued FRS Pension Plan and Other State Administered Systems Comprehensive Annual Financial Report.

**Payables to the Pension Plan** - At September 30, 2018, the Estuary Program reported no payables for the outstanding amount of contributions to the HIS Plan.

**Investment Plan**

The Estuary Program contributes to the FRS Defined Contribution Investment Plan (“Investment Plan”). The Investment Plan is administered by the State Board of Administration (“SBA”), and is reported in the SBA’s annual financial statements and in the State of Florida Comprehensive Annual Financial Report.
Note 6—Employee retirement plans (continued)

As provided in Section 121.4501, Florida Statutes, eligible FRS members may elect to participate in the Investment Plan in lieu of the FRS defined benefit plan. Estuary Program employees participating in DROP are not eligible to participate in the Investment Plan. Employer and employee contributions, including amounts contributed to individual member's accounts, are defined by law, but the ultimate benefit depends in part on the performance of investment funds. Benefit terms, including contribution requirements, for the Investment Plan are established and may be amended by the Florida Legislature. The Investment Plan is funded with the same employer and employee contribution rates that are based on salary and membership class (Regular Class, Elected County Officers, etc.), as the FRS defined benefit plan. Contributions are directed to individual member accounts, and the individual members allocate contributions and account balances among various approved investment choices.

Allocations to the investment member's accounts during the 2017-18 fiscal year, as established by Section 121.72, Florida Statutes are based on a percentage of gross compensation, by class, as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Percent of Gross Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRS, Regular</td>
<td>6.30</td>
</tr>
<tr>
<td>FRS, Elected County Officers</td>
<td>11.34</td>
</tr>
<tr>
<td>FRS, Senior Management Service</td>
<td>7.67</td>
</tr>
<tr>
<td>FRS, Special Risk Regular</td>
<td>14.00</td>
</tr>
</tbody>
</table>

For all membership classes, employees are immediately vested in their own contributions and are vested after one year of service for employer contributions and investment earnings. If an accumulated benefit obligation for service credit originally earned under the Pension Plan is transferred to the Investment Plan, the member must have the years of service required for Pension Plan vesting (including the service credit represented by the transferred funds) to be vested for these funds and the earnings on the funds. Nonvested employer contributions are placed in a suspense account for up to five years. If the employee returns to FRS-covered employment within the five-year period, the employee will regain control over their account. If the employee does not return within the five-year period, the employee will forfeit the accumulated account balance. For the fiscal year ended September 30, 2018, the information for the amount of forfeitures was unavailable from the SBA; however, management believes that these amounts, if any, would be immaterial to the Estuary Program.

After termination and applying to receive benefits, the member may rollover vested funds to another qualified plan, structure a periodic payment under the Investment Plan, receive a lump-sum distribution, leave the funds invested for future distribution, or any combination of these options. If disability coverage is provided, the member may either transfer the account balance to the Pension Plan when approved for disability retirement to receive guaranteed lifetime monthly benefits under the Pension Plan, or remain in the Investment Plan and rely upon that account balance for retirement income.

The Estuary Program's Investment Plan pension expense totaled $10,968 for the fiscal year ended September 30, 2018.

Note 7—Contingent liabilities

Expenditures incurred by the Estuary Program associated with the execution of various grants are subject to audit and possible disallowance by the grantor agency. The Estuary Program would be held responsible for recovery (reimbursement to the grantor agency) of disallowed amounts. Management believes that, if audited, any adjustment for disallowed expenses would be immaterial in amount.
Note 8—Excess of expenditures over appropriations

For the year ended September 30, 2018, general fund had expenditures in excess of appropriations of $34,775. These expenditures were funded by greater than anticipated revenues.

Note 9—Subsequent events

The Estuary Program has evaluated subsequent events through April 25, 2019, in connection with the preparation of these financial statements, which is the date the financial statements were available to be issued.
REQUIRED SUPPLEMENTARY INFORMATION
### TAMPA BAY ESTUARY PROGRAM

#### SCHEDULE OF PROPORTIONATE SHARE OF NET PENSION LIABILITY AND SCHEDULE OF CONTRIBUTIONS – FLORIDA RETIREMENT SYSTEM PENSION PLAN

**LAST 10 FISCAL YEARS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Program’s proportion of the net pension liability</td>
<td>0.001271</td>
<td>0.001418</td>
<td>0.001182</td>
<td>0.001299</td>
<td>0.001600</td>
</tr>
<tr>
<td>The Estuary Program’s proportionate share of the net pension liability</td>
<td>$382,889</td>
<td>$419,599</td>
<td>$298,591</td>
<td>$175,883</td>
<td>$83,084</td>
</tr>
<tr>
<td>The Estuary Program’s covered-employee payroll</td>
<td>$446,570</td>
<td>$527,403</td>
<td>$495,664</td>
<td>$425,660</td>
<td>$437,027</td>
</tr>
<tr>
<td>The Estuary Program’s proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll</td>
<td>86%</td>
<td>80%</td>
<td>60%</td>
<td>41%</td>
<td>19%</td>
</tr>
<tr>
<td>FRS Plan fiduciary net position as a percentage of the total pension liability</td>
<td>84%</td>
<td>84%</td>
<td>85%</td>
<td>92%</td>
<td>96%</td>
</tr>
</tbody>
</table>

* Represents the measurement date, period applied in the Estuary Program’s following fiscal year

**Note:** Data was unavailable prior to 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractually required contribution</td>
<td>$24,970</td>
<td>$36,928</td>
<td>$32,435</td>
<td>$26,215</td>
<td>$21,585</td>
</tr>
<tr>
<td>Contributions in relation to the contractually required contribution</td>
<td>$24,970</td>
<td>$36,928</td>
<td>$32,435</td>
<td>$26,215</td>
<td>$21,585</td>
</tr>
<tr>
<td>Contribution deficiency (excess)</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>The Estuary Program’s covered-employee payroll</td>
<td>$434,633</td>
<td>$520,453</td>
<td>$480,613</td>
<td>$437,665</td>
<td>$436,563</td>
</tr>
<tr>
<td>Contributions as a percentage of covered-employee payroll</td>
<td>5.75%</td>
<td>7.10%</td>
<td>6.75%</td>
<td>5.99%</td>
<td>4.94%</td>
</tr>
</tbody>
</table>

**Note:** Data was unavailable prior to 2014
TAMPA BAY ESTUARY PROGRAM

SCHEDULE OF PROPORTIONATE SHARE OF NET PENSION LIABILITY AND SCHEDULE OF CONTRIBUTIONS – HEALTH INSURANCE SUBSIDY PENSION PLAN

LAST 10 FISCAL YEARS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Program’s proportion of the net pension liability</td>
<td>0.001367266%</td>
<td>0.001632807%</td>
<td>0.001556862%</td>
<td>0.001403032%</td>
<td>0.001470875%</td>
</tr>
<tr>
<td>The Estuary Program’s proportionate share of the net pension liability</td>
<td>$ 144,713</td>
<td>$ 174,587</td>
<td>$ 181,446</td>
<td>$ 150,007</td>
<td>$ 137,530</td>
</tr>
<tr>
<td>The Estuary Program’s covered-employee payroll</td>
<td>$ 446,570</td>
<td>$ 527,403</td>
<td>$ 495,664</td>
<td>$ 425,660</td>
<td>$ 437,027</td>
</tr>
<tr>
<td>The Estuary Program’s proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll</td>
<td>32%</td>
<td>33%</td>
<td>37%</td>
<td>35%</td>
<td>31%</td>
</tr>
<tr>
<td>HIS Plan fiduciary net position as a percentage of the total pension liability</td>
<td>2.15%</td>
<td>1.64%</td>
<td>0.97%</td>
<td>0.50%</td>
<td>0.99%</td>
</tr>
</tbody>
</table>

* Represents the measurement date, period applied in the Estuary Program’s following fiscal year

Note: Data was unavailable prior to 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractually required contribution</td>
<td>$ 5,843</td>
<td>$ 8,641</td>
<td>$ 8,989</td>
<td>$ 5,654</td>
<td>$ 5,341</td>
</tr>
<tr>
<td>Contributions in relation to the contractually required contribution</td>
<td>5,843</td>
<td>8,641</td>
<td>8,989</td>
<td>5,654</td>
<td>5,341</td>
</tr>
<tr>
<td>Contribution deficiency (excess)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
</tbody>
</table>

The Estuary Program’s covered-employee payroll Contributions as a percentage of covered-employee payroll

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 434,633</td>
<td>$ 520,453</td>
<td>$ 480,613</td>
<td>$ 437,655</td>
<td>$ 436,563</td>
<td></td>
</tr>
</tbody>
</table>

1.34% 1.66% 1.87% 1.29% 1.22%

Note: Data was unavailable prior to 2014
COMPLIANCE SECTION
Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

Members of the Board
Tampa Bay Estuary Program
St. Petersburg, Florida

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of the governmental activities and the general fund of the Tampa Bay Estuary Program (the “Estuary Program”), as of and for the year ended September 30, 2018, and the related notes to the financial statements, which collectively comprise the Estuary Program’s basic financial statements, and have issued our report thereon dated April 25, 2019.

Internal Control over Financial Reporting
In planning and performing our audit of the financial statements, we considered the Estuary Program’s internal control over financial reporting (“internal control”) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Estuary Program’s internal control. Accordingly, we do not express an opinion on the effectiveness of the Estuary Program’s internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity’s financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and, therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did identify certain deficiencies in internal control, described in the accompanying schedule of findings and responses (2018-001 and 2018-002) that we consider to be material weaknesses.

Compliance and Other Matters
As part of obtaining reasonable assurance about whether the Estuary Program’s financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.
The Estuary Program’s Response to Findings
The Estuary Program’s response to the findings identified in our audit is described in the accompanying schedule of findings and questioned costs. The Estuary Program’s response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report
The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity’s internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity’s internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Cherry Bekaert LLP

Tampa, Florida
April 25, 2019
Finding 2018-001: Material Weakness in Internal Control Related to Financial Close

Criteria: An effective system of internal control contemplates adequate activity level controls over transactions throughout the year.

Condition: The first four months’ activity of the fiscal year was recorded in batch journal entries by a 3rd party bookkeeper who was engaged on February 1, 2018. Transactions subsequently were recorded by the bookkeeper, following its own control processes, which could not be verified.

Cause: The Estuary Program outsources its accounting function to a 3rd party. As of October 1, 2017, the Estuary Program ended its relationship with its longstanding 3rd party bookkeeper. A new bookkeeping firm was engaged on February 1, 2018. However that relationship ended on September 30, 2018. Management of the Estuary Program did not perform monitoring controls over the work of the bookkeeper.

Effect: There is no documentary evidence that key activity level controls related to significant transaction cycles were performed throughout the year.

Recommendation: We recommend management of the Estuary Program establish the internal controls that are followed by 3rd party bookkeeper. Further, we recommend management of the Estuary Program establish controls to properly monitor 3rd party bookkeepers throughout the year.

Management’s Response: Management concurs with the recommendation

Finding 2018-002: Material Weakness in Internal Control Related to Financial Close

Criteria: An effective system of internal control contemplates the close of the financial records in a manner that is consistent with generally accepted accounting principles (“GAAP”).

Condition: During the course of the audit, we proposed several adjusting entries to properly reflect the financial statements in accordance with GAAP. Adjustments included those needed to roll equity from the prior year, recognize revenue, remove old prepaid items, and accrue payroll, payables, and compensated absences.

Cause: The Estuary Program outsources its accounting function to a 3rd party. As of October 1, 2017, the Estuary Program ended its relationship with its longstanding 3rd party bookkeeper. A new bookkeeping firm was engaged on February 1, 2018. However, that relationship ended on September 30, 2018. In addition, management of the Estuary Program did not perform monitoring controls over the year-end financial close to ensure proper accounting in accordance with GAAP.

Effect: The accumulated effect of proposed audit adjustments on the statement of activities was $81,800.

Recommendation: We recommend management implement internal controls to ensure that account reconciliations are performed routinely and that financial records are properly closed.

Management’s Response: Management concurs with the recommendation
April 25, 2019

Cherry Bekaert LLP
401 East Jackson Street Suite 1200
Tampa, FL 33602


TBEP’s transition between 3rd party accounting firms in FY2018 created gaps in oversight and internal control while accounting records were being transferred between different accounting systems. During this time, regular monthly financial reports were not consistently provided by 3rd party accounting firms. Accurate, monthly financial reports are crucial to TBEP’s internal management control to verify that all credit and debit transactions were being classified properly and coded to the appropriate grant(s).

TBEP management has required that the current 3rd party accounting firm, CRI Inc., provide timely month-end and as-needed financial reports for TBEP’s full chart of accounts and funds. CRI, Inc. now provides TBEP Management direct read-only access to the on-line, Xero accounting database interface. Direct access to account, project, and element-level financial reports allows TBEP management to verify all accounting entries at least monthly or on an as-needed basis. This enhanced internal control will allow TBEP Management to better maintain accurate financial reports and account reconciliation on at least a monthly-close basis.

____________________________
Ed Sherwood, Executive Director

____________________________
Ronald A. Hosler, Program Administrator

Cc: TBEP Management & Policy Boards
Independent Auditor’s Management Letter

Members of the Board
Tampa Bay Estuary Program
St. Petersburg, Florida

Report on the Financial Statements
We have audited the financial statements of the Tampa Bay Estuary Program (the “Estuary Program”) as of and for the fiscal year ended September 30, 2018 and have issued our report thereon dated April 25, 2019.

Auditor’s Responsibility
We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States; and Chapter 10.550, Rules of the Auditor General.

Other Reporting Requirements
We have issued our Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards; Schedule of Findings and Responses; and Report of Independent Accountant on Compliance with Local Government Investment Policies, regarding compliance requirements in accordance with Chapter 10.550, Rules of the Auditor General. Disclosure in those reports and schedule, which are dated April 25, 2019, should be considered in conjunction with this management letter.

Prior Audit Findings
Section 10.554(1)(i)1., Rules of the Auditor General, requires that we determine whether or not corrective actions have been taken to address findings and recommendations made in the preceding annual financial audit report. There were no findings or recommendation made in the preceding annual financial audit report.

Official Title and Legal Authority
Section 10.554(1)(i)4., Rules of the Auditor General, requires that the name or official title and legal authority for the primary government and each component unit of the reporting entity be disclosed in this management letter, unless disclosed in the notes to the financial statements. The Estuary Program was established by an Interlocal agreement pursuant to the authority of Section 163.01, Florida Statutes. The Estuary Program has no component units.

Financial Condition and Management
Section 10.554(1)(i)5.a. and 10.556(7), Rules of the Auditor General, require that we apply appropriate procedures and communicate the results of our determination as to whether or not the Estuary Program has met one or more of the conditions described in Section 218.503(1), Florida Statutes, and to identify the specific condition(s) met. In connection with our audit, we determined that the Estuary Program did not meet any of the conditions described in Section 218.503(1), Florida Statutes.

Pursuant to Sections 10.554(1)(i)5.b. and 10.556(8), Rules of the Auditor General, we applied financial condition assessment procedures for the Estuary Program. It is management’s responsibility to monitor the Estuary Program’s financial condition, and our financial condition assessment was based in part on representations made by management and the review of financial information provided by the same.

Section 10.554(1)(i)2., Rules of the Auditor General, requires that we communicate any recommendations to improve financial management. In connection with our audit, we did not have any such recommendations.
Additional Matters
Section 10.554(1)(i)3., Rules of the Auditor General, requires us to communicate noncompliance with provisions of contracts or grant agreements, or abuse, that have occurred, or are likely to have occurred, that have an effect on the financial statements that is less than material but which warrants the attention of those charged with governance. In connection with our audit, we did not note any such findings.

Purpose of this Letter
The purpose of this management letter is to communicate certain matters prescribed by Chapter 10.550, Rules of the Auditor General. Accordingly, this management letter is not suitable for any other purpose.

Cherry Bekaert LLP

Tampa, Florida
April 25, 2019
Report of Independent Accountant on Compliance with Local Government Investment Policies

Members of the Board
Tampa Bay Estuary Program
St. Petersburg, Florida

We have examined the Tampa Bay Estuary Program’s (the “Estuary Program”) compliance with the local government investment policy requirements of Section 218.415, Florida Statutes, during the year ended September 30, 2018. Management of the Estuary Program is responsible for the Estuary Program’s compliance with those specific requirements. Our responsibility is to express an opinion on the Estuary Program’s compliance with the specific requirements based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the Estuary Program complied, in all material respects, with the specific requirements referenced above. An examination involves performing procedures to obtain evidence about whether the Estuary Program complied with the specific requirements. The nature, timing and extent of the procedures selected depend on our judgement, including an assessment of the risks of material noncompliance, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination does not provide a legal determination on the Estuary Program’s compliance with the specified requirements.

In our opinion, the Estuary Program complied, in all material respects, with the local investment policy requirements Section 218.415, Florida Statutes, during the year ended September 30, 2018.

The purpose of this report is to comply with the audit requirements of Section 218.415, Florida Statutes, and Rules of the Auditor General.

Tampa, Florida
April 25, 2019
Agency-Wide Revenue and Expenditure Report  
Period Ending March 31, 2019

<table>
<thead>
<tr>
<th>Ordinary Income/Expense</th>
<th>Budget</th>
<th>Current Mar 2019</th>
<th>Under/Over Balance</th>
<th>% Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPA-Federal</td>
<td>605,194</td>
<td>323,186</td>
<td>282,008</td>
<td>53.4%</td>
</tr>
<tr>
<td>Specialty License Plate</td>
<td>93,500</td>
<td>76,590</td>
<td>16,910</td>
<td>81.9%</td>
</tr>
<tr>
<td>Fees &amp; Contracts</td>
<td>1,015,290</td>
<td>420,392</td>
<td>594,898</td>
<td>41.4%</td>
</tr>
<tr>
<td>Contributions and Donations</td>
<td>26,265</td>
<td>-26,265</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Membership Dues</td>
<td>516,959</td>
<td>442,473</td>
<td>74,486</td>
<td>85.6%</td>
</tr>
<tr>
<td>In-Kind Revenues</td>
<td>108,041</td>
<td></td>
<td>108,041</td>
<td>0.0%</td>
</tr>
<tr>
<td>Interest / Other Income</td>
<td>2,500</td>
<td>448</td>
<td>448</td>
<td>17.9%</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>2,341,484</td>
<td>1,289,354</td>
<td>1,076,791</td>
<td>55.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expense</th>
<th>Budget</th>
<th>Current Mar 2019</th>
<th>Under/Over Balance</th>
<th>% Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Personnel Salary/Fringe</td>
<td>621,437</td>
<td>291,792</td>
<td>329,645</td>
<td>47.0%</td>
</tr>
<tr>
<td>Publications, Subscriptions and Dues</td>
<td>5,500</td>
<td>5,098</td>
<td>402</td>
<td>92.7%</td>
</tr>
<tr>
<td>Travel/Local Travel/Conferences/Registration</td>
<td>17,000</td>
<td>9,439</td>
<td>7,561</td>
<td>55.5%</td>
</tr>
<tr>
<td>Insurance</td>
<td>14,250</td>
<td>6,926</td>
<td>7,324</td>
<td>48.6%</td>
</tr>
<tr>
<td>Capital Outlays/Small Equipment</td>
<td>3,000</td>
<td>1,064</td>
<td>1,936</td>
<td>35.5%</td>
</tr>
<tr>
<td>Office Rental/Storage Rental</td>
<td>36,500</td>
<td>23,654</td>
<td>12,846</td>
<td>64.8%</td>
</tr>
<tr>
<td>Communications-Phone/Internet/Web Hosting</td>
<td>12,000</td>
<td>8,554</td>
<td>3,446</td>
<td>71.3%</td>
</tr>
<tr>
<td>Copier Lease/Maint.</td>
<td>2,700</td>
<td>1,372</td>
<td>1,328</td>
<td>50.8%</td>
</tr>
<tr>
<td>Auditing</td>
<td>19,000</td>
<td>18,400</td>
<td>600</td>
<td>96.8%</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>3,000</td>
<td>1,737</td>
<td>1,263</td>
<td>57.9%</td>
</tr>
<tr>
<td>Postage/Mass Mailing/Courier</td>
<td>250</td>
<td>43</td>
<td>207</td>
<td>17.3%</td>
</tr>
<tr>
<td>2 Other Exp. (Legal Notices, Bank Fees, Board Ops)</td>
<td>3,500</td>
<td>3,951</td>
<td>-451</td>
<td>112.9%</td>
</tr>
<tr>
<td>Legal Services</td>
<td>10,000</td>
<td>3,680</td>
<td>6,320</td>
<td>36.8%</td>
</tr>
<tr>
<td><strong>In-Kind Services</strong></td>
<td>108,041</td>
<td>0</td>
<td>108,041</td>
<td>0.0%</td>
</tr>
<tr>
<td>3 Contract Services</td>
<td>1,397,000</td>
<td>270,174</td>
<td>1,126,826</td>
<td>19.3%</td>
</tr>
<tr>
<td><strong>Total Expense</strong></td>
<td>2,253,178</td>
<td>645,884</td>
<td>1,607,294</td>
<td>28.7%</td>
</tr>
</tbody>
</table>

**Net Income**

<table>
<thead>
<tr>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>88,306</td>
</tr>
<tr>
<td>643,470</td>
</tr>
</tbody>
</table>

1 All member dues have been received as of 4/9.
2 Expenses include budgeted activities without specific line item (i.e. Volunteer lunches)
3 Delays in partner projects (TBERF) and new contract executions.
## Tampa Bay Estuary Program

### Proposed Mid-Year Budget FY 18/19

<table>
<thead>
<tr>
<th></th>
<th>Proposed 18/19 Mid-Year</th>
<th>Initial 2018/2019</th>
<th>Increase/Decrease</th>
<th>% Increase/Decrease</th>
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<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Federal</td>
<td>605,194</td>
<td>605,194</td>
<td>0</td>
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<tr>
<td>Specialty Plate</td>
<td>93,500</td>
<td>93,500</td>
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<tr>
<td>Fees and Contracts</td>
<td>840,790</td>
<td>1,015,290</td>
<td>(174,500)</td>
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<tr>
<td>Contributions and Donations</td>
<td>26,265</td>
<td>0</td>
<td>26,265</td>
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<tr>
<td>Membership Dues</td>
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<td>516,959</td>
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<tr>
<td>In-Kind Revenue</td>
<td>108,041</td>
<td>108,041</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other Revenues/Interest</td>
<td>2,500</td>
<td>2,500</td>
<td>0</td>
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<tr>
<td><strong>Total Revenues</strong></td>
<td>2,193,249</td>
<td>2,341,484</td>
<td>(148,235)</td>
<td>-6.3%</td>
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<tr>
<td><strong>Expenditures:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Personnel</td>
<td>621,437</td>
<td>621,437</td>
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<td>0.0%</td>
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<tr>
<td>Pubs., Subs and Dues</td>
<td>5,500</td>
<td>5,500</td>
<td>0</td>
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</tr>
<tr>
<td>Travel/Local/Conferences/Registration</td>
<td>17,000</td>
<td>17,000</td>
<td>0</td>
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</tr>
<tr>
<td>Insurance</td>
<td>14,250</td>
<td>14,250</td>
<td>0</td>
<td>0.0%</td>
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<tr>
<td>Capital Outlays/Small Equipment</td>
<td>3,000</td>
<td>3,000</td>
<td>0</td>
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</tr>
<tr>
<td>Office Rental/Storage Rental</td>
<td>36,500</td>
<td>36,500</td>
<td>0</td>
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<tr>
<td>Communications - Phone/Internet/Web Hosting</td>
<td>12,000</td>
<td>12,000</td>
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</tr>
<tr>
<td>Copier Lease/Maint.</td>
<td>2,700</td>
<td>2,700</td>
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</tr>
<tr>
<td>Auditing</td>
<td>18,400</td>
<td>19,000</td>
<td>(600)</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Office Supplies</td>
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<td>3,000</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Postage</td>
<td>250</td>
<td>250</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other (Legal Notices, Bank Fees, Board Ops)</td>
<td>5,000</td>
<td>3,500</td>
<td>1,500</td>
<td>42.9%</td>
</tr>
<tr>
<td>Legal</td>
<td>8,500</td>
<td>10,000</td>
<td>(1,500)</td>
<td>-15.0%</td>
</tr>
<tr>
<td>In Kind</td>
<td>108,041</td>
<td>108,041</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Contracts, Consultants</td>
<td>1,222,500</td>
<td>1,397,000</td>
<td>(174,500)</td>
<td>-12.5%</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td>2,078,078</td>
<td>2,253,178</td>
<td>(175,100)</td>
<td>-7.77%</td>
</tr>
<tr>
<td><strong>Agency Balance</strong></td>
<td>115,171</td>
<td>88,306</td>
<td>26,865</td>
<td>30.42%</td>
</tr>
<tr>
<td><strong>Fund Balance-Beginning of Year</strong></td>
<td>1,476,010</td>
<td>1,387,704</td>
<td>88,306</td>
<td>6.36%</td>
</tr>
<tr>
<td><strong>Fund Balance-End of Year</strong></td>
<td>1,591,181</td>
<td>1,476,010</td>
<td>115,171</td>
<td>7.80%</td>
</tr>
</tbody>
</table>
Approval of 2020-2021 TBEP Legal Services Contract

Action Recommended:


Background:

In November 2016, the TBEP Policy Board authorized execution of a 2-year agreement with Don Conn, Conn & Buenaventura, P.A, as TBEP’s Legal Counsel. In November 2018, the Policy Board approved an amendment extending the contract period through December 31, 2019, and authorized the Executive Director to negotiate terms of a new contract that would commence following the amended expiration date. A proposed legal services contract for the 2020-2021 period is attached for Policy Board consideration and approval.

Florida Statute 287.057(3)(e)4. exempts legal services from having to be procured competitively; however, the Policy Board does have the option to issue a Request for Proposals and solicit proposals from law firms for legal services.
LEGAL SERVICES CONTRACT BETWEEN
TAMPA BAY ESTUARY PROGRAM
AND
CONN & BUENAVENTURA, P.A.

THIS CONTRACT, entered into this ___ day of ____________, 2019, by and between the
TAMPA BAY ESTUARY PROGRAM (herein after referred to as "PROGRAM"), and the law firm
of CONN & BUENAVENTURA, P.A. (hereinafter referred to as the "Law Firm").

1. PURPOSE AND SCOPE OF SERVICE. The PROGRAM hereby retains the
   Law Firm to provide the following legal service:
   a. serve as General Counsel to the PROGRAM;
   b. provide legal advice to the Policy Board, Management Board and staff of the
      PROGRAM;
   c. attend PROGRAM Board meetings and other meetings of committees,
      workshops, working groups and other PROGRAM activities, as requested or
      approved;
   e. upon request, represent the PROGRAM before public agencies, private sector groups
      and organizations;
   f. develop for consideration and approval by the Policy Board, and then assist in
      carrying out policies, procedures, rules, agreements and contracts for the general
      governance of the PROGRAM;
   g. provide legal advice regarding compliance with all applicable federal and state laws,
      rules and regulations;
   h. provide legal services and representation for procurement of goods and services,
      financial auditing, contracting, claims resolution, dispute resolution through mediation
      and arbitration, intergovernmental relations, and perform any other legal services as
requested, except those involving employment or labor law claims, disputes or litigation; and

i. such other matters as referred by the Executive Director.

2. **EFFECTIVENESS AND DURATION.**

2.1 This Contract shall take effect on January 1, 2020 and continue through December 31, 2021, unless terminated earlier in accordance with Section 2.2, below.

2.2 This Contract may be terminated by any party upon thirty (30) days written notice to the other party. In the event this Contract is terminated by the PROGRAM, the Law Firm shall be entitled to payment of compensation and authorized expenses owing to the Law Firm prior to the date of termination. Upon termination of this Contract, the Law Firm shall deliver to the PROGRAM copies of all documents, opinions, written research and other material created or prepared by the Law Firm by virtue of its representation of the PROGRAM pursuant to this Contract.

2.3 Termination of this Contract shall be without prejudice to any other right or remedy available to the parties and to any obligation which shall have accrued prior to termination.

2.4 The PROGRAM and the Law Firm agree that the obligations under this Contract are subject to the availability of funds, and in the event that the PROGRAM does not have funds available to provide compensation to the Law Firm as specified under Section 4, below, this Contract shall terminate and neither the PROGRAM nor the Law Firm shall have any continuing obligation hereunder.

3. **PROVISION OF LEGAL SERVICES.** The Law Firm shall provide legal services to the PROGRAM under this Contract, as follows:

3.1 The Law Firm will report to and carry out assignments respecting legal matters identified in Section 1 as authorized and requested by the Policy Board or by the Executive Director under authority delegated by the Policy Board.
4. **COMPENSATION.** The PROGRAM shall pay the Law Firm One Hundred and Forty Dollars ($140.00) per hour from funds authorized by and available to the PROGRAM for the services performed on behalf of the PROGRAM, including necessary travel time to perform those services; provided that the hourly rate for representation in litigation shall be 140% of the approved rate. In addition, the PROGRAM shall reimburse the Law Firm for all reasonable costs and expenses in accordance with Chapter 112, Florida Statutes.

5. **BILLING.** The Law Firm shall present monthly invoices to the PROGRAM for legal services and the reimbursement of actual costs and expenses. Invoices shall be clearly designated as to the assignments being performed. The Law Firm shall be responsible for sending the invoices with supporting documentation to the PROGRAM at the address designated in writing by the PROGRAM.

6. **EMPLOYMENT RELATIONSHIP OF THE PARTIES.** The performance by the Law Firm of the legal services specified herein shall be as an independent contractor and the Law Firm and its personnel shall not be considered employees of the PROGRAM for any purpose. The Law Firm shall comply with all federal, state, regional or local laws, regulations or ordinances required of attorneys performing the legal services contemplated under this Contract. The Law Firm is responsible for paying all income taxes and the PROGRAM shall not be responsible for collecting and/or paying withholding, FUTA, FICA or any other federal or state tax.

7. **CONFIDENTIALITY AND CONFLICT OF INTEREST.** The Law Firm shall be bound and shall follow the Rules of Professional Conduct for resolving all questions of confidentiality, conflicts of interest, and the Law Firm’s relationship to the PROGRAM.

8. **NOTICES.** Any and all notices, designations, consents, offers, acceptances, or any other communications provided for herein shall be given in writing by U.S. Mail to the PROGRAM through its Executive Director at its official headquarters location, and to the Law Firm through
Donald D. Conn, Conn & Buenaventura, P.A., 4830 West Kennedy Boulevard, Suite 600, Tampa, Florida 33609.

9. **INSURANCE.**

   9.1 The Law Firm shall provide, pay for, and maintain in force at all times during the term of this Agreement, such insurance, including professional liability insurance, as will provide to the PROGRAM the protection against claims, demands or causes of action proximately arising out of error, omission, or any tortuous act, whether intentional or negligent, of the Law Firm, its officers, agents, subcontractors or employees in the performance of services under this Contract.

   9.2 Such policy or policies shall be issued by a company or companies authorized to do business in the State of Florida. All policies required to be carried pursuant to this Section shall provide coverage for any and all claims based on the actions of the Law Firm in performing their services under this Contract. Any liability policy or policies shall, as a minimum, carry limits of at least One Million Dollars ($1,000,000.00).

10. **AMENDMENTS.** This Contract may be amended or modified by mutual agreement of both parties. No amendment or modification shall be valid unless in writing and executed by both parties.

11. **FLORIDA LAW.** The laws of the State of Florida shall apply and bind the parties in any and all questions arising hereunder, regardless of the jurisdiction in which any action or proceeding may be initiated or maintained.

12. **DISCRIMINATION.** The Law Firm assures the PROGRAM it is in compliance with Title VII of the 1964 Civil Rights Act, as amended, and the Florida Human Rights Act of 1977 in that the Law Firm does not, on the grounds of race, color, national origin, religion, sex, age, handicap or marital status discriminate in any form or manner against the Law Firm's employees or applicants for employment. The Law Firm understands and agrees this Contract is conditioned
upon the veracity of this Statement of Assurances. Other applicable federal and state laws, executive orders and regulations prohibiting the type of discrimination as hereinabove delineated are included by this reference thereto. This Statement Assurance shall be interpreted to include Vietnam Era Veterans and Handicapped persons within its protective range of applicability.

13. **ASSIGNMENT.** The Law Firm shall not assign this Contract, in whole or in part.

14. **VENUE.** The parties agree that venue lies in Pinellas County, Florida, for any action brought under the terms of, or to enforce, this Contract.

15. **ENTIRE AGREEMENT.** This Contract constitutes the entire agreement between the parties respecting the matters involved in this Contract.

**IN WITNESS WHEREOF,** the PROGRAM and the Law Firm have executed this Contract on the day, month and year first above written.

**ATTEST:**

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**WITNESSES:**

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**TAMPA BAY ESTUARY PROGRAM**

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| _________________                  | _______________________________

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**CONN & BUENAVENTURA, P.A.**

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<tr>
<th>By:</th>
<th>Print Name:</th>
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-5-
Final FY2020 EPA Work Plan Submittal and Budget Approval

Recommended Action:

a) Approve the Final FY2020 Annual EPA Work Plan & Budget.

b) Authorize Executive Director to submit Final FY2020 Annual EPA Work Plan to EPA Region 4 as a new EPA Cooperative Agreement.

Background:
The attached elements of the Final FY2020 EPA Work Plan and Budget outline the objectives, projects, and corresponding budget proposed for an EPA Cooperative Agreement Grant application which would begin October 1, 2019. EPA Region 4 has indicated that $600,000 of Section 320 federal funding support would be available for the application period that begins in the Summer 2019.

In FY2020, TBEP will have a number of continuing commitments to our partners and the community. These project commitments and requirements include:

- **Benthic, Seagrass & Flow Monitoring Support**: Assistance with partner monitoring
- **Technical Support & Data Management**: TBEP & NMC technical support
- **Harmful Algal Bloom Assessment**: Determine environmental & economic impacts
- **Ocean Acidification Monitoring Support**: Monitor & maintain inshore/offshore sites
- **Community Information, Website & Publications**: Enhance community engagement
- **Give-a-Day Volunteer Workdays**: 2 Clean-up days in parks in each County
- **Bay Soundings/Online Journal Support**: Regional journal-outreach/education
- **TBEP Adaptation Action Plan**: Identify & implement actions to address vulnerabilities
- **Priority Social Marketing Campaign**: Develop new initiative to support CCMP
- **Staff COL Adjustment**: Regionally-consistent COLA (3% in 2019)

The proposed FY2020 budget shows a reduction of $2,677 in operating expenses from the initial program-wide budget for FY2019, despite inclusion of an additional staff scientist/project manager position. The reduction is primarily due to leveraging of additional external grants to cover total salary and fringe expenses during the current FY and FY2020. Likewise, any regionally-consistent COLA increases for staff during FY2020 will be offset by external (non-Work Plan) grant funds. Travel costs will slightly increase from FY2019 levels and are estimated to be sufficient to support full staff attendance at Association of National Estuary Program Technical transfer and national science meetings (as required by EPA Cooperative Agreement funding guidance); as well as, the extensive local travel necessary to meet our commitments to local partners. Required in-kind match (~$84,348 needed to match federal funds 1:1) will be met with one of our partners’ restoration or water quality projects.
The attached Final FY2020 Work Plan elements include an Executive Summary, proposed Work Plan-funded projects, and the proposed EPA Work Plan Funding Table and Expenditures.

The entire document includes additional elements documenting accomplishments and ongoing projects supported by both EPA and non-EPA Work Plan funds (i.e. external grants), the Tampa Bay Environmental Restoration Fund, Tampa Bay Estuary license plate funds used to support the Bay Mini-Grant program, and RESTORE funds awarded through the RESTORE Council.

The Management and Policy Boards are requested to finalize and adopt the Annual Work Plan and budget at their May 2019 meeting to allow adequate time for application and processing of the federal cooperative agreement before the start of the next fiscal year (October 1, 2019).
The mission of the Tampa Bay Estuary Program is to build partnerships to restore and protect Tampa Bay through implementation of a scientifically sound, community-based management plan.
Tampa Bay Estuary Program Management Conference

Policy Board Members
Commissioner Charlie Justice  Commissioner Priscilla Trace  Councilman Guido Maniscalco
Policy Board Chair  Manatee County  City of Tampa
Pinellas County
Commissioner Stacy White  Mr. Tom McGill  Mr. Jeff Adams
Policy Board Vice-Chair  USEPA Region 4, Atlanta  SWFWMD Governing Board
Hillsborough County  Councilmember Gina Driscoll  Commissioner Mike Wells
City of St. Petersburg  Pasco County
Director Mary Yeargan  Councilman Bob Cundiff
Florida Dept. of Environmental Protection, SW District  City of Clearwater

Management Board Members
Mr. Tom Ash  Mr. Carlos Frey  Ms. Leanne Flewelling
Management Board Chair  City of St. Petersburg  FWCC-FWRI
E.P.C. of Hillsborough County
Ms. Kelli Levy  Mr. David Glicksberg  Ms. Carla Burmann
Management Board Vice-Chair  Hillsborough County  FDEP Southwest District
Technical Advisory Committee  Ms. Aubree Hershorin  Mr. Will VanGelder
U.S. Army Corps of Engineers  SWFWMD
Mr. Alex Awad  Mr. George F. Isiminger  Dr. Aaron Brown
City of Tampa  Port Manatee  Technical Advisory Committee
Ms. Juanita Bernal-Leon  Ms. Sarah Kessler  Mr. Santino Provenzano
Pasco County  City of Clearwater  Nitrogen Mgmt Consorium
Mr. Rob Brown  Mr. Bob McConnell  Ms. Jan Allyn
Manatee County  Tampa Bay Water  Community Advisory Committee
Ms. Felicia Burks  Mr. Andy Squires  Mr. Tra James
USEPA Region 4, Atlanta  Pinellas County  Community Advisory Committee
Mr. Chris Cooley  Mr. Sean Sullivan
Port Tampa Bay  TBRPC

Tampa Bay Estuary Program Staff & U.S. EPA Support
Ed Sherwood  Gary Raulerson  Maya Burke
Executive Director  Ecologist  Science Policy Co.
Nancy Laurson  NEP Project Liaison
Ron Hosler  Misty Cladas  Joe Whalen
Program Administrator  Project Manager  Comm. & Outreach Co.
U.S. EPA – HQ
Table of Contents

Tampa Bay Estuary Program Management Conference 1
Table of Contents 2
Executive Summary 3
  Purpose of Annual Work Plan 3
  Strategic Plan Goals for FY2020 3
  Accomplishments from May 2018 – February 2019 4
  FY2020 Work Plan Summary 9
Section 1: Introduction 11
Section 2: FY2020 EPA Cooperative Agreement Work Plan 13
  Section 2.A: Cooperative Work Plan Accomplishments and Completed Projects 13
    Section 2A.1: Technical Accomplishments 13
    Technical Publications, Reports, and Peer-Reviewed Articles - as of May 2019 16
    TBEP Technical Staff Involvement 2018-2019 17
    Section 2A.2: Public Outreach Accomplishments 19
    TBEP Outreach Staff Involvements 2018-2019 21
  Section 2.B: Ongoing Cooperative Agreement-Funded Projects 22
    Section 2B.1: Ongoing Technical Projects 22
    Section 2B.2: Ongoing Outreach & Education Projects 31
  Section 2C: FY2020 Proposed EPA Cooperative Agreement-Funded Projects 40
    Section 2C.1: Proposed Technical Projects 40
    Section 2C.2: Proposed Outreach & Education Projects 45
    Section 2C.3: Partner Action Plan Implementation 49
    Section 2C.4: FY2020 Cooperative Funding Table 50
    Section 2C.5: FY2020 Cooperative Agreement Work Plan Expenditures 51
Section 3: Other Supplemental Grants, Cooperative Agreements and Associated Projects 52
Section 4: Tampa Bay Environmental Restoration Fund Projects 56
Section 5: TBEP Specialty License Plate and Bay Mini-Grants to the Community 60
Section 6: TBEP RESTORE Project Elements 65
Appendix A: TBEP Staff Roles & Responsibilities 66
Appendix B: Ongoing & Anticipated Work Plan Travel Expenses 70
Executive Summary

Purpose of Annual Work Plan
The FY2020 Annual Work Plan and Budget presents proposed activities, all projected funding sources, and anticipated expenditures for the Tampa Bay Estuary Program (TBEP) for the fiscal year beginning October 1, 2019. The work plan and budget serve as TBEP’s application for cooperative funding to the U.S. EPA, and the document is organized to respond to the requirements of a federal cooperative agreement. The goals of the TBEP Interlocal Agreement and adopted Strategic Plan, as well as priority actions in the 2017 Comprehensive Conservation and Management Plan Update (CCMP), guide the activities of TBEP staff and the projects selected for the upcoming fiscal year.

To collate all activities conducted by the Tampa Bay Estuary Program into a single, annual Work Plan, this document also includes activities that are conducted in addition to EPA Cooperative Agreement grant funding. As such, the structure of this document reflects the diverse revenue sources and projects collectively pursued by the TBEP. These diverse programmatic sources are further detailed in the following sections:

Section 1: Introduction
Section 2: FY2020 EPA Cooperative Agreement Work Plan
Section 3: Other Supplemental Grants, Cooperative Agreements and Associated Projects
Section 4: Tampa Bay Environmental Restoration Fund Projects
Section 5: TBEP Specialty License Plate and Bay Mini-Grants to the Community
Section 6: TBEP RESTORE Project Elements

Strategic Plan Goals for FY2020
In January 2014, TBEP’s programmatic goals were defined through the development and adoption of a TBEP Strategic Plan (2014-2020). The plan was later updated in November 2016. The TBEP Boards adopted five goals as part of the current Strategic Plan (2014-2020):

1. Maintain scientific integrity as the cornerstone of TBEP.
2. Maintain and enhance the successful culture of collaboration among and between the TBEP and public and private partners.
3. Maintain institutional knowledge, skills and leadership in staff and TBEP Boards.
4. Support TBEP Program Operations with primarily local partner funds within 10 years in an effort to become less dependent on federal funding.
5. Create a constituency of informed, involved citizens who understand both the environmental and economic value of Tampa Bay and actively participate in restoring and protecting it.

Accomplishments from May 2018 – February 2019
The achievements listed below directly address the adopted Strategic Plan Goals. A complete list of 2018-2019 accomplishments is presented in Section 2 of the Work Plan.
1. **Maintain scientific integrity as the cornerstone of TBEP**

- Scientific and technical accomplishments in 2018-2019 include: 1) progress of TBEP and its partners toward goals and targets of the CCMP, including continued attainment of water quality and seagrass restoration targets; 2) initiation and implementation of the 2022 Tampa Bay Reasonable Assurance Update; 3) submission and US EPA acceptance of the 5-year Performance Evaluation; 4) refining regional habitat restoration goals in the 3rd update to the Tampa Bay Habitat Master Plan; 5) development and implementation of hard bottom mapping and monitoring techniques in Tampa Bay; 6) development of a Tampa Bay fisheries health index; 7) finalization of dredged hole management recommendations; and 7) continuing research and monitoring in coastal ocean acidification, shoreline ship wake impacts, nutrient load modelling, oyster restoration, and tidal creek habitats throughout Tampa Bay.

- TBEP technical staff continue to coordinate and facilitate TAC review of research projects actively being pursued by the Program and its partners (e.g. new hard bottom mapping efforts in Lower, Middle, and Old Tampa Bay, shellfish-Pyrodinium feeding experiments, coastal ocean acidification monitoring, assessment of ship wakes on critical coastal habitats, and assessment of oyster restoration projects).

- TBEP technical staff developed or contributed to 5 peer-reviewed articles, conference proceedings, and book chapters during this period. A technical website, tbeptech.org, is maintained and updated on a regular basis.

2. **Maintain and enhance the successful culture of collaboration among and between the TBEP and public and private partners.**

- Outreach staff assisted in the completion of a long-term Communications Plan, which was presented to Management and Policy Boards in May 2018. A strategy to implement the Communication Plan over the next 5-years was developed with Board input during October-December 2018.

- The TBEP submitted a five-year Program Evaluation to EPA, which was approved in September 2018 and demonstrated that the TBEP is making adequate progress in implementing our newly updated Comprehensive Conservation and Management Plan.

- TBEP Executive Director continued quarterly meetings with Policy Board members prior to Board meetings and provided presentations to partners’ boards and councils upon request, highlighting contributions, partnerships, accomplishments and current environmental issues.

- TBEP staff distributed e-newsletters, Bay PostScripts, and regular e-announcements to help keep the public, Boards and Committee members updated on TBEP issues, events and accomplishments between Management and Policy Board meetings.

- TBEP staff directly contributed to article preparation for Bay Soundings.

- TBEP Executive Director has met with U.S. Congressional members and staff each year to update them on the continued recovery of Tampa Bay and to highlight the partnerships which have contributed to the recovery. A watershed tour was conducted for Senator Rubio’s Gulf Coast Director in August 2018.
3. **Maintain institutional knowledge, skills and leadership in staff and TBEP Boards**

- In 2018, TBEP’s Executive Director was invited to serve as the Gulf of Mexico representative on the National Water Quality Monitoring Council and to participate in a McGraw Center for Conservation Leadership Coastal Wetland & Wildlife Workshop in LA.

- Gary Raulerson, TBEP’s Ecologist, served on the planning committee for the RAE-CSO Summit in December 2018, while also presenting the results of the Dredged Hole study and moderating a session on oyster restoration at this conference.

- Maya Burke, TBEP’s Science Policy Coordinator, served as a science liaison for the Tampa Bay Regional Resiliency Coalition. Maya also presented on the Tampa Bay ship wake study and the region's resiliency initiatives at the RAE-CSO Summit in December 2018, as well as, other local events throughout 2019.

- Joe Whalen, TBEP’s Communication & Outreach Coordinator, started with the program in Nov. 2018. Joe has quickly taken over and streamlined our digital communication channels. Joe has also continued his commitment to professional development in the field of Environmental Communications through enrollment in Duke University’s online Executive Education program.

- The Strategic Plan, revised in 2016, includes organizational strategies to help TBEP staff maintain its scientific rigor and leadership within the region. Strategies include: 1) TBEP’s Executive Director will offer to report annual progress to each member annually (BOCCs, Councils, Boards); 2) Policy Board representatives are encouraged by Management Board representatives to report on a regular basis; 3) Member governments are encouraged to provide consistent longevity of Board members (at least 2 years); 4) Future new board members are collaboratively and proactively identified; 5) Annual accomplishments are distributed to the full Management and Policy Board membership; and 6) a Board member succession process is considered with training.

4. **Support TBEP operations with primarily local partner funds within 10 years in an effort to become less dependent on outside funding.**

- TBEP staff continues to pursue additional sources of funding for CCMP implementation which include administrative and staff fees for contract and project management (see summary below). TBEP salary and fringe from external grant sources is expected to be offset by $105,000 in this FY2020 Work Plan.

5. **Create a constituency of informed, involved citizens who understand both the environmental and economic value of Tampa Bay and actively participate in restoring and protecting it.**

- A Final Communication Plan and Strategic Recommendation Synthesis was developed to guide public engagement, communication and outreach activities over the 2018-2023 period.

- In November 2018, the Tampa Bay Estuary Program awarded $73,372.54 to 19 community groups for projects that directly involve citizens in restoring and improving Tampa Bay. The Bay Mini-Grant program attracted 37 community applicants in 2018. Members of the Program’s
Community Advisory Committee evaluated the grant proposals and recommended 18 for full or partial funding, an additional project was recommended for funding by the Executive Director. Funds for the Mini-Grant program originate from sales of the Tampa Bay Estuary license plate – also known as the “Tarpon Tag.” License plate revenues can only be used for projects that directly help to implement bay restoration goals, such as the Mini-Grant program.

- TBEP internally maintains the TBEP and Be Floridian Facebook pages; TBEP.org, LoveTampaBay.org, and BeFloridian.org websites; a TBEP YouTube channel; an @Love_Tampa_Bay/#LoveTampaBay and @TampaBayEstuaryProgram Instagram accounts; and a Pinterest page featuring shareable infographics, educational materials and photo galleries highlighting TBEP activities, wildlife and habitats of the bay. These tools allow us to customize information, share our programs and materials, and interact with specific target audiences in an informal, fun atmosphere. TBEP’s email list serve, maintained through Constant Contact, grew to more than 4,500 subscribers in FY2019. The listserv allows us to post not only TBEP events and news, but also news and events of key partners through periodic e-blasts and announcements. Subscribers can sign up to receive all e-mail blasts or only those related to a special interest, such as Volunteer Opportunities, Conferences & Workshops, TAC Updates, etc.

- The popular “Give a Day for the Bay” volunteer program continued in FY2019 with 2 half-day workdays and 2 citizen science initiatives held at parks and preserves around the watershed. Three more are scheduled through the Spring of 2019. To date, more than 170 community volunteers participated in the half-day workdays and citizen science initiatives, performing a variety of bay improvement tasks including: planting and/or restoring trees and vegetation, pulling PVC markers from restoration sites, removing garbage and marine debris, and monitoring carbon storage of wetlands using a global tea bag index.

- In 2018-2019 CAC members have helped TBEP staff in accomplishing CCMP goals by:
  - Staffing tables at various events to distribute TBEP materials and recruit volunteers;
  - Serving as judges for the Bay Mini-Grants program;
  - Hosting a Bay Mini-Grant Show and Tell to review results of Bay Mini-Grant projects;
  - Judging and awarding a Golden Mangrove Award to the top Bay Mini-Grant of 2017;
  - Attending regional environmental forums and Give-A-Day for the Bay workdays.

Total CAC volunteer hour contributions for FY2019 were 371 hours.

In addition to the five goals identified in the Strategic Plan, TBEP continues to identify external sources of funding to support CCMP implementation and diversify Bay restoration efforts.

- The Tampa Bay Environmental Restoration Fund (TBERF) is an annual competitive grants program with goals to restore Tampa Bay and its watershed. The Tampa Bay Estuary Program and the national non-profit organization, Restore America’s Estuaries, encourage annual, public and private sector contributions to fund the program. For the past six years (2013-2018), over $4.5M was contributed by 14 public and private sector partners, providing support for 55, competitively-awarded projects which will result in measurable environmental benefits that include:
  - Creation of >7 acres of oyster reefs and installation of 1000 oyster domes;
- Restoration of 710 acres of coastal and freshwater wetlands, including installation of nearly 175,000 marsh plants;
- Restoration of 200 acres of in-bay seagrass habitat;
- Restoration of 118 acres of coastal uplands;
- Enhanced education in Florida-Friendly Landscaping, natural resources and Bay nutrient management activities;
- Enhanced research & assessments of fish habitat, harmful algal blooms, hard bottom substrate, remote sensing technology, existing habitat value of dredged holes in Tampa Bay, oyster restoration, and carbon sequestration in coastal habitats;
- Treatment of urban runoff from more than 700 acres of highly urbanized areas; and,
- Waterbird management on 13 Tampa Bay island sanctuaries.

- In 2017, the RESTORE Council amended their Funded Priorities List (FPL) to advance five of the original seven TBEP project elements from Category 2 (Planning) to Category 1 (Implementation). A cooperative funding agreement was awarded to TBEP in August 2018, and work has commenced on the Category 1 projects.

- TBEP staff has effectively pursued additional external grant and project funds over the last several years, resulting in an increase in both the number of projects and total funds directed towards CCMP implementation. For the current and past 2 fiscal years, TBEP has been awarded and is managing $16,211,800 in total project funds (see breakdown below). In addition, 4 pending grant applications submitted in Fall 2018 may still be awarded during FY2019.

TBEP Funding Sources (FY17, 18, 19)

$16.21 Million ($8.52 Leveraged : $1 CWA 320 Funds)
FY2020 Work Plan Summary

TBEP staff will focus on the following actions (ongoing and new) in this FY2020 Section 320 Work Plan to advance implementation of the CCMP and its goals. These actions reflect priorities of the Policy Board and Management Board identified in the programmatic and Strategic Plan goals. TBEP will focus on implementing and advancing the primary CCMP Themes: Clean Water and Sediments; Thriving Habitats and Abundant Wildlife; and an Informed, Engaged and Responsible Community.

- Coordinate and facilitate TBEP and Nitrogen Management Consortium activities that contribute to 1) the continued attainment of water quality targets and regulatory thresholds for the Bay, 2) the reporting requirements of the Tampa Bay Reasonable Assurance determination, and 3) the development of the 2022 Reasonable Assurance Update (ongoing project).
- Identify high-priority coastal restoration and protection sites through the next Habitat Master Plan Update; obtain matching funds for restoration or acquisition of high priority sites through grant opportunities (ongoing project).
- Assess current and historic acreage of critical coastal habitats and develop a Habitat Master Plan Update to target areas for preservation and restoration (ongoing project).
- Continue to implement long-term, “on the ground” monitoring programs to assess estuarine ecological and functional changes in critical coastal habitats (ongoing project).
- Assess benthic and sediment condition on an annual basis (ongoing project).
- Coordinate and facilitate annual seagrass transect monitoring and report on annual status and trends of seagrass species composition and cover-abundance (ongoing project).
- Expand monitoring efforts to include restored oyster reefs and wetlands (ongoing project).
- Investigate possibility of shellfish restoration to decrease severity of Pyrodinium blooms in Old Tampa Bay (ongoing project).
- Continue monitoring to assess the effects of ocean acidification in Tampa Bay (ongoing project).
- Continue to provide high quality outreach products and programs, focusing on core materials and information that can be delivered electronically. For example, better utilize TBEP’s website, e-newsletter, social media pages, internally-produced videos, infographics, fact sheets, and flyers. Engage community through the Constant Contact listserv (new & ongoing projects).
- Continue priority educational programs – pet waste and fertilizer education – through tailored websites and social media communications (ongoing project).
- Support EPA’s Trash Free Waters Campaign and regional partners that sponsor clean-up events in the Tampa Bay watershed (ongoing project).
- Continue to implement public education, stewardship and involvement programs including “Give-a-Day for the Bay,” “Pooches for the Planet,” and Invasive Species awareness campaigns.
- Obtain, coordinate and administer external grants necessary to complete ongoing technical and outreach initiatives (ongoing and new, summarized in Section 3: Supplemental Grants; Section 4: TBERF; and Section 5: Bay Mini-Grants).
- Coordinate and administer five RESTORE-funded projects (ongoing projects).
- Participate on review panels, committees, technical working groups as requested by partners.
- Facilitate technically-based approaches to watershed management programs, TMDLs, BMAPs and MFLs, as requested by partners.
- Initiate conference committee for the next Bay Area Scientific Information Symposium (BASiS7), to be held in 2021.
Funding sources and expenditures are shown in Section 2C.4 and 2C.5. TBEP staff accomplishments are listed in Section 2A, while staff roles and responsibilities are listed in Appendix A.
Section 1: Introduction

The FY2020 Annual Work Plan presents proposed activities for the Tampa Bay Estuary Program (TBEP) for the fiscal year beginning October 1, 2019. This annual work plan was developed around priority goals and projects previously identified by the Policy and Management Boards and their Technical Advisory (TAC) and Community Advisory Committees (CAC). In keeping with the Program’s mission, the Program will continue to stress coordination and cooperation with its local government, agency, industry, and community partners. These partnerships have resulted in substantial progress in achieving CCMP goals. Priority actions and research projects identified to support the FY2020 programmatic goals will further guide activities of the Program during the coming year. This Annual Work Plan and budget reflects the priorities identified jointly by the Policy Board and Management Board in early 2019 and conforms to the approved 2017 CCMP Update.

In FY2020, TBEP will continue to focus on CCMP goals to: 1) attain and maintain water quality targets to support seagrass recovery and address harmful algal bloom impacts to the Tampa Bay region; 2) support critical coastal habitat monitoring, restoration and recovery activities; 3) evaluate new priority science and management needs; and 4) continue and expand upon community education, involvement and engagement activities.

The FY2020 Annual Work Plan is divided into six sections, reflecting the multiple funding sources that are the foundation of Tampa Bay Estuary Program activities. These sections include:

Section 1: Introduction
Section 2: FY2020 EPA Cooperative Agreement Work Plan (Section 320)
   2.A: Cooperative Work Plan Accomplishments and Completed Projects
   2.B: Ongoing Cooperative Agreement-Funded Projects
   2.C: FY2020 Proposed EPA Cooperative Agreement-Funded Projects
Section 3: Other Supplemental Grants, Cooperative Agreements and Associated Projects
Section 4: Tampa Bay Environmental Restoration Fund Projects
Section 5: TBEP Specialty License Plate and Bay Mini-Grants to the Community
Section 6: TBEP RESTORE Project Elements

Section 2 represents TBEP’s FY2020 Cooperative Agreement Work Plan which includes detail on funding sources and expenditures proposed for EPA’s annual Cooperative Agreement with the Program. These elements are funded by the US EPA’s Section 320 Clean Water Act federal authorization and the dues defined in the interlocal agreement between TBEP’s local government and agency partners.

As in prior years, Program funding of the EPA Annual Work Plan will be accomplished through contributions from the USEPA, TBEP’s local government partners, Tampa Bay Water and the Southwest Florida Water Management District. For the purpose of estimating the budget in this FY2020 Work Plan, EPA’s estimated contribution is $600,000 for implementing the CCMP. The required non-federal match will be equal to the final amount contributed by EPA and will be met with a combination of cash and
in-kind contributions from TBEP partners. The Work Plan funding strategy for FY2020 will consist of the following elements: fund projected expenditures with $600,000 in federal funds and a total of $540,652 in non-federal funds with an additional $84,348 as in-kind match from a Tampa Bay Water partner project.
Section 2: FY2020 EPA Cooperative Agreement Work Plan

Section 2.A: Cooperative Work Plan Accomplishments and Completed Projects

Section 2A.1: Technical Accomplishments
Scientific and technical accomplishments during 2018-2019 include: 1) progress of TBEP and its partners toward goals and targets of the CCMP, including continued attainment of water quality and seagrass restoration targets; 2) initiation and implementation of the 2022 Tampa Bay Reasonable Assurance Update; 3) submission and US EPA acceptance of the 5-year Performance Evaluation; 4) refining goals in the 3rd update to the Tampa Bay Habitat Master Plan; 5) development and implementation of hard bottom mapping and monitoring techniques in Tampa Bay; 6) development of a Tampa Bay fisheries health index; 7) finalization of dredged hole management recommendations; and 7) continuing research and monitoring in coastal ocean acidification, shoreline ship wake impacts, nutrient load modelling, and tidal creek habitats throughout Tampa Bay.

Progress toward Water Quality Targets
Each year the TBEP compares bay water clarity and chlorophyll-a monitoring results with established management targets and regulatory thresholds to determine if average annual light levels are adequate to sustain seagrass recovery. In 2018, water quality in all bay segments, except Old Tampa Bay, was sufficient to support continued seagrass recovery. Old Tampa Bay’s annual average chlorophyll-a concentration was significantly above the management target, but below regulatory thresholds. Exceedances of OTB’s management target have persisted for a significantly “long” duration (4 concurrent years). Interestingly, light attenuation in all bay segments through 2018 remains supportive of seagrass recovery. Ongoing research to determine the drivers of poorer water quality in Old Tampa Bay continues through 2019. Researchers at FWRI are investigating the role shellfish may have on alleviating algal blooms in this bay segment. Also, TBEP staff continues to meet with FDOT officials to determine if poor circulation can be alleviated in Old Tampa Bay, through projects similar in scope of the 2018 cut on the east side of the Courtney Campbell Causeway.

Progress toward Seagrass Recovery Goals
Since TBEP’s inception, restoring seagrass to benchmark 1950’s levels has been a primary goal. Biennially, the Southwest Florida Water Management District Surface Water Improvement and Management (SWIM) program estimates acreages of seagrass in the seven major segments of Tampa Bay. In response to the many nutrient reduction actions implemented by the TBEP partners and members of the Tampa Bay Nitrogen Management Consortium, Tampa Bay has met and maintained numeric water quality (chlorophyll-a) thresholds to support seagrass growth >88% of the time since 1996. In 2018, all bay segments met regulatory thresholds for chlorophyll-a concentrations. Seagrass acreage continues to be maintained above the restoration goal target of 38,000 acres. In 2018, seagrass acreage was estimated to be 40,618 acres, and continues to exceed the restoration goal for 3 concurrent assessment periods. Likewise, positive improvements in Tampa Bay’s seagrass species community has been documented and...
provides complementary evidence that the Bay’s seagrass resources remain on a positive restoration trajectory. The next SWFWMD aerial assessment is anticipated for winter 2019-20.

**Initiating the 2022 Tampa Bay Reasonable Assurance Update & Implementing the Strategies**

On November 15, 2017, the FDEP officially approved the 2017 RA Update submittal and moved all water body segments within the RA boundaries into assessment category 2 (achieving designated uses for Total Nitrogen). TBEP and the Tampa Bay Nitrogen Management Consortium were recognized at the 26th Annual Future of the Region Awards in the Natural Environment category in May 2018 for the State’s delisting of impairment within all the major Bay Segments.

The TBEP, in partnership with the [Tampa Bay Nitrogen Management Consortium](http://apdb.tbeptech.org), will submit its second compliance assessment report for the new, 2017-2021 RA period to the FDEP by Summer 2019. In 2018, all bay segments met the chlorophyll-a regulatory threshold for the annual assessment period. The Consortium is proactively spearheading work to determine the best management options for the Old Tampa Bay segment during this new RA period. Furthermore, Consortium participants continue to report load reduction projects within the online Action Plan Database (http://apdb.tbeptech.org).

**Submittal and EPA Approval of the 2018 Tampa Bay Estuary Program Evaluation**

The TBEP has consistently met or exceeded all expectations set forth in the US EPA’s defined Program Evaluation process for the National Estuary Programs. Staff successfully completed and submitted the 2018 TBEP Program Evaluation to the US EPA in March 2018. In May 2018, TBEP staff provided US EPA Region 4 and headquarters staff a tour of partner projects and committee meetings, as part of the 5-year Program Evaluation. In September 2018, the US EPA concluded that the TBEP is fully compliant and effectively attaining long-term goals identified through TBEP’s Comprehensive Conservation and Management Plan.

**Development of the 3rd Tampa Bay Habitat Master Plan Update**

The Tampa Bay Habitat Master Plan Update (HMPU), broadly defined, will act as a regional management and guidance tool for multiple partners throughout Tampa Bay to assist in the identification and implementation of coastal restoration, mitigation, and conservation opportunities through the late 2020s. Primary tasks that will support implementation of Bay Habitat actions within the 2017 CCMP update include an update to critical coastal habitat status and trends, a summary of current habitat restoration and preservation activities and future priorities, a habitat restoration best management practices manual, an update to the existing restoration paradigm (Restoring the Balance), numeric targets for critical coastal habitats, seagrass, and tidal tributary habitats, and integration of this information into a Habitat Master Plan Update document. Project completion is expected in Fall 2019.

**Expanding Hard & Live Bottom Mapping and Monitoring in Tampa Bay**

The [2010 Habitat Master Plan Update](http://apdb.tbeptech.org) identified “habitats of special concern,” such as low-relief limestone outcroppings, that do not currently have adequate data to either estimate their current extent or define preservation and restoration targets. The phased project is creating comprehensive map products that inventory and characterize, to the extent feasible, hard and live bottom habitats of Tampa Bay and will establish a reference extent of the submerged habitats to support and assist in the development of protection and restoration targets. During the original project (now complete), hard bottom habitats were mapped primarily in southeast Tampa Bay, while oyster and tidal flats were
mapped throughout Tampa Bay. A second project focused on hard bottom habitats in the Pinellas County Aquatic Preserve and the interbay peninsula area [funded by the FY 16-17 TBEP Workplan, Pinellas County (RESTORE funds), EPCHC (through a NFWF grant), and TBERF] is scheduled for completion in late 2019. Final products will include habitat maps for Tampa Bay and a document discussing potential management actions.

**Development of a New Tampa Bay Fisheries Health Index**

A fisheries health index, developed by the Florida Fish and Wildlife Conservation Commission for the TBEP, shows that fish, shrimp, crabs, and other macroinvertebrate communities (collectively known as “nekton”) in Tampa Bay are both resistant and resilient to environmental changes and disturbances. The new scorecard uses catch data collected through the Fisheries-Independent Monitoring Program (FIM) for fish and selected macroinvertebrates. The index focuses on the functional role each species performs in the estuarine environment, rather than on a single species and distills information about feeding relationships, habitat use, species composition, and diversity into a single numerical index to provide a snapshot of ecological health of nekton in Tampa Bay. Annual index scores are grouped into broad categories to guide future management and research activities for each bay segment and collectively baywide. Report results were validated based upon two historic events (2005-2006 red tide and a 2010 snook cold kill event), though researchers caution that the index is not sensitive to specific causes of declining nekton health. Instead, the scorecard supports identification of research that is needed to better guide management activities in Tampa Bay and can assist managers in understanding the general ecological status of the Bay’s fisheries community moving forward.

**Finalization of Dredged Hole Management Recommendations**

This project examined eleven dredged holes located throughout Tampa Bay. Important characteristics considered for selection included 1) relative ease of access by the US Army Corps of Engineers or other agencies potentially interested in conducting restoration activities within the holes; 2) potential nearby activities that might require mitigation; and 3) anecdotal or professional knowledge of significant dredged hole characteristics that would indicate need for management activities. The McKay Bay dredged hole that had received a significant restoration effort conducted by SWFWMD and Port Tampa Bay in 2010 was also studied to examine impacts of management activities. Project components included a bathymetric survey, sediment analysis, benthic characterization, and fisheries assessment. Information from each hole was assessed to determine if management activities were appropriate at that location. Four dredged holes (Bay Point, MacDill Docks, Ft. DeSoto, and Culbreath South) were recommended as appropriate candidates for future management activities. Additional consultation with stakeholders and permitting agencies is also recommended prior to implementing management activities within these dredged holes.

**Additional Progress Towards Priority Monitoring and Research Efforts**

TBEP continues to collaborate with Sarasota Bay Estuary Program and Charlotte Harbor National Estuary Program on a second EPA Region 4 Wetland Program Development Grant that expands research and monitoring in SW FL tidal tributaries. This second study is ongoing and is anticipated to be completed in 2019. Additionally, TBEP continues to support tidal creek hydrology data collection in Allen and Joe’s Creeks.
Technical Publications, Reports, and Peer-Reviewed Articles - as of May 2019

The following TBEP technical documents were finalized during this time period. Full text versions for most documents are available at https://www.tbeptech.org/data/34-tech-pubs or from links as provided.


TBEP Technical Staff Involvement 2018-2019
Ed Sherwood, Executive Director

• Gulf of Mexico Representative, National Water Quality Monitoring Council;
• Board member, Association of National Estuary Programs;
• Member, Coastal and Estuarine Research Federation;
• Member, National Blue Carbon Working Group;
• Member, SWFWMD Environmental Advisory Committee;
• Member, Tampa Bay Regional Planning Council’s Agency on Bay Management;
• Member, Hillsborough County Agricultural & Economic Development Council;
• Grant Collaborator, Using NASA Remotely-Sensed Products in SPARROW;
• Invited speaker at more than 15 scientific, education and public events;
• Co-author “Widespread recovery of seagrass coverage in Southwest Florida (USA): Temporal and spatial trends and management actions responsible for success” in Marine Pollution Bulletin;
• Co-author “Blue Carbon: an additional driver for restoring and preserving ecological services of coastal wetlands in an urbanized landscape” in Wetlands;
• Co-author “The Tampa Bay Story: Fostering collaborative partnerships to restore an urban estuary” in Proceedings of the 6th ICRW, Shepherdstown, WV.

Gary Raulerson, Ecologist

• Finalized multiple reports related to Dredged Hole Habitat Assessment Project
• Presented “Tampa Bay Dredge Hole Assessment,” moderated session on oyster restoration, and participated on planning committee for biennial RAE-CSO National Summit
• Co-led annual review of seagrass transect protocols for TBEP partners
• Presented “Collaborative Research and Management Activities to Restore Tampa Bay” to ASPEC, a retired professionals organization based at Eckerd College.
• Presented “Follow Up: Monitoring, Evaluation and Maintenance” of Living Shorelines to Florida Marine Contractors Association Annual Conference.
• Participated in review of TBERF grant applications
• Assisted TBEP Project Manager with citizen science project examining decomposition in estuarine wetlands
• Facilitated annual meeting of FDEPs Florida Coastal Management Program
• Reviewer, MS-AL Sea Grant Consortium Technical Review Panel
• Presented “Tampa Bay: Life, the Estuary, and Everything” to NOAA’s annual Southeast Regional Habitat Conservation Division Meeting
• Presented “The Tampa Bay Story: Fostering Collaborative Partnerships to Restore an Urban Estuary” at the Interagency Conference on Research in the Watersheds and produced an associated paper (in press)
• Presenter and judge at AWWA Region IV Best Tasting Water Competition
• Co-PI for a successful TBERF grant application for oyster restoration monitoring
• Co-author “Widespread recovery of seagrass coverage in Southwest Florida (USA): Temporal and spatial trends and management actions responsible for success” in Marine Pollution Bulletin;
• Co-author “The Tampa Bay Story: Fostering Collaborative Partnerships to Restore an Urban Estuary” in Proceedings of the 6th ICRW, Shepherdstown, WV.
• Member, SWFWMD Habitat Conservation and Restoration Committee
• Member, Migratory Bird Protection Committee
• Alternate, Tampa Bay Harbor Safety and Security Committee
• Member, ANEP-EPA Nutrient Management Working Group
• Member, several Living Shoreline Working Groups focused on Florida and the Gulf of Mexico

Maya Burke, Science Policy Coordinator

• Presented “Sea Change: Adaptive Capacity in Tampa Bay” at the RAE-CSO National Summit (December 2018).
• Presented “Waves from Ships in Tampa Bay: A Case Study for Public-Private Partnerships to Address Shore Erosion” at RAE-CSO National Summit (December 2018).
• Presented “A Regional Social Marketing Campaign for SSOs” at the Pinellas Stormwater Wastewater Task Force (February/April 2018); the Tampa Bay Nitrogen Management Consortium (May 2018); and the Tampa Bay Wastewater Forum (June 2018).
• Attended NOAA Social Coast Conference in Charleston, SC (February 2018).
Principal Investigator for a successful 319(h) education grant to reduce sanitary sewer overflows.
Managed/coordinated Tampa Bay Environmental Restoration Fund and RESTORE projects
Member, Shell Key Advisory Committee
Member, City of St. Petersburg Integrated Sustainability Action Plan Working Group
Member, Tampa Bay Climate Science Advisory Panel
Member, Tampa Bay Regional Resiliency Coalition Technical Advisory Committee
Member, Suncoast Sea Level Rise Cooperative Conference Planning Committee
Alternate, Tampa Bay Regional Planning Council’s Agency on Bay Management
Member, Bay Soundings Editorial Advisory Committee
Member, ONE BAY Working Group
Secretary, Friends of Boyd Hill Nature Preserve

Section 2A.2: Public Outreach Accomplishments

Public outreach in FY2019 focused on: Maintaining and expanding the scope of Give-a-Day volunteer event program to include a citizen science initiative; Maintaining the effectiveness and expanding the reach of the Bay Mini Grant Program; Consolidating the internal management of all TBEP-developed websites and initiating a new contract for redesigning the sites; Continuing the Be Floridian and #LoveTampaBay, social media-focused awareness campaigns; Securing funds and initiating new social research campaigns focused on private laterals and sanitary sewer overflows; Continuing production of TBEP’s standard communications tools such as e-newsletters, infographics, website updates, news alerts, meeting and event announcements, and printing of select informational materials.

#Love Tampa Bay Awareness Campaign

TBEP launched #LoveTampaBay in October 2016, a website showcasing visually compelling digital “postcards” of special people and places in Tampa Bay. Postcards are divided into five categories – HOME, SCIENCE, JOBS, ART and COMMUNITY – with each postcard shareable through “quick links” across four social media platforms – Facebook, Twitter, Email and Pinterest. An Instagram account also supports the campaign and has become a popular feature. The campaign was developed and maintained with support of a St. Petersburg marketing and web design company, Hashtag Creative.

Users are encouraged to “Share the Love” via the social media links and to upload and share their own #LoveTampaBay postcards on the website and across their social media networks. Educational messages are delivered via a short “Did You Know?” fast fact within each postcard and also through a “Do More” section featuring highly visual infographic tips for Bay-Friendly Living.

Be Floridian Fertilizer Education Campaign

TBEP continues to maintain a Facebook page, with 30,022 “likes” as of April 2018. Both a dedicated website and Facebook page support local fertilizer ordinances and tips for “gardening like a Floridian.” The Facebook page boasts a weekly reach of 5,000-50,000 people, with a high rate of engagement as measured by “likes,” shares and comments on posts. The Facebook page also houses permanent features such as a Florida Yard gallery and profiles of the popular artist-painted plastic pink flamingos that comprised the “Art of Being Floridian” exhibit. The Be
Floridian campaign was a finalist for the Millbank Social Marketing Award for Innovation in the Environmental Field, a new award presented at the USF International Social Marketing Conference. Be Floridian was expanded to the Indian River Lagoon in 2016; several cities and counties throughout Florida and the nation continue to request information about the initiative and model educational materials about Be Floridian products.

Communications Plan & Strategy
The TBEP (with contracted support from Eunoia Media Labs) developed a strategic communications plan based on input from regional stakeholders and an evaluation of existing communications and outreach strategies. The plan identified a number of key objectives, including: 1) improving the visibility of the TBEP and its ability to provide timely information about bay status and trends to the community; 2) using social science research and marketing techniques to better engage the community and identify key metrics to gauge effectiveness; 3) helping the community make the connection between personal behaviors and habits that may have an impact on the Tampa Bay estuary; 4) enhancing educational efforts to explain the ecological diversity and economic importance of the Tampa Bay estuary and the resulting benefits to the community’s quality of life; 5) expanding opportunities for community involvement in research, restoration, and protection initiatives of the TBEP; and 6) fostering an ethic of stewardship for Tampa Bay and support for its protection and restoration among the community.

In October 2018, TBEP staff hosted a workshop for Management and Policy Board members to garner feedback on future approaches and strategies that implement the objectives outlined above. The new TBEP Communication and Outreach Coordinator has begun identifying metrics using Google Analytics and Facebook Insights to tailor TBEP’s social media and web presence, accordingly. A new contract to refresh the TBEP website and web presence was initiated in April 2019.

Give a Day for the Bay Program
The popular “Give a Day for the Bay” volunteer program continued in FY2019, with 6 half-day workdays held at parks and preserves around the watershed. For workdays through April 2019, more than 332 community volunteers participated, performing a variety of bay improvement tasks, from removing invasive plants (Brazilian pepper, air potato, and rosary pea) and creating oyster shell reefs to planting trees, upland and shoreline restoration plants (including sea oats, railroad vine, beach sunflower, slash pines and palmettos). A volunteer is recognized annually for outstanding dedication to the Give-A-Day program.

The Project Manager continued to provide staff support to TBEP’s Community Advisory Committee (CAC), composed of residents from a variety of backgrounds and interests who share a common concern for the future of the bay.

In FY2019, CAC members have helped TBEP staff in accomplishing CCMP goals by:
- Staffing tables at various events to distribute TBEP materials and recruit volunteers;
- Serving as judges for the Bay Mini-Grants program;
• Hosting a Bay Mini-Grant Show and Tell to review results of Bay Mini-Grant projects;
• Judging and awarding a Golden Mangrove Award to the top Bay Mini-Grant of 2017;
• Creating an Education Subcommittee to develop bay involvement outreach plans;
• Writing letters to their local representatives requesting Program support;
• Attending regional environmental forums and Give-A-Day for the Bay workdays; and,
• Creating and updating a CAC Facebook Page to keep CAC members informed of community events and volunteer opportunities.

Total CAC volunteer hour contributions for FY2019 were 350 hours.

**TBEP Outreach Staff Involvements 2018-2019**

Misty Cladas, Project Manager

• Staff coordinator of the Community Advisory Committee (CAC), meets quarterly;
• Coordinated an informational webinar to assist interested parties in submission of TBEP’s Bay Mini-Grant application package, August, 2018;
• Coordinated CAC invitation to facilitate 8 Bay Mini-Grant awardees giving presentations highlighting their final grant products to coincide with EPA’s 2018 Program Evaluation;
• Member City of St. Petersburg Program for Public Information;
• Member Pinellas Florida-Friendly Landscaping Advisory Committee;
• Coordinated logistics for tabling events for World Oceans Day, City of St. Petersburg Sustainability Summit, MarineQuest, International Cephalopod Conference;
• Participated in Discussion on Consumer Debris Data in Florida;
• Coordinated logistics to host Eckerd College Into the Streets outreach event.
• Presented “Coastal Litter Ecological Analysis Network (CLEAN) measuring carbon sequestration based on decomposition of tea bags“ at ANEP Tech Transfer

Joe Whalen, Communication & Outreach Coordinator

• Started at TBEP in November 2018;
• Enrolled in Duke University’s Executive Education Program for Environmental Communication;
• Coordinator, Manatee Awareness Coalition;
• Member, FDOT Stormwater Public Information Committee;
• Member, Bay Soundings Editorial Advisory Committee;
• Member, Florida-Friendly Landscaping Program Committee;
• Member, The International Environmental Communication Association (IECA);
• Administrative Assistant, Tampa Bay Association of Environmental Professionals (TBAEP);
• Established protocols to track metrics across all TBEP social and communications platforms.
Section 2.B: Ongoing Cooperative Agreement-Funded Projects

Section 2B.1: Ongoing Technical Projects

**Ongoing Project Name: Tampa Bay Benthic, Seagrass and Hydrologic Monitoring Programs**

**Project Objective:**
Maintain a long-term database as well as status and trends for benthic biota, sediment quality, minor tidal tributary hydrologic loadings, and seagrass coverage for Tampa Bay.

**Project Description:**
The Tampa Bay Benthic and Seagrass Monitoring Programs have produced invaluable long-term records on the conditions and trends of benthic biota, substrate, and seagrass habitats. TBEP will provide support and funding on an annual basis for the programs which are supported by in-kind contributions from our local partners.

**Benthic Monitoring Program.** The Benthic Monitoring program, administered by EPCHC, includes rough sorting, taxonomic review, grain size analysis, sediment chemistry and data management tasks. The EPCHC will continue monitoring baywide benthic conditions and develop an updated status and trends report on baywide benthic conditions from 1993-2017. The Pinellas County special studies will continue to focus on tidal tributary hydrologic monitoring in Old Tampa Bay.

**Baywide Seagrass Transects.** The Tampa Bay seagrass transect monitoring program was initiated in 1997. Hillsborough, Pinellas and Manatee counties, the City of Tampa, FWCC-FWRI, FDEP, Tampa Bay Watch, and other partners conduct this combined field sampling effort. Results from the program to date have been used to assist with assessing the effects of wave energy on seagrass growth, sand bar stabilization, and quantifying the natural and anthropogenic short-term changes in seagrass coverage, species diversity and growth patterns, and growth at the deep edges. The monitoring program, including an annual training session, is now fully coordinated by TBEP staff. Databases are updated through 2015, and a summary report was produced (TBEP Technical Report #08-16). A peer-reviewed synthesis was also produced by staff in 2017. TBEP staff are working with the USF Water Atlas team to create an online application that will be usable in the field to report transect data and format it correctly for QAQC and incorporation into the transect database.

**Biennial Seagrass Mapping and Assessment.** The Southwest Florida Water Management District conducts aerial surveys of seagrass extent throughout Tampa Bay every two years. Results from the photo-interpretation assessment provide a critically-important indicator and endpoint for the Tampa Bay resource management strategy (acres of seagrass every two years). Recently (in the 2014 data set), SWFWMD initiated the inclusion of acreage assessments of oyster beds and tidal flats as part of the analysis. The latest survey was conducted in December 2017/January 2018 with results expected in Feb. 2019. The next survey is expected to occur in December 2019/January 2020. The Southwest Florida Water Management District SWIM Department fully funds this effort.

**Partners and their Roles:** As noted above.
Outputs/Deliverables:
Annual application of Tampa Bay Benthic Index; Tidal creek hydrologic data; Annual Seagrass Transect Monitoring Summary; Biennial Seagrass Mapping

Milestones:
Sample collection for transects and benthic program is in the fall of each year. SWFWMD flies aerials in November-January every other year. Analysis and reporting generally follows within 12 months. Benthic condition and synthesis report covering period from 1993-2017 to be produced by Spring 2020.

320 Budget: $45,000 per WP year; Seagrass aerial assessments funded completely through the SWFWMD.

Other budget: In-kind from all partners

Long-term outcomes: Documenting trends in seagrass coverage and benthic condition over time; Sustained record of tidal creek hydrology.

CWA Core programs addressed:
Monitoring of ecological endpoints for Core Program 1 (establishing water quality standards); Core Program 2 (TMDLs); Core Program 5 (protecting wetlands- seagrass) and Core Program 6 (protecting coastal waters through the NEPs).

CCMP Action Plan:
WQ-1: Implement nitrogen management goals for Tampa Bay; BH-1: Implement the Tampa Bay Habitat Master Plan; BH-8: Continue and enhance habitat mapping and monitoring programs; BH-9: Enhance ecosystem values of tidal tributaries; COC-1: Address hot spots of contamination in the Bay

Ongoing Project Name: Tampa Bay Habitat Restoration & Protection Partnership

Project Objective:
Develop and implement monitoring and assessment programs, restoration recommendations, and management and policy protocols for critical coastal habitats in the Tampa Bay estuary.

Project Description:
The 2010 Tampa Bay Habitat Master Plan Update (2010 HMPU) included new recommendations for research and development, monitoring and assessment, and coastal habitat management. In August 2010, the Policy Board authorized staff to work with partners to develop a Tampa Bay Habitat Restoration and Protection Partnership which would work to prioritize and implement the recommendations outlined in the 2010 HMPU, as well as any subsequent recommendations developed during the next HMPU.

Habitat Master Plan Update. At the February 2017 Policy Board Meeting, ESA-Scheda was selected to lead the effort that will create the next update to the Tampa Bay Habitat Master Plan (completion anticipated in 2019). Primary tasks will support implementation of the Bay Habitat Actions and Strategies outlined in the 2017 CCMP Update, and include:

● Updated geospatial habitat data acquisition, interpretation and synthesis;
● Development, refinement and consensus building on critical coastal habitat restoration, monitoring and management goals and paradigms;
● Identification of current and future restoration opportunities within the watershed and development of a web-based, GIS platform to visualize these opportunities;
● Development of discrete habitat management plans for seagrass and tidal creek habitats;
● Develop science-based restoration and protection targets for critical coastal habitats that currently lack these metrics (e.g. oyster, hard/live bottom, tidal flat, artificial habitats, tidal tributaries and coastal uplands);
● Creation of a habitat restoration Best Management Practices manual; and
● Development and finalization of the next Habitat Master Plan Update document.

Critical Coastal Habitat Assessment & Expanded Restoration Assessments. This project implements one of the primary recommendations from the 2010 HMPU, the creation of a long-term “on the ground” monitoring program to assess plant community and other ecological and functional changes in critical coastal habitats. Baseline monitoring for 9 transects in Tampa Bay was completed in 2015-16 (Price and Loy 2017; Moyer and Radabaugh 2017), and follow-up sampling events occurred in 2018. Additionally, complementary data will be collected from other habitat restoration project sites in Tampa Bay to evaluate successful restoration designs that improve the estuaries ecological function. These data collection efforts will provide a more complete understanding of the estuarine habitat changes due to ongoing habitat restoration initiatives and coastal processes such as sea level rise and climate change. In 2018, TBEP and partners from FWRI and TBW were awarded a TBERF grant to assess oyster restoration projects completed throughout Tampa Bay.

Hard Bottom Assessment Phase II. The 2010 Habitat Master Plan Update identified “habitats of special concern,” such as low-relief limestone outcrops, that do not currently have adequate data to either estimate their current extent or define preservation and restoration targets. As a result, several research and management recommendations were developed for these habitats. A TAC subcommittee, initiated by SWFWMD, was formed to develop recommended research, monitoring and restoration targets for hardbottom and associated habitat types. The initial project (Kaufman 2017) was awarded funding through the Tampa Bay Environmental Restoration Fund (with match from SWFWMD). The phased project is creating comprehensive map products that inventory and characterize, to the extent feasible, hard and live bottom habitats of Tampa Bay. The objective is to determine the current areal extent and estimate a historical or reference extent of the submerged habitats to support and assist in the development of protection and restoration targets. During the original project (now complete), hard bottom habitats were mapped primarily in southeast Tampa Bay, while oyster and tidal flats were mapped throughout Tampa Bay. A second project focused on hard bottom habitats in Pinellas County and the interbay peninsula area [funded by Pinellas County, EPCHC (through a NFWF grant), and TBERF] waters has just been initiated and is scheduled for completion in late 2019. Final products will include habitat maps for Tampa Bay and a document discussing potential management actions.

Freshwater Wetland Master Plan Implementation. In 2014, freshwater wetland restoration targets were established for all 6 sub-basins of the Tampa Bay watershed (Ries and Scheda 2014). Restoration goals of 17,088 acres for non-forested wetlands and 1,615 acres of forested wetlands were established. In FY18-19, TBEP dedicated funds toward the implementation of
freshwater wetland habitat restoration project(s) that address the basin-specific goals, as identified in the 2014 Freshwater Wetland Master Plan. Currently, TBEP is working with Hillsborough County staff to establish an appropriate FW wetland restoration project utilizing these funds.

Partners and their Roles: As noted above

Outputs/Deliverables:
- Geo-referenced database with baseline data for nine coastal habitat monitoring locations.
- Maps of hardbottom habitats in the mid-lower portions of Tampa Bay.
- Restoration and protection recommendations for multiple Tampa Bay habitats.
- Non-forested and forested freshwater wetland restoration.
- Report providing 1) benthic (in case of oyster restoration), vegetation and soil characteristics of a series of habitat restoration projects implemented in Tampa Bay; 2) as needed, recommendations for adaptive management and lessons learned from these projects; 3) as appropriate, alignment of monitoring practices with regional and national efforts.
- Report providing information on existing oyster restoration projects within Tampa Bay and, as needed, suggestions to improve projects going forward.

Milestones:
- Final data files and geo-referenced database by 2017.
- Restoration and protection recommendations incorporated into HMPU (2019).
- Developed restoration monitoring plan and QAPP (Fall 2018); Implement monitoring and develop report (2018-2020).

320 Budget: $184,000 for HMPU (Multiple WP years); $50,000 for Hard Bottom project (FY2018); Staff time for Hard Bottom Assessment (Phase II) and HMPU projects. $72,154 for FW Wetland Master Plan Implementation (FY2019); $75,000 for Habitat Restoration Assessments (FY2018 and 2019).

Other budget: In-kind from partners of the Habitat Restoration Partnership - estimated at >$10,000 per year collectively
- TBERF ($52,500) for Hard Bottom project
- Pinellas County RESTORE funds ($100,000) for hard bottom project
- EPCHC NFWF Grant ($23,000) for hard bottom project
- SWFWMD ($50,000) for HMPU
- Hillsborough County & other Grants ($750,000) for FW Wetland restoration project
- TBERF ($89,190) for oyster restoration monitoring

Long-term outcomes: Documenting trends in critical coastal habitats over time; Improved protection and restoration of coastal habitats.

CWA Core programs addressed:
Monitoring of ecological endpoints for Core Program 1; Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).

CCMP Action Plan:
BH-1: Implement the Tampa Bay Habitat Master Plan; BH-4: Identify hard bottom communities and avoid impacts; BH-8: Continue and enhance habitat mapping and monitoring programs; BH-9: Enhance ecosystem values of tidal tributaries; BH-10: Implement the Tampa Bay FW Wetland Habitat Master Plan; CC-1: Improve ability of bay habitats to adapt to a changing climate

**Ongoing Project Name: Technical Support and Data Management**

**Project Objective:**
Support TBEP technical assessments, deliver relevant priority issue science products, and report progress on TBEP restoration goals to EPA.

**Project Description:**
As in previous years, technical support will be needed to facilitate technical workshops; prepare technical reports; further develop data management systems that integrate and report on status and trends on TBEP’s websites; and assist with other targeted assessments. It is anticipated that TBEP staff will also require continued data management support to track and transfer data requests; provide targeted data reduction and analyses; support graphic and mapping needs; support habitat restoration reporting and database updates; develop monitoring plans; and support data analysis needs for GPRA, TMDL, BMAP, and RA projects. Staff anticipates issuing separate work orders as specific needs arise. TBEP issued a new technical support contract RFP in Nov. 2018 and selected a new contractor at the Feb. 2019 Policy Board meeting.

**Partners and their roles:**
TBEP (Primary), Technical Support Contractors

**Outputs/deliverables:**
As-needed technical services which may include workshops on priority issues; support of TMDL and BMAP projects, technical graphs, maps and reports; a distributed data management system; updated TBEP data and maps.

**Milestones:**
New support contract awarded in early 2019. Expected end date 2024.

**320 Budget:**
$90,000 [$18,203 (FY2018); $71,797 (FY2019)]

**Estimated Total Budget:**
$90,000

**Long-term outcomes:**
Support CCMP implementation & reporting

**CWA Core programs addressed:**
Core Program 1 (establishing water quality standards; Core Program 2 (TMDLs); Core Program 3 (NPDES permitting); Core Program 4 (NPS); Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).

**CCMP Action Plan:** Any, as needed.
**Ongoing Project Name: Implementing OTB Integrated Modeling Results**

**Project Objective:**
Identify opportunities to implement recommended restoration scenarios assessed during the OTB Integrated Model Development Project.

**Project Description:**
TBEP staff, in coordination with the SWFWMD and OTB Integrated model Subject Matter Experts (SMEs), continued development and refinement of the OTB Integrated Modeling System. TBEP staff have distributed model outputs to interested stakeholders and researchers. At the request of FDOT, SWFWMD and TBNMC partners, TBEP staff estimated the ecological benefits to OTB by altering the Howard Frankland Bridge causeway. Results from these recent simulations helped guide discussions on environmentally beneficial projects that could be pursued during the bridge replacement. TBEP coordinated with the TBNMC to further develop model outputs related to the Courtney Campbell and Howard Frankland Bridge causeway modifications.

**Partners and their roles:**
TBEP (Primary); SWFWMD (Project Collaborator); OTB Subject Matter Experts; FDOT; TBNMC; TBNMC Technical Support Contractor

**Outputs/Deliverables:**
Additional restoration scenario assessments; Model outputs to support restoration scenario implementation within the region.

**Estimated Milestones:**
As-needed model refinement (2016-19); Additional scenario runs (2016-18); Regional coordination on management scenario implementation (2016-20).

**320 Budget:** $20,000 (FY2016)

**Estimated Total Budget:** $20,000

**Long-term Outcomes:**
Implementation of management actions that would support the enhanced, ecosystem recovery of Old Tampa Bay.

**CWA Core Programs Addressed:**
Core Program 1 (establishing water quality standards); Core Program 2 (TMDLs); Core Program 3 (NPDES permitting); Core Program 4 (NPS); Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).

**CCMP Action Plan:**
WQ-1: Implement nitrogen management goals for Tampa Bay; BH-2: Establish and implement mitigation criteria; BH-8: Continue and enhance habitat mapping and monitoring programs; LI-1: Incorporate CCMP goals and actions in local government planning; Address Research & Monitoring Priorities
**Ongoing Project Name:** Support for Ocean Acidification Monitoring / Blue Carbon Studies / Climate Ready Estuaries

**Project Objective:**
Leverage TBERF grant collaborations to assess potential for seagrass/wetland restoration to offset regional carbon footprint and buffer ocean acidification processes within Tampa Bay.

**Project Description:**
This project will build upon previous work to identify the benefits of continued wetland/seagrass restoration within the region. The TBEP was a partner on a Blue Carbon assessment (RAE & ESA, Inc.) funded through the Tampa Bay Environmental Restoration Fund. A final report from this project was completed in 2016 (Sheehan et al. 2016, Sheehan 2016), and several peer-reviewed journal articles have resulted. TBEP staff have also been coordinating meetings among partners to develop a framework for ocean acidification monitoring in Tampa Bay. An initial OA pilot monitoring project was conducted in 2015. Grant funds through the USEPA and TBERF were also provided to establish new high-resolution pH monitoring sites within the Bay and approximately 60 miles offshore. TBEP is currently working with USGS staff to procure, site, maintain and monitor pH conditions in Tampa Bay during 2017-2021. These initiatives support TBEP’s implementation of the Climate Change Vulnerability Assessment developed as part of the 2017 CCMP Revision (Burke 2017) and EPA’s Climate Ready Estuaries program.

**Partners and their roles:**
TBEP (Significant); USGS, USF, FWCC-FWRI, & EPCHC (OA monitoring support); RAE & ESA (Blue Carbon Assessments, TBERF management)

**Outputs/Deliverables:**
Development and implementation of a long-term ocean acidification monitoring program; Identification of wetland/seagrass buffering capacity for ocean acidification processes; Assessment of Blue Carbon restoration potential for the Tampa Bay estuary.

**Estimated Milestones:**
Develop monitoring and QA plan (2015); Complete pilot OA monitoring project (2015-16); Expand OA monitoring program (2017-19); Integrate Blue Carbon assessment with OA monitoring programs (2016-19); Monitoring of OA stations (2018-2021); Synthesis of OA data (2021).

**320 Budget:**
$160,000 [$55K (FY2016); $80K (FY2017); $25K (FY2019)]

**Estimated Total Budget:**
$307,579 [$147,579 (TBERF); $160,000 (TBEP Work Plans); USGS in-kind]

**Long-term Outcomes:**
Continued restoration of wetland/seagrass habitats; Identification of Blue Carbon and OA buffering benefits of restoration.

**CWA Core Programs Addressed:**
Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).
CCMP Action Plan:
CC-1: Improve ability of bay habitats to adapt to climate change; CC-2: Understand and address effects of ocean acidification; Address Research & Monitoring Priorities

Ongoing Project Name: Shellfish as Potential Remediation for *Pyrodinium bahamense* Blooms

**Project Objective:**
Investigate possibility of shellfish restoration to decrease severity of *Pyrodinium bahamense* blooms occurring annually in Old Tampa Bay.

**Project Description:**
Blooms of *Pyrodinium bahamense* have occurred on an annual (summertime) basis in Old Tampa Bay since the late 2000s, with severe blooms occasionally occurring in some years. These blooms, similar to other harmful algal species such as red tide, can cause both fish kills and create health issues for humans, including respiratory problems and the potential for saxitoxins to cause direct illnesses after consumption of affected fish and shellfish.

An FWRI study (Lopez 2017; partially funded through TBERF) characterized seeding potential of *Pyrodinium bahamense* cyst beds occurring in Old Tampa Bay. Some preliminary research has indicated that severe blooms of *Pyrodinium bahamense* result from a combination of stormwater events and physical water quality conditions in Old Tampa Bay. Creation of shellfish (American oyster, *Crassostrea virginica*, and Quahog clam, *Mercenaria campechiensis*) nurseries that could compete with the dinoflagellate for nutrients or directly consume the microorganism is a potential management solution for *Pyrodinium bahamense* but requires additional research within Tampa Bay to understand potential effectiveness and limitations.

The project will incorporate a mesocosm study to examine growth of shellfish in the presence of *Pyrodinium bahamense* in a controlled environment, as well as field experiments. Issues include permitting (dependent upon the type of shellfish establishment protocols incorporated into the project) and potential consumption of contaminated shellfish (although Old Tampa Bay is closed to shellfish harvesting and the area would be posted). This project will also provide information that will guide future shellfish goal-setting and restoration projects within Tampa Bay.

**Partners and their roles:**
TBEP (Project Management); FWCC-FWRI (Permitting, implementation, monitoring and analysis); TAC (Review project outcomes)

**Outputs/Deliverables:**
Mesocosm experiments to examine shellfish filter feeding rates in controlled environment in Tampa Bay region; Permits and constructed shellfish structures in Old Tampa Bay (pending results); Monitoring of shellfish growth and filter feeding in Old Tampa Bay (pending results)

**Estimated Milestones:**
Develop draft monitoring plan, TAC review, and QAPP creation (Fall 2017-Winter 2018); Implement *in situ* and field sites and conduct monitoring (2018); final report (2019). Implementation of larger scale projects (2019-2021, pending results).

**320 Budget:** $127,249 (FY2018)
Estimated Total Budget: $127,249

Long-term Outcomes:
Decrease nuisance blooms of *Pyrodinium bahamense* that have occurred in Old Tampa Bay during the past several years; Better understanding of growth, nutrient cycling, and restoration potential of oysters in Tampa Bay.

CWA Core Programs Addressed:
Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).

CCMP Action Plan:
WQ-3: Reduce frequency and duration of harmful algal blooms; BH-1: Implement the Tampa Bay Habitat Master Plan; Address Research & Monitoring Priorities
Section 2B.2: Ongoing Outreach & Education Projects

**Ongoing Project Name: #LoveTampaBay**

**Project Objective:**
Highlight special people and places in Tampa Bay through a social sharing campaign to increase community awareness of the value of the bay to our quality of life.

**Project Description:**
This project was revised from the original plan for videos or slide show to create a social sharing campaign highlighting special people and places in the bay watershed, through “digital postcards” housed on a photo-rich website that can be shared across social media platforms. Users are encouraged to submit their own photos or simply use the #LoveTampaBay hashtag when sharing content on their personal channels.

**Partners and their roles:**
TBEP (Project Management); Hashtag Creative, MKH Communications, Bazany Design (Creative)

**Output/Deliverables:**
Website with sharable “digital postcards” across five main themes – Community, Home, Jobs, Art and Science – supported by Infographics of Bay-Friendly Living tips, plus Instagram, Twitter, and Facebook accounts

**Estimated milestones where appropriate:**
#LoveTampaBay campaign (including website and all social media tools) launched in October 2016; Review of engagement and analytics for website and social sharing tools (ongoing); Refresh of website within tbep.org (2019-2020).

**320 Budget:** $30,000 (Multiple TBEP Work Plans)

**Estimated total budget:** $30,000 for creation of website, digital postcards, Infographics, and social media channels; $8,000/yr for ongoing social media support, website updates & technical support

**Long-term outcomes:**
Inspire bay residents to be more environmentally minded by highlighting role models whose own commitment to improving Tampa Bay had community-wide impact

**CWA Core programs addressed:**
Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands-seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

**CCMP Action Plan:**
PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting the bay
Ongoing Project Name: Public Education and Awareness Campaigns (Eyes on the Bay, Invasive Species Awareness, Pooches for the Planet, Responsible Pet Owner Awareness; Boater & Angler Education)

Project Objective:
Provide ongoing community education and awareness materials focused on priority bay issues to the general public.

Project Description:
Distribution of materials such as the popular Bay Boater’s Guides, Eyes on the Bay Invasive Species Awareness products, and Pooches for the Planet pet waste campaign materials.

Partners and Their Roles:
Primary: TBEP (Project management); Significant: All local governments, Hillsborough/Manatee/Pinellas Extension Programs, Suncoast Cooperative Invasive Species Management Area, Florida Sea Grant, FWCC-FWRI, Manatee Awareness Coalition (MAC)

Output/Deliverables:
All educational materials have been made available as downloadable files through TBEP’s website(s) or can be distributed as hard copies.


320 Budget: $7,500 (FY2018)

Estimated Total Budget: $7,500 for reprint of materials.

Long-term outcomes:
Reduction of existing invasive species in the Tampa Bay watershed; Prevention of new invaders; Improved fish and wildlife habitat; Reduced bacteriological and nutrient loading from pet waste; Reduced seagrass scarring; Reduced boater impacts on manatees; Reduced disruption of waterbird nesting areas; Reduced bacteriological loading from boats resulting in improved water quality and reduced human health impacts.

CWA Core programs addressed:
Core Program 2 (developing plans to restore polluted waters); Core Program 4 (addressing diffuse, nonpoint sources of pollution); Core Program 5 (protecting wetlands) and 6 (protecting coastal waters through the NEPs)

CCMP Action Plan:
IS-2: Support prevention, eradication or management of invasive species in Tampa Bay and its watershed; PH-4: Reduce fecal contamination from human and pets in Tampa Bay area waters; BH-3: Reduce propeller scarring of seagrass; FW-1: Increase on-water enforcement; FW-6: Preserve the diversity and abundance of bay wildlife; PH-5 Reduce pollution from recreational boaters.
Ongoing Project Name: “Be Floridian” Residential Fertilizer Education

Project Objective:
Promote compliance with local ordinances restricting fertilizer use in summer and promote sustainable landscaping practices.

Project Description:
Campaign utilizing social marketing principles to reduce fertilizer use and prevent stormwater runoff from residential landscapes. Project funding ended after five years in FY15-16, but social media tools were maintained by TBEP. Pinellas County is continuing Facebook campaign website, while TBEP continues to maintain a Facebook and dedicated website.

Partners and their Roles:
Primary: TBEP, Pinellas County; Significant: Manatee County, Sarasota County, Cities of Tampa, St. Petersburg and Clearwater, Sarasota-Manatee Science and Environment Council, county extension programs.

Output/Deliverables:
No new deliverables. Existing website maintained by TBEP. TBEP and Pinellas County also promoting through Facebook sites.

Estimated Milestones: Ongoing, as needed. No new milestones. Periodic website updates and posts on Facebook (through 2023); Refresh of website within tbep.org (2019-2020).

320 Budget: $10,000 (FY2018)

Estimated Total Budget: $10,000

Long-term outcomes:
Reduced nutrient loading from residential landscapes and resulting improvements in bay and watershed water quality

CWA Core programs addressed:
Core Program 2 (developing plans to restore polluted waters); Core Program 4 (addressing diffuse, nonpoint sources of pollution); Core Program 6 (protecting coastal waters through the NEPs).

CCMP Action Plan:
WQ-1: Implement the Tampa Bay nutrient management strategy; SW-1: Reduce nitrogen runoff from urban landscapes

Ongoing Project Name: Bay Soundings

Project Objective:
To inform citizens about key issues affecting Tampa Bay and encourage personal involvement in bay restoration and protection.

Project Description:
Traditionally a broadsheet newspaper publication and associated website featuring news articles, essays and in-depth analysis of important issues affecting the health of Tampa Bay.
Budget represents TBEP contribution to a revamped, online journal featuring news about Tampa Bay and its watershed.

**Partners and their Roles:**
- **Primary:** TBEP, TBRPC, Bay Soundings editor, designer

**Output/Deliverables:**
- Bay Soundings transitioned to web-only in 2017 with weekly updates including one major news story and two shorter features each month. A full review of the effectiveness of this web-only approach will be conducted by Fall 2019 and new strategies will be developed, if needed.

**Estimated Milestones:**
- After 15 years as a printed journal, Bay Soundings went paperless in Spring 2017; Monthly updates to revamped website began in Spring 2017; Monthly emails to subscribers promoting new and expanded multimedia content (maps, slideshows); Review of Google Analytics to evaluate web usage began in 2017 and will continue with a full review of effectiveness of project to be conducted in FY2019. Ongoing support pending 2019 evaluation.

**320 Budget:** $22,500 annually

**Estimated Total Budget:** $22,500 annually

**Long-term outcomes:**
- Support for bay restoration and protection initiatives from a more informed public.

**CWA Core programs addressed:**
- Core Program 4 (addressing diffuse, nonpoint sources of pollution; Core Program 6 (protecting coastal waters through the NEPs)

**CCMP Action Plan:**
- PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting Tampa Bay; Bay Soundings also supports implementation of all actions in the CCMP by informing citizens of issues affecting Tampa Bay, reporting on progress in achieving TBEP goals, and encouraging bay stewardship.

**Ongoing Project Name:** Give-a-Day for the Bay Volunteer Workdays

**Project Objective:**
- Reduce invasive species and litter impacts in the Tampa Bay watershed. Improve habitat for fish and wildlife while increasing stewardship of the bay and watershed.

**Project Description:**
- "Give-A-Day for the Bay" is a volunteer program sponsored by the Tampa Bay Estuary Program to directly involve citizens in restoring the Tampa Bay estuary through periodic workdays.

**Partners and their roles:**
- **Primary:** TBEP, local governments, other community partners such as Keep Tampa Bay Beautiful, Lowry Park Zoo, volunteers

**Output/Deliverables:**
Six volunteer workdays involving up to 300 residents per year. Volunteers removed several tons of invasive plants and garbage from city and county parks. A new citizen science initiative measuring C sequestration rates in wetlands (Global Tea Bag Index) was developed in partnership with the SBEP.

**Estimated milestones:**
Give-a-Day for the Bay is entering its 17th year of involving residents in hands-on bay restoration, focusing in removing invasive plants and replanting areas with native species. Ongoing annual support for events conducted during each FY.

**320 Budget:**  $5,000 (FY2019)

**Estimated total budget:**  $5,000 per year from TBEP. TBEP staff time and funds pay for water, lunch and equipment for volunteers. Additional sponsorship through the Pruitt Family Foundation in 2018-19.

**Long-term outcomes:**
Reduction of invasive species, litter and plastics pollution in the Tampa Bay watershed; Improved habitat for fish and wildlife; Creating a constituency of informed and involved citizens in the protection and restoration of Tampa Bay.

**CWA Core programs addressed:**
Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs)

**CCMP Action Plan:**
PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting Tampa Bay; IS-2: Support prevention, eradication or management of invasive species in Tampa Bay and its watershed; FW-6: Preserve the diversity and abundance of bay wildlife

**Ongoing Project Name: Community Information, Website Update, Publications**

**Project Objective:**
Provide diverse informational and educational programs to bay residents.

**Project Description:**
This project entails recurring outreach expenses, including quarterly updates and server hosting fees for the TBEP general website. This project also supports renewal fees for the Constant Contact list serve, event management and survey tools; graphic design for web-based and printed educational materials; reprinting and distribution of priority education materials; and sponsorship of public workshops to support key educational priorities. As-needed contractual support for TBEP outreach initiatives are also included. Specifically, specialized writing services, video production, photography, social media content and assistance with planning and implementing events and workshops. Support may include both ongoing and targeted, task-oriented projects.

**Partners and their roles:**
TBEP (Project management); Magic Bus Web Design, Bazany Design, O’Hara Communications (Contracted communications support)

Output/Deliverables:
Update of TBEP web presence; Press releases and media kits; Electronic fact sheets, flyers, surveys and informational materials; Maintenance of Facebook pages and Constant Contact listserve; Production and distribution of Bay Post Script e-newsletter and special reports; Production of in-house videos for YouTube Channel; Distribution/production of Boater’s Guides, Ethical Angler Wallet Cards and other popular outreach materials.

Estimated milestones:
Web Support RFP issued in Nov. 2018; Web support contractor selected by Feb. 2019; Website redesign and presence refresh in 2019-20; Bay Post-Script e-newsletter produced quarterly; Materials reprinted as needed; Social media content and engagement updated 2-3 times a week; Other e-blasts, special news releases, slideshows and videos created on-demand. Ongoing support through 2024.

320 Budget: $50,000 (FY2019)

Estimated total budget: Varies annually.

Long-term outcomes: Promotion of individual actions to protect the bay. Increase knowledge of residents on key Bay issues, management and natural resources.

CWA Core programs addressed:
Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands-seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

CCMP Action Plan: Any, as needed.

Ongoing Project Name: Trash-free Waters Program Support
Project Objective:
Support local partners and initiatives in educating the public about plastic pollution, litter and debris impacting Tampa Bay.

Project Description:
Support local partners in their efforts to provide solutions to reduce the amount of litter and debris entering Tampa Bay and educate the public regarding proper litter and debris disposal.

Partners and their roles: TBEP, CAC, local non-profit clean-up organizations, general public

Output/Deliverables: Reduction of the amount of litter and debris entering waterways.

Estimated milestones:
Link to Give-A-Day for the Bay activities and focus one workday on the clean up and removal of litter and debris at an area previously identified as a trash/marine debris hot spot. Program funding support ended in FY2019. Ongoing in-kind support through 2024.
320 Budget: $1,000 (FY2017)

Estimated total budget: $1,000

Long-term outcomes: Educate the public on proper disposal methods for litter and debris and the impacts of this pollution on local waterways.

CWA Core programs addressed: Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs)

CCMP Action Plan: PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting the bay

Ongoing Project Name: State of the Bay Reporting

Project Objective: A 2018 Progress Report to the Public, highlighting progress made in achieving goals for bay restoration and providing a citizen-friendly overview of key research and education activities TBEP has coordinated.

Project Description: Project will lead to the creation of a public summary document to highlight program successes and activities. This document will be used to help communicate TBEP initiatives to Board members and the general public.

Partners and their roles: TBEP (Project management); Technical writing contractor; Graphic design contractor.


320 Budget: $25,000 (FY2019)

Estimated total budget: $25,000

Long-term outcomes: Public document to highlight bay restoration, research and education successes

CWA Core Programs Addressed: Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands-seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

CCMP Action Plan:
PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting the bay

Ongoing Project Name: Social Marketing Campaign to Reduce Sanitary Sewer Overflows (SSOs)

Project Objective:
Reduce the occurrence of sanitary sewer overflows using social marketing tools to determine targeted behaviors and audience(s); Identify the barriers and benefits most likely to shape an effective strategy that motivates citizens to undertake desired actions.

Project Description:
TBEP is developing a community outreach campaign focused on private citizen behaviors that reduce the future occurrence of SSOs. Focused market research will be conducted to assess which behaviors (and audiences) would be most effectively engaged by a SSO social marketing campaign, as well as identify barriers to responsible private sewer maintenance and appropriate benefits to motivate citizens to adopt desirable behaviors. This information, along with research and lessons learned from other regions struggling with aging wastewater infrastructure issues, will form the basis for developing communication and social marketing strategies to inform the Tampa Bay community and elicit specific behavior changes.

Partners and their roles:
TBEP (Project management); Counties/municipalities will serve as advisory stakeholders and will use their respective platforms to disseminate campaign materials/messages.

Output/Deliverables:
Convene stakeholder working group of wastewater utilities and public information professionals (2019); Produce a report summarizing market research and focus group results (2019); Recommend at least one creative concept to communicate the core message to each of the target audiences (2019-20); Produce a marketing plan detailing implementation of the campaign over a 2-year period (2020-21); Provide paid media placement (outdoor, print, digital, or other channels) (2021); and Complete an evaluation of campaign results (2021).

Estimated milestones:
Summer 2019: Initial SSO Stakeholders Meeting; Conduct Focus Groups
Fall 2019: Draft Marketing Plan presented to stakeholders
Winter 2020: Final Marketing Plan
Spring 2020: Final Creative; Media Buy
Summer 2021: Final Evaluation

320 Budget: $50,000

Estimated total budget: $200,000 [$50K (FY18-19); $75K (FDEP 319h Grant); $75K Pin. Co. contributions]

Long-term outcomes:
Increased public awareness of sewer maintenance and responsibility of private citizens;
Reduced TN load and improved water quality in Tampa Bay

CWA Core programs addressed:
Core Program 4 (NPS); Core Program 6 (protecting coastal waters through the NEPs)
CCMP Action Plan:
WQ-1: Implement the Tampa Bay nutrient management strategy; SW-1: Reduce nitrogen runoff from urban landscapes
Section 2C: FY2020 Proposed EPA Cooperative Agreement-Funded Projects

Section 2C.1: Proposed Technical Projects

Project Name: Tampa Bay Benthic, Seagrass and Hydrologic Monitoring Programs 2019-2020

Project Objective:
Develop a long-term database, as well as, status and trends for benthic biota, sediment quality, minor tidal tributary hydrologic loadings, and seagrass coverage for Tampa Bay.

Project Description:
The Tampa Bay Benthic and Seagrass Monitoring Programs have produced invaluable long-term records of the conditions and trends of benthic biota, substrate, and seagrass habitats in Tampa Bay. Through routine bay sampling and focused special studies, the programs have provided information to bay managers and other researchers on these habitats, and have contributed to several technical publications.

These monitoring programs historically have been jointly funded by TBEP and its partners Hillsborough County EPC, Pinellas County DEM, Manatee County NRD, and the City of Tampa BSG. Following evaluation and redesign of the benthic monitoring program in April 2007, TBEP’s funding commitment to the Benthic Monitoring Program and Seagrass Monitoring Programs was extended. To date, both programs have produced summary reports detailing long-term trends in seagrass and benthic biota (Karlen et al. 2015 & Johansson 2016). The seagrass transect program, which TBEP helped fund through the City of Tampa Bay Studies Group, is now managed by TBEP staff. To maintain data consistency for status and trends reporting, staff recommends continuous support for these programs.

A critical element of the seagrass monitoring is conducted by the Southwest Florida Water Management District, which conducts aerial surveys of seagrass extent throughout Tampa Bay biennially. Results from the photo-interpretation assessment provide a critically-important indicator and endpoint for the Tampa Bay resource management strategy (total acres of seagrass in Tampa Bay estimated every two years). The latest survey was conducted in December 2017 - January 2018 and a final product is anticipated in mid-2019. The Southwest Florida Water Management District SWIM Division fully funds this effort.

This long-term monitoring effort would not be possible without all partners’ willingness to continue this excellent collaboration in reaching common monitoring and reporting objectives.

Partners and their Roles:

**Benthic Analyses and Reporting support:**
Benthic monitoring support $40,000 EPC of Hillsborough County

**Seagrass Transect Coordination, Training & Monitoring support:**
Training and Monitoring In-house TBEP Staff (Primary)
Monitoring In-kind Manatee, Hillsborough, Pinellas Counties, FDEP, FWRI, Tampa Bay Watch & various consultants
Seagrass aerial survey In-kind SWFWMD
Special Studies Support
Flow monitoring $5,000 TBEP (Primary); Pinellas County; Contractor

Outputs/Deliverables:
- Long-term application and summary of Tampa Bay Benthic Index and Seagrass Transect Monitoring Databases; Flow records for minor tidal tributaries; Biennial Seagrass Coverage

Estimated Milestones:
- Initiate in Oct. 2019. Sample collection for seagrass transects and benthic program is in the fall of each year. SWFWMD flies aerials in November-January every other year; Continuous hydrologic records for tidal creeks updated quarterly; All updated databases, analyses and reporting generally follow within 12 months. End by Dec. 2020.

FY19-20 320 Budget: $45,000
Estimated Total Budget: $45,000 annually plus additional in-kind support from all partners.

Long-term Outcomes:
- Documenting trends in seagrass coverage, benthic and sediment conditions, and minor tidal tributary hydrology through time

CWA Core programs addressed:
- Monitoring of ecological endpoints for Core Program 1 (establishing water quality standards); Core Program 2 (TMDLs); Core Program 5 (protecting wetlands- seagrass) and Core Program 6 (protecting coastal waters through the NEPs).

CCMP Action Plan:
- WQ-1: Implement nitrogen management goals for Tampa Bay; BH-1: Implement the Tampa Bay Habitat Master Plan; BH-8: Continue and enhance habitat mapping and monitoring programs; BH-9: Enhance ecosystem values of tidal tributaries; COC-1: Address hot spots of contamination in the Bay

Project Name: Technical Support and Data Management FY2020
Project Objective:
- Support TBEP technical assessments, deliver relevant priority issue science products, and report progress on TBEP restoration goals to EPA.

Project Description:
- As in previous years, technical support will be needed to facilitate technical workshops; prepare technical reports and data syntheses; further develop data management systems that integrate with the TBEP websites; and assist with targeted assessments and monitoring. It is anticipated that TBEP staff will also require continued data management support to track and transfer data requests; provide targeted data reduction and analyses; support graphic and mapping needs; support habitat restoration monitoring and reporting, and database updates; develop monitoring plans; and support monitoring and data analysis needs for GPRA, TMDL, BMAP, RA and RESTORE projects. Staff developed a new RFP solicitation for this project in Nov. 2018 and a contract was awarded in February 2019.
Partners and their roles: TBEP (Primary); Technical Support Contractors

Outputs/Deliverables:
As-needed technical services which may include workshops on priority issues; support of TMDL and BMAP projects, technical graphs, maps and reports; a distributed data management system; environmental monitoring and assessments; updated TBEP data and maps.


FY19-20 320 Budget: $75,000

Estimated Total Budget: $165,000 [$18,203 (FY17-18); $71,797 (FY18-19)]

Long-term Outcomes: Support for progress towards CCMP goals

CWA Core Programs Addressed:
Core Program 1 (establishing water quality standards); Core Program 2 (TMDLs); Core Program 3 (NPDES permitting); Core Program 4 (NPS); Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).

CCMP Action Plan: Any, as needed.

Project Name: Support for Coastal Ocean Acidification Monitoring

Project Objective:
Continue support for long-term, continuous monitoring of Tampa Bay and near coastal ocean acidification processes.

Project Description:
TBEP staff have been coordinating meetings among partners to develop an ocean acidification monitoring program in Tampa Bay. This project seeks continued support for long-term monitoring of carbon state parameters within Tampa Bay and Gulf of Mexico nearshore waters. Outcomes of the project will help support habitat restoration initiatives that promote OA buffering and estuarine refugia within the larger Gulf of Mexico ecosystem.

Partners and their roles:
TBEP (Significant facilitator); USGS, EPA, USF, FWCC-FWRI & EPCHC (OA monitoring support).

Outputs/Deliverables:
Development and implementation of a long-term ocean acidification monitoring program within Tampa Bay and its nearshore coastal waters; increased understanding of seagrass and wetland buffering capacity for ocean acidification processes.

Estimated Milestones:
Established estuarine OA monitoring site in Tampa Bay (2017) and a nearshore coastal site in the GOM (2018); Establish & implement protocols for long-term OA monitoring program (2017-20). Develop OA data synthesis report by end of 2021.

FY19-20 320 Budget: $25,000
Estimated Total Budget: $332,579 ($55K (FY15-16); $80K (FY16-17); $25K (FY18-19); $147,579 (TBERF); USGS In-kind)

Long-term Outcomes:
Support for continued restoration of wetland/seagrass habitats; Identification of OA buffering benefits of critical coastal habitats.

CWA Core Programs Addressed:
Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs); Core Program 7 (protecting Large Aquatic Ecosystems)

CCMP Action Plan:
CC-1: Improve ability of bay habitats to adapt to climate change; CC-2: Understand and address effects of ocean acidification; Address Research & Monitoring Priorities

Project Name: Harmful Algal Bloom Environmental & Economic Assessment
Project Objective:
Determine the acute and chronic impacts of harmful algal bloom (HAB) events on Tampa Bay's environment and economy.

Project Description:
The Southwest Florida coast experienced a long-term (greater than 1½ year) bloom of red tide (Karenia brevis) during 2017-19. Additionally, the harmful alga, Pyrodinium bahamense, has annually reached bloom concentrations in Old Tampa Bay since the mid-2000s. While the impacts of these HABs are visually recognizable, the regional economic and environmental impacts in Tampa Bay have not been fully assessed. This project will use an interdisciplinary framework to assess impacts to different user groups (e.g. recreational boaters, restaurants) and mine existing data sets (e.g., Chamber of Commerce hotel data, fish kill reports, costs accumulated by municipalities during cleanups, habitat changes attributable to HABs, etc.) to provide a more comprehensive understanding of community- and estuary-wide effects. The project will reinforce future efforts to: 1) identify user groups most affected by the HABs, 2) garner support for prevention and mitigation activities, 3) identify appropriate funding sources for prevention and mitigation activities, and 4) improve messaging and awareness about future events.

Partners and their roles:
TBEP as project manager; TAC as project review committee; private consultant

Outputs/Deliverables:
Report detailing economic and environmental impacts to the Tampa Bay community (people and habitats) caused by recent harmful algal blooms.

Estimated Milestones:
Initiate contract (late 2019); Assimilate and analyze data (2020); Provide synthesis report and recommendations (by end of 2021).
FY19-20 320 Budget: $50,000
Estimated Total Budget: $50,000

Long-term Outcomes:
Demonstrate linkages between the unique and important ecological diversity and economic importance of the Tampa Bay estuary to communities and the resulting benefits to their quality of life; Use this information to leverage additional efforts to understand, plan for, and when practicable remediate harmful algal blooms.

CWA Core Programs Addressed:
Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs)

CCMP Action Plan:
WQ-3: Reduce frequency and duration of harmful algal blooms; PH-2: Continue assessments of human and environmental health indicators suitable for Tampa Bay beaches and other recreational waters;
Section 2C.2: Proposed Outreach & Education Projects

Project Name: Community Information, Website Update and Publications
Project Objective:
Provide diverse informational and educational programs to bay residents

Project Description:
Recurring outreach expenses, including quarterly updates and server hosting fees for the TBEP general website; renewal of fees for the Constant Contact list serve, event management and survey tools; graphic design for web-based and printed educational materials; reprinting and distribution of priority education materials; sponsorship of public workshops to support key educational priorities.

Partners and their roles: TBEP (Project management); Communications Support Contractors

Output/Deliverables:
Maintenance and updates of TBEP websites; press releases and media kits; electronic fact sheets, flyers, surveys and informational materials; maintenance of Facebook pages and Constant Contact listserve; production and distribution of e-newsletter and special reports; production of in-house videos for YouTube; distribution/production of Boater’s Guides, Ethical Angler Wallet Cards and other popular outreach materials

Estimated milestones where appropriate:
Website updates, as needed; e-newsletter produced every three months; materials reprinted as needed; social media channels updated 3-5 times a week. Major website brand refresh in 2019-2020. Ongoing support ends in 2025.

FY19-20 320 Budget: $30,000

Estimated total budget: $105,000 [$5,097 (FY16-17); $19,903 (FY17-18); $50K (FY18-19)]

Long-term outcomes:
Enhance public awareness of Tampa Bay estuary; Promote community actions to restore and protect the bay

CWA Core Programs Addressed:
Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands-seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

CCMP Action Plan: Any, as needed.

Project Name: Give-a-Day for the Bay Volunteer Workdays
Project Objective:
Engage citizens and TBEP partners in reducing invasive species in the Tampa Bay watershed. Improve coastal habitats for fish and wildlife while increasing citizen stewardship of the bay and its watershed. Cover programmatic costs of supplies and lunch for volunteers for up to 6 workdays per year.
Project Description:
"Give-a-Day for the Bay" is a volunteer program sponsored by the Tampa Bay Estuary Program to directly involve citizens in restoring Tampa Bay.

Partners and their roles:
TBEP (facilitator); Local governments, SWFWMD, large landowners (In Kind); other partners such as Keep Pinellas Beautiful, volunteers (In Kind)

Output/Deliverables:
Six volunteer workdays involving up to 300 residents per year. Volunteers removed several tons of invasive plants from city and county parks. Volunteers create shell bags using fossilized shells that will later be placed to create a reef to assist in erosion control at county parks.

Estimated milestones:
Give-a-Day for the Bay is entering its 17th year of involving citizens in hands-on bay restoration, focusing on removing invasive plants, cleaning up trash, and replanting areas with native plant species. Ongoing annual support for events conducted during each FY. Expected end Dec. 2021.

FY19-20 320 Budget: $5,000
Estimated total budget: $5,000

Long-term outcomes:
Reduction of trash and invasive species in the Tampa Bay watershed; Improved habitat for fish and wildlife; Enhance stewardship of Bay’s citizens.

CWA Core programs addressed:
Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs)

CCMP Action Plan:
PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting Tampa Bay; IS-2: Support prevention, eradication or management of invasive species in Tampa Bay and its watershed; FW-6: Preserve the diversity and abundance of bay wildlife

Project Name: Tampa Bay Environmental Journal/Periodical
Project Objective: Create an informed, engaged bay constituency.
Project description: Fund an online journal highlighting key issues affecting Tampa Bay.
Partners and their roles: TBEP (funder/editorial oversight); TBRPC (funder/editorial oversight); Editor of Bay Soundings (writing); McShane Communications (web design)
Output/Deliverables: Online environmental journal
Estimated milestones:
Content updated with 2-3 new articles per month and notification of direct mail subscribers for new content and special features. Ongoing support for the period Oct. 1 2019 - Sep. 30, 2020.

FY19-20 320 Budget: $25,000

Estimated total budget: ~$25,000 annually; TBRPC and FDOT provide additional funding towards Bay Soundings

Long-term outcomes: Increase community awareness and individual stewardship

CWA Core Programs Addressed:
Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands- seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

CCMP Action Plan:
PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting Tampa Bay. Bay Soundings also supports implementation of all actions in the CCMP by informing citizens of issues affecting Tampa Bay, reporting on progress in achieving TBEP goals, and encouraging bay stewardship.

Project Name: Priority Social Marketing Campaign

Project Objective:
Identify and implement a focused CCMP-related campaign that utilizes social marketing principles to address a specific Bay-Friendly behavior change.

Project description:
Incorporating social marketing principles into a CCMP-related environmental campaign allows us to target behavior change, as if it were a product while utilizing the public as the vehicle by which our message will move. An effective social marketing strategy requires sound qualitative data, a predetermined method of evaluation, and a creative team capable of revising and reimplementing core strategies.

Partners and their roles:
TBEP (primary); Social marketing support contractors

Output/Deliverables:
Qualitative data from target audience(s) to assess campaign effectiveness. Contract an informed and dedicated creative team to influence community behavior change from general awareness (barrier) to community action (ecosystem benefits).

Estimated milestones:
Identify and prioritize a CCMP-related community awareness and engagement issue prior to the development of the campaign (2019); Plan execution, develop a dissemination strategy, pretest and revise alongside a contracted team (2019-2020); Implement campaign, monitor and evaluate (end of 2022).

FY19-20 320 Budget: $39,192
Estimated total budget: ~$39,192 annually.

Long-term outcomes:
Enhanced ecosystem health and public stewardship of the Bay through a behavior change campaign tailored to specific target audience(s). Broader, engaged community promoting an environmentally-beneficial behavior change.

CWA Core Programs Addressed:
Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands-seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

CCMP Action Plan:
PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting Tampa Bay; PA-1: Provide for and manage recreational uses of the bay; WW-5: Reduce the occurrence of sanitary sewer overflows to the bay; BH-3 Reduce propeller scarring of seagrass and pursue seagrass transplanting opportunities.

Project Name: Tampa Bay Adaptation Action Plan
Project Objective:
The project objective is to apply guidance from EPA’s “Being Prepared for Climate Change” Workbook (Steps 6-9) in order to select adaptation actions that address the Comprehensive Conservation and Management Plan (CCMP) Goals most vulnerable to climate change. This will allow citizens, scientists, and bay managers to prioritize future research, restoration, monitoring, and outreach activities and to implement appropriate adaptive management strategies.

Project description:
The TBEP and its partners can take action to reduce the risks associated with climate change and protect the community and region’s investments in Bay restoration efforts from climate change impacts. Strategies and actions to reduce climate risks will be developed and prioritized specific to meeting TBEP’s broader CCMP goals and address CCMP vulnerabilities, as identified in the TBEP Vulnerability Assessment conducted during the 2017 CCMP Update.

Partners and their roles:
TBEP; Florida Sea Grant (Tampa Bay Climate Science Advisory Panel); Tampa Bay Regional Planning Council (Tampa Bay Regional Resiliency Coalition); Local governments


Estimated milestones:

FY19-20 320 Budget: $40,000

Estimated total budget: $40,000

Long-term outcomes:
Improved management and protection of Tampa Bay resources in light of anticipated impacts due to climate change. Enhanced community understanding of the potential impacts of climate change on coastal habitats.

**CWA Core Programs Addressed:**
- Core Program 4 (addressing NPS); Core Program 5 (protecting wetlands - seagrass); Core Program 6 (protecting coastal waters throughout the NEPs)

**CCMP Action Plan:**
- CC-1: Improve ability of bay habitats to adapt to climate change; CC-2: Understand and address effects of ocean acidification; Address Research & Monitoring Priorities; BH-6: Encourage habitat enhancement along altered waterfront properties; PE-1: Promote public involvement in bay restoration and protection; PE-2: Promote public education about key issues affecting Tampa Bay

**Section 2C.3: Partner Action Plan Implementation**

**Project Name:** Partner Action Plan Implementation (In-Kind Match)

**Project Objective:**
TBEP is required to provide a 50/50 match to the federal portion of the Work Plan funding. In FY2020, TBEP will meet the federal requirement with $84,348 in in-kind match from a Tampa Bay Water partner project.

**Project Description:**
Tampa Bay Water supports the Florida Friendly Yards & Conservation program throughout the Tampa Bay region. This program is focused on educating the public on proper irrigation and landscaping practices. It is a key component of regional water conservation plans implemented by municipalities throughout the watershed.

**Responsible Parties:** Tampa Bay Water

**Estimated milestones:**

**FY19-20 320 Budget:**
- None

**Estimated total budget:**
- $84,348 (Non-federal, in-kind match)

**CWA Core Programs Addressed:**
- Core Program 2 (TMDLs); Core Program 4 (NPS); Core Program 5 (protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs).

**CCMP Action Plan:**
- SW-1: Reduce nitrogen runoff from urban landscapes; FL-1: Maintain seasonal freshwater flows in rivers
### Section 2C.4: FY2020 Cooperative Funding Table

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>Amount</th>
<th>Change from 2018-2019 Work Plan</th>
<th>Type</th>
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</thead>
<tbody>
<tr>
<td><strong>Federal Sources</strong></td>
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<tr>
<td>2019-2020 EPA Funding</td>
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<td>Clean Water Act, Section 320</td>
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<td>TOTAL FEDERAL SOURCES</td>
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<td>City of Clearwater</td>
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<td>City of St. Petersburg</td>
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<td>Pinellas County</td>
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<td>Hillsborough County</td>
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<td>Pasco County</td>
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<td>Tampa Bay Water</td>
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<td>(IN-KIND MATCH)</td>
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<td><strong>TOTAL NON-FEDERAL SOURCES</strong></td>
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<td>Non-Federal Match Requirements</td>
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<td><strong>TOTAL FY2020 TBEP WORK PLAN</strong></td>
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*Indicates a reduced annual funding level through a 2019 TBERF contribution.
# Section 2C.5: FY2020 Cooperative Agreement Work Plan Expenditures

<table>
<thead>
<tr>
<th>ACTIVITY OR PROJECT</th>
<th>FY2020 ESTIMATED COSTS</th>
<th>INITIAL FY2019 PROGRAM-WIDE BUDGET DIFFERENCES</th>
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<tbody>
<tr>
<td>I.  TBEP ACTION PLAN IMPLEMENTATION</td>
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<tr>
<td>Direct personnel services</td>
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<td>Fringe benefits</td>
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<td>Postage/Mass Mailing/Courier</td>
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<td>Other expenses (Legal Notices, Bank Fees, Board Ops)</td>
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<td>II. CONTRACTED ADMINISTRATIVE SERVICES</td>
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<td>Legal Services</td>
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<td>Sub-Total Program Operations</td>
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<td>III. TBEP PARTNERS ACTION PLAN IMPLEMENTATION</td>
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<tr>
<td>In-Kind (Tampa Bay Water)</td>
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<td>IV. CONTRACTED TECHNICAL PROJECTS</td>
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<tr>
<td>Benthic and Seagrass Monitoring</td>
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<td>Technical Support and Data Management</td>
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<td>Harmful Algal Bloom Environmental &amp; Economic Assessment</td>
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<td>Ocean Acidification Monitoring Support</td>
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<td>Sub-Total Technical Projects</td>
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1 Offset by $105,000 of salary and fringe expenses secured from additional external grants through FY2020.
Section 3: Other Supplemental Grants, Cooperative Agreements and Associated Projects

Section 3 summarizes grants and projects that TBEP has in progress in addition to anticipated FY2020 Work Plan / Annual Cooperative Agreements with EPA Region 4. This section demonstrates TBEP’s ability to attract complementary grants and projects from multiple sources at the federal, state, local levels, and private industry. Over the past 25 years, TBEP has been able to expand its funding from a single cooperative agreement to a multi-grant, multi-agency funded program, thanks to reliable base funding from our local government partners and the EPA Region 4. The projects summarized below represent a portion of the additional $14.58 million in ongoing and awarded research and restoration funding.

Developing a Dynamic SPARROW Water Quality Decision Support System Using NASA Remotely-Sensed Products

TBEP staff, in partnership with USGS, NASA, Weeks Bay NERR, Mobile Bay and Sarasota Bay NEP scientists, were awarded NASA-ROSES funding to enhance a USGS water quality model with remotely-sensed products. The end result of this project will be dynamic seasonal SPARROW models at the SE regional, intermediate and smaller local scales operating on seasonal time scales that reside within the USGS DSS and are accessible to the end users through a web-based transparent user interface. SPARROW results will be used by the stakeholders to inform projections related to land use change or restoration for related receiving waters, for comprehensive watershed management plan development within their jurisdictions, and for habitat restoration and mitigation efforts in the estuaries. The dynamic SPARROW will help TBEP identify dynamic trends in TN loading inputs related to present and future climate and land use alterations within the watershed. This may lead to the need to adjust specific TN load allocations developed for both point and non-point loading sources. In addition, the dynamic SPARROW results will feed into any updates of the Tampa Bay Nutrient Management Strategy.

Estimated total cost: $1,417,883 (NASA-ROSES Grant Award)

CCMP Action: WQ-1: Implement the Tampa Bay nutrient management strategy; CC-1: Improve ability of bay habitats to adapt to a changing climate

Funding Partner(s): NASA; USGS

Deliverables: Web-based decision support tool that estimates watershed nutrient loadings for future land use and climate change scenarios

Output/Outcomes: Evaluation of future nutrient loading scenarios; Enhanced habitat restoration and land use planning; Improved bay water quality

Tampa Bay NMC: Preparation for 2017-2021 RA Update

The basic roles of the Tampa Bay Nitrogen Management Consortium in completing future Reasonable Assurance submittal to FDEP were defined in the 2009 Reasonable Assurance Addendum. These roles
include compiling, assessing and reporting information related to RA implementation. The Consortium will not address individual permit compliance, which is a responsibility of FDEP and EPA. As such, the NMC will require support from a contractor to accomplish the specific objectives identified by the Consortium in the 2009 RA Addendum, as follows:

- Annually apply the decision framework and report results. Annual average (calendar year, January through December) bay-segment-wide chlorophyll-a concentrations will be compiled and reported to FDEP and EPA by June of each year, as defined in the TBNMC Compliance Assessment Framework. The Tampa Bay Estuary Program staff annually compile and report the results to TBEP Boards, TBNMC, FDEP and EPA.
- Update nitrogen management projects. Consortium participants will update their Action Plans, including new projects and changes to existing projects, and provide updates to the Action Plan Database as appropriate. Updates will be submitted by Consortium participants by December 2021 or as changes occur, for inclusion in the 2017-2021 Reasonable Assurance submittal.
- Streamline input and reporting to the Action Plan Database.
- Provide information and analyses on nitrogen loads/transfers to Consortium participants to assist in determining participants’ compliance related to RA implementation. Such information could include collating projects in the Action Plan Database, potential N credits accrued, and contact information for entities.
- Evaluate additional mechanisms to maintain chlorophyll-a thresholds in the bay in the future.
- Evaluate any outstanding issues related to the 2017-2021 RA Update (e.g., potential re-allocation process; defining new sources, transfers, and trading of allocations).

Estimated total cost: $160,000 ($135,000 from NMC; $25K from TBEP)

CCMP Action: WQ-1: Implement the Tampa Bay nutrient management strategy; SW-1: Reduce nitrogen runoff from urban landscapes

Funding Partner(s): Multiple public and private Consortium partners

Contracting Partner(s): Janicki Environmental, Inc.

Output/Outcomes: 2017-2021 Reasonable Assurance Update & Implementation Update

Cash Contributions: $135,000

Tampa Bay Dredged Hole Assessments

The TBEP, in partnership with the FWCC-FWRI, EPCHC and USACOE, are assessing 11 dredged holes in the Tampa Bay estuary in a similar fashion to TBEP’s Dredged Hole Habitat Assessment completed in 2005. Fisheries, benthic, sediment, and water quality data and samples are being collected during 2016 and 2017 for analysis within the project. The collaborators have developed restoration recommendations based on the 18-month monitoring and assessment project. Opportunities to implement the recommendations will be investigated following completion of the monitoring and assessment.

Total budget: $491,000
CCMP Actions: DR-1: Develop a plan for beneficial uses of dredged material in Tampa Bay; COC-1: Address hot spots of contamination in the bay; BH-3: Seagrass restoration.

Funding partners: $200,000 SWFWMD Cooperative Funding Initiative; $141,300 Tampa Bay Environmental Restoration Fund; $35,880 Hillsborough County Pollution Recovery Fund; $55,000 in-kind Army Corps of Engineers; $58,820 TBEP Work Plan FY15/16

Contracting partners: FWRI, EPCHC

Deliverables: New assessment of Tampa Bay dredged holes similar to the 2005 Dredged Hole Study; Management recommendations for studied dredged holes.

Cash Grant Amounts: $200,000 SWFWMD Cooperative Funding Initiative; $141,300 TBERF; $35,880 Hillsborough County Pollution Recovery Fund

**Hard Bottom Assessment Phase II**

The 2010 Habitat Master Plan Update identified “habitats of special concern” that do not currently have adequate data to either estimate their current extent or define preservation and restoration targets. As a result, several research and management recommendations were developed for these habitats. A TAC subcommittee, initiated by SWFWMD, was formed to develop a research and management proposal to develop targets for hardbottom and associated habitat types. The project was awarded funding through the Tampa Bay Environmental Restoration Fund, Pinellas County, and EPCHC. The initial, SWFWMD-led project identified hard bottom in SE Tampa Bay, and the new project will address areas within the Pinellas County Aquatic Preserve and Interbay Peninsula. The projects (past and present) will create a map product that inventories and characterizes, to the extent feasible, hard bottom, including ledges, soft coral, and other characteristics of interest Tampa Bay. The objective is to determine the current areal extent of the submerged habitats to support and assist in the development of protection and restoration targets for these habitats.

Estimated total cost: $225,500

CCMP Action: BH-1: Implement the Tampa Bay Habitat Master Plan; BH-4: Identify hard bottom communities and avoid impacts

Funding Partners: Pinellas County (RESTORE Funds), TBERF, EPCHC (NFWF Grant)

Contracting Partner(s): CSA Ocean Services, Inc.

Deliverables: Maps of hard bottom characteristics of Pinellas County Aquatic Preserve, Interbay Peninsula, and associated management recommendations
Identifying Ecologically-Important Shorelines Potentially Impacted by Ship Traffic in Tampa Bay

Shoreline erosion is a major problem in some areas of the Tampa Bay system, washing away critical habitats and threatening valuable property and infrastructure. Displacement waves from ships, boat wakes, dredging, storms, and other natural processes all contribute to shoreline erosion. Tampa Bay shorelines harbor some of the most productive habitat in the bay including mangroves, salt marshes, oyster reefs, seagrass beds, and beaches. These habitats provide critical environmental services such as shoreline stabilization, nutrient uptake, recreational opportunities, and habitat for environmentally and economically important fish and wildlife species. Tampa Bay is also home to one of the largest concentrations of nesting wading birds, shorebirds, gulls, and terns in Florida and is one of the most significant migratory bird stopover sites in the state. Consequently, it has been recognized by the National Audubon Society and Birdlife International as a globally Important Bird Area (IBA). Many of the nesting islands that are part of the IBA are incurring damage from erosional forces. This project will use modeling data on ship (large vessel) wakes to identify and prioritize critical habitats within Tampa Bay potentially impacted by wave erosion.

Estimated total cost: $24,000

CCMP Action: BH-1: Implement the Tampa Bay Habitat Master Plan; BH-4: Identify hard bottom communities and avoid impacts; BH-6: Encourage habitat enhancement along altered waterfront properties; BH-8: Continue and enhance habitat mapping and monitoring programs

Funding Partner: USFWS

Contracting Partner(s): USF College of Marine Science

Deliverables: Maps of hard bottom characteristics of Pinellas County Aquatic Preserve and associated management recommendations

Cash Grant amount: $24,000 (USFWS Grant)
Section 4: Tampa Bay Environmental Restoration Fund Projects

The Tampa Bay Environmental Restoration Fund (TBERF) is an annual competitive grants program with goals to restore Tampa Bay and its watershed. The Tampa Bay Estuary Program and the national non-profit organization Restore America’s Estuaries solicit contributions from public and private sectors to fund the grant program. In the first six years (2013-2018), over $4.5M was contributed by 14 public and private sector partners, providing support for 55 competitively-awarded projects which will result in measurable environmental benefits including:

- More than 7 acres of oyster reefs created and 1000 oyster domes installed;
- 710 acres of coastal and freshwater wetland restoration, including nearly 175,000 marsh plants installed;
- 200 acres of seagrass restored;
- 118 acres of coastal uplands restored;
- Florida-Friendly Landscaping, natural resources and nutrient management education;
- Assessment of fish habitat, harmful algal blooms, hard bottom substrate, remote sensing technology, existing habitat value of dredged holes in Tampa Bay, and carbon sequestration in coastal habitats;
- Treatment of urban runoff from more than 700 acres of highly urbanized areas; and
- Water bird management on 13 Tampa Bay island sanctuaries.

Conservation Objectives

The TBERF seeks applications for cost-effective projects that will implement the water quality improvement, habitat restoration, applied research, and education priorities that have been developed by the Tampa Bay Estuary Program and its partners as outlined in the Tampa Bay Comprehensive Conservation and Management Plan (CCMP), Charting the Course (2017 Update). Preference will be given to the following priority conservation strategies and implementation actions for TBERF-2019. Funding for innovative public education (informed by rigorous social science analytical methods), applied research, and on-the-ground restoration work will be considered. Greater consideration will be given for proposals that are aligned with the program’s conservation goals, that help prioritize restoration actions in the watershed, and improve the methods and outcomes of future project implementation.
Completed and Ongoing TBERF Project Status by Year

**TBERF 2013 (1 PROJECT PENDING)**
For the FY2013 Tampa Bay Environmental Fund, a total of $700,000 in funding was contributed by three organizations: SWFWMD Cooperative Funding ($350,000), from the National Fish and Wildlife Foundation ($350,000), and Hillsborough County ($100,000). Projects funded are listed below, with the current status as of February 2019.

1. USF Bioretention project - **COMPLETE**
2. SWFWMD Robles Park - **COMPLETE**
3. SWFWMD East McKay Bay habitat and water quality restoration - **ON HOLD**
4. Ecosphere Restoration Institute Newman Branch Creek Restoration - **COMPLETE**
5. SWFWMD Rock Ponds Ecosystem Restoration - **COMPLETE**
6. UF Community-Based Stormwater Management - **COMPLETE**
7. FWCC-FWRI Tidal Tributaries as Snook Nurseries - **COMPLETE**
8. FWCC-FWRI Autonomous WQ and HAB monitoring - **COMPLETE**
9. Tampa Bay Watch McKay Bay Oyster Reef - **COMPLETE**

**TBERF 2014 (ALL COMPLETED)**
In 2014, nearly $625,000 in grants was awarded to nine recipients. Projects funded for TBERF 2014 are listed below, with the current status as of February 2016. Contributors included the Southwest Florida Water Management District Cooperative Funding Initiative ($350,000), The Mosaic Company Foundation ($175,000), Manatee County ($75,000), Pinellas County ($50,000), FDOT ($35,000), Tampa Electric Company ($10,000), Port Tampa Bay ($2,500) and TBEP ($2,500). Projects funded for TBERF 2014 are listed below, with the current status as of February 2019.

1. SWFWMD Hard-bottom mapping in Tampa Bay - **COMPLETE**
2. Manatee County Oyster Bar restoration at Robinson Preserve - **COMPLETE**
3. Tampa Bay Watch Rock Ponds Coastal Restoration - **COMPLETE**
4. Tampa Bay Watch MacDill AFB living shoreline - **COMPLETE**
5. Manatee County Duette Preserve Hydrologic Restoration - **COMPLETE**
6. Safety Harbor Waterfront Park Habitat Restoration - **COMPLETE**
7. RAE Coastal Blue Carbon Assessment - **COMPLETE**
8. Audubon Colonial Waterbird Management - **COMPLETE**
9. TBRPC Bay Soundings Environmental Journal - **COMPLETE**

**TBERF 2015 (1 PROJECT PENDING)**
For the FY2015 Tampa Bay Environmental Restoration Fund, contributions were received from SWFWMD Cooperative Funding ($350,000) Hillsborough County ($100,000), The Mosaic Company Foundation ($75,000), Manatee County ($75,000), Pinellas County ($50,000), FDOT ($55,000), Tampa Electric Company ($15,000), and USFWS ($20,000). Projects funded for TBERF 2015 are listed below, with the current status as of February 2019.

1. FWCC-FWRI Seeding potential of *Pyrodinium bahamense* cyst beds in Old Tampa Bay - **COMPLETE**
2. Manatee County Duette/Headwaters Preserve Remote Sensing Hydrological Restoration Monitoring - COMPLETE
3. Pinellas County Ft DeSoto Ecological Enhancement/Recirculation - COMPLETE
4. SWFWMD Terra Ceia Huber and Frog Creek Upland Project - ONGOING
5. TBEP Tampa Bay Dredged Hole Habitat Assessment - COMPLETE
6. Tampa Bay Watch Fantasy Island Living Shoreline Stabilization - COMPLETE
7. RAE Improving Coastal Management with Blue Carbon - COMPLETE

TBERF 2016 (4 ONGOING PROJECTS)
For the FY2016 Tampa Bay Environmental Restoration Fund, contributions were received from SWFWMD Cooperative Funding ($350,000), Hillsborough County ($100,000), FDOT ($100,000), The Mosaic Company Foundation ($75,000), Pinellas County ($50,000), USFWS ($25,000), Tampa Electric Company ($15,000), and the Environmental Protection Commission of Hillsborough County ($10,000). Projects funded for TBERF 2016 are listed below, with the current status as of February 2019.
1. SWFWMD Little Manatee Corridor Restoration Plan - COMPLETE
2. Gulf Shellfish Institute Facilitation of seagrass productivity in Tampa Bay using the indigenous, suspension feeding bivalve, Mercenaria campechiensis - COMPLETE
3. TBRPC CCMP Local Government Comprehensive Plan Crosswalk - ONGOING
4. Colonial Waterbird Management - COMPLETE
5. Tampa Bay Watch McKay Bay South Oyster Reef Creation - ONGOING
6. Ecosphere Restoration MacDill AFB Saltern Habitat Restoration - COMPLETE
7. FWCC-FWRI Fish Communities Associated with Hard Bottom Habitats in Tampa Bay - ONGOING
8. Pinellas County Eagle Lake Park Water Quality Improvements - ONGOING
9. Eckerd College Microplastics in Tampa Bay - COMPLETE

TBERF 2017 (7 ONGOING PROJECTS)
For the FY2017 Tampa Bay Environmental Restoration Fund, contributions were received from SWFWMD Cooperative Funding ($350,000), Hillsborough County ($100,000), FDOT ($300,000), the Mosaic Company Foundation ($75,000), the City of St. Petersburg ($75,000), Pinellas County ($50,000), the Community Foundation of Tampa Bay ($20,000), Tampa Electric Company ($10,000), the Environmental Protection Commission of Hillsborough County ($10,000), and Port Tampa Bay ($2,000). Projects funded for TBERF 2017 are listed below, with the current status as of February 2019.
1. TBEP Hard Bottom Mapping in Pinellas County Aquatic Preserve - ONGOING
2. Shores of Long Bayou Woodstork Stormwater Pond Restoration - COMPLETE
3. UF-IFAS Evaluation of Sportfish Habitat - ONGOING
4. Eckerd College Microplastics in Tampa Bay - COMPLETE
5. City of Tampa Ignacio Haya Park Living Shoreline - ONGOING
6. SWFWMD Mobbly Bayou Habitat Restoration - ONGOING
7. SWFWMD Boyd Hill Freshwater Wetland Restoration - ONGOING
8. Manatee County Perico-Robinson Connector - ONGOING
9. TBEP Coastal and Estuarine Acidification Monitoring - ONGOING
TBERF 2018 (12 ONGOING PROJECTS)

For the FY2018 Tampa Bay Environmental Restoration Fund, contributions were received from SWFWMD Cooperative Funding ($350,000), Hillsborough County ($100,000), FDOT ($300,000), the Mosaic Company Foundation ($75,000), Pinellas County ($50,000), the , Tampa Electric Company ($10,000), and the Environmental Protection Commission of Hillsborough County ($10,000). Projects funded for TBERF 2018 are listed below. All projects are currently ONGOING as of May 2019.

1. Manatee County Robinson Preserve Expansion, Winston Tract Habitat Enhancement - ONGOING
2. UF-IFAS Overcoming Bay Scallop Recruitment Limitations - ONGOING
3. FWCC-FWRI Linking Pyrodinium Physiology & Behavior to Population Growth/Loss - ONGOING
4. TBEP Oyster Monitoring & Restoration - ONGOING
5. Audubon Florida Sunken Island Habitat Restoration for Waterbird Nesting - ONGOING
6. Eckerd College Microplastics in Tampa Bay - ONGOING
7. City of Safety Harbor Living Shoreline and Spring Restoration - ONGOING
8. USF Applications of Tampa Bay Circulation Model - ONGOING
9. Tampa Bay Watch Bay Grasses in Classes Coastal Resilience - ONGOING
10. City of Palmetto Connor Park - ONGOING
11. USF WWTP High Risk Precipitation Events - ONGOING
12. FWCC-FWRI Tampa Bay Living Shoreline Suitability Model Extension - ONGOING

The TBERF 2019 request for proposals was issued in January 2019, with final award selections expected in May 2019.
Section 5: TBEP Specialty License Plate and Bay Mini-Grants to the Community

Funds for the TBEP Bay Mini-Grant program come from sales of the Tampa Bay Estuary license plate – also known as the “Tarpon Tag.” License plate revenues can only be used for projects, such as the Bay Mini-Grant program, that directly help to implement bay restoration goals. In FY2020, the license plate is expected to generate $105,000 in revenue, of which $21,000 will go to the Agency on Bay Management per Florida Statute. The expected balance of $84,000 will be available for Bay Mini-Grants and grants management in FY2020.

License plate revenue will continue to provide funding for Bay Mini-Grants of up to $5,000 each to community groups for bay restoration and improvement projects. A committee composed of CAC members will select proposals for award recommendation, and all projects must be completed within 12 months of award.

TBEP Bay Mini-Grants Program

Project Objective: A guiding objective of the Bay Mini-Grants is to mobilize as many segments of the public as possible to support community-based restoration and education projects focused on the Tampa Bay Estuary.

Project Description: The Tampa Bay Estuary Program encourages applicants to develop proposals in conjunction with clubs and neighborhood associations, business and trade organizations, community and environmental groups, and school districts. Projects or campaigns that have long-term applicability, and that may serve as models for addressing bay issues, will receive priority consideration.

Partners and their roles: TBEP and multiple grant recipients (see below).

Output/Deliverables: Each grantee is required to submit quarterly and final reports to document progress and completion of grant projects. Deliverables can include brochures, presentations, videos, website pages, and written reports.
Estimated milestones: Each grantee develops their own timeline and must submit quarterly reports to ensure progress is being made on the project. Grants are expected to be completed within one year upon execution of the funding agreement.

320 Budget: None

Estimated total cost: $84,000

Funding Source: Tampa Bay Estuary license plate revenues; 308-1400

Long-term outcomes: Long-term outcomes vary by project. However, it is required that each grantee educate the public on the importance of a healthy bay. Additional outcomes are in the form of the habitat restoration associated with grants that contain a restoration component.

CWA Core programs addressed: Core Program 5 (Protecting wetlands); Core Program 6 (protecting coastal waters through the NEPs)

CCMP Action: PE-1: Promote public involvement in bay restoration and protections; PE-2: Promote public education about key issues affecting Tampa Bay; Section 6.7(e) of TBEP Interlocal Agreement.

In November 2018, the Tampa Bay Estuary Program awarded $73,372.54 to 19 community groups for projects that directly involve citizens in restoring and improving Tampa Bay. In total, 37 applications were received. TBEP Community Advisory Committee members evaluated the grant proposals and recommended 21 for full or partial funding.

The FY2019 recipients were:

Chart 411 The Problem with Plastic $5,000.00
Funding for a robust outreach and education initiative using multimedia and social networking approaches to highlight small steps citizens can take to mitigate the plastic trash problem. Includes children’s component using books. Pop-up exhibits in areas with limited access to environmental information.

Coffeepot Bayou Watershed Alliance Restoration and Water Quality Monitoring $1,940.00
Funds will support clean up events, invasive plant removal, and water quality sampling equipment. Canterbury School and North Shore Elementary School students will conduct ecological surveys and learn ways to reduce marine debris from entering Coffeepot Bayou.
Community Stepping Stones, Inc.  
Turning the Tides Traveling Exhibit
Children ages 7 to 14 years old from the Sulphur Springs area will work alongside mentors to research red tide and develop exhibit components that will travel to the Hillsborough Community College Ybor City Art Gallery and then to various elementary schools.

Eckerd College  
Black Skimmer Monitoring and Stewardship in Tampa Bay
The Black Skimmer, an imperiled bird species, will be banded and monitored to help determine habitat use during the breeding season. Education at banding beach areas will be used to teach about the bird and recruit citizens for continued monitoring.

Friends of Tampa Bay National Wildlife Refuges  
Little Bird Key Shoreline Stabilization ($6,000 license plate; $4,000 Pruitt Foundation)
This special criteria habitat restoration project includes creating and installing 500 oyster domes, a 2-year monitoring component, monthly bird surveys and annual cleanups at Little Bird Key adjacent to the main channel of Boca Ciega Bay and Tierra Verde.

Fish and Wildlife Foundation: Suncoast Youth Conservation Center  
Lights, Camera, Conservation – A Day of Estuarine Exploration at the Suncoast
Funding will purchase a camcorder, Nikon DSLR and accessories for students to use at the Center. Title 1 schools will be invited to attend an experiential learning field trip and estuarine learning experience. Student-created videos will go back to participating schools to be used as teaching tools.

G. Steve Jordan Films  
Making A Difference
G. Steve Jordan films specializes in working with small to medium-sized organizations to help them engage with a broader audience by sharing short, compelling videos of stories that matter. Funds will be used to highlight a handful of ongoing or previous mini-grant projects to focus on the work they have done to make Tampa Bay a better place.

Keep Pinellas Beautiful  
Right Plant, Right Place – Part 2: Restoring Healthy Watersheds One Plant at a Time
Part 2 of this project will focus on expanding education efforts by working with additional schools in Pinellas County, continuing quarterly service learning education projects, conducting monthly invasive plant removals, and continuing education and empowerment of citizens regarding environmental benefits of native plants.

Manatee School for the Arts  
Exploring, Educating and Conserving Tampa Bay through Field Trips and Experiential Education
Field trips will support 105 Manatee County marine science students in beach seining, kayaking, species identification, plankton lab identification, otter trawling, snorkeling and conservation discussions.
Nature’s Academy $4,955.00

**STEMming the Tide of Microplastics**
As many as 400 underserved seventh grade students and forty teachers and chaperones will participate in the hands-on curriculum. Curricula will focus on discovering forms of marine debris and environmental impacts and using citizen science to collect and record microplastic abundance. Resulting data will be uploaded into the Gulf of Mexico Coastal Ocean Observing System (GCOOS).

Next Level Dive Club $2,260.00

**Gasp Our Beads of Tampa Bay**
Building off a program created by C4OE, Next Level Dive Club will bring divers to Tampa Harbor to participate in a second underwater clean-up event for plastic bead necklaces and trinkets. Beads and trinkets retrieved from the clean-up will be used at local fairs/festivals as teaching and awareness tools.

SCUBAnauts International $1,400.00

**Sunshine Skyway Seagrass Coverage and Recreational Activity Impact Assessment**
SCUBAnauts (youth between the ages of 12 to 18 years old) under the supervision of scientists and other volunteers, will use snorkel surveys, seine nets, sediment cores and other methods to evaluate seagrass coverage on the north end of the Sunshine Skyway Bridge.

The Shores of Long Bayou Condominiums $5,000.00

**March-to-the-Sea: Re-connecting Wood Stork Pond to Long Bayou**
The project will reconnect an existing mangrove lined stormwater pond (Wood Stork Pond) to Long Bayou. Over the past twenty years, invasive plants and trees have choked the tidal connection between the Pond and the Bayou. This effort will help improve water quality and provide a source of tidally influenced water to the Pond and surrounding mangroves.

St. Petersburg Sustainability Council (SPSC) for Friends of Crescent Lake (FOCL) $4,644.51

**Littoral Wetland Enhancement at Crescent Lake: A Strategy for Nitrogen Reduction**
Grant activities include invasive plant removal, native plant species establishment, installation of floating wetland islands and student education activities focused on STEM learning.

Sulphur Springs Museum $3,000.00

**Mann-Wagnon Restoration Project, 2018**
Mann-Wagnon is located on the beautiful Hillsborough River. Funds will be used to clean out debris and foliage from a swale and re-plant with Florida-Friendly plants. Local partner entities, such as Community Stepping Stone and Keep Tampa Bay Beautiful, will provide additional community engagement activities.

Sunshine Community Compost $2,875.00

**Growing a Culture of Compost Through the Compost Watershed Connection in Manatee County**
This campaign will offer composting related presentations and materials at tabling events, indoor/outdoor talks and demonstrations accompanied by education materials at places such as schools, community gardens, clubs and farmer’s markets. Participants will learn about all aspects of composting.
Tampa Bay Watch, Inc. $5,000.00
Boca Ciega Bay Vertical Oyster Gardens
Funds for this grant will provide supplies, instruction and deployment support for vertical oyster gardens as part of a citizen science project to assess recruitment of oyster communities onto the structures.

The Florida Aquarium $3,842.05
Red Tide Community Engagement: World Oceans Day, 2019
A community event to educate local and visiting citizens about harmful algal blooms and their impact on the estuarine system. Visitors will also receive information on how to limit personal exposure to harmful algal blooms.

UF/IFAS Extension Manatee County Master Gardener $1,210.00
Wetlands Demonstration Garden Maintenance
The purpose of the garden is to teach residents about Florida-friendly gardening principles that can be implemented in their own landscape. The gardens will also demonstrate the functionality of different Florida habitats in natural settings.
Section 6: TBEP RESTORE Project Elements

Parties involved with the 2010 Deepwater Horizon oil spill settled in 2015, and funds became available to the Federal RESTORE Council for Phase 1 (non-BP fines, including Transocean) of the Gulf Restoration program. The RESTORE Council defined eligible projects as those which are regional or gulf-wide in nature; will provide on-the-ground improvements in water quality or habitat; and which can be accomplished within a 5-year period. In addition, the RESTORE Council requested proposals for projects which were ‘shovel-ready’. A total of $150-180M (Gulf-wide) is available for projects in Phase 1.

In 2015, EPA submitted a proposal to the Council which calls for $2.1M to TBEP to implement a 5-year performance period, which was included in the Final Funded Projects List (FPL) in December 2015. In February 2015, the TBEP Policy Board approved an equal share ($271,430) of potential RESTORE funds to seven projects proposed by TBEP partners.

TBEP staff documented environmental compliance in 2016. In 2017, the RESTORE Council amended the FPL to advance five of the original seven TBEP project elements from Category 2 (Planning) to Category 1 (Implementation). In a separate action, the Council approved implementation funding for the Palm River Phase II Project with Florida as the sponsor. The Cooper’s Point WQ element remains in the FPL as a Category 2 project. These changes are summarized in the table below. TBEP staff has completed an observational data plan and data management plan. A cooperative agreement between TBEP and EPA is was executed in August 2018. Several monitoring QAPPs associated with the projects were approved by EPA in 2019.

The five TBEP restoration elements are expected to result in approximately 664 acres of coastal habitat restored or enhanced and 200 acres of seagrass enhanced or created. Habitat restoration activities include exotics removal; tidal exchange restoration; and sheet flow restoration. Additionally, an estimated 5,147 tons of greenhouse gas (GHG) emissions per year would be reduced, providing added climate change resiliency. Habitat restored, enhanced or created include: 200 acres of seagrass, 650 acres of coastal wetlands, 14 acres of coastal uplands, and 1.8 acres of freshwater wetlands. Habitat restoration includes invasive removal, sediment contouring, and native plantings.

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<td><strong>$1,459,909</strong></td>
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<tr>
<td>2</td>
<td>Clearwater</td>
<td>Coopers Point WQ Improvement</td>
<td>$271,430</td>
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<td><strong>TBEP Sub-Total: RESTORE Council Cat 1 Approval Pending (as of May 2019)</strong></td>
<td></td>
<td></td>
<td><strong>$271,430</strong></td>
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<tr>
<td>1</td>
<td>SWFWMD</td>
<td>Palm River Restoration Phase II</td>
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<td>1</td>
<td>EPA GOMP</td>
<td>Oversight</td>
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<td><strong>Other Entity Sub-Total: RESTORE Council Cat 1 Approved (as of May 2019)</strong></td>
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<td><strong>RESTORE PROJECT TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$2,087,820</strong></td>
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</tbody>
</table>
Appendix A: TBEP Staff Roles & Responsibilities

Ed Sherwood, Executive Director

- Oversees preparation of Annual Work Plan and Budget each year for review by Management and Policy Boards and submittal to EPA.
- Oversees preparation of annual Cooperative Agreement application package for base program operation each year for submittal to EPA.
- Annually secures funding contributions from local governments each year from local governments and water management district.
- Ensures program goals specified in the Annual Work Plan each year are accomplished.
- Ensures Program compliance with general and special conditions specified in the cooperative agreements for base program funding and other grant awards.
- Maintains controllable expenditures within budget and takes appropriate actions when unexpected budget problems develop. Makes necessary budgetary amendments as required by EPA regulations.
- Ensures that the NEP program responsibilities under the Interlocal Agreement are met.
- Complies with legal meeting notice requirements and agenda mailings 10 days prior to meeting.
- Monitors progress of work on grant awards both received and made by the Program to assure timely completion of work.
- Ensures that TBEP meets matching fund requirements for grants it receives and that in-kind match is sufficiently documented per the requirements of awarding agencies.

Ron Hosler, Program Administrator

- Coordinates with the National and Regional EPA Project Officers on all EPA grants to ensure that all reporting requirements, documentation, and tracking are done on a timely and accurate basis.
- Manages program staff and operations when Executive Director is out on leave.
- Oversees administration and budget of all grants and cooperative agreements.
- Works with TBEP attorney and TBEP Executive Director to create formal contracts and intergovernmental agreements, and processes them for execution ensuring that all federal and state requirements are being followed.
- Human resources coordinator.
- Prepares and processes all purchase orders, contracts. TBEP accounts payable, and requests for subcontractor payments, ensuring that all federal and state requirements are adhered to.
- Assists with the setting up of general TBEP meetings and arrangements as required.
- Assists Executive Director in establishing Annual Workplan and Agency-wide budgets.
- Coordinates Management and Policy Board meetings, scheduling, notices, and agendas.
• Assists with all RFP and bid processes.
• Maintains general responsibility for smooth and efficient office operations (i.e. building maintenance, supplies, office machines, computers, staff assistance, etc.)
• Makes travel arrangements for TBEP staff as needed.
• Responsible for reporting, collecting and processing all federal reimbursements and local government contributions.
• Coordinates annual independent audit providing information and support to auditors.
• Provides assistance to Director as needed in managing the program.

Misty Cladas, Community Project Manager

• Works with the Executive Director and staff scientists to complete activities related to the Nitrogen Management Consortium Reasonable Assurance Process.
• Coordinates community outreach activities, including the Community Advisory Committee (CAC), Give-A-Day for the Bay workdays, and maintenance of general outreach databases.
• Oversees submission of annual partner habitat restoration efforts to EPA following current GPRA requirements
• Grants Coordinator for the Bay Mini-Grants program.
• Program Administrator back-up as needed.
• Presents information on the specialty license plate and related topics to appropriate audiences as needed.
• Develops support materials and infographics outlining TBEP’s annual accomplishments and leveraging.

Gary Raulerson, Ph.D., Ecologist

• Manages technical projects and grants as needed to address CCMP actions and goals.
• Participates in Tampa Bay research and restoration efforts which directly address CCMP actions and goals.
• Works with Science Policy Coordinator on scientific and monitoring components of projects funded by TBERF and/or RESTORE.
• Prepares and completes environmental compliance plans and requirements as needed for managed projects.
• Organizes and/or coordinates meetings of TBEP TAC subcommittees as required to meet technical objectives of the position.
• Develops competitive grant applications focused towards CCMP implementation.
• Presents results of TBEP’s technical work to Boards, ANEP committees and community groups.
• Participates in and presents at local, state, national and international science and resource management meetings.
• Develops technical reports and professional journal articles explaining research and management in Tampa Bay.
- Participates in appropriate educational opportunities that will enhance capabilities for implementation of CCMP.
- Stays abreast of research and developments in estuarine science and management.
- Actively participates in regional resource management committees directly related to TBEP objectives.
- Provides technical support as needed to TBEP Executive Director and staff.

**Maya Burke, Science and Policy Coordinator**

- Manages the Tampa Bay Environmental Restoration Fund, including programmatic development, donor/partner relations, contractual agreements, budget tracking, and individual project awards.
- Manages RESTORE projects, including contractual agreements and budget tracking.
- Distills scientific information to policy makers, resource managers, and the engaged public in summary reports and presentations, per grant requirements for data sharing.
- Co-facilitates the activities of the Nitrogen Management Consortium and TBEP Technical Advisory Committee.
- Participates in regional resource management planning, resilience, adaptation and climate change efforts.
- Participates in land use and environmental policy meetings related to management of Tampa Bay resources.
- Participates in and presents at local, state and national science and resource management meetings.
- Manages technical projects (i.e. Water Atlas, Freshwater Wetland Master Plan Implementation), as needed, to address CCMP actions and goals.
- Develops competitive grant applications focused towards CCMP implementation, particularly projects that address interdisciplinary natural and social science objectives.
- Provide technical support as needed to TBEP Executive Director, Program Administrator, and staff.

**Joe Whalen, Communication and Outreach Coordinator**

- Promotes TBEP’s accomplishments through ongoing and consistent communication across a variety of mediums.
- Highlights and distills program goals, challenges and achievements to the broader Tampa Bay community.
- Develops public education programs that address TBEP priority goals, and assists government, industry and non-profit partners in creating and promoting educational programs and tools.
- Serves as staff coordinator for the Manatee Awareness Coalition and the Fertilizer Education Steering Committee.
• Coordinates production of TBEP communication materials, including website, e-newsletter, Facebook page, Constant Contact listserve, videos, press releases, fact sheets, special reports and a wide variety of educational publications.

• Oversees planning, logistics and implementation of special events such as conferences and community forums.

• Provides facilitation services as requested by TBEP Executive Director or partner governments and organizations.

• Ensures that TBEP maintains a high profile among the environmental community by assisting local public, private and non-profit partners with outreach needs, and serving on several local and regional committees and task forces.

• Develops and executes marketing and communications strategies that promote the TBEP, its activities, and build awareness and engagement for protecting and restoring the Tampa Bay estuary.

FY2020 New Position, Data Scientist/Project Manager

• Manages technical projects and grants as needed to address CCMP actions and goals.

• Develops open science syntheses, CCMP monitoring and indicator reporting summaries, and other data reduction and reporting protocols to relay progress in achieving CCMP actions and goals, environmental status and trends and community engagement.

• Participates in and presents at local, state and national science and resource management meetings.

• Develops competitive grant applications focused towards CCMP implementation, particularly projects that address interdisciplinary environmental, social science and data science assessments.

• Develops open science tools and applications, technical reports and professional journal articles relevant to research and management activities in Tampa Bay or the broader coastal research and management community.
### Appendix B: Ongoing & Anticipated Work Plan Travel Expenses

#### FY2019 Travel Expenses

**10/2018 through 3/2019 (7 Months)**

<table>
<thead>
<tr>
<th>DATE</th>
<th>EMPLOYEE</th>
<th>LOCATION/PURPOSE</th>
<th>AIR</th>
<th>HOTEL</th>
<th>REGISTRATION</th>
<th>GRD TRANS</th>
<th>PER DIEM</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-10</td>
<td>HOSLER</td>
<td>San Fran, CA - ANEP</td>
<td>$355.60</td>
<td>$454.91</td>
<td>$231.99</td>
<td>$43.72</td>
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<td>$1,187.22</td>
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<td>$21.00</td>
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<td>2018-10</td>
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<td>2018-11</td>
<td>RAULERSON</td>
<td>Stetson - Env Wksp</td>
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<td></td>
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<td>2019-03</td>
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**Local Trvl** $275.57, **TOTAL** $8,726.94

**Total Actual Travel to Date (through 3/31/2019)** $8,726.94

**Estimated Travel Remaining (by 9/30/2019)** $3,000.00

#### FY2020 Travel Estimates

<table>
<thead>
<tr>
<th>DATE</th>
<th>EMPLOYEE</th>
<th>LOCATION/PURPOSE</th>
<th>AIR</th>
<th>HOTEL</th>
<th>REGISTRATION</th>
<th>GRD TRANS</th>
<th>PER DIEM</th>
<th>TOTAL</th>
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</thead>
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<tr>
<td>2019-10</td>
<td>ALL STAFF</td>
<td>DEWEY, DE/ANEP</td>
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<td></td>
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<td>$425.00</td>
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<td>2019-11</td>
<td>SHERWOOD</td>
<td>CERF, Mobile</td>
<td>NA</td>
<td>$600.00</td>
<td>$425.00</td>
<td>$0.00</td>
<td>$216.00</td>
<td>$1,241.00</td>
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<tr>
<td>2019-11</td>
<td>BURKE</td>
<td>CERF, Mobile</td>
<td>NA</td>
<td>$600.00</td>
<td>$425.00</td>
<td>$0.00</td>
<td>$216.00</td>
<td>$1,241.00</td>
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<td>2020-03</td>
<td>SHERWOOD + 1 STAFF</td>
<td>DC - Joint EPA/ANEP</td>
<td>$800.00</td>
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<td>2020-03</td>
<td>BURKE &amp; WHALEN</td>
<td>NOAA Social Coast 2020</td>
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<td>$600.00</td>
<td>$200.00</td>
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<td>$4,288.00</td>
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</table>

**Local Trvl** $1,000.00, **Total** $18,499.00
**Tampa Bay Environmental Restoration Fund (TBERF) 2019 Projects Approval**

**Recommended Action:**

a. Approve the list of recommended projects and budgets for 2019 TBERF awards.
   i. Kracker Avenue Restoration (SWFWMD)
   ii. Philippe Park Living Shoreline Project (Pinellas County)
   iii. Maximo Park Water Quality & Habitat Enhancement Project (St. Petersburg)
   iv. All remaining projects included in list of recommended projects: Fish Assemblages, Habitat Connectivity, & Red Tide Effects (FWC FWRI), Whiskey Stump Key Oyster Restoration (TBW), Little Bird Key Shoreline Restoration (Friends of NWR), Staph/MRSA in Tampa Bay (UT), Red tide Environmental, Social & Economic Impact (SEC).

b. Authorize Executive Director to enter into contract for 7 (of 8) recommended projects, as follows:
   i. Kracker Avenue Restoration with SWFWMD for $250,000.
   ii. Philippe Park Living Shoreline Project with Pinellas County for $180,000.
   iii. Maximo Park Water Quality & Habitat Enhancement Project with St. Petersburg for $87,797.76.
   iv. Remaining projects at the specified levels:
      - Fish Assemblages, Habitat Connectivity, and Red Tide Effects with FWC FWRI for $33,888.
      - Little Bird Key Shoreline Restoration with Friends of Tampa Bay National Wildlife Refuges for $37,349.
      - Staph/MRSA in Tampa Bay with the University of Tampa for $70,872.42.
      - Red Tide Environmental, Social, & Economic Impact with the Science Environmental Council for $40,000.

c. Authorize Executive Director to amend Scope and Budget (up to $25,000) for contract(s) if additional funds become available.

**Background:**

In November 2013, the TBEP Policy Board approved an agreement with the national non-profit Restore America's Estuaries to initiate the Tampa Bay Environmental Restoration Fund. The TBERF provides a multi-entity funding source for Tampa Bay restoration, research and education initiatives, specifically focused on implementation of the TBEP CCMP. The advantage of such a program is leveraging of local public and private funds with funds obtained nationally, through appropriations, environmental fines, and philanthropic gifts.

Approximately $777,000 has been made available for competitively-awarded projects through the 2019 TBERF, with funding commitments from the Southwest Florida Water Management District, City of St. Petersburg, Hillsborough County, Mosaic Company Foundation, Pinellas County, Hillsborough County Environmental Protection Commission, Tampa Electric Company, J. Crayton Pruitt Foundation, Tampa Bay Estuary Program, and St. Catherine of Siena Catholic Church. A request for proposals was issued in January.
Twenty proposals requesting a total of up to $2,073,864.46 were received prior to the March deadline. A proposal review team met on April 4, 2019 to provide their findings to TBEP and RAE on each proposal. Additional questions were asked of several respondents, with responses due prior to the Board meetings. The TBEP Executive Director finalized the recommended project list for Board consideration, taking into account the TBERF objectives, findings from the review team, and applicant responses to questions, for consideration by the TBEP Management and Policy Boards.

Project applicant, proposal title, and amount requested for all proposals received are shown on the following table, listed by submitting entity. Summaries provided by each of the project proposers are attached. As defined in the agreement between the Tampa Bay Estuary Program and Restore America’s Estuaries, contractual and project management will be split between the two Tampa Bay Environmental Restoration Fund partners (RAE will manage the Whiskey Stump Key project, not listed in item 9b).

If you would like to view one or more of the full project proposals, please contact Maya Burke at mburke@tbep.org.

Table 1. 2019 TBERF Recommended Projects and Budgets

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Project Title</th>
<th>Requested Amount</th>
<th>Recommended Amount</th>
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</thead>
<tbody>
<tr>
<td>SWFWMD</td>
<td>Kracker Avenue Restoration</td>
<td>$250,000.00</td>
<td>$250,000.00</td>
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<tr>
<td>Pinellas County</td>
<td>Philippe Park Living Shoreline Project</td>
<td>$180,000.00</td>
<td>$180,000.00</td>
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<tr>
<td>Tampa Bay Watch</td>
<td>Whiskey Stump Key Oyster Restoration*</td>
<td>$77,052.44</td>
<td>$77,052.44</td>
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<td>Friends of Tampa Bay Refuges</td>
<td>Little Bird Key Shoreline Restoration</td>
<td>$37,349.00</td>
<td>$37,349.00</td>
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<tr>
<td>University of Tampa</td>
<td>Staph/MRSA in Tampa Bay</td>
<td>$70,872.42</td>
<td>$70,872.42</td>
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<tr>
<td>FWC FWRI</td>
<td>Fish Assemblages, Habitat Connectivity &amp; Red Tide Effects</td>
<td>$33,888.00</td>
<td>$33,888.00</td>
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<tr>
<td>St. Petersburg</td>
<td>Maximo Park Water Quality &amp; Habitat Enhancement Project</td>
<td>$150,000.00</td>
<td>$87,797.76</td>
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<tr>
<td>Science Environment Council</td>
<td>Red Tide Environmental, Social &amp; Economic Impact</td>
<td>$40,000.00</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>$776,958.62</strong></td>
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<tr>
<td>Applicant</td>
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<td>Recommended Amount</td>
</tr>
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<td>---------------------------------------------------------</td>
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<td>SWFWMD</td>
<td>Frog Creek Wetland Enhancement</td>
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<tr>
<td>Mote Marine</td>
<td>Stone Crabs &amp; Ocean Acidification</td>
<td>$70,155.00</td>
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<td>USF</td>
<td>PFAS Compounds in Tampa Bay</td>
<td>$142,168.00</td>
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<tr>
<td>Town of Redington Beach</td>
<td>Redington Beach Stormwater Improvement</td>
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<tr>
<td>Keep Pinellas Beautiful</td>
<td>Crescent Lake Education and Restoration Initiative</td>
<td>$46,000.00</td>
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<tr>
<td>USF</td>
<td>Sources, Fate, Transport of Marine Debris in TB</td>
<td>$134,730.00</td>
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<tr>
<td>SWFMWD</td>
<td>Little Manatee River Nature Preserve - Area 8</td>
<td>$100,000.00</td>
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<tr>
<td>New College</td>
<td>Blacknose Shark Early Life History, Habitat Utilization, and Survival</td>
<td>$138,977.00</td>
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<tr>
<td>USF</td>
<td>Enhancing Tampa Bay Circulation Model for Red Tide and Spill Tracking</td>
<td>$158,485.00</td>
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<td>SPCC</td>
<td>St. Petersburg County Club Invasive Species Management and Habitat Restoration Project</td>
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<tr>
<td>FWC FWRI</td>
<td>Spatial Community Marketing for OTB</td>
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<tr>
<td>USF</td>
<td>Designing for Resiliency: Shore Acres Adaptation Action Plan</td>
<td>$75,000.00</td>
<td>$ -</td>
</tr>
</tbody>
</table>
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Little Bird Key Shoreline Restoration Project

Lead Organization and Address:

Organization Name: Friends of the Tampa Bay National Wildlife Refuges, Inc

Organization Address 1: PO Box 40782, St Petersburg, FL 33743-0782

Organization Address 2:

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Barbara Howard

Primary Contact Position: President

Primary Contact Email: Friends@TampaBayRefuges.org

Primary Contact Phone: 727-343-1272

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Tampa Bay Watch, Serra Herndon,
sherndon@TampaBayWatch.org 727-867-8166

Other Partners and Primary Contacts (as needed): US Fish & Wildlife Service (USFWS), Stan Garner, Stan_Garner@fws.gov

Project Abstract (50 words): Little Bird Key, a productive nesting site for Tampa Bay wading birds, is suffering from erosion. Installing environmentally friendly oyster domes along the northwest shoreline of the small island will mitigate the erosion, provide new substrate for mangroves, create habitat for oysters, fish, and birds, and help protect seagrasses.

Total Amount Requested: $37,349

Matching Contributions Proposed: $65,462 total ($26,575 cash and $38,887 in-kind volunteer)

Proposed Grant Duration (months): 18 months
Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50 word limit):

Florida Department of Environmental Protection (FDEP) Environmental Resource Permit and US Army Corps of Engineers (USACE) permit applications have been submitted.

Permit Approval Status (50 words):

A pre-application meeting was conducted on December 17, 2018 with the project team and FDEP and we are now awaiting the receipt of the FDEP permit (Permit #52-0370642-002-EI). USACE permit application has been submitted and we are awaiting receipt of additional questions or issuance of the permit.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Laying a foundation for citizen engagement: spatial/community marketing to address stormwater and habitat in Old Tampa Bay

Lead Organization and Address:

Organization Name: Florida Fish & Wildlife Research Institute

Organization Address 1: 100 8th Avenue S.E.

Organization Address 2: St. Petersburg, FL, 33701

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Ashley Ross
Primary Contact Position: FWRI Grants Manager-OCMC
Primary Contact Email: Ashely.Ross@myfwc.com
Primary Contact Phone: 727-502-4783

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: FWC/FWRI/IS&M Richard Flamm, Richard.flamm@myfwc.com, (727) 502-4870
Second Partner and Contact: FWC/FWRI/Center for Spatial Analysis: Renee Duffey, renee.duffey@myfwc.com, (727) 502-4857

Project Abstract (50 words): We plan to apply spatial/community marketing to identify the methods, timing, and locations for citizen engagement that reduce stormwater run-off, improve water quality, and enhance fish and wildlife habitat. The proposed work involves GIS, spatial modeling, social surveys, quantitative analysis, and engagement with organizations who work directly with households.

Total Amount Requested: $176,187.60

Matching Contributions Proposed: $199,716.83 Type ($194,637.83 in-kind, $5,079 cash):

Proposed Grant Duration (months): 36 months

Permits and Approvals, if needed: None
Description of Needed Permits and Approvals (50 word limit): NA

Permit Approval Status (50 word limit): NA
PROJECT SUMMARY

2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: The Crescent Lake Education and Restoration Initiative (CLEAR)

Lead Organization and Address:

Organization Name: Keep Pinellas Beautiful
Organization Address 1: 5090 66th Street North
Organization Address 2: St. Petersburg FL, 33709

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Patricia DePlasco
Primary Contact Position: Executive Director
Primary Contact Email: Pdeplasco@kpbcares.org
Primary Contact Phone: 727-533-0402

Project Partners (organization names and primary contacts):

First Partner and Primary Contact:
1. Friends of Crescent Lake, Jim Bays

Other Partners and Primary Contacts (as needed):
2. City of St. Petersburg Parks and Recreation, Linda Seufert
3. City of St. Petersburg Stormwater Management, Carlos Frey
4. Jacobs Engineering Group, Jim Bays

Project Abstract (50 words):
Littoral wetlands in Crescent Lake will be restored and floating wetland islands will be introduced to re-create a natural shoreline optimized for biodiversity and stormwater quality improvement potential. The restoration plan will enable students and community members to learn from and participate tangibly in pertinent Tampa Bay wetland restoration.

Total Amount Requested: $46,000.00

Matching Contributions Proposed: $68,339.80  Type (in-kind, cash, etc.): in-kind materials and hours

Proposed Grant Duration (months): 12 Months

Permits and Approvals, if needed: NA

Description of Needed Permits and Approvals (50 word limit): NA

Permit Approval Status (50 word limit): NA
PROJECT SUMMARY 2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Do pH variable habitats provide refuge for stone crabs from ocean acidification?

Lead Organization and Address:

Organization Name: Mote Marine Laboratory
Organization Address 1: 1600 Ken Thompson Parkway
Organization Address 2: Sarasota, FL 34236

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Philip M. Gravinese
Primary Contact Position: Postdoctoral Fellow
Primary Contact Email: pgravinese@mote.org
Primary Contact Phone: 941-388-4441, ext. 353

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Aly Busse, Mote Marine Laboratory Assistant Vice President for Education, alybusse@mote.org at no cost.

Other Partners and Primary Contacts (as needed):

Project Abstract (50 words): Extremes in coastal pH threaten the less tolerant early-life stages of stone crabs. This work will determine if pH-variable habitats in Tampa Bay serve as refugia for the stone crab’s reproductive success under ocean acidification. Experimental data will then be incorporated into a guided-inquiry educational lesson for local high schools.

Total Amount Requested: $70,155

Matching Contributions Proposed: $70,639 Type (in-kind, cash): in-kind Match

Proposed Grant Duration (months): 24 months

Permits and Approvals, if needed: The proposed work requires a Florida Fish and Wildlife Special Activity License.

Description of Needed Permits and Approvals (50 word limit): Gravinese holds a valid SAL(17-1868F-SR) to collect and work with ovigerous, larval, juvenile and adult blue and stone crabs.

Permit Approval Status (50 word limit): Gravinese’s permit is valid until 2020. Renewal of the SAL will take place prior to the permit’s expiration.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Early life history, habitat utilization, and survival of juvenile Gulf of Mexico blacknose sharks

Lead Organization and Address:

Organization Name: New College of Florida
Organization Address 1: 5800 Bay Shore Rd
Organization Address 2: Sarasota, FL 34243

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Jayne Gardiner
Primary Contact Position: Assistant Professor of Biology/Director, Pritzker Marine Biology Research Center
Primary Contact Email: jgardiner@ncf.edu
Primary Contact Phone: 941-487-4456

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Havenworth Coastal Conservation, Tonya Wiley (President), 5120 Beacon Road, Palmetto, FL 34221, 941-201-2685, tonya@havenworth.org

Other Partners and Primary Contacts (as needed): Dr. John Carlson, NOAA Fisheries Service, Southeast Fisheries Science Center, Panama City, FL, 850-234-6541, ext. 221, john.carlson@noaa.gov

Project Abstract (50 words): This project will help preserve Tampa Bay’s fish and wildlife diversity and abundance by responding to critical management (NOAA) data needs on the early life history of blacknose sharks. Tampa Bay is one of only two proposed nursery areas for this previously commercially-important species, now overfished and in continued decline.

Total Amount Requested: $138,977

Matching Contributions Proposed: $142,977 Type (in-kind, cash, etc.): in-kind

Proposed Grant Duration (months): 36 months

Permits and Approvals, if needed:
Description of Needed Permits and Approvals (50 word limit): A Florida Fish and Wildlife Conservation Commission Special Activity License is necessary for the described fishing activities and for tagging blacknose sharks

Permit Approval Status (50 word limit): PI Gardiner holds FWCC SAL-1666-SRP which permits all of the described fishing and shark tagging activities. This permit is renewed annually (copy of current permit included in “Additional Documents”).
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Philippe Park Living Shoreline Project

Lead Organization and Address:

Organization Name: Pinellas County Environmental Management
Organization Address 1: 22211 US Highway 19 N, Building 10
Organization Address 2: Clearwater, FL 33765

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Stacey Day
Primary Contact Position: Monitoring and Assessment Program Coordinator
Primary Contact Email: sday@pinellascounty.org
Primary Contact Phone: 727-464-4703

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Pinellas County Parks & Conservation Resources, Jennifer Calvert, Senior Grants Specialist, jcalvert@pinellascounty.org, 727-582-2866

Other Partners and Primary Contacts (as needed):

Project Abstract (50 words):

The project will create a living shoreline at the southern end of Philippe Park through the installation of oysters and native vegetation. The project will result in greater resiliency to sea level rise and storm activity, decreased sediment movement, enhanced aquatic habitat, and improved water quality in Old Tampa Bay.

Total Amount Requested: $180,000.00
Matching Contributions Proposed: $185,000.00
Type (in-kind, cash, etc.): Cash ($180,000.00) / In-Kind ($5,000.00)
Proposed Grant Duration (months): 36 months

Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50 word limit):
Permits will be required by the federal and state regulatory agencies, depending upon the design of the breakwater feature, an authorization for signage may also be required.

- United States Army Corps of Engineers (USACE)
- Florida Department of Environmental Protection (FDEP)
- Florida Fish & Wildlife Conservation Commission (FWC) for breakwater signage

Permit Approval Status (50 word limit):
Permits for the project will be submitted once the design is completed, however, we have already met with the USACE to ensure that this project will qualify under their new NW 54 permit, which will streamline the federal permitting process. We anticipate processing of permits to take six months total.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Town of Redington Beach CIP2019-20 Stormwater Retrofits

Lead Organization and Address:

Organization Name: Town of Redington Beach
Organization Address 1: 105 164th Avenue
Organization Address 2: Redington Beach, FL 33708

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: James Simons
Primary Contact Position: Mayor
Primary Contact Email: Mayor@townofredingtonbeach.com
Primary Contact Phone: (727) 391-3875

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: LTA Engineers, LLC – Lynn Burnett P.E. – 941-756-9100
Other Partners and Primary Contacts (as needed):

Project Abstract (50 words):

Total Amount Requested: $75,000
Matching Contributions Proposed: $75,000 Type (in-kind, cash, etc.): Cash
Proposed Grant Duration (months): 15 months

Permits and Approvals, if needed:

SWFWMD ERP Permit Short Form Modification of Existing Permit 44029889 will be obtained upon Notification of Award of Grant Funds. No other permits will be needed.

Permit Approval Status (50 word limit):

Based on prior similar projects, a simple short-form modification will be obtained to expand upon the scope of work previously completed for stormwater improvements in adjacent areas. The activities are exempt from permitting, so the modification is a function of GIS mapping for the District.
PROJECT SUMMARY

2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Environmental, Social, and Economic Impact of the 2017–2019 Red Tide Bloom along Florida’s Gulf Coast: Assessment for Pinellas, Hillsborough, Manatee, and Pasco Counties

Lead Organization and Address:

Organization Name: Science and Environment Council of Southwest Florida, Inc. a 501(c)(3).
Organization Address 1: PO Box 2879
Organization Address 2: Sarasota Florida, 34230

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: David Shafer
Primary Contact Position: Co-Executive Director
Primary Contact Email: david@shafer-consulting.org
Primary Contact Phone: 941-232-9952

Project Partners (organization names and primary contacts):

First Partner and Primary Contact:
Other Partners and Primary Contacts (as needed): Pending Review and Award – See Project Team Steering Committee

Project Abstract (50 words):

We will develop a regionally-standardized assessment methodology and communication tool to document cross-sector impacts of Red Tide Blooms and apply that tool to study impacts of the historic 2017–2019 Florida Red Tide Bloom. We will examine cross-sector science, management, and policy Red Tide response efforts and make recommendations.

Total Amount Requested: $40,000

Matching Contributions Proposed: $40,000 ($25,000 cash with $15,000 volunteer in-kind)

Proposed Grant Duration (months): 15

Permits and Approvals, if needed: N/A

Description of Needed Permits and Approvals (50 word limit): N/A
Permit Approval Status (50 word limit): N/A
PROJECT SUMMARY

2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Maximo Park Coastal Upland Restoration and Living Shoreline Project

Lead Organization and Address:

Organization Name: City of St. Petersburg

Organization Address 1: 1400 19th St North, St Petersburg, FL 33713

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Barbara Stalbird

Primary Contact Position: Natural and Cultural Areas Manager

Primary Contact Email: Barbara.stalbird@stpete.org

Primary Contact Phone: 757-892-5319

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Thomas Ries, ESA – Lead Scientist

Other Partners and Primary Contacts (as needed): Bryan Flynn, ESA – Coastal Engineer

Project Abstract (50 words):

This project will address shoreline erosion and coastal upland habitat restoration at Maximo Park. It will consist of three phases: the development of a Living Shoreline (LS); invasive plant and tree removal plus selective hardwood reduction; and a native planting project.

Total Amount Requested: $150,000

Matching Contributions Proposed: $152,000

Type (in-kind, cash, etc.): In-kind

Proposed Grant Duration (months): 12 months

Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50-word limit):

Permits will be required by the federal and state regulatory agencies, depending upon the design of the breakwater feature, an authorization for signage may also be required.

United States Army Corps of Engineers (USACE)

Florida Department of Environmental Protection (FDEP)

Florida Fish & Wildlife Conservation Commission (FWC) for breakwater signage

Permit Approval Status (50-word limit):
Permits applications will be submitted once the design is completed. Since we recently designed a similar LS solution in Boca Ceiga Bay, approved under the USACE’s new NW 54 permit, we believe that the federal approval process will also be streamline; thus we anticipate securing the permits within six months.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: St. Petersburg County Club Invasive Species Management and Habitat Restoration Project

Lead Organization and Address:

Organization Name: St. Petersburg Country Club
Organization Address 1: 2000 Country Club Way South
Organization Address 2: St. Petersburg, FL 33712

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Jim Geiger
Primary Contact Position: Management
Primary Contact Email: jimg@appliedgolf.com
Primary Contact Phone: 727-867-2111

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Lakewood Estates Civic Association, c/o Judy Ellis
Other Partners and Primary Contacts (as needed): Friends of Boyd Hill, c/o Jason Cowen

Project Abstract (50 words): This project will eradicate invasive species (e.g. Brazilian Pepper) and install native plants along approximately 600 feet of shoreline bordering holes #13 and #14 at the St. Petersburg Country Club in order to improve the waterway and prevent further damage to the golf course. The project will also use volunteers from the neighboring Lakewood Estates Civic Association and Friends of Boyd Hill Nature Preserve to educate residents about the value of tidally-influenced streams and the effects of invasive species on local wildlife.

Total Amount Requested: $43,000
Matching Contributions Proposed: $45,341 Type (in-kind, cash, etc.): Cash & in-kind
Proposed Grant Duration (months): 24 months
Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50 word limit): N/A

Permit Approval Status (50 word limit): N/A
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Frog Creek Wetland Enhancement

Lead Organization and Address:
Organization Name: Southwest Florida Water Management District (SWFWMD)
Organization Address 1: 7601 US Highway 301 North
Organization Address 2: Tampa, FL 33549

Primary Contact within Lead Organization (including position, email, and phone number):
Primary Contact Name: Jaime Swindasz
Primary Contact Position: Staff Environmental Scientist
Primary Contact Email: Jaime.Swindasz@watermatters.org
Primary Contact Phone: 813-985-7481 ext. 2208

Project Partners (organization names and primary contacts): None.

Project Abstract (50 words):
This District initiative consists of hydrologic and habitat enhancement and restoration of approximately 100 acres of interconnected borrow pits located on the 119.5-acre District owned Frog Creek Tract in Manatee County. Proposed enhancement of the borrow pits includes creation of littoral zones and freshwater wetlands and removal of invasive, exotic vegetation.

Total Amount Requested: $75,000

Matching Contributions Proposed: $75,000  Type (in-kind, cash, etc.): cash

Proposed Grant Duration (months): 24 months

Permits and Approvals, if needed:
Description of Needed Permits and Approvals (50-word limit):
It is anticipated that an Environmental Recourse Permit (ERP) will be needed from the Florida Department of Environmental Permitting (FDEP) and the U.S. Army Corps. Of Engineers (USACE). It is also anticipated that a county haul permit will be required.

Permit Approval Status (50-word limit):
The permit applications have yet to be submitted.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Kracker Avenue Restoration

Lead Organization and Address:

Organization Name: Southwest Florida Water Management District
Organization Address 1: 7601 US Highway 301 North
Organization Address 2: Tampa, Florida 33637

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Nancy Norton
Primary Contact Position: Senior Professional Engineer
Primary Contact Email: Nancy.Norton@WaterMatters.org
Primary Contact Phone: 813-985-7481 ext. 2203

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Hillsborough County

Mary Barnwell, Environmental Lands Management Coordinator
BarnwellM@HillsboroughCounty.org
813-671-7754

Project Abstract (50 words):
The Kracker Avenue Restoration project is in cooperation with Hillsborough County Conservation and Environmental Lands Management Department. Encompassing approximately 235 abandoned fish ponds scattered over 24.6 acres of County owned land, the project will restore a mosaic of coastal estuarine, freshwater, and upland habitats. District and Hillsborough County staff have worked together to develop a restoration plan for this site. Hillsborough County is responsible for final design plans and permitting which is underway. This funding request is for construction. Hillsborough County will be responsible for perpetual maintenance of the project.
Total Amount Requested: $250,000

Matching Contributions Proposed: $750,000

Type (in-kind, cash, etc.): cash

Proposed Grant Duration (months): 36-48 months

Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50-word limit):
Hillsborough County Environmental Protection Commission (HC EPC), Florida Department of Environmental Protection (FDEP), Army Corp. of Engineers (ACOE), and Tampa Port Authority.

Permit Approval Status (50-word limit):
HC EPC - Noticed Exempt Activities in Wetlands
FDEP – Approved
ACOE – Approved
Tampa Port Authority – In progress, Letter Exemption Requested
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Little Manatee River Nature Preserve – Project Area 8

Lead Organization and Address:

Organization Name: Southwest Florida Water Management District
Organization Address 1: 7601 US Highway 301 North
Organization Address 2: Tampa, Florida 33549

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Nancy Norton
Primary Contact Position: Senior Professional Engineer
Primary Contact Email: Nancy.Norton@WaterMatters.org
Primary Contact Phone: 813-985-7481 ext. 2203

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Hillsborough County
   Mary Barnwell, Environmental Lands Management Coordinator
   BarnwellM@HillsboroughCounty.org
   813-671-7754

Project Abstract (50 words):

The Little Manatee River Project Area 8 encompasses 1,423 acres, cooperatively owned and managed by the Southwest Florida Water Management District (District) and Hillsborough County. This project involves design and permitting of the restoration plan for the site. The restoration plan proposes a total of nine (9) new freshwater wetlands, totaling 52 acres, which will polish agricultural runoff and create additional native communities. Upland restoration activities will focus on restoring 487 acres of uplands. The remaining 884 acres are mostly native species of uplands and wetlands which will require spot treatment or selective removal of non-native species and supplemental planting of native upland and freshwater wetland communities.
Total Amount Requested: $100,000

Matching Contributions Proposed: $300,000 Type (in-kind, cash, etc.): cash

Proposed Grant Duration (months): 24 months

Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50 word limit):
It is expected that permits from Hillsborough County Environmental Protection Commission (HC EPC), Florida Department of Environmental Protection (FDEP), and Army Corp. of Engineers (ACOE) will be needed.

Permit Approval Status (50 word limit):
All permits will need to be obtained as part of the design and permitting process of this project.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Whiskey Stump Key Oyster Reef Creation Project

Lead Organization and Address:

Organization Name: Tampa Bay Watch, INC
Organization Address 1: 3000 Pinellas Bayway South, Tierra Verde, FL 33715

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Serra Herndon
Primary Contact Position: Habitat Restoration Director
Primary Contact Email: sherndon@tampabaywatch.org
Primary Contact Phone: 727-867-8166 x227

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: Audubon Florida - Ann Paul
Other Partners and Primary Contacts (as needed): Reef Innovations, Inc. – Larry Beggs

Project Abstract (50 words):
The Whiskey Stump Key Project involves the placement of 65 tons of fossilized shell material as well as 765 concrete oyster domes to create a series of shell reefs along the western and northern shorelines of Whiskey Stump Key.

Total Amount Requested: $77,052.44

Matching Contributions Proposed: $123,970.36  Type (in-kind, cash, etc.): Cash, in-kind, volunteer

Proposed Grant Duration (months): 24 months

Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50 word limit): FDEP Environmental Resource Permit, USACE Nationwide 27 Permit, EPC Hillsborough County/Port Tampa Bay Minor Work Permit

Permit Approval Status (50 word limit): All permit applications are in process of submission. Upon receipt, copies of all permit will be submitted.
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Sources, Transport, and Fate of Marine Debris in Tampa Bay

Lead Organization and Address:

Organization Name: University of South Florida

Organization Address 1: 4019 E. Fowler Avenue Suite 100

Organization Address 2: Tampa, FL 33617-2008

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Keith Anderson

Primary Contact Position: Director, Division of Sponsored Research

Primary Contact Email: waller1@usf.edu

Primary Contact Phone: 813-974-1914

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: NA

Other Partners and Primary Contacts (as needed):

Project Abstract (50 words): A numerical marine debris transport model will be developed for Tampa Bay and used to examine transport and fate of neutrally buoyant, buoyant, and supra-buoyant marine debris in two distinct seasonal circulation regimes. The model will be one of the first to be calibrated using debris field data.

Total Amount Requested: $134,730

Matching Contributions Proposed: $155,802

Type (in-kind, cash, etc.):

Tampa Bay Estuary Program $4,609 cash
USF, Unrecovered Overhead $34,075 cash
USF, student support $53,118 cash
FWC $40,000 cash
GTBMAC-PORTS, Inc, student $24,000 cash

Proposed Grant Duration (months): 24 months

Permits and Approvals, if needed:

None needed
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Are PFAS Compounds a Significant Contaminant Threat to Tampa Bay?

Lead Organization and Address:

Organization Name: University of South Florida, College of Marine Science
Organization Address 1: 140 7th Avenue South
Organization Address 2:

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Dr. Steven A. Murawski
Primary Contact Position: Professor
Primary Contact Email: smurawski@usf.edu
Primary Contact Phone: 727-553-3367

Project Partners (organization names and primary contacts):

First Partner and Primary Contact:
Other Partners and Primary Contacts (as needed):

Project Abstract (50 words): PFAS (per- and polyfluoroalkyl substances) are manufactured chemicals that are pervasive in the environment, emanate from a variety of sources and are toxic at low concentrations. This project will conduct a pilot survey of PFAS’s in Tampa Bay’s water and fishes to evaluate potential threats posed by these chemicals.

Total Amount Requested: $ 142,168

Matching Contributions Proposed: $ 143,902 Type (in-kind, cash, etc.): In Kind

Proposed Grant Duration (months): 24 months

Permits and Approvals, if needed: None anticipated

Description of Needed Permits and Approvals (50 word limit):

Permit Approval Status (50 word limit):
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Designing for Resiliency: Shore Acres Adaptation Action Plan

Lead Organization and Address:
Organization Name: Florida Center for Community Design and Research
Organization Address 1: 4202 E. Fowler Ave. HMS 301 Tampa, Florida 33620-8340
Organization Address 2:

Primary Contact within Lead Organization (including position, email, and phone number):
Primary Contact Name: Brian Cook
Primary Contact Position: Visiting Faculty Research Assistant, Florida Center for Community Design and Research, School of Architecture and Community Design, University of South Florida
Primary Contact Email: brianraycook@usf.edu
Primary Contact Phone: 303-475-8854

Project Partners (organization names and primary contacts):
First Partner and Primary Contact:
Other Partners and Primary Contacts (as needed):

Project Abstract (50 words): This project will conduct research to study and identify vulnerabilities in the Shore Acres neighborhood due to sea level rise and flooding. This includes properties, infrastructures and geographic elements. With community input, the team will graphically depict implementable phased adaptation strategy options.

Total Amount Requested: $75,000.00
Matching Contributions Proposed: $75,000.00 Type (in-kind, cash, etc.): In-kind
Proposed Grant Duration (months): July 2019- August 2020 (13 months; 2 class semesters with time for prep and refinement)
Permits and Approvals, if needed: N/A
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Enhancing Tampa Bay Circulation Model for Red Tide and Spill Tracking

Lead Organization and Address:

Organization Name: University of South Florida
Organization Address 1: 140 7th Ave S
Organization Address 2: St. Petersburg, FL 33701

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Yonggang Liu
Primary Contact Position: Research Associate
Primary Contact Email: yliu@mail.usf.edu
Primary Contact Phone: 727-553-3508

Project Partners (organization names and primary contacts):

First Partner and Primary Contact:

Other Partners and Primary Contacts (as needed):

Project Abstract (50 words):

This project enhances the existing Tampa Bay Coastal Ocean Model (TBCOM) operation and its preliminary red tide/spill applications. Dedicated computing nodes are reserved for TBCOM daily automatic run. Circulation and red tide/spill trajectory nowcasts/forecasts are further developed for five sub-regions of Tampa Bay, providing more detailed information for emergency management.

Total Amount Requested: $158,485.00

Matching Contributions Proposed: $ Type (in-kind, cash, etc.): $158,485.00

Proposed Grant Duration (months): 36

Permits and Approvals, if needed:

Description of Needed Permits and Approvals (50 word limit): None
Permit Approval Status (50 word limit): N/A
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: The use of *Staphylococcus aureus* and MRSA as an indicator of human pollution in Tampa Bay

Lead Organization and Address:
- Organization Name: The University of Tampa
- Organization Address 1: 401 W. Kennedy Blvd, Tampa, FL 33606
- Organization Address 2: Box U

Primary Contact within Lead Organization (including position, email, and phone number):
- Primary Contact Name: Bridgette Froeschke
- Primary Contact Position: Assistant Professor
- Primary Contact Email: bfroeschke@ut.edu
- Primary Contact Phone: 813-767-9227

Project Partners (organization names and primary contacts):
- First Partner and Primary Contact: Michelle Osovitz, The University of Tampa, Assistant Professor, Osovitz.Michelle@spcollege.edu
- Other Partners and Primary Contacts (as needed): Tracy Zontek, The University of Tampa, Associate Professor, tzontek@ut.edu

Project Abstract (50 words): The purpose of this project is to examine the use of *Staphylococcus aureus* as an indicator of human pollution. We will evaluate levels of *Staphylococcus aureus* and Methicillin-Resistant *Staphylococcus aureus* during high and low peak recreational usage. The outcome will be a risk assessment on human health in Tampa Bay.

Total Amount Requested: $70,872.42

Matching Contributions Proposed: $73,659.30 Type (in-kind, cash, etc.): in-kind

Proposed Grant Duration (months): 24 months (June 2019 to May 2021)

Permits and Approvals, if needed: Not needed
PROJECT SUMMARY
2019 Tampa Bay Environmental Restoration Fund Proposal

Project Title: Fish assemblages associated with seagrass and hard bottom habitats within Tampa Bay and neighboring offshore reefs; habitat connectivity and potential effects of the severe 2018 red tide event

Lead Organization and Address:

Organization Name: Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute
Organization Address 1: 100 8th Ave SE
Organization Address 2: St. Petersburg, FL 33701

Primary Contact within Lead Organization (including position, email, and phone number):

Primary Contact Name: Ashley Ross
Primary Contact Position: Grants and Contracts Administrator
Primary Contact Email: Ashley.Ross@myfwc.com
Primary Contact Phone: 727-502-4783

Project Partners (organization names and primary contacts):

First Partner and Primary Contact: N/A

Project Abstract (50 words): This project will build on recent surveys of fish communities associated with hard bottom habitats within Tampa Bay and document connectivity with estuarine seagrass and offshore reefs. Relationships among fish community structure, habitat, sampling strategy, and the potential effects of a severe red tide event will be quantitatively assessed.

Total Amount Requested: $ 33,888
Matching Contributions Proposed: $ 34,358 Type (in-kind, cash, etc.): Cash (salary)
Proposed Grant Duration (months): 18
Permits and Approvals, if needed: N/A
Approval of TBEP Participation in Tampa Bay Regional Resiliency Coalition

Action Recommended:
Authorize the Policy Board Chair and Executive Director to sign a letter of support describing the Tampa Bay Estuary Program’s formal participation in the Tampa Bay Regional Resiliency Coalition.

Background:
In 2014, the Policy Board adopted the following policy statement within the TBEP Strategic Plan 2014-2020 about sea level rise and the Program’s role in supporting the region's response to the challenges posed by a changing climate:

Tide gauges in Tampa Bay have recorded water levels rising at the rate of one inch per decade since the 1940s, a rate that scientists predict is likely to increase.

By the end of the century, rising water levels in Tampa Bay are projected to inundate considerable portions of low-lying shorelines in the watershed, resulting in either the degradation, change in composition, or loss of some key coastal habitats. These coastal habitats support commercially and recreationally valuable fish and wildlife resources.

Through research, technology transfer and public education, the Tampa Bay Estuary Program will promote the scientific understanding of potential impacts of sea level rise on coastal habitats and support development of appropriate management actions to protect and improve the ecological and socio-economic resources of the estuary.

Consistent with this direction, TBEP staff have been contributing to: 1) the ONE BAY: Resilient Communities Working Group (a predecessor to the Tampa Bay Regional Resiliency Coalition) and 2) the Tampa Bay Climate Science Advisory Panel, an ad hoc network of scientists working to develop recommendations for local governments and regional agencies as they make decisions about how to respond to climate change, including projections for regional sea level rise.

In October 2018, the Tampa Bay Regional Resiliency Coalition was formed by the Tampa Bay Regional Planning Council and its member governments. The purpose of the Coalition is to coordinate and provide technical support for local and regional responses tailored towards a changing climate, including regional sea level rise. The Tampa Bay Estuary Program has been requested as a Coalition participant by Tampa Bay Regional Planning Council staff. A proposed letter of support is attached for Policy Board consideration and approval.

Lastly, staff will also summarize the recently updated “Recommended Projection of Sea Level Rise in the Tampa Bay Region” released by the Tampa Bay Climate Science Advisory Panel in May 2019.
Tampa Bay Regional Resiliency Coalition
Partner Letter of Support

In October 2018, the Tampa Bay Regional Resiliency Coalition was formed by the Tampa Bay Regional Planning Council and its member governments. The purpose of the Coalition is to provide technical support for and coordinate local and regional responses to the effects of a changing climate, including sea level rise.

While many governments and organizations in the Tampa Bay region have already undertaken activities to address their individual vulnerabilities, a collaborative commitment to enhance the region’s resilience will serve the greater interest in maintaining thriving communities and a robust regional economy. Developing active, coordinated partnerships with a wide range of businesses, agencies, non-profit organizations, professional and scientific associations, universities, faith-based organizations, and other members of the community will be essential for the Coalition’s success.

The Tampa Bay Estuary Program recognizes the vital mission of the Tampa Bay Regional Resiliency Coalition and commits to participate in its endeavors. As a Resiliency Coalition Partner, the Tampa Bay Estuary Program will provide input regarding the best available science and contribute expertise on topics including, but not limited to, natural ecosystems, water resources, and green infrastructure.

Our organization will further support the Resiliency Coalition by participating in the Tampa Bay Climate Science Advisory Panel, the Management and Planning Committee, and working groups, as necessary, to support the development of the Regional Resiliency Plan. Within our broader management conference, we will engage stakeholders to increase awareness; help define and prioritize emerging issues; clarify data and resource needs; and identify examples of innovative solutions and established best practices for addressing the effects of climate change.

Ed Sherwood
Executive Director
Tampa Bay Estuary Program
May 17, 2019

Charlie Justice
Chair, Policy Board
Tampa Bay Estuary Program
May 17, 2019
EXECUTIVE DIRECTOR

AND STAFF

REPORTS
March 29, 2019

The Honorable Betty McCollum  
Chair  
Subcommittee on Interior, Environment, and Related Agencies  
United States House of Representatives  
Washington, D.C. 20515

The Honorable David Joyce  
Ranking Member  
Subcommittee on Interior, Environment, and Related Agencies  
United States House of Representatives  
Washington, D.C. 20515

Dear Chair McCollum and Ranking Member Joyce:

We thank you for your past support of the National Estuary Program (NEP) and ask you to continue to invest directly in the stewardship of our nation’s coasts by fully funding the NEP at the authorized level of $750,000 for each of the 28 estuaries and funding the competitive grants program at $4 million.

As you know Congress passed Public Law 114–162 in the 114th Congress to reform the NEP, reauthorize historic levels of overall funding, create a competitive grants program, and cap program administrative costs at EPA at five percent. These reforms empowered the NEP to invest in vital projects to restore and protect our precious estuaries. The National Estuary Program delivers on our urgent needs to protect and restore our estuaries.

- **Federal support for locally-led estuary solutions.** NEPs support local stakeholders as partners to formulate solutions and to fund local priorities. With federal technical, management, and communication assistance, local organizations develop priorities and implement comprehensive actions: storm water and infrastructure projects, seagrass and shellfish restoration which support fishing and tourist industries, science and monitoring to guide decision-making, and innovative education programs to engage future generation of Americans.

- **Community-wide engagement.** NEPs engage industries, businesses, and other community members to develop solutions that everyone can support. The NEP’s public-private partnerships leverage federal dollars. NEP partners include commercial agriculture, fisheries, energy and water utilities, local businesses, state, local, and tribal governments, colleges and universities, and many other community organizations.

- **A national response regionally deployed.** The NEP draws strength from 28 unique, voluntary programs established by the Clean Water Act to protect and improve estuaries of national significance. Each NEP mobilizes it’s the local community in a non-regulatory, collaborative, and science-based strategy that strengthens the overall success of our national response. For every dollar EPA provides, NEPs leverage their response with $19
in local funds to protect and improve coastal environments, communities, assets of national significance, and economies.

As you advance the FY2020 Appropriations Act, we encourage you to fully fund the NEP at the authorized level of $750,000 for each of the 28 estuaries and fund the competitive grants program at $4 million.

Thank you for your strong support of this program over the years, and for considering our request.

Sincerely,

RICK LARSEN  
Member of Congress

SUZANNE BONAMICI  
Member of Congress

ALCEE L. HASTINGS  
Member of Congress

TULSI GABBARD  
Member of Congress

THOMAS R. SUOZZI  
Member of Congress

GERALD E. CONNOLLY  
Member of Congress

BILL POSEY  
Member of Congress

BRIAN MAST  
Member of Congress

DENNY HUCK  
Member of Congress

JERRY MCNERNEY  
Member of Congress

ANDY KIM  
Member of Congress

SALUD O. CARBAJAL  
Member of Congress
ERIC Swalwell  
Member of Congress

Donald M. Payne Jr.  
Member of Congress

John Garamendi  
Member of Congress

James P. McGovern  
Member of Congress

Brendan F. Boyle  
Member of Congress

Pramila Jayapal  
Member of Congress

Garret Graves  
Member of Congress

Juan Vargas  
Member of Congress

Jeff Van Drew  
Member of Congress

Mark DeSaulnier  
Member of Congress

Jenniffer González-Colón  
Member of Congress

Lee Zeldin  
Member of Congress

Al Green  
Member of Congress

Antonio Delgado  
Member of Congress

John P. Sarbanes  
Member of Congress

Ro Khanna  
Member of Congress
VICENTE GONZALEZ
Member of Congress

BRADLEY BYRNE
Member of Congress

KURT SCHRADER
Member of Congress

HAKEEM B. JEFFRIES
Member of Congress

HARLEY ROUDA
Member of Congress

TONY CARDENAS
Member of Congress

ELAINE G. LURIA
Member of Congress

WILLIAM R. KEATING
Member of Congress

JUDY CHU
Member of Congress

BRIAN K. FITZPATRICK
Member of Congress

JERROLD NADLER
Member of Congress

SEAN CASTEN
Member of Congress

TED LIEU
Member of Congress

BARBARA LEE
Member of Congress

HENRY C. "HANK" JOHNSON JR.
Member of Congress

ROBIN L. KELLY
Member of Congress
MIKE THOMPSON  
Member of Congress

GWEN MOORE  
Member of Congress

JAMES R. LANGEVIN  
Member of Congress

ROSA L. DELAURO  
Member of Congress
April 22, 2019

The Honorable Lisa Murkowski
Chairman
Subcommittee on Interior, Environment and Related Agencies
Senate Committee on Appropriations
Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Tom Udall
Ranking Member
Subcommittee on Interior, Environment and Related Agencies
Senate Committee on Appropriations
Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Murkowski and Ranking Member Udall:

We are writing to thank you for your past support of the National Estuary Program (NEP) and to request continued investment in the stewardship of our nation’s coasts in FY 2020.

As you know, important reforms were made to the NEP in the reauthorization that was signed into law in the 114th Congress (Public Law No. 114-162). These reforms created a competitive program to address urgent challenges and maximized funds received at the local level by our national estuaries, while minimizing the administrative costs of the program. As you complete work on the FY 2020 appropriations measure, we ask you to apply the NEP funding formula reflected in the recent reauthorization, providing the NEP at least $26.5 million while directing $750,000 to each NEP and $4 million to the competitive grant program.

The NEP consists of 28 voluntary programs established by the Clean Water Act to protect and improve estuaries of national significance. Each NEP engages its local community in a non-regulatory, consensus-driven, and science-based process. For every dollar EPA provides, NEPs leverage $19 in local funds to protect and improve coastal environments, communities, and economies.

Of all federally-funded coastal programs, only NEPs organize local stakeholders as partners in a unique decision-making framework to fund local priorities. NEPs are a front line of defense in helping prepare communities for extreme weather events, sea level rise, and changes in ocean chemistry and temperatures that threaten marine life. They also provide technical, management, and communications assistance to develop priorities and implement comprehensive actions in support of stormwater and infrastructure projects; seagrass and shellfish restoration, which support fishing and tourist industries; science and monitoring to guide decision-making; and innovative education programs designed for the next generation of Americans.

NEPs engage businesses, states, localities, and other community members to develop solutions for tough problems. The NEPs’ public-private partnerships stretch federal dollars to provide successful on-the-ground results driven by diverse stakeholders. NEP partners include commercial agriculture and fisheries, energy and water utilities, local restaurants and tourist businesses, construction and landscaping professionals, engineering and mining companies, state and local governments, colleges and universities, and other community organizations.
Thank you for your strong support of this program over the years, and for considering our request.

Sincerely,

Sheldon Whitehouse
United States Senator

Bill Cassidy
United States Senator

Thomas R. Carper
United States Senator

Margaret Wood Hassan
United States Senator

Christopher S. Murphy
United States Senator

Dianne Feinstein
United States Senator

Jeffrey A. Merkley
United States Senator

Richard Blumenthal
United States Senator

Jeanne Shaheen
United States Senator

Christopher A. Coons
United States Senator

Edward J. Markey
United States Senator

Chris Van Hollen
United States Senator

Kamala D. Harris
United States Senator

Robert P. Casey, Jr.
United States Senator
Quarterly Progress Report to the Boards

**Action Recommended:**
None. Information Only.
### Progress Report on Active EPA Work Plan Grants to EPA and the Boards

#### Last Updated: May 1, 2019 10:57:28 AM EDT

<table>
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<th>Project Name</th>
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</table>

- **Benthic and Seagrass Monitoring**
  - Raulerson 90.3% $45,000 FY19 Workplan $4,062.54 EPCHC, HDC, Inc.
  - TBD

- **Technical Support and Data Management**
  - Raulerson 0.00% $80,000 TBD

- **FW Wetland MP Implementation**
  - Burks 0.00% $72,154 Hillborough County TBD

- **Habitat Restoration Assessment & Monitoring**
  - Raulerson 0.00% $25,000 TBD

- **OA Monitoring Support**
  - Raulerson 0.00% $25,000 USGS

- **Public Outreach: Comm. Info**
  - Whalen 0.00% $50,000 TBD

- **State of the Bay Reporting**
  - Whalen 0.00% $25,000 Sheri Bazany; Lindsay Cross TBD

- **Give-A-Day**
  - Cladas 0.00% $5,000 TBD

- **Public Outreach: Interim Support**
  - Whalen 0.00% $10,000 TBD

- **Bay Soundings**
  - Whalen 0.00% $22,500 TBD

- **SSO Social Marketing**
  - Burke 0.00% $50,000 TBD

#### Issues/Challenges:

- **N/A**

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</table>

- **Benthic and Seagrass Monitoring**
  - Raulerson 0.00% $13,206 $13,206.00 $0.00 EPCHC, HDC, Inc., TBD

- **Technical Support and Data Mgmt**
  - Raulerson 17.00% $18,203 $3,120.00 TBD

- **Habitat Restoration Assessment**
  - Raulerson 0.00% $50,000 $38,990.00 $0.00 FWCC-FWRI, TBD

- **High Priority Science Needs**
  - Raulerson 18.07% $127,249 $54,958.00 $23,000.00 FOX, EPCHC (Benthic)

#### Issues/Challenges:

- **N/A**

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- **Benthic and Seagrass Monitoring**
  - Shankwood 55.56% $45,000 $45,000.00 $25,000.00 EPCHC, TBD

- **Technical Support and Data Management**
  - Raulerson 56.71% $136,797 $50,000.00 $27,580.00 CSA

#### Issues/Challenges:

- **N/A**

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</table>

- **Benthic and Seagrass Monitoring**
  - Shankwood 55.56% $45,000 $45,000.00 $25,000.00 EPCHC, TBD

- **Technical Support and Data Management**
  - Raulerson 56.71% $136,797 $50,000.00 $27,580.00 CSA

#### Issues/Challenges:

- **N/A**

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5/1/2019
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<th>Project #30014</th>
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<tbody>
<tr>
<td>30016-130418</td>
<td>Ocean Acidification Monitoring/Blue Carbon</td>
<td>Raulerson</td>
<td>100.00%</td>
<td>$80,000</td>
<td>$80,000</td>
<td>$80,000</td>
<td>USGS, ESA</td>
<td>Oct-16</td>
<td>?</td>
<td>Established OA monitoring site in Tampa Bay. USGS/USF Staff technician being supported.</td>
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<td>30016-130419</td>
<td>Fish Health Index</td>
<td>Raulerson</td>
<td>100.00%</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>FWCC-PWRI</td>
<td>May-17</td>
<td>Aug-17</td>
<td>Completed.</td>
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<td>30016-130420</td>
<td>Coastal Upland Restoration Targets</td>
<td>Raulerson</td>
<td>0.00%</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$0.00</td>
<td>ESA-Sheda</td>
<td>Jun-17</td>
<td>Ongoing</td>
<td>HMPU in progress, update meeting held September 2016; Supporting interim contract 2017-2018</td>
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<tr>
<td>30016-130616</td>
<td>Public Outreach: Community Info</td>
<td>Whalen</td>
<td>68.55%</td>
<td>$24,000</td>
<td>$16,524.00</td>
<td>Multiple</td>
<td>Oct-16</td>
<td>Ongoing</td>
<td>CCMP Revision completed, and posted as e-zine on website website was archived and completed. Click to view photos.</td>
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<td>30016-131016</td>
<td>CCMP Development Support</td>
<td>Whalen</td>
<td>81.82%</td>
<td>$33,000</td>
<td>$27,000.00</td>
<td>Multiple</td>
<td>Oct-16</td>
<td>Aug-17</td>
<td>Compact Public Summary, completed and printed.</td>
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<td>30016-130618</td>
<td>Give-A-Day/CAC Education</td>
<td>Cladas</td>
<td>0.00%</td>
<td>$1,000</td>
<td>$0.00</td>
<td>Multiple</td>
<td>Oct-16</td>
<td>Sep-17</td>
<td>Completed. Integrated into Give-A-Day events.</td>
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<td>Public Outreach: Comm. Support</td>
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<td>$0.00</td>
<td>Multiple</td>
<td>Oct-16</td>
<td>May-17</td>
<td>Ongoing Quarterly newsletters, web updates, social media updates Bay soundings transitioned to online tools. Completed.</td>
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<td>30016-130916</td>
<td>Bay Soundings</td>
<td>Whalen</td>
<td>100.00%</td>
<td>$22,500</td>
<td>$22,500</td>
<td>$22,500</td>
<td>TBRPC</td>
<td>Oct-16</td>
<td>Sep-17</td>
<td>Blue Carbon report finalized and linked here.</td>
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<tr>
<td>30016-131216</td>
<td>Trash-free Waters Program Support</td>
<td>Cladas</td>
<td>0.00%</td>
<td>$1,000</td>
<td>$0.00</td>
<td>Multiple</td>
<td>Oct-16</td>
<td>Sep-17</td>
<td>Trash-free Waters Program Support Cladas</td>
<td>0.00%</td>
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**Issues/Challenges:** None

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<th>% Billed</th>
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<td>30015-130215</td>
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<td>$45,000</td>
<td>$45,000</td>
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<td>Dec-17</td>
<td>Benthic sample collection completed. In Fall 2016, 20 year trend report released.</td>
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<td>30015-130315</td>
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<td>26.83%</td>
<td>$74,393</td>
<td>$48,381.00</td>
<td>$19,962.75</td>
<td>ESA-Scheda, CSA</td>
<td>Jun-17</td>
<td>Ongoing</td>
<td>Part of funds obligated for 2019 HMPU and 2019 Hard Bottom Fisheries report link.</td>
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<td>30015-130316</td>
<td>Dredge Hole Assessment</td>
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<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
<td>Multiple</td>
<td>Sep-16</td>
<td>Feb-18</td>
<td>Additional funds for Hard Bottom in external grants. Benthic report link.</td>
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<td>30015-130317</td>
<td>Implementing OTB Modeling Results</td>
<td>Sherwood</td>
<td>123.05%</td>
<td>$20,000</td>
<td>$0.00</td>
<td>$24,609.25</td>
<td>NMC</td>
<td>Oct-15</td>
<td>Ongoing</td>
<td>Additional model runs and reports developed for FMC and DOT.</td>
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</tr>
<tr>
<td>30015-130318</td>
<td>Ocean Acidification/Blue Carbon</td>
<td>Sherwood</td>
<td>100.00%</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td>USGS, RAE, USF</td>
<td>Aug-14</td>
<td>Jun-16</td>
<td>Blue Carbon report finalized and linked here.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-130319</td>
<td>CCMP Vulnerability</td>
<td>Burke</td>
<td>100.00%</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$20,000</td>
<td>TBRPC</td>
<td>Jun-16</td>
<td>Dec-16</td>
<td>First report completed. Tampa Bay Blue Carbon Assessment &amp; Addendum finished in 2016.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-130320</td>
<td>Blue Carbon Climate Ready Estuaries</td>
<td>Sherwood</td>
<td>100.00%</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
<td>RAE, ESA, FWRI</td>
<td>Oct-15</td>
<td>Sep-16</td>
<td>Developed USF Water Atlas story map based on results here.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-130815</td>
<td>Give-A-Day/CAC Education Campaign</td>
<td>Cladas</td>
<td>100.00%</td>
<td>$5,500</td>
<td>$5,500</td>
<td>$5,500</td>
<td>Multiple; NRC/ESA; USF</td>
<td>Oct-15</td>
<td>Apr-16</td>
<td>6 workshops were scheduled, 5 have been completed. 1 was cancelled.</td>
<td>Click to view photos.</td>
<td></td>
</tr>
<tr>
<td>30015-130815</td>
<td>Public Outreach: Community Info</td>
<td>O’Hara</td>
<td>100.00%</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
<td>Multiple</td>
<td>Feb-17</td>
<td>Aug-17</td>
<td>Quarterly newsletters, e-blasts, web updates and social media platform updated on schedule Law enforcement workshop on manatee protection in TB completed, with 50 attendees. Marketing support (postcards, flyers, Facebook content and ads) provided for FL Birding &amp; Nature Festival.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-130715</td>
<td>Public Outreach: Comm. Support</td>
<td>O’Hara</td>
<td>100.00%</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
<td>EPCHC, HDC, Inc.</td>
<td>Oct-15</td>
<td>Sep-17</td>
<td>20 year trend report completed and linked here.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-130815</td>
<td>Bay Soundings</td>
<td>O’Hara</td>
<td>100.00%</td>
<td>$22,500</td>
<td>$22,500</td>
<td>$22,500</td>
<td>TBRPC</td>
<td>Oct-15</td>
<td>Sep-16</td>
<td>Click to view photos.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-131015</td>
<td>CCMP Design</td>
<td>O’Hara</td>
<td>43.00%</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$8,680</td>
<td>Multiple</td>
<td>Jan-17</td>
<td>Aug-17</td>
<td>CCMP Revision completed, and posted as e-zine on website.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-131115</td>
<td>Bay Heroes - Oral History</td>
<td>O’Hara</td>
<td>100.00%</td>
<td>$13,000</td>
<td>$13,000</td>
<td>$13,000</td>
<td>USF</td>
<td>Oct-15</td>
<td>Sep-16</td>
<td>Completed. Website created through, USF libraries.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30015-131215</td>
<td>Trash-free Waters Program Support</td>
<td>Cladas</td>
<td>100.00%</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
<td>Multiple</td>
<td>Oct-15</td>
<td>May-16</td>
<td>Completed. Integrated into Give-A-Day events.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Issues/Challenges:** None

---

5/1/2019
**Issues/Challenges:** None

**EPA Agreement:** CE-00D08513-0  
**EPA FY 13-14 Workplan**  
*Multiple*  
*100*  
*$1,024,000*  
**Total Amount**  
**Amount Encumbered**  
**Amount Spent To Date**  
**Funding Source**  
**Contractor(s)**  
**Initiated**  
**Completed**  
**Updates**  
**Additional Products / Deliverable Links**

<table>
<thead>
<tr>
<th>Project #30013</th>
<th>Project Name</th>
<th>Project Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
<th>Updates</th>
<th>Additional Products / Deliverable Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>30014-131014</td>
<td>CAC Outreach / Give-A-Day</td>
<td>Cladas</td>
<td>100.00%</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>Multiple</td>
<td>Multiple</td>
<td>Oct-14</td>
<td>May-15</td>
<td></td>
<td>Switchdays were completed in Pinellas and Manatee counties. Click to view photos.</td>
</tr>
<tr>
<td>30014-130614</td>
<td>Public Outreach: Community Info</td>
<td>O'Hara</td>
<td>100.00%</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td>Multiple</td>
<td>Multiple</td>
<td>Oct-14</td>
<td>Sep-15</td>
<td></td>
<td>TBEP Progress Report completed; web-based Bay Opinion Poll conducted.</td>
</tr>
<tr>
<td>30014-130714</td>
<td>Public Outreach: Summer Camp Curriculum</td>
<td>O'Hara</td>
<td>100.00%</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>USF-CMS</td>
<td>Multiple</td>
<td>Oct-14</td>
<td>Sep-15</td>
<td></td>
<td>Summer Camp Module completed Year 5 Be Floridian Media Campaign completed; Evaluation survey completed. Be Floridian web revamp completed; 300,000+ visitors to Art of Being Floridian exhibit.</td>
</tr>
<tr>
<td>30014-130814</td>
<td>Public Outreach: Be Floridian</td>
<td>O'Hara</td>
<td>100.00%</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
<td>Sahar-Mitchell</td>
<td>Oct-14</td>
<td>Sep-15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30014-130914</td>
<td>Public Outreach: Comm. Support</td>
<td>O'Hara</td>
<td>100.00%</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>Shafter, Bazany</td>
<td>Mar-15</td>
<td>Aug-17</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30013-130213 Benthic and Seagrass Monitoring: Sherwood  
*100.00%*  
*$45,000*  
*$45,000*  
*EPCHC; HDC, Inc.*  
*Aug-14*  
*Dec-15*  
**EPOCH collected and processed benthic samples from Fall 2014 and updated the database in Dec. 2015. Seagrass transect data collected and entered into database.**  
**Seagrass transect data available here:**  
https://tbeptech.org/data/gis-data/31-tbep-tech-databases  
**Benthic monitoring database available here:**  
**TBEP primarily utilized funds for the Tech support contractor (Janicki Environmental Inc.). Funds supported the development of the Habitat Restoration partnership and initial monitoring framework used to develop the CCHA methodology. Additional funds supported 2nd round of CCH transect surveys in 2018, as specified in the 2019 HMPU and conducted by ESA-Scheda. Completed. Contractor finished data summary report, TBEP Technical Report #02-15: https://tbeptech.org/TBEP_TECH_PUBS/2015/TBEP_02_15_TB_Residential_Stormwater_Evaluation_FinalReport+DataAppendices_March2015.pdf; Journal article submitted, initial editor/reviewer comments being addressed. Included as a component of the HMPU. Funds supported the development of the Habitat Restoration partnership and initial monitoring framework used to develop the CCHA methodology. Additional funds supported 2nd round of CCH transect surveys in 2018, as specified in the 2019 HMPU and conducted by ESA-Scheda.**

30013-130313 Technical Support and Data Management  
*100.00%*  
*$60,000*  
*$60,000*  
*Multiple*  
*Multiple*  
*Oct-13*  
*Sep-18*  
**TBEP primarily utilized funds for the Tech support contractor (Janicki Environmental Inc.). Funds supported the development of the Habitat Restoration partnership and initial monitoring framework used to develop the CCHA methodology. Additional funds supported 2nd round of CCH transect surveys in 2018, as specified in the 2019 HMPU and conducted by ESA-Scheda. Completed. Contractor finished data summary report, TBEP Technical Report #02-15: https://tbeptech.org/TBEP_TECH_PUBS/2015/TBEP_02_15_TB_Residential_Stormwater_Evaluation_FinalReport+DataAppendices_March2015.pdf; Journal article submitted, initial editor/reviewer comments being addressed. Included as a component of the HMPU. Funds supported the development of the Habitat Restoration partnership and initial monitoring framework used to develop the CCHA methodology. Additional funds supported 2nd round of CCH transect surveys in 2018, as specified in the 2019 HMPU and conducted by ESA-Scheda.**

30013-130513 Stormwater Evaluation  
*100.00%*  
*$24,970*  
*$24,970*  
*Applied Ecology; UCF*  
*May-14*  
*Dec-13*  
**Completed. Contractor finished data summary report, TBEP Technical Report #02-15: https://tbeptech.org/TBEP_TECH_PUBS/2015/TBEP_02_15_TB_Residential_Stormwater_Evaluation_FinalReport+DataAppendices_March2015.pdf; Journal article submitted, initial editor/reviewer comments being addressed. Included as a component of the HMPU. Funds supported the development of the Habitat Restoration partnership and initial monitoring framework used to develop the CCHA methodology. Additional funds supported 2nd round of CCH transect surveys in 2018, as specified in the 2019 HMPU and conducted by ESA-Scheda.**

30013-130413 Tidal Tributaries - Year 2  
*100.00%*  
*$30,000*  
*$30,000*  
*ESA-Scheda*  
*Jun-17*  
*Sep-18*  
**Funds used for SME interactions through 2018, and supported additional OTB integrated model runs to justify causeway alterations. Presentations given to NMC throughout 2017-18 and ANEP in Fall 2018.**

30013-131113 Old Tampa Bay Subject Matter Experts  
*100.00%*  
*$20,000*  
*$20,000*  
*James; Kemp*  
*Oct-13*  
*Sep-17*  
**Funds used for SME interactions through 2018, and supported additional OTB integrated model runs to justify causeway alterations. Presentations given to NMC throughout 2017-18 and ANEP in Fall 2018.**

30013-130813 Give-A-Day  
*100.00%*  
*$4,000*  
*$4,000*  
*NA*  
*Oct-13*  
*May-14*  
**7 switchdays were completed. Locations included Pinellas, Manatee and Hillsborough counties. Be Floridian Year 4 Media Campaign Completed. Funds used to maintain, update TBEP. Be Floridian, LoveTampa Bay websites. Funds supported a Progress Report to the public (2015 State of the Bay report). Additionally supported ongoing communication tools including e-blasts, e-newsletters, videos, press releases, presentations.**

30013-131213 Public Outreach: Be Floridian  
*100.00%*  
*$50,000*  
*$50,000*  
*Sahar-Mitchell*  
*Oct-13*  
*Sep-14*  
**Funds used to maintain, update TBEP. Be Floridian, LoveTampa Bay websites. Funds supported a Progress Report to the public (2015 State of the Bay report). Additionally supported ongoing communication tools including e-blasts, e-newsletters, videos, press releases, presentations.**

30013-130613 Public Outreach: Community Info  
*100.00%*  
*$29,213*  
*$29,213*  
*Multiple*  
*Oct-13*  
*Sep-14*  
**Funds supported a Progress Report to the public (2015 State of the Bay report). Additionally supported ongoing communication tools including e-blasts, e-newsletters, videos, press releases, presentations.**
<table>
<thead>
<tr>
<th>Grant #</th>
<th>Project Description</th>
<th>Percentage</th>
<th>Amount 1</th>
<th>Amount 2</th>
<th>Amount 3</th>
<th>Start Date</th>
<th>End Date</th>
<th>Issues/Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>30013-130713</td>
<td>Public Outreach: Comm. Support O'Hara</td>
<td>100.00%</td>
<td>$10,250</td>
<td>$10,250</td>
<td>$10,250</td>
<td>Multiple</td>
<td>Oct-13</td>
<td>None.</td>
</tr>
<tr>
<td>30013-131013</td>
<td>Public Outreach: Tampa Bay Estuary Atlas</td>
<td>100.00%</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$11,000</td>
<td>USF</td>
<td>Oct-13</td>
<td>None.</td>
</tr>
</tbody>
</table>

Funds used to supplement befloridian.org messaging campaign with temporary staffer.
Completed. Annual support for Tampa Bay Estuary Atlas website.
Progress Report on Active External Grants to EPA and the Boards

Last Updated: April 30, 2019 3:46:42 PM EDT

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Name</th>
<th>Project Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
<th>Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td>32711-132711</td>
<td>Water Atlas</td>
<td>Raulerson</td>
<td>50.00%</td>
<td>$50,000</td>
<td>$50,000.00</td>
<td>$25,000.00</td>
<td>Manatee/Pinellas</td>
<td>USF</td>
<td>Dec-18</td>
<td>Ongoing</td>
<td>Work started for additional project on seagrass transects. Map layers uploaded.</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSO Private Lateral Social Marketing Campaign</td>
<td>Burke</td>
<td>0.00%</td>
<td>$75,000</td>
<td>$0.00</td>
<td></td>
<td></td>
<td>FDEP 319h Grant</td>
<td>TBD</td>
<td>Apr-19</td>
<td>Agreement Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.00%</td>
<td>$75,000</td>
<td>$0.00</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Oyster Restoration Monitoring</td>
<td>Raulerson</td>
<td>24.83%</td>
<td>$89,190</td>
<td>$89,190.00</td>
<td>$22,142.00</td>
<td></td>
<td>TBERF FWRI, TBW, TBEP</td>
<td>Aug-18</td>
<td>Ongoing</td>
<td></td>
<td>Contracting, site identification, QAPP, and restoration project complete; sampling underway. Additional funding from 2017-2018 Workplan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tampa Bay Ship Wake Study</td>
<td>Raulerson</td>
<td>100.00%</td>
<td>$24,000</td>
<td>$24,000.00</td>
<td>$24,000.00</td>
<td></td>
<td>USFWS USF (PO# 6911)</td>
<td>Oct-17</td>
<td>Ongoing</td>
<td></td>
<td>USF developed total model based on 2014 data. Wave measurements obtained in select 18 regions. Confirmation of model pending; USF PO and TBEP salary.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USGS-NASA SPARROW Model</td>
<td>Raulerson</td>
<td>47.80%</td>
<td>$12,000</td>
<td>$5,741.00</td>
<td></td>
<td></td>
<td>NASA TBERF</td>
<td>Mar-17</td>
<td>Ongoing</td>
<td></td>
<td>Continue to participate as the end-user lead on the project. Draft model inputs developed and reviewed by team.</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TBNMC 2022 RA Update Support</td>
<td>Burke</td>
<td>0.00%</td>
<td>$115,500</td>
<td>$115,500</td>
<td></td>
<td></td>
<td>Janicki Environmental, Inc.</td>
<td>Jan-17</td>
<td>Ongoing</td>
<td></td>
<td>Contract awarded: Task Order #1 under development.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Issues/Challenges: None.
### External Grants

**5/1/2019**

#### Pinellas County Flow Monitoring
- **Manager**: Sherwood
- **Status**: 75.00% complete
- **Funding Source**: Pinellas County
- **Contractor**: HDC, Inc.
- **Initiated**: Jun-17
- **Ongoing**

**Issues/Challenges**: Equipment malfunction at Allen’s Creek site. TBEP and PC will split repair costs.

#### Project #33202
<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>33202-133203</td>
<td>Raulerson</td>
<td>100.00%</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$200,000</td>
<td>SWFWMD</td>
<td>FWRI; EPCHC; TBEP</td>
<td>Jun-16</td>
<td>Ongoing</td>
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<tr>
<td>34310-134310</td>
<td>$141,300</td>
<td>$35,880</td>
<td>$141,300</td>
<td>$35,880</td>
<td>$35,880</td>
<td>2015 TBERF</td>
<td>EPCHC</td>
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**Issues/Challenges**: No issues.

#### Project #32801
<table>
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<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>32801-TBD</td>
<td>Raulerson</td>
<td>0.00%</td>
<td>$50,000</td>
<td>$50,000.00</td>
<td>$50,000.00</td>
<td>SWFWMD</td>
<td>ESA SCHEDA</td>
<td>Jun-17</td>
<td>Ongoing</td>
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</tbody>
</table>

**Issues/Challenges**: No issues.

#### Project #32710
<table>
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<th>Project Name</th>
<th>Project Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>32710-132710</td>
<td>Burke</td>
<td>100.00%</td>
<td>$50,000</td>
<td>$50,000.00</td>
<td>$50,000.00</td>
<td>Manatee/Pinellas</td>
<td>USF</td>
<td>Dec-17</td>
<td>Complete</td>
</tr>
</tbody>
</table>

**Issues/Challenges**: None

#### Project #31504
<table>
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<th>Project Name</th>
<th>Project Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>31504-131504</td>
<td>Raulerson</td>
<td>87.61%</td>
<td>$175,500</td>
<td>$175,500.00</td>
<td>$153,750.00</td>
<td>Total</td>
<td>CSA Ocean Services; TBEP</td>
<td>Jan-18</td>
<td>Ongoing</td>
</tr>
<tr>
<td>31504-131505</td>
<td></td>
<td>92.50%</td>
<td>$100,000</td>
<td>$100,000.00</td>
<td>$92,500.00</td>
<td>Pinellas</td>
<td>CSA, TBEP</td>
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<tr>
<td>31504-131506</td>
<td></td>
<td>79.57%</td>
<td>$52,500</td>
<td>$52,500.00</td>
<td>$41,250.00</td>
<td>TBERF 2017</td>
<td>CSA, TBEP</td>
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**Issues/Challenges**: No issues.

#### Project #31600
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<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
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</thead>
<tbody>
<tr>
<td>31600-131600</td>
<td>Sherwood</td>
<td>78.96%</td>
<td>$23,000</td>
<td>$23,000.00</td>
<td>$20,000.00</td>
<td>Total</td>
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**Issues/Challenges**: No issues.

#### Project #34500
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<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
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<tbody>
<tr>
<td>34500-134500</td>
<td>Raulerson</td>
<td>100.00%</td>
<td>$115,000</td>
<td>$115,000.00</td>
<td>$115,000.00</td>
<td>EPA WPO Grant</td>
<td>FWRI</td>
<td>Sep-15</td>
<td>Aug-17</td>
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</table>

**Issues/Challenges**: No issues.

---

**Flow monitoring data collected and reported quarterly.**

*Fisheries, benthic sampling, and bathymetric survey complete. Final project report preparation continues.*

*Fisheries report link [here](#).*

*BTM report link [here](#).*

*Manatee: Fisheries report link [here](#).*

*TBEP workplans completed.*

*Original sites report link [here](#).*

*Restored Site Report link [here](#).*

*Instructional manual link [here](#).*

*Instructional video link [here](#).*

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*5/1/2019*
### Progress Report on Active TBERF Projects Managed by TBEP to EPA and the Boards

Last Updated: April 26, 2019 1:25:25 PM EDT

<table>
<thead>
<tr>
<th>2018 TBERF Projects (#34710)</th>
<th>Project Name</th>
<th>Project Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
<th>Updates</th>
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</thead>
<tbody>
<tr>
<td>34710-SWFWMD</td>
<td>BGIC Coastal Resilience</td>
<td>Burke</td>
<td>0%</td>
<td>$60,000</td>
<td></td>
<td></td>
<td>2018 TBERF</td>
<td>Tampa Bay Watch</td>
<td>Jul-18</td>
<td>Ongoing</td>
<td>Agreement executed in July 2018.</td>
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<td>Issues/Challenges: None.</td>
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<tr>
<td>34710-SWFWMD (42.6%) :</td>
<td>Living Shoreline - Safety Harbor</td>
<td>Burke</td>
<td>0%</td>
<td>$78,500</td>
<td></td>
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<td>2018 TBERF</td>
<td>City of Safety Harbor</td>
<td>Feb-19</td>
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<tr>
<td>34710-PINCO (57.4%)</td>
<td>Issues/Challenges: None.</td>
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<tr>
<td>34710-FDOT</td>
<td>Microplastics in Tampa Bay</td>
<td>Burke</td>
<td>0%</td>
<td>$108,736</td>
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<td>2018 TBERF</td>
<td>Eckerd College</td>
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<td>34710-FDOT</td>
<td>Issues/Challenges: None.</td>
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<tr>
<td>34710-FDOT</td>
<td>Pyrodominium Population Dynamics</td>
<td>Burke</td>
<td>0%</td>
<td>$92,037</td>
<td></td>
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<td>2018 TBERF</td>
<td>FWCC-FWRI</td>
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<td>34710-SWFWMD</td>
<td>Robinson Preserve Expansion</td>
<td>Burke</td>
<td>0%</td>
<td>$100,994</td>
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<td>2018 TBERF</td>
<td>Manatee County</td>
<td>Aug-18</td>
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<td>Issues/Challenges: None.</td>
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<tr>
<td>34710-STPETE (5.9%); 34710-</td>
<td>Scallop Recruitment</td>
<td>Burke</td>
<td>0%</td>
<td>$91,934</td>
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<td>UF</td>
<td>Nov-18</td>
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<tr>
<td>HILLSICO (84.3%); 34710-</td>
<td>Issues/Challenges: None.</td>
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</tr>
<tr>
<td>EPCHC (9.8%)</td>
<td>Evaluation of Sportfish Habitat</td>
<td>Burke</td>
<td>0%</td>
<td>$114,912</td>
<td></td>
<td></td>
<td>2018 TBERF</td>
<td>UF</td>
<td>Aug-17</td>
<td>Ongoing</td>
<td>Presentation on preliminary results at SWFWMD Habitat Restoration Committee.</td>
</tr>
<tr>
<td>34710-STPETE (25.4%); 3470-</td>
<td>Tampa Bay Circulation Model</td>
<td>Burke</td>
<td>0%</td>
<td>$76,104</td>
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<td>2018 TBERF</td>
<td>USF-CMS</td>
<td>Feb-19</td>
<td>Ongoing</td>
<td>Agreement executed in February 2019.</td>
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<tr>
<td>FDOT (74.6%)</td>
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<td>Issues/Challenges: None.</td>
<td></td>
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<table>
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<tr>
<th>2017 TBERF Projects (#34610)</th>
<th>Project Name</th>
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<th>Total Amount</th>
<th>Amount Encumbered</th>
<th>Amount Spent To Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
<th>Initiated</th>
<th>Completed</th>
<th>Updates</th>
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<tbody>
<tr>
<td>34610-134616</td>
<td>Microplastics in Tampa Bay</td>
<td>Burke</td>
<td>100%</td>
<td>$40,000</td>
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<td>2017 TBERF</td>
<td>Eckerd</td>
<td>Aug-17</td>
<td>Nov-18</td>
<td>Complete</td>
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<td>Issues/Challenges: None.</td>
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<tr>
<td>34610-134611 (84.16%); 34610-</td>
<td>Evaluation of Sportfish Habitat</td>
<td>Burke</td>
<td>0%</td>
<td>$114,912</td>
<td></td>
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<td>2017 TBERF</td>
<td>UF</td>
<td>Aug-17</td>
<td>Ongoing</td>
<td>Presentation on preliminary results at SWFWMD Habitat Restoration Committee.</td>
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<td>GFTB (15.84%)</td>
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<tr>
<td>34610-134614</td>
<td>Ignacio Haya Living Shoreline</td>
<td>Burke</td>
<td>0%</td>
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<td>2017 TBERF</td>
<td>Tampa</td>
<td>Apr-18</td>
<td>Ongoing</td>
<td>60% design plans are complete.</td>
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<tr>
<td>34610-134614 (67.64%); 34610-</td>
<td>Mobbly Bayou Habitat Restoration</td>
<td>Burke</td>
<td>0%</td>
<td>$200,000</td>
<td></td>
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<td>2017 TBERF</td>
<td>SWFWMD</td>
<td>July-18</td>
<td>Ongoing</td>
<td>Agreement executed in July 2018.</td>
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<tr>
<td>PinCo (22.75%); 34610-134615</td>
<td>(9.61%)</td>
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<tr>
<td></td>
<td>Boyd Hill Freshwater Wetland Restoration</td>
<td>Burke</td>
<td>0%</td>
<td>$200,000</td>
<td></td>
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<td>2017 TBERF</td>
<td>SWFWMD</td>
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<td>Ongoing</td>
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<td></td>
<td>Issues/Challenges: Delayed. Need to secure CE or lease agreement.</td>
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<tr>
<td>34610-134615</td>
<td>Perico-Robinson Connector</td>
<td>Burke</td>
<td>49%</td>
<td>$39,333</td>
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<td>2017 TBERF</td>
<td>Manatee</td>
<td>Sep-17</td>
<td>Ongoing</td>
<td>Non-native vegetation removal completed.</td>
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<td>Issues/Challenges: None.</td>
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<tr>
<td>34610-134615 (96.5%); 34610-</td>
<td>Coastal Estuarine Acidification Monitoring</td>
<td>Multiple</td>
<td>59.21%</td>
<td>$147,579</td>
<td>$87,376</td>
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<td>2017 TBERF</td>
<td>USGS</td>
<td>Oct-17</td>
<td>Ongoing</td>
<td>Instrument has been installed at nearshore location.</td>
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<td>134611 (2.3%); 34610-134612 (1.2%)</td>
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<tr>
<td>Little Manatee Corridor Restoration Plan</td>
<td>Burke</td>
<td>100%</td>
<td>$100,000</td>
<td>100,000</td>
<td>2016 TBERF</td>
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<td>Oct-16</td>
<td>12-18</td>
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<tr>
<td>Mercenaria &amp; Seagrass Productivity</td>
<td>Burke</td>
<td>100%</td>
<td>$59,150</td>
<td>$59,190</td>
<td>2016 TBERF</td>
<td>Gulf Shellfish Institute</td>
<td>Sep-16</td>
<td>Jan-19</td>
<td>Completed</td>
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<td>Issues/Challenges:</td>
<td>Net damage from Hurricane Irma and subsequent cold fronts preclude the north sight from further data collection.</td>
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<tr>
<td>CCMP/Comprehensive Plan Crosswalk</td>
<td>Burke</td>
<td>0%</td>
<td>$30,000</td>
<td>2016 TBERF</td>
<td>TBRPC</td>
<td>Nov-16</td>
<td>Ongoing</td>
<td>Phase 1 results were presented to TBEP TAC in October 2018.</td>
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<td>Issues/Challenges:</td>
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<td>MacDill AFB Saltern Restoration</td>
<td>Burke</td>
<td>100%</td>
<td>$93,775</td>
<td>$93,775</td>
<td>2016 TBERF</td>
<td>Ecosphere Restoration</td>
<td>Dec-16</td>
<td>Sep-18</td>
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<tr>
<td>Fish Communities &amp; Hardbottom Habitats</td>
<td>Burke</td>
<td>90%</td>
<td>$80,442</td>
<td>2016 TBERF</td>
<td>FWC</td>
<td>Nov-16</td>
<td>4/15/2019</td>
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<td>Eagle Lake WQ Improvements</td>
<td>Burke</td>
<td>0%</td>
<td>$150,000</td>
<td>2016 TBERF</td>
<td>Pinellas County</td>
<td>Dec-16</td>
<td>Ongoing</td>
<td>Final PER completed in April 2019.</td>
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<td>Delayed. No cost time extension executed in April 2018.</td>
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<tr>
<td>Duette Remote Sensing</td>
<td>Burke</td>
<td>100%</td>
<td>$75,000</td>
<td>2015 TBERF</td>
<td>Manatee County</td>
<td>Feb-16</td>
<td>Feb-18</td>
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<tr>
<td>Fort Desoto Ecological Enhancement/Recirculation</td>
<td>Burke</td>
<td>100%</td>
<td>$168,500</td>
<td>2015 TBERF</td>
<td>Pinellas County</td>
<td>Oct-15</td>
<td>Jul-16</td>
<td>Completed.</td>
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<td>Issues/Challenges:</td>
<td>Delayed. Equipment break-downs and wet conditions have further delayed vegetation removal.</td>
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<tr>
<td>Blue Carbon Assessment</td>
<td>Burke</td>
<td>100%</td>
<td>$100,000</td>
<td>2014 TBERF</td>
<td>RAE</td>
<td>Aug-2014</td>
<td>Jan-2016</td>
<td>Completed.</td>
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<td>Duette Hydrologic Restoration</td>
<td>Burke</td>
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<td>$87,260</td>
<td>2014 TBERF</td>
<td>Manatee County</td>
<td>Dec-2014</td>
<td>Aug-2016</td>
<td>Completed.</td>
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<td>Robinson Preserve Oyster Restoration</td>
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<td>100%</td>
<td>$53,000</td>
<td>2014 TBERF</td>
<td>Manatee County</td>
<td>Dec-2014</td>
<td>Dec-2016</td>
<td>Completed.</td>
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<tr>
<td>East McKay Bay Stormwater</td>
<td>Burke</td>
<td>0%</td>
<td>$100,000</td>
<td>2013 TBEF</td>
<td>SWFWMD</td>
<td>Jul-2014</td>
<td>Ongoing</td>
<td>On hold.</td>
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<td>Bioretention/Rain Garden</td>
<td>Burke</td>
<td>100%</td>
<td>$105,000</td>
<td>2013 TBEF</td>
<td>USF</td>
<td>Jul-2014</td>
<td>Mar-2016</td>
<td>Completed.</td>
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<tr>
<td>Community-Based Stormwater Management</td>
<td>Burke</td>
<td>100%</td>
<td>$25,000</td>
<td>2013 TBEF</td>
<td>UF</td>
<td>Jul-2013</td>
<td>Mar-2016</td>
<td>Completed.</td>
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<td>Roblesa Park</td>
<td>Burke</td>
<td>100%</td>
<td>$175,000</td>
<td>2013 TBEF</td>
<td>SWFWMD</td>
<td>Jun-2014</td>
<td>Dec-2015</td>
<td>Completed.</td>
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5/1/2019
## Progress Report on Active TBERF Projects Jointly Managed by TBEP/RAE to EPA and the Boards

Last Updated: January 28, 2019 2:58:30 PM EST

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<th>Year</th>
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<td>2018 TBERF Projects (#34710)</td>
<td>Connor Park</td>
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<td>$50,000</td>
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<td>Tampa Bay Living Shoreline Suitability Model</td>
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<td>$25,600</td>
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<td>FWC FWRI</td>
<td>Sep-18</td>
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<td>34710-SWFWMD</td>
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<td>Jul-16</td>
<td>Oct-17</td>
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<td>34410-SWFWMD (70%)</td>
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<td>34310-SWFWMD (70%)</td>
<td>Pyrodinium bahamense Cyst Bed Seeding Potential in OTB</td>
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<td>$83,150</td>
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<td>34310-Hilsborough (61.9%)</td>
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<td>Bay Boundings Environmental Journal</td>
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<td>TBPA</td>
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<td>Mosaic (100%)</td>
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5/1/2019
Tidal Tributaries Snook Nurseries
Burke
100%
$100,000
2013 TBERF FWC FWRI
Jun-13 Apr-15
Completed.

Issues/Challenges: None.
Progress Report on RESTORE Funded Projects to EPA and the Boards

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Issues/Challenges: Environmental compliance pending. Remains in Category 2 (planning) of the RESTORE Council funded priorities list.
### Project #30800-140000

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<td>Keep Pinellas Beautiful</td>
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#### Issues/Challenges:
- None

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#### Issues/Challenges:
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<td>7015 - Mann-Wagon Restoration Project 2018</td>
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<td>7007 - Growing a Culture of Compost through Watershed Connection in Manatee C</td>
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<td>7014 - Red Tide Community Engagement: World Oceans Day 2019</td>
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<td>7019 - Wetlands Demonstration Garden Maintenance</td>
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#### Issues/Challenges:
- None
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<th>Project ID</th>
<th>Grant Name</th>
<th>Manager(s)</th>
<th>% Billed</th>
<th>Total Amount</th>
<th>Amount Spent to Date</th>
<th>Funding Source</th>
<th>Contractor(s)</th>
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<th>Completed</th>
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**Issues/Challenges:**
- 1 grant was cancelled
- 2 grants were given no-cost extensions
- 2 grants were working on final documents.

**189 grants were awarded in 2015/2016. Grants are underway. 14 projects complete.**
ADDITIONAL INFORMATION ITEMS
TBEP Science Policy Coordinator participated in a Climate Change Regional Coordination meeting on 2/7/2019.
TBEP Executive Director and Ecologist participated in a US Fish and Wildlife Service Briefing on a new MacDill AFB environmental coordinator position 2/7/2019.
TBEP Science Policy Coordinator attended a SWFWMD CFI Meeting to garner future TBERF support on 2/14/2019.
TBEP Executive Director and Ecologist participated in an EPA Ocean Acidification Monitoring discussion on 2/19/2019.
TBEP Executive Director participated in TNC’s Resilient Coastal Sites Steering Committee meeting on 2/19/2019.
TBEP Ecologist attended a Pinellas County Waste to Energy Plant Tour on 2/20/2019.
TBEP Science Policy Coordinator participated in a Tampa Bay Climate Science Advisory Panel meeting on 2/20/2019.
TBEP Ecologist participated in a Living Shoreline Conference Call on 2/21/2019.
TBEP Science Policy Coordinator attended a RESTORE-Robinson project meeting on 2/22/2019.
TBEP Science Policy Coordinator attended a RESTORE-Biosolids project meeting on 2/25/2019.
TBEP Ecologist participated in the CHNEP Habitat Conservation Meeting on 3/1/2019.
TBEP Ecologist conducted field research as part of an Oyster Restoration Monitoring Project on 3/6/2019.

TBEP Executive Director attended the Spring Association of NEPs Meeting and conducted US congressional briefings from 3/12 to 3/15/2019.


TBEP Ecologist participated in the Agency on Bay Management meeting on 3/14/2019. Presentations included the City of Tampa TAP, FL Coastal Mapping Program, TBW Long-term Master Plan Update, CCC Water Quality Improvement Project, and Horse Riding in the Bay.

TBEP Ecologist attended the Port Tampa Bay Migratory Bird Committee meeting on 3/15/2019.

TBEP Executive Director, Science Policy Coordinator, and Ecologist participated in an HMPU Meeting on 3/18/2019.

TBEP Executive Director and Ecologist attended a Tidal Tributaries Monitoring Project Team meeting on 3/19/2019.


TBEP Science Policy Coordinator and Ecologist participated in a TBERF Oyster Deployment at MacDill AFB on 3/21/2019.

TBEP Science Policy Coordinator participated in the Tampa Bay Regional Resiliency Coalition, MPC meeting on 3/22/2019.

TBEP Executive Director presented and moderated sessions at the National Water Quality Monitoring Conference on 3/25/2019.


TBEP Science Policy Coordinator attended a RESTORE-Copeland Park project planning meeting on 3/29/2019.

TBEP Science Policy Coordinator was interviewed at WMNF regarding the SPC Sea Level Rise Conference on 4/1/2019.

TBEP Science Policy Coordinator facilitated, and Executive Director and Ecologist

TBEP Science Policy Coordinator presented on De-Mystifying the National Climate Assessment at the SPC Sea Level Rise Up Conference on 4/6/2019.


TBEP Ecologist participated in the AL-MS Sea Grant Pre-proposal Review on 4/10/2019. TBEP Executive Director, Science Policy Coordinator, and Ecologist participated in an Open Science Workshop Planning meeting on 4/16/2019.

TBEP Ecologist presented information regarding the Dredged Hole Project at the Tampa Bay Harbor Safety and Security Committee meeting on 4/17/2019.

TBEP Science Policy Coordinator presented at the Tampa Bay Association of Environmental Professionals on Sea Change: Climate, Collaboration & Tampa Bay on 4/17/2019.

TBEP Science Policy Coordinator presented to the Lutheran Church of the Cross on Local Impacts of Global Climate Change on 4/23/2019.


TBEP Ecologist attended a Pyrodinium Laboratory Review on 4/18/2019. TBEP Science Policy was interviewed by WUSF regarding nurdles on 4/18/2019.

TBEP Ecologist participated in a meeting regarding water quality, seagrasses and horses at the Sunshine Skyway causeway on 4/23/2019.

TBEP Executive Director presented to the Pinellas Board of County Commissioners on 4/23/2019.

TBEP Executive Director, Science Policy Coordinator, and Ecologist attended a meeting to discuss updates to the Nekton Index on 4/24/2019.

TBEP Science Policy Coordinator and Ecologist attended a meeting to discuss Microbial Source Tracking on 4/25/2019.


TBEP Ecologist assisted in conducting field research at Perico Bayou on 4/30/19.

TBEP Executive Director participated in the FLRACEP Science Review Panel on 5/2/2019.

TBEP Science Policy Coordinator participated in the Tampa Bay Regional Resiliency Coalition, MPC meeting on 5/2/2019.
TBEP Outreach & Communications Report
February 7 – May 10, 2019

TBEP Project Manager participated in the Video of Audubon Exhibit on 2/8/2019.
TBEP Communication & Outreach Coordinator participated in the Video of Audubon Exhibit on 2/8/2019.
TBEP Project Manager participated in the SP College STEM Center Living Shoreline Restoration Project on 2/15/2019.
TBEP Ecologist participated in the SP College STEM Center Living Shoreline Restoration Project on 2/15/2019.
TBEP Executive Director participated in the SP College STEM Center Living Shoreline Restoration Project on 2/15/2019.
TBEP Ecologist participated in the Pasco County Cub Scout Troop Government Discussion on 2/20/2019.
TBEP Project Manager participated in the Coffeepot Bayou Watershed Alliance Watergoat Installation-Turtle Creek on 2/21/2019.
TBEP Communication & Outreach Coordinator participated in the Coffeepot Bayou Watershed Alliance Watergoat Installation-Turtle Creek on 2/21/2019.
TBEP Project Manager participated in the Great Explorations Exhibit Update on 2/22/2019.
TBEP Communication & Outreach Coordinator participated in the Great Explorations Exhibit Update on 2/22/2019.
TBEP Communication & Outreach Coordinator participated in the Be Floridian: Flamingo Fest @ Sunken Gardens on 3/3/2019.
TBEP Communication & Outreach Coordinator participated in the Youth Conservation Bay Mini-Grant on 3/14/2019.
TBEP Project Manager participated in the Youth Conservation Bay Mini-Grant on 3/14/2019.
TBEP Ecologist participated in the Weedon Island Tour on 3/16/2019.
TBEP Communication & Outreach Coordinator participated in the Stormwater Advisory Committee on 3/19/2019.
TBEP Project Manager participated in the CAC Meeting on 3/20/2019.
TBEP Communication & Outreach Coordinator participated in the CAC Meeting on 3/20/2019.
TBEP Communication & Outreach Coordinator participated in the Oyster Deployment Picture & Video on 3/21/2019.
TBEP Project Manager participated in the Tea Bag Citizen Science Results Presentation on 3/22/2019.
TBEP Project Manager participated in the Give-A-Day for the Bay @ Clam Bayou on 3/23/2019.
TBEP Project Manager participated in the FDEP Open House event on 3/27/2019.
TBEP Communication & Outreach Coordinator participated in the Eckerd College Sustainability Festival on 3/30/2019.
TBEP Communication & Outreach Coordinator participated in the State of the Bay: Outlining Sessions on 4/2/2019.
TBEP Project Manager participated in the PPI City of St. Pete. on 4/10/2019.
TBEP Communication & Outreach Coordinator participated in the UT Senior Marketing Influencer Campaign Presentation on 4/12/2019.
TBEP Ecologist participated in the UT Senior Marketing Influencer Campaign Presentation on 4/12/2019.
TBEP Project Manager participated in the UT Senior Marketing Influencer Campaign Presentation on 4/12/2019.
TBEP Program Administrator participated in the UT Senior Marketing Influencer Campaign Presentation on 4/12/2019.
TBEP Project Manager participated in the Give-A-Day for the Bay at Stewart Middle Magnet School on 4/13/2019.
TBEP Executive Director participated in the Give-A-Day for the Bay at Stewart Middle Magnet School on 4/13/2019.
TBEP Communication & Outreach Coordinator participated in the St. Pete Earth Day Fest on 4/13/2019.
TBEP Communication & Outreach Coordinator participated in the HCCC Earth Day Fair on 4/18/2019.
TBEP Communication & Outreach Coordinator participated in the Pyrodinium Laboratory Review on 4/18/2019.
TBEP Communication & Outreach Coordinator participated in the Pyrodinium Laboratory Review on 4/18/2019.
TBEP Communication & Outreach Coordinator participated in the Country Day School Earth Day on 4/22/2019.
TBEP Project Manager participated in the Met Life Green Team Table Event on 4/23/2019.
TBEP Project Manager participated in the Regional Ocean Conference for Students
TBEP Outreach & Communications Report  
February 7 – May 10, 2019

TBEP Communication & Outreach Coordinator participated in the Future o' the Region Awards on 4/26/2019.
TBEP Communication & Outreach Coordinator participated in the Pinellas County Lakes and Pond Event on 4/27/2019.
TBEP Communication & Outreach Coordinator participated in the Florida Friendly Landscaping Meeting on 4/30/2019.
TBEP Communication & Outreach Coordinator participated in the Clean Air Fair on 5/2/2019.
TBEP Communication & Outreach Coordinator participated in the Social Media Marketing Workshop on 5/9/2019.
TBEP T. James participated in the TBEP Promotional Video - SPC on 1/31/19.
TBEP J. Allyn participated in the TBEP Management Board on 2/8/19.
TBEP J. Allyn participated in the The Shores of Long Bayou native plantings on 3/6/19.
TBEP J. Allyn participated in the Coffeepot Bayou Invasive removal/replanting on 3/21/19.
TBEP E. Franke participated in the Eckerd College Sustainability Festival-Table on 3/30/19.
TBEP S. Brandon participated in the Eckerd College Sustainability Festival on 3/30/19.
TBEP N. Nickeson participated in the St. Petersburg Earth Day - Table event on 4/13/19.