MORE THAN 50 PAGES AVAILABLE FOR REVIEW AT MINUTES

Agenda Item #: 3L4

PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

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Meeting Date: N	ovember 1, 2	016	(>	() Consent	() Regular
Department			() Workshop) () Public Hearing
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Motion and Title Agreement No. S Protection (DEP), 2, Second Revis Requirements, with	replaces Atta sed Grant V	4-1946) With chment A-1, F Vork Plan ai	the Floric Revised Grand Ind replace	la Departm ant Work Pl s Attachm	ent of	Environmental
Summary: Amendanguage, including and record keeping Complex) to include complex, and characters are the living Attachment E-1 up term of the Agreent amount of \$2,075,000	ng but not liming. Attachme de conducting inges to Tasi shoreline podates the Stanton	nt A-2 included the A-2 included to the A-2 included to the A-2 included to the A-2 included the A-2 include	mnification es changes reys associa alm Beach onents at thresholds	language, particular to Task of the test o	oublic r l (Pear ne loca k Living ark and	records access, nut Island Reef tion of the reef g Shoreline) to d Currie Park.
Background and the Board of Cour was approved by th	ity Commissi	oners (BCC)	on Decemb	ner 16 201	1 Am	andmant N- 1
Attachments: 1. Agreement No. S 2. Agreement No. S 3. Agreement No. S	S0751 Amend	ment No. 2 ment No. 1				
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Recommended by	: ///// Department	Allina Director		/0/s	/3/16 Pate	· · · · · · · · · · · · · · · · · · ·
Approved by:	Deputy Cou	nty Administ	rator	/ <i>C</i>	/24/ ate	16

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact: **Fiscal Years** 2015 2016 2017 2018 2019 Capital Expenditures **Operating Costs External Revenues** Program Income (County) In-Kind Match (County) **NET FISCAL IMPACT** # ADDITIONAL FTE POSITIONS (Cumulative) _____ Is Item Included in Current Budget? No_ Yes Budget Account No.: Fund 1229 Department 380 Unit VAR B. Recommended Sources of Funds/Summary of Fiscal Impact: No fiscal impact. C. **Department Fiscal Review: III. REVIEW COMMENTS** A. OFMB Fiscal and /or Contract Dev. and Control Comments: Contract Development and Control OFMB12710/14 Ulai28 В. Legal Sufficiency: Assistant County Attorney C. **Other Department Review: Department Director**

DEP AGREEMEN'T NO. S0751 AMENDMENT NO. 2

THIS AGREEMENT as entered into on the 6th day of March, 2015 and amended 24th day of July, 2015, between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (hereinafter referred to as the "Department") and the PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS (hereinafter referred to as the "Grantee") is hereby amended.

WHEREAS, due to minor adjustments, an amendment is needed to revise Attachment A, Grant Work Plan;

WHEREAS, other changes to the Agreement are necessary.

NOW, THEREFORE, the parties hereto agree as follows:

- 1. Paragraph 3.B is hereby deleted in its entirety and replaced with the following:
 - Prior written approval from the Department's Grant Manager shall be required for changes to this Agreement.
 - i. A Change Order to this Agreement is required when task timelines within the current authorized Agreement period change, and/or when the cumulative transfer of funds between approved budget categories, as defined in Attachment A-2, are less than ten percent (10%) of the total budget as last approved by the Department. All Change Orders are subject to the mutual agreement of both parties as evidenced in writing.
 - ii. A formal Amendment to this Agreement is required for changes which cause any of the following: an increase or decrease in the Agreement funding amount, a change in the Grantee's match requirements, a change in the expiration date of the Agreement, and/or changes to the cumulative amount of funding transfers between approved budget categories, as defined in Attachment A-2, exceeds or is expected to exceed ten percent (10%) of the total budget as last approved by the Department. All Amendments are subject to the mutual agreement of both parties as evidenced in writing.
- 2. Paragraph 4 is hereby revised to add the following sentence:
 - Authorization for continuation and completion of work and payment associated therewith may be rescinded with proper notice at the discretion of the Department if Legislative appropriations are reduced or eliminated.
- Paragraph 6 is hereby revised to add the following sentence:
 - Further, nothing herein shall be construed as consent by a state agency or subdivision of the State
 of Florida to be sued by third parties in any matter arising out of any contract or this Agreement.
- Paragraph 7 is hereby deleted in its entirety and replaced with the following:
 - 7. A. The Department may terminate this Agreement at any time if any warranty or representation made by Grantee in this Agreement or in its application for funding shall at any time be false or misleading in any respect, or in the event of the failure of the Grantee to fulfill any of its obligations under this Agreement. Prior to termination, the Department shall provide thirty (30) calendar days written notice of its intent to terminate and shall provide the Grantee an opportunity to consult with the Department regarding the reason(s) for termination.
 - B. The Department may terminate this Agreement for convenience by providing the Grantce with thirty (30) calendar day's written notice. If the Department terminates the Agreement for

convenience, the Department shall notify the Grantec of such termination, with instructions as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated. If the Agreement is terminated before performance is completed, the Grantee shall be paid only for that work satisfactorily performed for which costs can be substantiated.

- If a force majeure occurs that causes delays or the reasonable likelihood of delay in the fulfillment of the requirements of this Agreement, the Grantee shall promptly notify the Department orally. Within seven (7) calendar days, the Grantee shall notify the Department in writing of the anticipated length and cause of the delay, the measures taken or to be taken to minimize the delay and the Grantee's intended timetable for implementation of such measures. If the parties agree that the delay or anticipated delay was caused, or will be caused by a force majeure, the Department may, at its discretion, extend the time for performance under this Agreement for a period of time equal to the delay resulting from the force majeure upon execution of an amendment to this Agreement. Such agreement shall be confirmed by letter from the Department accepting, or if necessary, modifying the extension. A force majeure shall be an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, flood, explosion, failure to receive timely necessary third party approvals through no fault of the Grantee, and any other cause, whether of the kind specifically enumerated herein or otherwise, that is not reasonably within the control of the Grantee and/or the Department. The Grantee is responsible for the performance of all services issued under this Agreement. Failure to perform by the Grantee's consultant(s) or subcontractor(s) shall not constitute a force majeure event.
- 5. Paragraph 9 is hereby deleted in its entirety and replaced with the following:
 - 9. A. Grantee shall comply with Florida Public Records law under Chapter 119, F.S. Records made or received in conjunction with this Agreement are public records under Florida law, as defined in Section 119.011(12), F.S. Grantee shall keep and maintain public records required by the Department to perform the services under this Agreement.
 - B. This Agreement may be unilaterally canceled by the Department for refusal by the Grantee to either provide to the Department upon request, or to allow inspection and copying of all public records made or received by the Grantee in conjunction with this Agreement and subject to disclosure under Chapter 119, F.S., and Section 24(a), Article I, Florida Constitution.
 - C. If Grantee meets the definition of "Contractor" found in Section 119.0701(1)(a), F.S.; [i.e., an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency], then the following requirements apply:
 - i. Pursuant to Section 119.0701, F.S., a request to inspect or copy public records relating to this Agreement for services must be made directly to the Department. If the Department does not possess the requested records, the Department shall immediately notify the Grantee of the request, and the Grantee must provide the records to the Department or allow the records to be inspected or copied within a reasonable time. If Grantee fails to provide the public records to the Department within a reasonable time, the Grantee may be subject to penaltics under s. 119.10, F.S.
 - ii. Upon request from the Department's custodian of public records, Grantee shall provide the Department with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - iii. Grantee shall identify and ensure that all public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized

by law for the duration of the Agreement term and following completion of the Agreement if the Grantee does not transfer the records to the Department.

- iv. Upon completion of the Agreement, Grantee shall transfer, at no cost to Department, all public records in possession of Grantee or keep and maintain public records required by the Department to perform the services under this Agreement. If the Grantee transfers all public records to the Department upon completion of the Agreement, the Grantee shall destroy any duplicate public records that are exempt or confidential and exempt from public disclosure requirements. If the Grantee keeps and maintains public records upon completion of the Agreement, the Grantee shall meet all applicable requirements for retaining public records. All records that are stored electronically must be provided to Department, upon request from the Department's custodian of public records, in a format that is accessible by and compatible with the information technology systems of Department.
- IF THE GRANTEE HAS QUESTIONS REGARDING THE D. APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE GRANTEE'S DUTY TO PROVIDE PUBLIC RECORDS THIS AGREEMENT, CONTACT RELATING TO DEPARTMENT'S CUSTODIAN OF PUBLIC RECORDS by telephone (850)at 245-2118, by email ១វ ombudsman@dep.state.fl.us or at the mailing address below.

Department of Environment Protection ATTN: Office of Ombudsman and Public Services Public Records Request 3900 Commonwealth Boulevard, MS 49 Tallahassee, Florida 32399

- 6. Paragraph 10 is deleted in its entirety and replaced with the following:
 - 10. A. The Grantee shall maintain books, records and documents directly pertinent to performance under this Agreement in accordance with United States generally accepted accounting principles (US GAAP) consistently applied. The Department, the State, or their authorized representatives shall have access to such records for audit purposes during the term of this Agreement and for five (5) years following the completion date or termination of the Agreement. In the event any work is subcontracted, the Grantee shall similarly require each subcontractor to maintain and allow access to such records for audit purposes.
 - B. The Grantee understands its duty, pursuant to Section 20.055(5), F.S., to cooperate with the Department's Inspector General in any investigation, audit, inspection, review, or hearing. The Grantee will comply with this duty and ensure that its subcontracts issued under this Grant, if any, impose this requirement, in writing, on its subcontractors.
- 7. Paragraph 11 is deleted in its entirety and replaced with the following:
 - 11. A. In addition to the requirements of the preceding paragraph, the Grantee shall comply with the applicable provisions contained in Attachment E-1, Revised Special Audit Requirements, attached hereto and made a part hereof. Exhibit 1 to Attachment E-1 summarizes the funding sources supporting the Agreement for purposes of assisting the Grantee in complying with the requirements of Attachment E-1. A revised copy of Exhibit 1 must be provided to the Grantee for each amendment which authorizes a funding increase or decrease. If the Grantee fails to

receive a revised copy of Exhibit 1, the Grantee shall notify the Department's Grants Managers listed in paragraph 16 to request a copy of the updated information.

B. The Grantee is hereby advised that the Federal and/or Florida Single Audit Act Requirements may further apply to lower tier transactions that may be a result of this Agreement. The Grantee shall consider the type of financial assistance (federal and/or state) identified in Attachment E-1, Exhibit 1 when making its determination. For federal financial assistance, the Grantee shall utilize the guidance provided under 2 CFR §200.330 for determining whether the relationship represents that of a subrecipient or vendor. For state financial assistance, the Grantee shall utilize the form entitled "Checklist for Nonstate Organizations Recipient/Subrecipient vs Vendor Determination" (form number DFS-A2-NS) that can be found under the "Links/Forms" section appearing at the following website:

https:\\apps.fldfs.com\fsaa

- C. The Grantee should confer with its chief financial officer, audit director or contact the Department for assistance with questions pertaining to the applicability of these requirements.
- Paragraph 13 is hereby revised to add the following sentence:
 - 13. Further, in accordance with Section 11.062, F.S., no state funds, exclusive of salaries, travel expenses, and per diem, appropriated to, or otherwise available for use by, any executive, judicial, or quasi-judicial department shall be used by any state employee or other person for lobbying purposes.
- 9. Paragraph 15 is deleted in its entirety and replaced with the following:
 - All notices and written communication between the parties shall be sent by electronic mail, U.S. Mail, a courier delivery service, or delivered in person. Notices shall be considered delivered when reflected by an electronic mail read receipt, a courier service delivery receipt, other mail service delivery receipt, or when receipt is acknowledged by recipient. Any and all notices required by this Agreement shall be delivered to the parties at the addresses identified under paragraph 16 and 17.
- 10. Paragraph 17 is hereby revised to add the following sentence:
 - 17. In the event the Department's or the Grantee's Grant Manager changes, written notice by electronic mail with acknowledgement by the other party will be acceptable. Any subsequent Change Order or Amendment pursuant to paragraph 3.B should include the updated Grant Manager information.
- 11. Paragraph 18 is hereby deleted in its entirety and replaced with the following:
 - 18. A. Providing and maintaining adequate insurance coverage is a material obligation of the Grantee. This insurance must provide coverage for all claims that may arise from the performance of the work specified under this Agreement, whether such work is performed by the Grantee, any sub-grantee, or Grantee's contractors. Such insurance shall include the State of Florida, the Department, and the State of Florida Board of Trustees of the Internal Improvement Trust Fund, as Additional Insureds for the entire length of the Agreement.
 - B. Coverage may be by private insurance or self-insurance. The Grantee shall provide documentation of all required coverage to the Department's Grant Manager prior to performance of any work pursuant to this Agreement. All commercial insurance policies shall be with insurers licensed or eligible to do business in the State of Florida. The Grantee's current certificate of insurance shall contain a provision that the insurance will not be canceled for any reason except after thirty (30) calendar days' written notice (with the exception of non-payment of premium, which requires a

10-calendar-day notice) to the Department's Grant Manager. If the Grantee is self-funded for any category of insurance, then the Grantee shall provide documentation that warrants and represents that it is self-funded for said insurance, appropriate and allowable under Florida law, and that such self-insurance offers protection applicable to the Grantee's officers, employees, servants and agents while acting within the scope of their employment with the Grantee for the entire length of the Agreement.

- C. During the life of this Agreement, the Grantee shall secure and maintain insurance coverages as specified below. In addition, the Grantee shall include these requirements in any sub grant or subcontract issued for the performance of the work specified under this Agreement, unless such sub grant or subcontractor employees are covered by the protection afforded by the Grantee.
 - Workers' Compensation Insurance is required for all employees connected with the work of this project. Any self-insurance program or insurance coverage shall comply fully with the Florida Workers' Compensation law. In case any class of employees engaged in hazardous work under this Agreement is not protected under Workers' Compensation statutes, the Grantee shall provide proof of adequate insurance satisfactory to the Department, for the protection of its employees not otherwise protected.
 - ii. Commercial General Liability insurance is required, including bodily injury and property damage. The minimum limits of liability shall be \$200,000 each individual's claim and \$300,000 each occurrence.
 - <u>Commercial Automobile Liability insurance</u> is required, for all claims which may arise from the services and/or operations under this Agreement, whether such services and/or operations are by the Grantee or any of its contractors. The <u>minimum limits of liability</u> shall be as follows:

\$300,000 Automobile Liability Combined Single Limit for Company-Owned Vehicles, if applicable

\$300,000 Hired and Non-owned Automobile Liability Coverage

- iv. Other Insurance may be required if any work proceeds over or adjacent to water, including but not limited to Jones Act, Longshoreman's and Harbormaster's, or the inclusion of any applicable rider to worker's compensation insurance, and any necessary watercraft insurance, with limits of not less than \$300,000 each. Questions concerning required coverage should be directed to the U.S. Department of Labor (http://www.dol.gov/owcp/dlhwc/lscontac.htm) or to the parties' insurance carrier.
- Paragraph 19 is deleted in its entirety and replaced with "Reserved."
- Paragraph 22 is deleted in its entirety and replaced with "Reserved."
- 14. Paragraph 26 is hereby deleted in its entirety and replaced with the following:
 - 26. A. Pursuant to Section 255.0991, F.S., for a competitive solicitation for construction services in which 50 percent or more of the cost will be paid from state-appropriated funds which have been appropriated at the time of the competitive solicitation, a state college, county, municipality, school district, or other political subdivision of the state may not use a local ordinance or regulation that provides a preference based upon:
 - i. The contractor's maintaining an office or place of business within a particular local jurisdiction;
 - ii. The contractor's hiring employees or subcontractors from within a particular local jurisdiction; or

- iii. The contractor's prior payment of local taxes, assessments, or duties within a particular local jurisdiction.
- B. For any competitive solicitation that meets the criteria in Paragraph A., a state college, county, municipality, school district, or other political subdivision of the state shall disclose in the solicitation document that any applicable local ordinance or regulation does not include any preference that is prohibited by Paragraph A.
- 15. Paragraph 27 is hereby deleted in its entirety and replaced with the following:
 - 27. The employment of unauthorized aliens by any Grantee/subcontractor is considered a violation of Section 274A(e) of the Immigration and Nationality Act. If the Grantee/subcontractor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this Agreement. The Grantee shall be responsible for including this provision in all subcontracts with private organizations issued as a result of this Agreement.
- 16. The following is hereby added to the Agreement as Paragraph 28:
 - 28. As applicable, Department personnel shall be given access to and may observe and inspect work being performed under this Agreement, including by any of the following methods:
 - Grantee shall provide access to any location or facility on which Grantee is performing work, or storing or staging equipment, materials or documents;
 - B. Grantee shall permit inspection of any facility, equipment, practices, or operations required in performance of any work pursuant to this Agreement; and
 - C. Grantee shall allow and facilitate sampling and monitoring of any substances, soils, materials or parameters at any location reasonable or necessary to assure compliance with any work or legal requirements pursuant to this Agreement.
- 17. The following is hereby added to the Agreement as Paragraph 29:
 - 29. Grantee certifies that it and any of its affiliates are not scrutinized companies as identified in Section 287.135, F.S. In addition, Grantee agrees to observe the requirements of Section 287.135, F.S., for applicable sub-agreements entered into for the performance of work under this Agreement. Pursuant to Section 287.135, F.S., the Department may immediately terminate this Agreement for cause if the Grantee, its affiliates, or its subcontractors are found to have submitted a false certification; or if the Grantee, its affiliates, or its subcontractors are placed on any applicable scrutinized companies list or engaged in prohibited contracting activity during the term of the Agreement. As provided in Subsection 287.135(8), F.S., if federal law ceases to authorize these contracting prohibitions then they shall become inoperative.
- 18. The following is hereby added to the Agreement as Paragraph 30:
 - This Agreement, and any Amendments or Change Orders thereto, may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof.
- 19. The following is hereby added to the Agreement as Paragraph 31:
 - 31. This Agreement has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida. Wherever possible, each provision of this Agreement shall be interpreted

in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement. Any action hereon or in connection herewith shall be brought in Leon County, Florida.

- 20. The following is hereby added to the Agreement as Paragraph 32:
 - 32. This Agreement represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing, duly signed by each of the parties hereto, and attached to the original of this Agreement, unless otherwise provided herein.
- Attachment A-1, Revised Grant Work Plan, is hereby deleted in its entirety and replaced with Attachment A-2, Second Revised Grant Work Plan, attached hereto and made a part of the Agreement. All references in the Agreement to Attachment A shall hereinafter refer to Attachment A-2, Second Revised Grant Work Plan.
- Attachment E, Special Audit Requirements, is hereby deleted in its entirety and replaced with Attachment
 E-1, Revised Special Audit Requirements, attached hereto and made a part of the Agreement.

In all other respects, the Agreement of which this is an Amendment, and attachments relative thereto, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed the day and year last written below.

PALM BEACH COUNTY OF ENVIRONMENTAL RESOURCES MANAGEMENT	STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
By:	By: Secretary or designee
Date:	
	Print Name and Title of Authorized Person
APPROVED AS TO FORM AND LEGAL SUFFICIENCY	Date:
	Deinna Nicholson, Technical DEP Grant Manager
By:Assistant County Attorney	Eduardo Cambeiro, Administrative DEP Grant Manager
(SEAL)	DEP Grants Administrator
ATTEST:	Approved as to form and legality:
Sharon R. Bock, Clerk & Comptroller	DEP Attornex
By:	
APPROVED AS TO TERMS AND CONDITIONS	

Robert Robbins, Director

Palm Beach County Dept. of Environmental Resources Management List of attachments/exhibits included as part of this Amendment:

Specify Type	Letter/Number	Description (include number of pages)
Attachment	A-2	Second Revised Grant Work Plan (9 pages)
Attachment	E-1	Revised Special Audit Requirements (5 pages)

^{*}For Agreements with governmental boards/commissions: If someone other than the Chairman signs this Amendment, a resolution, statement or other document authorizing that person to sign the Amendment on behalf of the Grantee must accompany the Amendment.

ATTACHMENT A-2 SECOND REVISED GRANT WORK PLAN

Project Title: Lake Worth Lagoon Initiative

Project Funding: \$2,075,000 Required Match: \$2,075,000 Total Project Cost: \$4,150,000

Project Location: Palm Beach County

Project Background: The Lake Worth Lagoon (LWL) estuary stretches 20 miles along the shores of 13 municipalities from North Palm Beach to Boynton Beach, and has been subjected to pollution and habitat losses for decades. Revitalizing this important water body provides long-term environmental, recreational, and economic benefits to the region.

Human activities over the past 100 years have degraded the Lagoon's habitat and water quality. Examples include the construction of permanent inlets; dredging and filling of wetlands along the shoreline; channel dredging; wastewater discharges; and the construction of seawalls, canals, bridges, causeways, docks, marinas, the port, and power plant. Today, 81% of the shoreline is bulkheaded, only 283 acres of mangroves remain, and much of the stormwater from the urbanized watershed is not treated to remove pollutants before discharging to LWL.

Despite the success of the past 20 years, challenges remain. Urban and agricultural runoff containing contaminants, toxins, nutrients, and sediments, increasing residential and commercial growth, and a lack of understanding among residents and visitors regarding how individual behaviors affect LWL, continue to stress this valuable urban estuary. Much of the same damage experienced in the St. Lucie River this past wet season has been experienced in LWL. Significant increases in freshwater flowing into LWL have impacted habitat, including many seagrasses and oyster beds constructed through the Lake Worth Lagoon Initiative (LWLI).

Legislative Appropriation: The Fiscal Year (FY) 2014-15 General Appropriations Act states that "funds in Specific Appropriations 1627A shall be distributed to Everglades and other environmental initiatives in the amounts and purposes in the Select Committee on Indian River Lagoon and Lake Okecchobee Basin (IRLLOB) final report dated November 8, 2013." The IRLLOB report states the following: "Palm Beach County, the SFWMD, the DEP, and the League of Cities have endorsed a plan to restore Lake Worth Lagoon. This plan includes restoration of seagrasses and mangroves, capping of muck, and construction of stormwater control projects. This is a cost-share program with local governments for projects to benefit Lake Worth Lagoon. Funding is allocated through the Lake Worth Lagoon Partnership Grant Program, which provides a competitive process for selection of viable restoration and water quality projects.

Each state dollar is matched at the local level on a minimum 50:50 cost-share basis. Through this program, over \$17 million in state funds and \$59 million in local funds have been dedicated to restoring Lake Worth Lagoon. The Committee recommends appropriating \$2,075,000 for continued funding of this program and the implementation of these short-term projects."

Funding is now allocated through the LWLI rather than the Lake Worth Lagoon Partnership Grant Program referenced in the IRLLOB report. The LWLI is an interagency collaboration including Palm Beach County (PBC), the South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (DEP), and the League of Cities. These supporting agencies of the Initiative raise awareness of LWL issues and endorse the Lake Worth Lagoon Management Plan to restore LWL.

Since 1998, the State Legislature has supported the restoration and enhancement of LWL by appropriating over \$17 million through the LWLI. More than \$59 million in local funds have been dedicated to restoring LWL. Each state dollar is matched at the local level on a minimum 50:50 cost-share basis. According to Florida Inland Navigation District (FIND) Chapter 66B-2.005(2), "All financial assistance shall require, at minimum, equal matching funds from the project sponsor...." State funding is matched by grants received from multiple federal and local programs, including U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, FIND, Florida Fish and Wildlife Conservation Commission, and the local government of PBC.

Project Description: The Lake Worth Lagoon Management Plan, adopted by the Board of County Commissioners on July 22, 2014, includes projects to restore seagrasses, mangroves, and oysters; to cap muck; and to construct stormwater control structures. For the FY 2014-15 legislative appropriation, the six sub-projects were prioritized to address the environmental restoration of LWL. These are further described in the task descriptions below.

Task 1: Peanut Island Reef Complex

Description: The Peanut Island Reef Complex (Peanut Island) located in the City of Riviera Beach will provide artificial reef habitat to benefit marine life and enhance recreational snorkeling and diving. Peanut Island consists of three emergent reef structures that will be constructed to reduce wave energy, thereby providing shoreline protection and resilience to sea level rise. Additionally, placement of discrete limestone rock piles will create an artificial snorkel reef trail. These reef structures are designed to serve as a marine refuge during prolonged high-volume inflows of freshwater into the LWL system. The Grantee will:

- Complete construction plans and competitively bid the work to a subcontractor;
- Conduct preconstruction bathymetric survey and identify appropriate alternative (secondary) project locations adjacent to Peanut Island;
- Identify any potential submerged hazards within the project footprint and work with identified owner/operators to determine limitations associated with their presence; and Construct the Peanut Island Reef Complex as permitted in SFWMD Environmental Resource Permit (ERP) Permit No. 50-03713-P.

Executed subcontracts and a copy of the SFWMD ERP permit will be submitted to the Department Grant Managers for review and acceptance prior to invoicing.

Deliverables: Copies of all issued permits, executed subcontracts, preconstruction bathymetric survey report, copy of work supplement depicting reef structure location change due to identified submerged hazard, dated photographs of the completed reef complex, and construction as-built drawings.

Completion Date(s): June 30, 2017.

Performance Standards: The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 2: West Palm Beach Currie Park and Osprey Park Living Shorelines

Description: Living shorelines provide important habitat for a variety of marine organisms. The enhanced shoreline also provides important marine refuge during prolonged high-volume inflows of freshwater into the LWL system. Mangrove and Spartina planters are proposed along a portion of the bulkheaded shoreline of the City of West Palm Beach. The planters create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawall, and provide resilience to sea level rise. The project will create new mangrove, Spartina, and oyster reef habitats that have been removed as a result of development. The Grantce will:

- Complete construction plans and competitively bid the work to a subcontractor;
- Construct and install a total of eight living shoreline mangrove planters totaling 820 linear feet along existing seawalls at Currie Park and Osprey Park;
- Enhance a total of 1,265 linear feet of Curric Parks shoreline with the placement of rip rap to create oyster habitat; and
- Install an educational/informational kiosk to raise awareness and to inform the public about LWL.

Deliverables: Copies of all issued permits, executed subcontracts, dated photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017.

Performance Standards: The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 3: Palm Beach Grassv Flats Restoration Phase II

Description: The Grassy Flats Restoration Project Phase II will create over 12 acres of scagrass, mangrove, salt marsh, and oyster habitat in a degraded area of LWL. This area, off the Town of Palm Beach, is currently covered in muck sediments, which have accumulated as a result of stormwater discharges through the adjacent C-51 flood control canal. Phase II entails placing a sand cap that will entomb approximately 30,000 cubic yards of muck and provide the substrate and elevations necessary to support the diverse wetland habitats. The newly created wetland will restore critical estuarine habitat for fisheries and wildlife (including endangered species), and provide an ecotourism destination that will support fishing and kayaking activities. The Grantee will:

- Complete construction plans and competitively bid the work to a subcontractor;
- Stabilize 30,000 cubic yards of muck with a sand cap and limestone rock;
- Place a sand cap over muck substrate to create 12 acres of seagrass, mangrove, salt marsh and oyster habitat;
- Plant up to 35,000 Spartina plugs and up to 3,000 red mangrove seedlings; and

Perform bathymetric surveys, before, during and after project completion.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, dated photographs, construction as-built drawings and report summarizing the results of the bathymetric surveys.

Completion Date(s): June 30, 2017.

Performance Standards: The Department Grant Managers will review executed subcontracts, issued permits, photographs, bathymetric survey report, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 4: Bryant Park Living Shoreline

Description: Living shorelines provide important habitat for marine organisms, feeding areas for birds and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the LWL system.

The Bryant Park Living Shoreline project will construct 1,100 linear feet of mangrove and *Spartina* planters and 1,000 linear feet of rip-rap along portions of Bryant Park's 2,600-foot-long bulkheaded shoreline. The planters and rip-rap will create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawalls, and increase resilience to sea level rise. The project will replace mangrove, *Spartina*, and oyster reef habitats that have been lost due to bulkheaded shoreline development within LWL. The Grantee will:

- Complete construction plans and competitively bid the work to a subcontractor;
- Install approx. 1,000 linear feet of planters creating a 0.24-acre living shoreline;
- Plant up to 4,000 red mangrove seedlings and Spartina plugs; and
- Construct the Bryant Park Living Shoreline as permitted in DEP permit No. 50-0312260-001.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, dated photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017.

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 5: Old Bridge Park (Steinhardt Cove) Living Shoreline

Description: Living shorelines provide important habitat for marine organisms, feeding areas for birds, and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the LWL system.

The Old Bridge Park Living Shoreline project (formerly named Steinhardt Cove) will remove exotic vegetation and install native plants along 1,200 linear feet of shoreline. Rip-rap and sheet pile will be installed to protect the eroding shoreline and provide mangrove, *Spartina*, and oyster reef habitats, add shoreline resilience to sea level rise and enhance recreational fishing opportunities. The Grantee will:

- Complete construction plans and competitively bid the work to a subcontractor;
- Remove exotic vegetation, install a trail, construct shade shelters and plant native vegetation along 1,200 linear feet of shoreline;
- Restore sheetpile wall to protect the site from erosion;
- Install 1,200 tons of riprap along 0.18 acre of shoreline creating a mangrove planter;
- Plant up to 4,000 red mangrove seedlings and Spartina plugs;
- Install an educational/informational kiosk to raise awareness and inform the public about the LWL ecosystem; and
- Construct the Old Bridge Park Living Shoreline as permitted in DEP permit No. 50-0312260-001.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, dated before and after photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017.

Performance Standards: The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 6: Monitoring

Description: The LWLI has prioritized the five construction projects to restore several acres of critical habitat, including seagrass, mangrove, marsh grasses, oyster reefs, and artificial reefs within LWL. Restoration of these estuarine resources will provide habitat for fisheries and wildlife (including endangered species), and provide an

ecotourism destination that will continue to support boating, fishing, birding, and kayaking activities. The Lake Worth Lagoon Monitoring project's objective is to document the Lagoon's environmental health and to monitor any improvements based on the implementation of construction projects designed to benefit habitat. The environmental technical data will be compiled in final reports to meet the requirements of Chapter 62-160, Florida Administrative Code (F.A.C.).

The following information must be included in the monitoring and survey reports: Lake Worth Lagoon Fixed Transect Seagrass Monitoring

Annual monitoring of nine transects (for a total of 27 stations) located throughout north, central and south LWL has been conducted since 2000. Monitoring will be conducted during June through August 2015-16, and will include species presence/absence, depth distribution, abundance, shoot density and bed width/edge location, and 1-m² photo stations at Transects 1, 3, and 5. A Sampling and Analysis Plan will be developed and implemented for the proposed monitoring that complies with the requirements of Chapter 62-160, F.A.C. The Sampling and Analysis Plan will outline how the results of the 2015-16 monitoring results will be compiled, analyzed, and compared to the data collected between 2000 and 2015-16.

The final report will include maps, tables, and graphs depicting trends in seagrass cover, abundance, and bed extent.

Oyster Monitoring in Lake Worth Lagoon

The eastern oyster (Crassostrea virginica) will be monitored at three long-term natural oyster reef stations, as well as at an additional three man-made reef stations in LWL (John's Island, Grassy Flats, and Snook Islands).

This 18-month project includes 15 months of field sampling for the collection, analysis, and summary of oyster data from six sites within LWL. The goal of this study is to determine settled oyster density, reproductive development, prevalence and intensity of the *Perkinsus marinus* parasite, and recruitment of established oysters. Oyster vitality will also be related to incidence of the oyster disease *Perkinsus marinus* (dermo).

Analysis of data generated from samples collected under this Sampling and Analysis Plan will be used to guide management decisions affecting oyster restoration projects. Descriptive statistics, figures, and summaries of data will be generated for quarterly reports. For the final report, data will be statistically compared between stations and among months. The Final report shall summarize all data collected for the 18-month period of the study.

Central Lake Worth Lagoon Fisheries Monitoring Program

The project is designed to assess lish species' presence in and utilization of specific restored habitats in central LWL. Monitoring will include the 13-acre Grassy Flats restoration site, the 20-acre Snook Islands restoration site, and a control area that includes habitats similar to pre-restoration habitats at Grassy Flats.

Sampling will be conducted quarterly. Each sample event will consist of two days of sampling (21 net pulls in two days) in three zones (Snook Islands, Grassy Flats, and the control). Each sample event will include four 21-m seine hauls in each of the three zones (two inshore and two offshore) and three 40-m seine hauls in each zone. Environmental data consisting of water chemistry, habitat characteristics, current and tidal conditions will be recorded for each sample. All fish and selected invertebrate species captured will be identified to the lowest practical taxonomic level. The final report will detail methods and materials used and results obtained and include objectives, methods, analyses, results (in graphic or tabular format), discussion and interpretation of results, and recommendations for future work. The subprojects for State Fiscal Year 2014-2015 include:

- Seagrass Survey;
- Oyster Monitoring Study; and
- Fisheries Monitoring.

Deliverables:

- A Sampling and Analysis Plan for the proposed monitoring that complies with the requirements of Chapter 62-160, FAC. The Sampling and Analysis Plan will outline how the results of the 2015 and 2016 monitoring results will be compiled, analyzed, and compared to the data in previous studies.
- LWL Fixed Transect Seagrass Monitoring and Survey reports. The final report will assess small scale, areaspecific changes in seagrass cover; and monitor for species presence/absence, depth distribution, abundance, shoot density and bed width/edge location. Data will include maps, tables and graphs for individual transects, station photos and spreadsheets of all data collected.
- Oyster Monitoring and Survey reports in LWL. The final report will analyze oyster data from six sites in LWL. The summarization will assess settled oyster abundance, reproductive and disease monitoring, and spat recruitment. The primary goal is to determine settled oyster density, reproductive development,

- prevalence and intensity of the *Perkinsus marinus* parasite, and recruitment of established oysters at six locations in LWL.
- 4. Central Lake Worth Lagoon Fisheries Monitoring Survey reports. The objective will be to assess the fish diversity and habitat utilization at selected locations in LWL through the conduction of one year of monitoring (four quarterly events) in central LWL. The final report will compare the fishery resources at the new Grassy Flats restoration site to the well-established Snook Islands restoration site and the control site in the immediate vicinity. The goal is to assess the utilization of restored habitats at the Grassy Flats restoration project site by juvenile and adult fish species common in central LWL.

Completion Date(s): After execution of the agreement prior to implementation of monitoring. Thirty-six months from the start date of Agreement.

- Deliverable 1: Sampling and Analysis Plan January 2015, or at least 30 days prior to sampling for review and approval.
- Deliverable 2: Seagrass final report June 2016.
- Deliverable 3: Oyster final report April 2017.
- Deliverable 4: Fisheries final report June 2016.

<u>Performance Standards:</u> The Department Grant Managers will review the Sampling and Analysis Plan for the proposed monitoring and to ensure any comments received from DEP have been addressed appropriately.

The Department Grant Managers will review the monitoring and survey final reports for completeness to ensure they include the components described, and for compliance with the guidelines described in the task description and the Sampling and Analysis Plan.

Project Budget by Category and Task:

Task No.	Category	Grant Funding	Match
	Salaries	\$14,127	\$14,127
Pennut Island Reef	Fringe Benefits	\$7,086	\$7,086
Complex	Contractual	\$68,787	\$68,787
	TOTAL FOR TASK	\$90,000	\$90,000
2	Salaries	\$40,929	\$40,929
West Palm Beach	Fringe Benefits	\$19,071	\$19,071
Currie Park Living	Contractual	\$300,000	\$300,000
Shoreline	TOTAL FOR TASK	\$360,000	\$360,000
3	Salaries	\$40,237	\$40,237
Palm Beach Grassy	Fringe Benefits	\$19,763	\$19,763
Flats Restoration Phase II	Contractual	\$900,000	\$900,000
	TOTAL FOR TASK	\$960,000	\$960,000
	Salaries	\$50,575	\$50,575
Personal David I	Fringe Benefits	\$24,425	\$24,425
Bryant Park Living Shoreline	Contractual	\$250,000	\$250,000
	TOTAL FOR TASK	\$325,000	\$325,000
5	Salaries	\$27,078	\$27,078
Old Bridge Park	Fringe Benefits	\$12,922	\$12,922
(Steinhardt Cove)	Contractual	\$150,000	\$150,000
Living Shoreline -	TOTAL FOR TASK	\$190,000	\$190,000
	Salaries	\$50,057	\$50,057
	Fringe Benefits	\$24,943	\$24,943
6	Contractual	\$75,000	\$75,000
Monitoring	TOTAL FOR TASK	\$150,000	\$150,000
	Total:	\$2,075,000	\$2,075,000
	Total Project Cost:	\$4,150,00	

PROJECT BUDGET SUMMARY: Cost reimbursable grant funding must not exceed the category totals for the project as indicated below. Match funding shall be provided in the categories indicated below.

Category Totals	Grant Funding, Not to Exceed, S	Match Funding, S	Total Project Funding
Salaries Total	\$223,003	\$223,003	\$446,006
Fringe Benefits	\$108,210	\$108,210	\$216,420
Contractual Services Total	\$1,743,787	\$1,743,787	\$3,487,574
Total:	S2,075,000	\$2,075,000	\$4,150,000
Percentage Match:	50%	50%	- 1,100,000

	Table 1: Salaries/Fringe.		
Task No.	Position(s) Title	Salary Per Hour (\$)	Fringe
	Deputy Director PBC ERM	62.69	50.16%
Peanut Island Reef Complex Environmental I Senior Profession Professional Eng Project Coordina Technical Assist Sr. Environmental A	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
	Professional Engineer	41,26	50.16%
	Project Coordinator I	23.81	50.16%
	Technical Assistant II	22.94	50.16%
	Sr. Environmental Analyst	35.32	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	0%
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
2	Professional Engineer	41.26	50.16%
West Palm	Project Coordinator I	23.81	50.16%
Beach Currie	Technical Assistant II	22.94	50.16%
Park Living	Sr. Environmental Analyst	35.32	50.16%
Shoreline	Sr. Environmental Analyst	28.77	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Sr. Environmental Analyst	30.05	50.16%
	Student Employees	11.60	0%

	Table 1: Salaries/Fringe.		THE PARTY
Task No.	Position(s) Title	Salary Per Hour (\$)	Fringe
	Deputy Director PBC ERM	62.69	50.16%
3	Environmental Director	55,44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
	Professional Engineer	41.26	50.16%
3	Project Coordinator	23.81	50.16%
Palm Beach	Technical Assistant II	22.94	50.16%
Grassy Flats	Sr. Environmental Analyst	35,32	50.16%
Restoration Phase	Sr. Environmental Analyst	28.77	50.16%
11	Sr. Environmental Analyst	30.05	50.16%
	Environmental Analyst	25.14	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Technical Assistant III	27.13	50.16%
	Student Employees	11.60	0%
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
	Professional Engineer	41.26	50.16%
4	Project Coordinator I	23.81	50.16%
Bryant Park	Technical Assistant II	22.94	50.16%
Living Shoreline	Sr. Environmental Analyst	35.32	50.16%
	Sr. Environmental Analyst	28.77	50.16%
	Sr. Environmental Analyst	30,05	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	0%

	Table 1: Salaries/Fringe.		
Task No.	Position(s) Title	Salary Per Hour (\$)	Fringe
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
5	Senior Professional Engineer	65.48	50.16%
Old Bridge Park	Professional Engineer	41.26	50.16%
(Steinhardt Cove)	Project Coordinator I	23.81	50.16%
Living Shoreline	Technical Assistant II	22.94	50.16%
	Sr. Environmental Analyst	30.05	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11,60	0%
	Environmental Program Supervisor	45.38	50.16%
	Environmental Analyst	24.41	50.16%
6	Environmental Program Supervisor	48.72	50,16%
	Environmental Analyst	24.01	50.16%
Lake Worth agoon Monitoring	Technical Assistant III	26.34	50.16%
	Environmentalist I	19.83	50.16%
	Student Employees	11.00	0%
	Contract Manager	30.32	50.16%

ATTACHMENT E-1

REVISED SPECIAL AUDIT REQUIREMENTS

The administration of resources awarded by the Department of Environmental Protection (which may be referred to as the "Department", "DEP", "FDEP" or "Grantor", or other name in the contract/agreement) to the recipient (which may be referred to as the "Contractor", Grantee" or other name in the contract/agreement) may be subject to audits and/or monitoring by the Department of Environmental Protection, as described in this attachment.

MONITORING

In addition to reviews of audits conducted in accordance with OMB Circular A-133, as revised, 2 CFR Part 200, Subpart F, and Section 215.97, F.S., as revised (see "AUDITS" below), monitoring procedures may include, but not be limited to, on-site visits by Department staff, limited scope audits as defined by OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, and/or other procedures. By entering into this Agreement, the recipient agrees to comply and cooperate with any monitoring procedures/processes deemed appropriate by the Department of Environmental Protection. In the event the Department of Environmental Protection determines that a limited scope audit of the recipient is appropriate, the recipient agrees to comply with any additional instructions provided by the Department to the recipient regarding such audit. The recipient further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Chief Financial Officer or Auditor General.

AUDITS

PART I: FEDERALLY FUNDED

This part is applicable if the recipient is a State or local government or a non-profit organization as defined in OMB Circular A-133, as revised (for fiscal year start dates prior to December 26, 2014), or as defined in 2 CFR §200.330 (for fiscal year start dates after December 26, 2014).

- 1. In the event that the recipient expends \$500,000 (\$750,000 for fiscal year start dates after December 26, 2014) or more in Federal awards in its fiscal year, the recipient must have a single or program-specific audit conducted in accordance with the provisions of OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F. EXHIBIT 1 to this Attachment indicates Federal funds awarded through the Department of Environmental Protection by this Agreement. In determining the Federal awards expended in its fiscal year, the recipient shall consider all sources of Federal awards, including Federal resources received from the Department of Environmental Protection. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F. An audit of the recipient conducted by the Auditor General in accordance with the provisions of OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, will meet the requirements of this part.
- In connection with the audit requirements addressed in Part I, paragraph I, the recipient shall fulfill the requirements relative to auditee responsibilities as provided in Subpart C of OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F.
- 3. If the recipient expends less than \$500,000 (or \$750,000, as applicable) in Federal awards in its fiscal year, an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, is not required. In the event that the recipient expends less than \$500,000 (or \$750,000, as applicable) in Federal awards in its fiscal year and elects to have an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F the cost of the audit must be paid from non-Federal resources (i.e., the cost of such an audit must be paid from recipient resources obtained from other than Federal entities).
- The recipient may access information regarding the Catalog of Federal Domestic Assistance (CFDA) via the internet at <u>www.cfda.gov</u>

PART II: STATE FUNDED

This part is applicable if the recipient is a nonstate entity as defined by Section 215.97(2)(n), Florida Statutes.

- 1. In the event that the recipient expends a total amount of state financial assistance equal to or in excess of \$750,000 in any fiscal year of such recipient, the recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. EXHIBIT 1 to this Attachment indicates state financial assistance awarded through the Department of Environmental Protection by this Agreement. In determining the state financial assistance expended in its fiscal year, the recipient shall consider all sources of state financial assistance, including state financial assistance received from the Department of Environmental Protection, other state agencies, and other nonstate entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a nonstate entity for Federal program matching requirements.
- 2. In connection with the audit requirements addressed in Part II, paragraph I; the recipient shall ensure that the audit complies with the requirements of Section 215.97(7), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2), Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.
- 3. If the recipient expends less than \$750,000 in state financial assistance in its fiscal year, an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, is not required. In the event that the recipient expends less than \$750,000 in state financial assistance in its fiscal year, and elects to have an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, the cost of the audit must be paid from the non-state entity's resources (i.e., the cost of such an audit must be paid from the recipient's resources obtained from other than State entities).
- 4. For information regarding the Florida Catalog of State Financial Assistance (CSFA), a recipient should access the Florida Single Audit Act website located at https://apps.fldfs.com/fsaa for assistance. In addition to the above websites, the following websites may be accessed for information: Legislature's Website at http://www.leg.state.fl.us/Welcome/index.cfm, State of Florida's website at http://www.myflorida.com/, Department of Financial Services' Website at http://www.fldfs.com/ and the Auditor General's Website at http://www.fldfs.com/ and the

PART III: OTHER AUDIT REQUIREMENTS

(NOTE: This part would be used to specify any additional audit requirements imposed by the State awarding entity that are solely a matter of that State awarding entity's policy (i.e., the audit is not required by Federal or State laws and is not in conflict with other Federal or State audit requirements). Pursuant to Section 215.97(8), Florida Statutes, State agencies may conduct or arrange for audits of State financial assistance that are in addition to audits conducted in accordance with Section 215.97, Florida Statutes. In such an event, the State awarding agency must arrange for funding the full cost of such additional audits.)

PART IV: REPORT SUBMISSION

 Copies of reporting packages for audits conducted in accordance with OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F and required by PART I of this Attachment shall be submitted, when required by Section .320 (d), OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, by or on behalf of the recipient <u>directly</u> to each of the following: A. The Department of Environmental Protection at one of the following addresses:

By Mail: Audit Director Florida Department of Environmental Protection Office of the Inspector General, MS 40 3900 Commonwealth Boulevard Tallahassec, Florida 32399-3000

Electronically: FDEPSingleAudit@dep.state.fl.us

B. The Federal Audit Clearinghouse designated in OMB Circular A-133, as revised, and 2 CFR §200.501(a) (the number of copies required by Sections .320 (d)(1) and (2), OMB Circular Λ-133, as revised, and 2 CFR §200.501(a) should be submitted to the Federal Audit Clearinghouse), at the following address:

Federal Audit Clearinghouse Bureau of the Census 1201 East 10th Street Jeffersonville, IN 47132

Submissions of the Single Audit reporting package for fiscal periods ending on or after January 1, 2008, must be submitted using the Federal Clearinghouse's Internet Data Entry System which can be found at http://harvester.census.gov/facweb/

- C. Other Federal agencies and pass-through entities in accordance with Sections .320 (e) and (f), OMB Circular A-133, as revised, and 2 CFR §200.512.
- Pursuant to Section .320(f), OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, the recipient shall submit a copy of the reporting package described in Section .320(c), OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, and any management letters issued by the auditor, to the Department of Environmental Protection at one the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

- 3. Copies of financial reporting packages required by PART II of this Attachment shall be submitted by or on behalf of the recipient <u>directly</u> to each of the following:
 - A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically: FDEPSingleAudit@dep.state.fl.us

B. The Auditor General's Office at the following address:

State of Florida Auditor General Room 401, Claude Pepper Building 111 West Madison Street Tallahassee, Florida 32399-1450

4. Copies of reports or management letters required by PART III of this Attachment shall be submitted by or on behalf of the recipient <u>directly</u> to the Department of Environmental Protection at one of the following addresses:

By Mail:
Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically: FDEPSingleAudit@dep.state.fl.us

- 5. Any reports, management letters, or other information required to be submitted to the Department of Environmental Protection pursuant to this Agreement shall be submitted timely in accordance with OMB Circular A-133, as revised, and 2 CFR Part 200, Subpart F, Florida Statutes, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.
- 6. Recipients, when submitting financial reporting packages to the Department of Environmental Protection for audits done in accordance with OMB Circular A-133, as revised and 2 CFR Part 200, Subpart F, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date that the reporting package was delivered to the recipient in correspondence accompanying the reporting package.

PART V: RECORD RETENTION

The recipient shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of 5 years from the date the audit report is issued, and shall allow the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General access to such records upon request. The recipient shall ensure that audit working papers are made available to the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General upon request for a period of 3 years from the date the audit report is issued, unless extended in writing by the Department of Environmental Protection.

EXHIBIT-1

FUNDS AWARDED TO THE RECIPIENT PURSUANT TO THIS AGREEMENT CONSIST OF THE FOLLOWING:

	rces Awarded to the Recipi	ent Pursuant to this A	greement Consist of the Following:		
Federal Program		CFDA			State
Number	Federal Agency	Number	CFDA Title	Funding Amount	Appropriation Category
		 			
					
	<u> </u>	<u> </u>			

State Resource	es Awarded to the Recipient	Pursuant to this A	Agreement Consist of the Following Matching Resour	ces for Federal Progra	nms:
Federal Program Number	Federal Agency	CFDA	CFDA Title	Funding Amount	State Appropriation Category

State Resource	ces Awarded to the Recipient I	Pursuant to this	Agreement Co	onsist of the Following Resources Subjec	t to Section 215.97, F.	S.:
State Program	1	State	CSFA	CSFA Title		State
Number	Funding Source	Fiscal Year	Number	Funding Source Description	Funding Amount	Appropriation Category
Original Agreement	General Appropriations Act, Line Item 1627A	2014-2015	37.022	Water Management Districts - Land Acquisition and Improvement	\$2,075,000.00	141120
	<u> </u>					

Total Aw	ard \$2,075,000.00	

For each program identified above, the recipient shall comply with the program requirements described in the Catalog of Federal Domestic Assistance (CFDA) [www.cfda.gov] and/or the Florida Catalog of State Financial Assistance (CSFA) [https://apps.fldfs.com/fsaa/searchCatalog.aspx]. The services/purposes for which the funds are to be used are included in the Contract scope of services/work. Any match required by the recipient is clearly indicated in the Contract.

ATTACHMENT 2

DEP AGREEMENT NO. S0751 AMENDMENT NO. 1

THIS AGREEMENT as entered into on the 6th day of March, 2015, between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (hereinafter referred to as the "Department") and the PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS (hereinafter referred to as the "Grantee") is hereby amended.

WHEREAS, due to minor adjustments, an amendment is needed to revise Attachment A. Grant Work Plan and Attachment F, Quality Assurance Requirements; and,

WHEREAS, other changes to the Agreement are necessary.

NOW, THEREFORE, the parties hereto agree as follows:

Paragraph 16 is hereby revised to change the Department's Administrative Grant Manager only:

Administrative	
Eduardo Cambeiro	
Florida Departmen	t of Environmental Protection
Office of Ecosyste	m Projects
3900 Commonwea	lth Boulevard, MS≠ 24
Tallahassee, Florid	
Telephone No.:	(850) 245-3176
E-mail Address:	ed.cambeiro@dep.state.fl.us

- Attachment A. Grant Work Plan, is hereby deleted in its entirety and replaced with Attachment A-1, Revised Grant Work Plan, attached hereto and made a part of the Agreement. All references in the Agreement to Attachment A shall hereinafter refer to Attachment A-1, Revised Grant Work Plan.
- Attachment E. Special Audit Requirements. Page 5 of 5 is hereby deleted in its entirety and replaced with Attachment E, Special Audit Requirements, Page 5 (Revised) of 5, attached hereto and made a part of the Agreement.
- Attachment F, Quality Assurance Requirements, is hereby deleted in its entirety and replaced with Attuchment F-1, Revised Quality Assurance Requirements, attached hereto and made a part of the Agreement. All references in the Agreement to Attachment F shall hereinafter refer to Attachment F-1, Revised Quality Assurance Requirements.

In all other respects, the Agreement of which this is an Amendment, and attachments relative thereto, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed the day and year last written below. R > 15 0884

PALM BEACH COUNTY OF ENVIRONMENTAL RESOURCES MANAGEMENT

By: Shelley Vana Marie Title: Shelley Vana Marie

Date: 17 57 VL 0 7 2015

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: Assistant County Attorney

(SEAL)

ATTEST:

Sharon R. Bock, Clerk & Comptroller

By: Comptroller

By: Clerk

APPROVED AS TO

TERMS AND CONDITIONS

By: Robert Robbins, Director
Palm Beach County Dept. of
Environmental Resources Management

*For Agreements with governmental boards/commissions: If someon Amendment, a resolution, statement or other document authorizing the the Grantee must accompany the Amendment.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: Secretary or designee

Date: 7-24-15

Deinna Nicholson, DEP Grant Manager

Eduardo Cambeiro, DEP Grant Manager

DEP Contracts Administrator

Approved as to form and legality:

ANV. RBS. MCDAT.

Inv. Enh. & Restoration
Natural Resources Stewardship
Resources Protection
McAquite Control
Finance & Support Services
Director
Deputy Director

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ENVIRONMENTAL RESOURCES MANAGEMENT

Rolf Robbins

List of attachments/exhibits included as part of this Amendment:

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Specify Type	Letter/Number	Description (include number of pages)
Attachment	A-1	Revised Grant Work Plan (11 pages)
Attachment	F-1	Revised Quality Assurance Requirements (8 pages)

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ATTACHMENT A-I REVISED GRANT WORK PLAN

Project Title: Lake Worth Lagoon Initiative

Project Funding: \$2,075,000 Required Match: \$2,075,000 Total Project Cost: \$4,150,000

Project Location: Palm Beach County

Project Background: The Lake Worth Lagoon (LWL) estuary stretches 20 miles along the shores of 13 municipalities from North Palm Beach to Boynton Beach, and has been subjected to pollution and habitat losses for decades. Revitalizing this important water body provides long-term environmental, recreational, and economic benefits to the region.

Human activities over the past 100 years have degraded the Lagoon's habitat and water quality. Examples include the construction of permanent inlets; dredging and filling of wetlands along the shoreline; channel dredging; wastewater discharges; and the construction of seawalls, canals, bridges, causeways, docks, marinas, the port, and power plant. Today, 81% of the shoreline is bulkheaded, only 283 acres of mangroves remain, and much of the stormwater from the urbanized watershed is not treated to remove pollutants before discharging to LWL.

Despite the success of the past 20 years, challenges remain. Urban and agricultural runoff containing contaminants, toxins, nutrients, and sediments, increasing residential and commercial growth, and a lack of understanding among residents and visitors regarding how individual behaviors affect LWL, continue to stress this valuable urban estuary. Much of the same damage experienced in the St. Lucie River this past wet season has been experienced in LWL. Significant increases in freshwater flowing into LWL have impacted habitat, including many seagrasses and oyster beds constructed through the Lake Worth Lagoon Initiative (LWLI).

Legislative Appropriation: The FY2014-15 General Appropriations Act states that "funds in Specific Appropriations 1627A shall be distributed to Everglades and other environmental initiatives in the amounts and purposes in the Select Committee on Indian River Lagoon and Lake Okeechobce Basin (IRLLOB) final report dated November 8, 2013." The IRLLOB report states the following: "Palm Beach County, the SFWMD, the DEP, and the League of Cities have endorsed a plan to restore Lake Worth Lagoon. This plan includes restoration of seagrasses and mangroves, capping of muck, and construction of stormwater control projects. This is a cost-share program with local governments for projects to benefit Lake Worth Lagoon. Funding is allocated through the Lake Worth Lagoon Partnership Grant Program, which provides a competitive process for selection of viable restoration and water quality projects. Each state dollar is matched at the local level on a minimum 50:50 cost-share basis. Through this program, over \$17 million in state funds and \$59 million in local funds have been dedicated to restoring Lake Worth Lagoon. The Committee recommends appropriating \$2,075,000 for continued funding of this program and the implementation of these short-term projects."

Funding is now allocated through the LWLI rather than the Lake Worth Lagoon Partnership Grant Program referenced in the IRLLOB report. The LWLI is an interagency collaboration including Palm Beach County (PBC), the South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (DEP), and the League of Cities. These supporting agencies of the Initiative raise awareness of LWL issues and endorse the Lake Worth Lagoon Management Plan to restore LWL.

Since 1998, the State Legislature has supported the restoration and enhancement of LWL by appropriating over \$17 million through the LWLI. More than \$59 million in local funds have been dedicated to restoring LWL. Each state dollar is matched at the local level on a minimum 50:50 cost-share basis. According to Florida Inland Navigation District (FIND) Chapter 66B-2.005(2), "All financial assistance shall require, at minimum, equal matching funds from the project sponsor...." State funding is matched by grants received from multiple federal and local programs, including U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, FIND, Florida Fish and Wildlife Conservation Commission, and the local government of PBC.

Project Description: The Lake Worth Lagoon Management Plan, adopted by the Board of County Commissioners on July 22, 2014, includes projects to restore seagrasses, mangroves, and oysters; to cap muck; and to construct stormwater control structures. For the 2014-2015 legislative appropriation, the six sub-projects were prioritized to address the environmental restoration of LWL. These are further described in the task descriptions below.

Task 1: Peanut Island Reef Complex

Description: The Peanut Island Reef Complex located in the City of Riviera Beach will provide artificial reef habitat to benefit marine life and enhance recreational snorkeling and diving. Emergent reef structures will reduce wave energy, thereby providing shoreline protection and resilience to sea level rise. Additionally, placement of discrete limestone rock piles will create an artificial snorkel reef trail. These reef structures are designed as a marine refuge during prolonged high-volume inflows of freshwater into the LWL system. The Grantee will:

Complete construction plans and bid the work to a subcontractor;

Place 3,260 tons of limestone rock piles to create an artificial reef snorkel trail; and

Construct the Peanut Island Reef Complex as permitted in SFWMD Environmental Resource Permit (ERP)
 Permit No. 50-03713-P.

Executed subcontracts and a copy of the SFWMD ERP permit will be submitted to the Department Grant Managers for review and acceptance prior to invoicing.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs of the completed reef complex, and construction as-built drawings.

Completion Date(s): June 30, 2017.

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 2: West Palm Beach Currie Park Living Shoreline

Description: Living shorelines provide important habitat for a variety of marine organisms. The enhanced shoreline also provides important marine refuge during prolonged high-volume inflows of freshwater into the LWL system. Mangrove and *Spartina* planters are proposed along a portion of the bulkheaded shoreline of the City of West Palm Beach. The planters create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawall, and provide resilience to sea level rise. The project will create new mangrove, *Spartina*, and oyster reef habitats that have been removed as a result of development.

- Complete construction plans and bid the work to a subcontractor;
- Install mangrove planters along a 2,000-foot-long portion of existing seawall;
- Plant up to 4,000 red mangrove seedlings and Spartina plugs within the planters; and
- Install an educational/informational kiosk to raise awareness and to inform the public about LWL.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, and construction as-built drawings. <u>Completion Date(s):</u> June 30, 2017.

Performance Standards: The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 3: Palm Beach Grassy Flats Restoration Phase II

Description: The Grassy Flats Restoration Project Phase II will create over 12 acres of seagrass, mangrove, salt marsh, and oyster habitat in a degraded area of LWL. This area, off the Town of Palm Beach, is currently covered in muck sediments, which have accumulated as a result of stormwater discharges through the adjacent C-51 flood control canal. Phase II entails placing a sand cap that will entomb approximately 30,000 cubic yards of muck and provide the substrate and elevations necessary to support the diverse wetland habitats. The newly created wetland will restore critical estuarine habitat for fisheries and wildlife (including endangered species), and provide an ecotourism destination that will support fishing and kayaking activities. The Grantee will:

Complete construction plans and bid the work to a subcontractor;

- Stabilize 30,000 cubic yards of muck with a sand cap and limestone rock;
- Place a sand cap over muck substrate to create 12 acres of seagrass, mangrove, salt marsh and oyster habitat;
- Plant up to 35,000 Spartina plugs and up to 3,000 red mangrove seedlings; and
- Perform bathymetric surveys, before, during and after project completion.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, construction as-built drawings and report summarizing the results of the bathymetric surveys.

Completion Date(s): June 30, 2017.

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, bathymetric survey report, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 4: Bryant Park Living Shoreline

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Description: Living shorelines provide important habitat for marine organisms, feeding areas for birds and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the LWL system.

The Bryant Park Living Shoreline project will construct 1,100 linear feet of mangrove and Spartina planters and 1,000 linear feet of rip-rap along portions of Bryant Park's 2,600-foot-long bulkheaded shoreline. The planters and rip-rap will create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawalls, and increase resilience to sea level rise. The project will replace mangrove, Spartina, and oyster reef habitats that have been lost due to bulkheaded shoreline development within LWL. The Grantee will:

- Complete construction plans and bid the work to a subcontractor;
- Install approx. 1,000 linear feet of planters creating a 0.24-acre living shoreline;
- Plant up to 4,000 red mangrove seedlings and Spartina plugs; and
- Construct the Bryant Park Living Shoreline as permitted in DEP permit No. 50-0312260-001.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, and construction as-built drawings. <u>Completion Date(s):</u> June 30, 2017.

Performance Standards: The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 5: Old Bridge Park (Steinhardt Cove) Living Shoreline

Description: Living shorelines provide important habitat for marine organisms, feeding areas for birds, and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the LWL system.

The Old Bridge Park Living Shoreline project (formerly named Steinhardt Cove) will remove exotic vegetation and install native plants along 1,200 linear feet of shoreline. Rip-rap and sheet pile will be installed to protect the eroding shoreline and provide mangrove, *Spartina*, and oyster reef habitats, add shoreline resilience to sea level rise and enhance recreational fishing opportunities. The Grantee will:

- Complete construction plans and bid the work to a subcontractor;
- Remove exotic vegetation, install a trail, construct shade shelters and plant native vegetation along 1,200 linear feet of shoreline;
- Restore sheetpile wall to protect the site from erosion;
- Install 1,200 tons of riprap along 0.18 acre of shoreline creating a mangrove planter;
- Plant up to 4,000 red mangrove seedlings and Spartina plugs;
- Install an educational/informational kiosk to raise awareness and inform the public about the LWL ecosystem; and
- Construct the Old Bridge Park Living Shoreline as permitted in DEP permit No. 50-0312260-001.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, before and after photographs, and construction asbuilt drawings.

Completion Date(s): June 30, 2017.

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 6: Monitoring

Description: The LWLI has prioritized the five construction projects to restore several acres of critical habitat, including seagrass, mangrove, marsh grasses, oyster reefs, and artificial reefs within LWL. Restoration of these estuarine resources will provide habitat for fisheries and wildlife (including endangered species), and provide an ecotourism destination that will continue to support boating, fishing, birding, and kayaking activities. The Lake Worth Lagoon Monitoring project's objective is to document the Lagoon's environmental health and to monitor any improvements based on the implementation of construction projects designed to benefit habitat. The environmental technical data will be compiled in final reports to meet the requirements of Chapter 62-160, Florida Administrative Code (F.A.C.).

The following information must be included in the monitoring and survey reports: Lake Worth Lagoon Fixed Transect Seagrass Monitoring

Annual monitoring of nine transects (for a total of 27 stations) located throughout north, central and south LWL has been conducted since 2000. Monitoring will be conducted during June through August 2015/16, and will include

species presence absence, depth distribution, abundance, shoot density and bed width/edge location, and 1-m² photo stations at Transects 1, 3, and 5. A Sampling and Analysis Plan will be developed and implemented for the proposed monitoring that complies with the requirements of Chapter 62-160, F.A.C. The Sampling and Analysis Plan will outline how the results of the 2015/16 monitoring results will be compiled, analyzed, and compared to the data collected between 2000 and 2015 16.

The final report will include maps, tables, and graphs depicting trends in seagrass cover, abundance, and bed extent.

Oyster Monitoring in Lake Worth Lagoon

The eastern oyster (Crassostrea virginica) will be monitored at three long-term natural oyster reef stations, as well as at an additional three man-made reef stations in LWL (John's Island, Grassy Flats, and Snook Islands).

This 18-month project includes 15 months of field sampling for the collection, analysis, and summary of oyster data from six sites within LWL. The goal of this study is to determine settled oyster density, reproductive development, prevalence and intensity of the Perkinsus marinus parasite, and recruitment of established oysters. Oyster vitality will also be related to incidence of the oyster disease Perkinsus marinus (dermo).

Analysis of data generated from samples collected under this Sampling and Analysis Plan will be used to guide management decisions affecting oyster restoration projects. Descriptive statistics, figures, and summaries of data will be generated for quarterly reports. For the final report, data will be statistically compared between stations and among months. The Final report shall summarize all data collected for the 18-month period of the study.

Central Lake Worth Lagoon Fisheries Monitoring Program

The project is designed to assess fish species' presence in and utilization of specific restored habitats in central LWL. Monitoring will include the 13-acre Grassy Flats restoration site, the 20-acre Snook Islands restoration site, and a control area that includes habitats similar to pre-restoration habitats at Grassy Flats.

Sampling will be conducted quarterly. Each sample event will consist of two days of sampling (21 net pulls in two days) in three zones (Snook Islands, Grassy Flats, and the control). Each sample event will include four 21-m seine hauls in each of the three zones (two inshore and two offshore) and three 40-m seine hauls in each zone. Environmental data consisting of water chemistry, habitat characteristics, current and tidal conditions will be recorded for each sample. All fish and selected invertebrate species captured will be identified to the lowest practical taxonomic level. The final report will detail methods and materials used and results obtained and include objectives, methods, analyses, results (in graphic or tabular format), discussion and interpretation of results, and recommendations for future work. The subprojects for State Fiscal Year 2014-2015 include a:

- Seagrass Survey;
- Oyster Monitoring Study; and
- Fisheries Monitoring.

Deliverables:

- 1. A Sampling and Analysis Plan for the proposed monitoring that complies with the requirements of Chapter 62-160, FAC. The Sampling and Analysis Plan will outline how the results of the 2015 and 2016 monitoring results will be compiled, analyzed, and compared to the data in previous studies.
- 2. LWL Fixed Transect Seagrass Monitoring and Survey reports. The final report will assess small scale, areaspecific changes in seagrass cover; and monitor for species presence absence, depth distribution, abundance, shoot density, and bed width/edge location. Data will include maps, tables and graphs for individual transects, station photos and spreadsheets of all data collected.
- 3. Oyster Monitoring and Survey reports in LWL. The final report will analyze oyster data from six sites in LWL. The summarization will assess settled oyster abundance, reproductive and disease monitoring, and spat recruitment. The primary goal is to determine settled oyster density, reproductive development, prevalence and intensity of the Perkinsus marinus parasite, and recruitment of established oysters at six locations in LWL.
- 4. Central Lake Worth Lagoon Fisheries Monitoring Survey reports. The objective will be to assess the fish diversity and habitat utilization at selected locations in LWL through the conduction of one year of monitoring (four quarterly events) in central LWL. The final report will compare the fishery resources at the new Grassy Flats restoration site to the well-established Snook Islands restoration site and the control site in

the immediate vicinity. The goal is to access the utilization of restored habitats at the Grassy Flats restoration project site by juvenile and adult fish species common in central LWL.

Completion Date(s): After execution of the agreement prior to implementation of monitoring. Thirty-six months from the start date of Agreement.

- Deliverable 1: Sampling and Analysis Plan January 2015, or at least 30 days prior to sampling for review and approval.
- Deliverable 3: Seagrass final report January 2016.
- Deliverable 4: Oyster final report July 2016.
- Deliverable 5: Fisheries final report June 2016.

<u>Performance Standards:</u> The Department Grant Managers will review the Sampling and Analysis Plan for the proposed monitoring and to ensure any comments received from DEP have been addressed appropriately.

The Department Grant Managers will review the monitoring and survey final reports for completeness to ensure they include the components described, and for compliance with the guidelines described in the task description and the Sampling and Analysis Plan.

Project Budget by Category and Task:

Task No.	Category	Grant Funding	Match
1 Peanut Island Reef	Salaries	\$10,570	\$10,570
	Fringe Benefits	\$4,430	\$4,430
Complex	Contractual	\$75,000	\$75,000
	TOTAL FOR TASK	\$90,000	\$90,000
2	Salaries	S-10,929	\$40,929
West Palm Beach	Fringe Benefits	\$19,071	\$19,071
Currie Park Living Shoreline	Contractual	\$300,000	\$300,000
Snoreline	TOTAL FOR TASK	\$360,000	\$360,000
3	Salaries	\$40,237	\$40.237
Palm Beach Grassy	Fringe Benefits	\$19,763	\$19,763
Flats Restoration	Contractual	\$900,000	\$900,000
Phuse II	TOTAL FOR TASK	\$960,000	\$960,000
	Salaries	\$50,575	\$50,575
Bryant Park Living -	Fringe Benefits	\$24,425	\$24,425
Shoreline	Contractual	\$250,000	\$250,000
	TOTAL FOR TASK	\$325,000	\$325,000
5	Salaries	\$27,078	\$27,078
Old Bridge Park	Fringe Benefits	\$12,922	\$12,922
(Steinhardt Cove)	Contractual	\$150,000	\$150,000
Living Shoreline	TOTAL FOR TASK	\$190,000	\$190,000
	Salaries	\$50,057	\$50,057
	Fringe Benefits	\$24,943	\$24,943
6	Contractual	\$75,000	\$75,000
Monitoring	Total for Task	\$150,000	\$150,000
	Total:	\$2,075,000	\$2,075,000
	Total Project Cost:	\$4,150	,000

Table 1: Salaries/Fringe.			
Task No.	Position(s) Title	Salary Per Hour (S)	Fringe
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
l Peanut Island Reef Complex	Professional Engineer	41.26	50.16° o
	Project Coordinator I	23.81	50.16°°
	Technical Assistant II	22.94	50.16°a
	Sr. Environmental Analyst	30.05	50.16°°
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	0° o
	Deputy Director PBC ERM	62.69	50.16°в
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16°°
2	Professional Engineer	41.26	50.16°°
	Project Coordinator I	23.81	50.16° a
West Palm Beach Currie	Technical Assistant II	22,94	50.16°a
Park Living	Sr. Environmental Analyst	35.32	50.16° o
Shoreline	Sr. Environmental Analyst	28.77	50.16°°
	Environmental Analyst	25.14	50.16°a
	Contract Manager	31.23	50.16° o
	Sr. Environmental Analyst	30.05	50.16° a
	Student Employees	11.60	0°°

	Table 1: Salaries/Fringe.		
Task No.	Position(s) Title	Salary Per Hour (S)	Fringe
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
	Professional Engineer	41.26	50.16%
3	Project Coordinator	23.81	50.16%
	Technical Assistant II	22.94	50.16%
Palm Beach Grassy Flats	Sr. Environmental Analyst	35.32	50.16%
Restoration Phase	Sr. Environmental Analyst	28.77	50.16%
П	Sr. Environmental Analyst	30.05	50.16%
	Environmental Analyst	25.14	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Technical Assistant III	27.13	50.16%
	Student Employees	11.60	0°o
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
4	Professional Engineer	41.26	50.16%
	Project Coordinator I	23.81	50.16° o
Bryant Park	Technical Assistant II	22.94	50.16%
Living Shoreline	Sr. Environmental Analyst	35.32	50.16%
	Sr. Environmental Analyst	28.77	50.16%
	Sr. Environmental Analyst	30.05	50.16° a
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	000

Table 1: Salaries/Fringe.				
Task No.	Position(s) Title	Salary Per Hour (S)	Fringe	
	Deputy Director PBC ERM	62.69	50.16° a	
	Environmental Director	55.44	50.16%	
	Environmental Program Supervisor	46.74	50.16%	
5	Senior Professional Engineer	65.48	50.16°a	
Old Bridge Park	Professional Engineer	41.26	50.16° o	
(Steinhardt Cove)	Project Coordinator I	23.81	50.16° p	
Living Shoreline	Technical Assistant II	22.94	50.16°°	
	Sr. Environmental Analyst	30.05	50.16° a	
	Contract Manager	31.23	50.16° b	
	Student Employees	11.60	0° a	
	Environmental Program Supervisor	45.38	50.16%	
	Environmental Analyst	24.41	50.16° o	
6	Environmental Program Supervisor	48.72	50.16°°	
- -	Environmental Analyst	24.01	50.16%	
Lake Worth Lagoon Monitoring	Technical Assistant III	26.34	50.16° a	
Lugoon Monitoring	Environmentalist I	19.83	50.16° o	
	Student Employees	11.00	0° a	
	Contract Manager	30.32	50.16° a	

ATTACHMENT 3

R 2014 1946 DEP AGREEMENT NO. S0751

STATE OF FLORIDA GRANT AGREEMENT PURSUANT TO LINE ITEM 1627A OF THE 2014-2015 GENERAL APPROPRIATIONS ACT

THIS AGREEMENT is entered into between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, whose address is 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 (hereinafter referred to as the "Department") and the PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS, whose address is 2300 North Jog Road, 4th Floor, West Palm Beach, Florida 33411-2743 (hereinafter referred to as "Grantee"), a local government, to provide financial assistance for the Lake Worth Lagoon Initiative.

In consideration of the mutual benefits to be derived herefrom, the Department and the Grantee do hereby agree as follows:

- 1. The Grantee does hereby agree to perform in accordance with the terms and conditions set forth in this Agreement, Attachment A, Grant Work Plan, and all attachments and exhibits named herein which are attached hereto and incorporated by reference. For purposes of this Agreement, the terms "Grantee", and "Recipient" are used interchangeably.
- This Agreement shall begin upon execution by both parties and remain in effect for a period of thirty-six (36) months, inclusive. The Grantee shall be eligible for reimbursement for work performed on or after the date of execution through the expiration date of this Agreement. The Grantee shall be eligible for reimbursement for work performed on or after July 1, 2014 through the expiration date of this Agreement. The Grantee may claim allowable project expenditures made on or after July 1, 2014 for purposes of meeting its match requirement as identified in paragraph 3. This Agreement may be amended to provide for additional services if additional funding is made available by the Legislature.
- 3. A. As consideration for the satisfactory completion of services rendered by the Grantee under the terms of this Agreement, the Department shall pay the Grantee on a cost reimbursement basis up to a maximum of \$2,075,000 towards the total estimated project cost of \$4,150,000. The parties hereto understand and agree that this Agreement requires at least a 50% match on the part of the Grantee. Therefore, the Grantee is responsible for providing \$2,075,000 through cash or third party in-kind towards the work funded under this Agreement. It is understood that any additional funds necessary for the completion of this project are the responsibility of the Grantee.
 - B. Prior written approval from the Department's Grant Manager shall be required for changes within approved deliverable budget categories of up to 10% of the total deliverable budget amount. Changes less than 10% of the total approved deliverable budget will require a formal change order to the Agreement. Changes greater than 10% of the total approved deliverable budget and/or changes that transfer funds from one deliverable to another or that increase or decrease the total funding amount will require a formal amendment to the Agreement.
 - C. The Grantee shall be reimbursed on a cost reimbursement basis for all eligible project costs upon the completion, submittal and approval of deliverables identified in Attachment A, in accordance with the schedule therein. Reimbursement shall be requested utilizing Attachment B, Payment Request Summary Form. To be eligible for reimbursement, costs must be in compliance with laws, rules and regulations applicable to expenditures of State funds, including, but not limited to, the Reference Guide for State Expenditures. All bills for amounts due under this Agreement shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof. A final payment request should be submitted to the Department no later than sixty (60) days following the completion date of the Agreement, to assure the availability of funds for payment. Each payment request submitted shall document all matching funds and/or match efforts (i.e. in-kind services)

provided during the period covered by each request. The final payment will not be processed until the match requirement has been met.

- D. The State Chief Financial Officer requires detailed supporting documentation of all costs under a cost reimbursement agreement. In accordance with the Attachment C, Contract Payment Requirements, the Grantee shall comply with the minimum requirements set forth therein. The Payment Request Summary Form shall be accompanied by supporting documentation and other requirements as follows for each deliverable:
 - i. <u>Salaries/Wages</u> List personnel involved, salary rates and hours/time spent on project in accordance with Attachment A, Grant Work Plan.
 - ii. Overhead/Indirect/General and Administrative Costs All multipliers used (i.e., fringe benefits, overhead, and/or general and administrative rates) shall be supported by audit. If the Department determines that multipliers charged by the Grantee exceeded the rates supported by audit, the Grantee shall be required to reimburse such funds to the Department within thirty (30) days of written notification. Interest on the excessive charges shall be calculated based on the prevailing rate used by the State Board of Administration.
 - a. Fringe Benefits Shall be calculated at the rate of 50.16% of direct salaries.
 - b. <u>Indirect Cost</u> -Shall not be reimbursed under this Agreement.
 - Contractual (Subcontractors) Reimbursement requests for payments to subcontractors must be substantiated by copies of invoices with backup documentation identical to that required from the Grantee. Subcontracts which involve payments for direct salaries shall clearly identify the personnel involved, salary rate per hour, and hours/time spent on the project. All multipliers used (i.e. fringe benefits, overhead, and/or general and administrative rates) shall be supported by audit. If the Department determines that multipliers charged by any subcontractor exceeded the rates supported by audit, the Grantee shall be required to reimburse such funds to the Department within thirty (30) days of written notification. Interest on the excessive charges shall be calculated based on the prevailing rate used by the State Board of Administration. For fixed price (vendor) subcontracts, the following provisions shall apply:
 - a. The Grantee may award, on a competitive basis, fixed price subcontracts to consultants/contractors in performing the work described in Attachment A. Invoices submitted to the Department for fixed price subcontracted activities shall be supported with a copy of the subcontractor's invoice and a copy of the tabulation form for the competitive procurement process (Invitation to Bid or Request for Proposals) resulting in the fixed price subcontract.
 - b. The Grantee may request approval from the Department to award a fixed price subcontract resulting from procurement methods other than those identified in the paragraph above. In this instance, the Grantee shall request the advance written approval from the Department's Grant Manager of the fixed price negotiated by the Grantee. The letter of request shall be supported by a detailed budget and Scope of Services to be performed by the subcontractor. Upon receipt of the Department Grant Manager's approval of the fixed price amount, the Grantee may proceed in finalizing the fixed price subcontract.
 - All subcontracts are subject to the provisions of paragraph 12 and any other appropriate provisions of this Agreement which affect subcontracting activities.

- iv. <u>Travel</u> The Grantee will not be reimbursed for travel expenses under the terms and conditions of this Agreement.
- v. <u>Equipment</u> (Capital outlay costing \$1,000 or more) —The Grantee will not be reimbursed for the purchase of non-expendable equipment costing \$1,000 or more under the terms and conditions of this Agreement.
- vi. Rental/Lease of Equipment Include copies of invoices or receipts to document charges.
- vii. Other Expenses e.g., Materials, supplies, non-excluded phone expenses, reproduction, mailing, and other expenses must be documented by itemizing and including copies of receipts or invoices. Additionally, independent of the Grantee's contract obligations to the subcontractor, the Department shall not reimburse any of the following types of charges: cell phone usage, attorneys fees, civil or administrative penalties, handling fees, such as set percent overages associated with purchasing supplies or equipment.
- E. In addition to the invoicing requirements contained in paragraphs 3.C. and D. above, the Department will periodically request proof of a transaction (invoice, payroll register, etc.) to evaluate the appropriateness of costs to the Agreement pursuant to State and Federal guidelines (including cost allocation guidelines), as appropriate. This information, when requested, must be provided within thirty (30) calendar days of such request. The Grantee may also be required to submit a cost allocation plan to the Department in support of its multipliers (overhead, indirect, general administrative costs, and fringe benefits). State guidelines for allowable costs can be found in the Department of Financial Services' Reference Guide for State Expenditures at http://www.fldfs.com/aadir/reference%5Fguide.
- F. i. The accounting systems for all Grantees must ensure that these funds are not commingled with funds from other agencies. Funds from each agency must be accounted for separately. Grantees are prohibited from commingling funds on either a program-by-program or a project-by-project basis. Funds specifically budgeted and/or received for one project may not be used to support another project. Where a Grantee's, or subrecipient's, accounting system cannot comply with this requirement, the Grantee, or subrecipient, shall establish a system to provide adequate fund accountability for each project it has been awarded.
 - ii. If the Department finds that these funds have been commingled, the Department shall have the right to demand a refund, either in whole or in part, of the funds provided to the Grantee under this Agreement for non-compliance with the material terms of this Agreement. The Grantee, upon such written notification from the Department shall refund, and shall forthwith pay to the Department, the amount of money demanded by the Department. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the original payment(s) are received from the Department by the Grantee to the date repayment is made by the Grantee to the Department.
 - iii. In the event that the Grantee recovers costs, incurred under this Agreement and reimbursed by the Department, from another source(s), the Grantee shall reimburse the Department for all recovered funds originally provided under this Agreement. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the payment(s) are recovered by the Grantee to the date repayment is made to the Department by the Grantee.

- 4. The State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature. The parties hereto understand that this Agreement is not a commitment of future appropriations.
- 5. The Grantee shall utilize Attachment D, Progress Report Form, to describe the work performed during the reporting period, problems encountered, problem resolution, schedule updates and proposed work for the next reporting period. Quarterly reports shall be submitted to the Department's Grant Manager no later than twenty (20) days following the completion of the quarterly reporting period. It is hereby understood and agreed by the parties that the term "quarterly" shall reflect the calendar quarters ending March 31, June 30, September 30 and December 31. The Department's Grant Manager shall have thirty (30) calendar days to review the required reports and deliverables submitted by the Grantee. Final payment, of up to ten (10) percent of the total Agreement amount identified in paragraph 3.A., may be withheld until all work is completed, all deliverables have been submitted, match requirements have been met and the Final Project Report has been received and approved.
- 6. Each party hereto agrees that it shall be solely responsible for the negligent or wrongful acts of its employees and agents. However, nothing contained herein shall constitute a waiver by either party of its sovereign immunity or the provisions of Section 768.28, Florida Statutes.
- 7. A. The Department may terminate this Agreement at any time in the event of the failure of the Grantee to fulfill any of its obligations under this Agreement. Prior to termination, the Department shall provide thirty (30) calendar days written notice of its intent to terminate and shall provide the Grantee an opportunity to consult with the Department regarding the reason(s) for termination.
 - B. The Department may terminate this Agreement for convenience by providing the Grantee with thirty (30) calendar days written notice.
- 8. No payment will be made for deliverables deemed unsatisfactory by the Department. In the event that a deliverable is deemed unsatisfactory by the Department, the Grantee shall re-perform the services needed for submittal of a satisfactory deliverable, at no additional cost to the Department, within ten (10) days of being notified of the unsatisfactory deliverable. If a satisfactory deliverable is not submitted within the specified timeframe, the Department may, in its sole discretion, either: 1) terminate this Agreement for failure to perform, or 2) the Department Grant Manager may, by letter specifying the failure of performance under this Agreement, request that a proposed Corrective Action Plan (CAP) be submitted by the Grantee to the Department. All CAPs must be able to be implemented and performed in no more than sixty (60) days.
 - A. A CAP shall be submitted within ten (10) calendar days of the date of the letter request from the Department. The CAP shall be sent to the Department Grant Manager for review and approval. Within ten (10) calendar days of receipt of a CAP, the Department shall notify the Grantee in writing whether the CAP proposed has been accepted. If the CAP is not accepted, the Grantee shall have ten (10) calendar days from receipt of the Department letter rejecting the proposal to submit a revised proposed CAP. Failure to obtain the Department approval of a CAP as specified above shall result in the Department's termination of this Agreement for cause as authorized in this Agreement.
 - B. Upon the Department's notice of acceptance of a proposed CAP, the Grantee shall have ten (10) calendar days to commence implementation of the accepted plan. Acceptance of the proposed CAP by the Department does not relieve the Grantee of any of its obligations under the Agreement. In the event the CAP fails to correct or eliminate performance deficiencies by Grantee, the Department shall retain the right to require additional or further remedial steps, or to terminate this Agreement for failure to perform. No actions approved by the Department or steps taken by the Grantee shall preclude the Department from subsequently asserting any deficiencies in performance. The Grantee shall continue to implement the CAP until all deficiencies are corrected. Reports on the progress of the CAP will be made to the Department as requested by the Department Grant Manager.

C. Failure to respond to a Department request for a CAP or failure to correct a deficiency in the performance of the Agreement as specified by the Department may result in termination of the Agreement

The remedies set forth above are not exclusive and the Department reserves the right to exercise other remedies in addition to or in lieu of those set forth above, as permitted by the Agreement.

- 9. This Agreement may be unilaterally canceled by the Department for refusal by the Grantee to allow public access to all documents, papers, letters, or other material made or received by the Grantee in conjunction with this Agreement, unless the records are exempt from Section 24(a) of Article I of the State Constitution and Section 119.07(I)(a), Florida Statutes.
- 10. The Grantee shall maintain books, records and documents directly pertinent to performance under this Agreement in accordance with generally accepted accounting principles consistently applied. The Department, the State, or their authorized representatives shall have access to such records for audit purposes during the term of this Agreement and for five (5) years following Agreement completion. In the event any work is subcontracted, the Grantee shall similarly require each subcontractor to maintain and allow access to such records for audit purposes.
- 11. A. In addition to the requirements of the preceding paragraph, the Grantee shall comply with the applicable provisions contained in Attachment E, Special Audit Requirements, attached hereto and made a part hereof. Exhibit 1 to Attachment E summarizes the funding sources supporting the Agreement for purposes of assisting the Grantee in complying with the requirements of Attachment E. A revised copy of Exhibit 1 must be provided to the Grantee for each amendment which authorizes a funding increase or decrease. If the Grantee fails to receive a revised copy of Exhibit 1, the Grantee shall notify the Department's Grants Development and Review Manager at 850/245-2361 to request a copy of the updated information.
 - B. The Grantee is hereby advised that the Federal and/or Florida Single Audit Act Requirements may further apply to lower tier transactions that may be a result of this Agreement. The Grantee shall consider the type of financial assistance (federal and/or state) identified in Attachment E, Exhibit 1 when making its determination. For federal financial assistance, the Grantee shall utilize the guidance provided under OMB Circular A-133, Subpart B, Section _____.210 for determining whether the relationship represents that of a subrecipient or vendor. For state financial assistance, the Grantee shall utilize the form entitled "Checklist for Nonstate Organizations Recipient/Subrecipient vs. Vendor Determination" (form number DFS-A2-NS) that can be found under the "Links/Forms" section appearing at the following website:

https://apps.fldfs.com/fsaa

The Grantee should confer with its chief financial officer, audit director or contact the Department for assistance with questions pertaining to the applicability of these requirements.

- 12. A. The Grantee may subcontract work under this Agreement without the prior written consent of the Department's Grant Manager. The Grantee shall submit a copy of the executed subcontract to the Department within ten (10) days after execution. Regardless of any subcontract, the Grantee is ultimately responsible for all work to be performed under this Agreement. The Grantee agrees to be responsible for the fulfillment of all work elements included in any subcontract and agrees to be responsible for the payment of all monies due under any subcontract. It is understood and agreed by the Grantee that the Department shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract and that the Grantee shall be solely liable to the subcontractor for all expenses and liabilities incurred under the subcontract.
 - B. The Department of Environmental Protection supports diversity in its procurement program and requests that all subcontracting opportunities afforded by this Agreement embrace diversity

enthusiastically. The award of subcontracts should reflect the full diversity of the citizens of the State of Florida. A list of minority owned firms that could be offered subcontracting opportunities may be obtained by contacting the Office of Supplier Diversity at (850) 487-0915.

- 13. In accordance with Section 216.347, Florida Statutes, the Grantee is hereby prohibited from using funds provided by this Agreement for the purpose of lobbying the Legislature, the judicial branch or a state agency.
- 14. The Grantee shall comply with all applicable federal, state and local rules and regulations in providing services to the Department under this Agreement. The Grantee acknowledges that this requirement includes, but is not limited to, compliance with all applicable federal, state and local health and safety rules and regulations. The Grantee further agrees to include this provision in all subcontracts issued as a result of this Agreement.
- 15. Any notices between the parties shall be considered delivered when posted by Certified Mail, return receipt requested, or overnight courier service, or delivered in person to the Grant Managers at the addresses below.
- 16. The Department's Grant Managers (which may also be referred to as the Department's Project Manager) for this Agreement are identified below.

Administrative			
Dana Jones			
Florida Department	of Environmental Protection		
Office of Ecosystem	Projects		
3900 Commonwealth Boulevard, MS# 24			
Tallahassee, Florida 32399			
Telephone No.:	(850) 245-3166		
E-mail Address: Dana.R.Jones@dep.state.fl.us			

Technical			
Deinna Nicholson			
Florida Departmen	t of Environmental Protection		
Office of Ecosyster	n Projects		
3900 Commonwealth Boulevard, MS# 24			
Tallahassee, Florida 32399			
Telephone No.: (850) 245-3183			
E-mail Address: Deinna, nicholson@dep.state.fl.us			

17. The Grantec's Grant Manager for this Agreement is identified below.

Robert Robbins			
Palm Beach Count	У		
Department of Env	ironmental Resources Management		
2300 North Jog Ro	ad, 4th Floor		
West Palm Beach, Florida 33411-2743			
Telephone No.: (561) 233-2454			
Fax No.: (561) 233-2414			
E-mail Address: rrobbins@pbcgov.org			

18. To the extent required by law, the Grantee will be self-insured against, or will secure and maintain during the life of this Agreement, Workers' Compensation Insurance for all of its employees connected with the work of this project and, in case any work is subcontracted, the Grantee shall require the subcontractor

similarly to provide Workers' Compensation Insurance for all of the its employees unless such employees are covered by the protection afforded by the Grantee. Such self-insurance program or insurance coverage shall comply fully with the Florida Workers' Compensation law. In case any class of employees engaged in hazardous work under this Agreement is not protected under Workers' Compensation statutes, the Grantee shall provide, and cause each subcontractor to provide, adequate insurance satisfactory to the Department, for the protection of his employees not otherwise protected.

- 19. The Grantee warrants and represents that it is self-funded for liability insurance, appropriate and allowable under Florida law, and that such self-insurance offers protection applicable to the Grantee's officers, employees, servants and agents while acting within the scope of their employment with the Grantee.
- 20. The Grantee covenants that it presently has no interest and shall not acquire any interest which would conflict in any manner or degree with the performance of services required.
- 21. Reimbursement for equipment purchases costing \$1,000 or more is not authorized under the terms and conditions of this Agreement.
- 22. The Department may at any time, by written order designated to be a change order, make any change in the Grant Manager information or task timelines within the current authorized Agreement period. All change orders are subject to the mutual agreement of both parties as evidenced in writing. Any change, which causes an increase or decrease in the Grantee's cost or time, shall require formal amendment to this Agreement.
- 23. If the Grantee's project involves environmentally related measurements or data generation, the Grantee shall develop and implement quality assurance practices consisting of policies, procedures, specifications, standards, and documentation sufficient to produce data of quality adequate to meet project objectives and to minimize loss of data due to out-of-control conditions or malfunctions. All sampling and analyses performed under this Agreement must conform with the requirements set forth in Chapter 62-160, Florida Administrative Code, and the Quality Assurance Requirements for Department Agreements, attached hereto and made part hereof as Attachment F, Quality Assurance Requirements.
- 24. A. No person, on the grounds of race, creed, color, national origin, age, sex, or disability, shall be excluded from participation in; be denied the proceeds or benefits of; or be otherwise subjected to discrimination in performance of this Agreement.
 - B. An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any public entity, and may not transact business with any public entity. The Florida Department of Management Services is responsible for maintaining the discriminatory vendor list and posts the list on its website. Questions regarding the discriminatory vendor list may be directed to the Florida Department of Management Services, Office of Supplier Diversity, at (850) 487-0915.
- 25. Land acquisition is not authorized under the terms of this Agreement.
- 26. This Agreement has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida. Wherever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement. Any action hereon or in connection herewith shall be brought in Leon County, Florida.

27. This Agreement represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing, duly signed by each of the parties hereto, and attached to the original of this Agreement, unless otherwise provided herein.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed, the day and year last written below.

R 2 0 1 4 1 9 4 6

PALM BEACH COUNTY OF ENVIRONMENTAL RESOURCES MANAGEMENT

By:

| Secretary or Merimans | Secretary or Merimans

Date:

Deinna Nicholsur

Attorney

Dapa Jones, DEP Grant Manager

Contracts Administrator

Approved as to form and legality:

Date: 12-110-14

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

Assistant County Attorney

(SEAL)

ATTEST:

Sharon R. Bock, Clerk & Compired BEAC

APPROVED AS TO TERMS AND CONDITIONS

Robert Robbins, Director Palm Beach County Dept. of

Environmental Resources Management

FEID No.: <u>59-6000785</u>

*For Agreements with governmental boards/commissions: If someone other than the Chairman signs this Agreement, a resolution, statement or other document authorizing that person to sign the Agreement on behalf of the Grantee must accompany the Agreement.

List of attachments/exhibits included as part of this Agreement:

Specify Type	Letter/ Number	Description (include number of pages)
Attachment Attachment	<u>A</u> B	Grant Work Plan (11 Pages) Payment Request Summary Form (2 Pages)
Attachment	C	Contract Payment Requirements (1 Page)
Attachment Attachment	_ <u>D</u>	Progress Report Form (1 Page) Special Audit Requirements (5 Pages)
<u>Attachment</u>	<u>_F_</u>	Quality Assurance Requirements (14 Pages)

ATTACHMENT A GRANT WORK PLAN

Project Title: Lake Worth Lagoon Initiative

Project Funding: \$2,075,000 Required Match: \$2,075,000 Total Project Cost: \$4,150,000

Project Location: Palm Beach County

Project Background: The Lake Worth Lagoon estuary stretches 20 miles along the shores of 13 municipalities from North Palm Beach to Boynton Beach and has been subjected to pollution and habitat losses for decades. Revitalizing this important water body provides long-term environmental, recreational and economic benefits to the region.

Human activities over the past 100 years have degraded the Lagoon's habitat and water quality. Examples include the construction of permanent inlets, dredging and filling of wetlands along the shoreline, channel dredging, wastewater discharges, and the construction of seawalls, canals, bridges, causeways, docks, marinas, the port, and power plant. Today, 81% of the shoreline is bulkheaded, only 283 acres of mangroves remain, and much of the stormwater from the urbanized watershed is not treated to remove pollutants before discharging to the Lagoon.

Despite the success of the past 20 years, challenges remain. Urban and agricultural runoff containing contaminants, toxins, nutrients, and sediments, increasing residential and commercial growth, and a lack of understanding among residents and visitors regarding how individual behaviors affect the LWL, continue to stress this valuable urban estuary. Much of the same damage experienced in the St. Lucie River this past wet season have been experienced in the Lake Worth Lagoon. Significant increases in freshwater flowing into the Lagoon have essentially destroyed habitat, included many sea grasses and oyster beds constructed through the initiative.

Legislative Appropriation:

The FY2014-15 General Appropriations Act (GAA) states that "funds in Specific Appropriations 1627A shall be distributed to Everglades and other environmental initiatives in the amounts and purposes in the Select Committee on Indian River Lagoon and Lake Okeechobee Basin (IRLLOB) final report dated November 8, 2013." The IRLLOB report states the following: "Palm Beach County, the SFWMD, the DEP, and the League of Citics have endorsed a plan to restore Lake Worth Lagoon. This plan includes restoration of sea grasses and mangroves, capping of muck, and construction of storm water control projects. This is a cost-share program with local governments for projects to benefit Lake Worth Lagoon. Funding is allocated through the Lake Worth Lagoon Partnership Grant Program, which provides a competitive process for selection of viable restoration and water quality projects. Each state dollar is matched at the local level on a minimum 50:50 cost-share basis. Through this program, over \$17 million in state funds and \$59 million in local funds have been dedicated to restoring Lake Worth Lagoon. The Committee recommends appropriating \$2,075,000 for continued funding of this program and the implementation of these short-term projects."

Funding is now allocated through the Lake Worth Lagoon Initiative (LWLI) rather than the Lake Worth Lagoon Partnership Grant Program referenced in the IRLLOB report. The LWLI is an interagency collaboration including Palm Beach County (PBC), the South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (DEP), and the League of Cities. These are the supporting agencies of the Initiative that discuss and bring awareness of Lagoon issues and have endorsed the Lake Worth Lagoon Management Plan to restore the Lake Worth Lagoon.

Since 1998, the State Legislature has supported the restoration and enhancement of Lake Worth Lagoon by appropriating over \$17 million through the LWLl. Over \$59 million in local funds have been dedicated to restoring Lake Worth Lagoon. Each state dollar is matched at the local level on a minimum 50:50 cost-share basis. According to FIND Chapter 66B-2.005(2) ..."All financial assistance shall require, at minimum, equal matching funds from the project sponsor...." State funding is matched by grants received from multiple Federal and local programs including: Florida Inland Navigation District (FIND); federal programs - U.S. Army Corps of Engineers (USACE), U. S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA); and state programs - Florida Fish and Wildlife Conservation Commission (FWC) and by the local government of Palm Beach County (PBC).

Project Description:

The Lake Worth Lagoon Management Plan, adopted by the Board of County Commissioners on July 22, 2014, includes projects to restore sea grasses, mangroves and oysters, to cap muck, and to construct storm water control structures. For the 2014-2015 legislative appropriation, the six (6) sub-projects were prioritized to address the environmental restoration of the Lake Worth Lagoon. These are summarized below and further described in the task descriptions in the Grant Work Plan.

1. Peanut Island Reef Complex:

The Peanut Island Reef Complex located in the City of Riviera Beach will provide artificial reef habitat to benefit marine life and enhance recreational snorkeling and diving. Emergent reef structures will reduce wave energy, thereby providing shoreline protection and resilience to sea level rise. Additionally, placement of discrete limestone rock piles will create an artificial snorkel reef trail. These reef structures are designed as a marine refuge during prolonged high-volume inflows of freshwater into the Lake Worth Lagoon system.

2. West Palm Beach Currie Park Living Shoreline:

Living shorelines provide important habitat for a variety marine organisms. The enhanced shoreline also provides important marine refuge during prolonged high-volume inflows of freshwater into the Lake Worth Lagoon system. Mangrove and spartina planters are proposed along a portion of the bulkheaded shoreline of the City of West Palm Beach. The planters create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawall and provide resilience to climate change and sea level rise. The project will create new mangrove, spartina and oyster reef habitats that have been removed as a result of development.

3. Palm Beach Grassy Flats Restoration:

The Grassy Flats Restoration Project will create over 12 acres of seagrass, mangrove, salt marsh and oyster habitat in a degraded area of the Lagoon. This area, off of the Town of Palm Beach, is currently covered in muck sediments, which have accumulated as a result of stormwater discharges through the adjacent C-51 flood control canal. Placing a sand cap will entomb approximately 30,000 cubic yards of muck and provide the substrate and elevations necessary to support the diverse wetland habitats. Two small islands will be stabilized by limestone rock, which will provide oyster reef habitat. The newly created wetland will restore critical estuarine habitat for fisheries and wildlife (including endangered species), improve water quality and provide an ecotourism destination that will support fishing and kayaking activities.

4. Bryant Park & Old Bridge Park (Steinhardt Cove) Living Shorelines:

The projects will replace mangrove, spartina and oyster reef habitats that have been lost due to bulkheaded shoreline development within the Lake Worth Lagoon. Living shorelines provide important habitat for marine organisms, feeding areas for birds and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the Lake Worth Lagoon system. The planters and rip-rap will create a natural living shoreline that will attenuate waves and

boat wakes, provide shoreline protection, increase the life span of the seawalls, increase resilience to climate change and sea level rise, and enhance recreational fishing opportunities.

Budget/Grant Information:

Grant Administration includes site inspections and report preparations consistent with individual contracts and Scopes of Services. The following applies to each Task:

- Review of invoices, progress reports and site inspection reports, consistent with individual contracts and Scopes of Services;
- Site inspections to track compliance with the terms of contracts;
- Prepare Grant Manager and Engineer Certifications;
- · Preparation of reports submitted to the Department on project status and funding; and
- Preparation of project modifications to the Grant Work Plan as may be appropriate and coordination of contract modifications with the Department.
- Coordinate project review committee and outreach activities.

Task 1: Peanut Island Reef Complex

Description: The Peanut Island Reef Complex located in the City of Riviera Beach will provide artificial reef habitat to benefit marine life and enhance recreational snorkeling and diving. Emergent reef structures will reduce wave energy, thereby providing shoreline protection and resilience to sea level rise. Additionally, placement of discrete limestone rock piles will create an artificial snorkel reef trail. These reef structures are designed as a marine refuge during prolonged high-volume inflows of freshwater into the Lake Worth Lagoon system.

- Complete construction plans and bid job;
- Place 3,260 tons of limestone rock piles to create an artificial reef snorkel trail
- SFWMD ERP Permit No. 50-03713-P

Executed subcontracts will be submitted to the Department Grant Manager for review and acceptance prior to invoicing.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 2: West Palm Beach Currie Park Living Shoreline

Description: Living shorelines provide important habitat for a variety marine organisms. The enhanced shoreline also provides important marine refuge during prolonged high-volume inflows of freshwater into the Lake Worth Lagoon system. Mangrove and spartina planters are proposed along a portion of the bulkheaded shoreline of the City of West Palm Beach. The planters create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawall and provide resilience to climate change and sea level rise. The project will create new mangrove, spartina and oyster reef habitats that have been removed as a result of development.

- Complete construction plans and bid job;
- Install mangrove planters along a 2,000 foot long portion of existing seawall;
- Plant red mangrove seedlings and spartina plugs;
- Install Kiosk

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 3: Palm Beach Grassy Flats Restoration Phase II

Description: The Grassy Flats Restoration Project Phase II will create over 12 acres of seagrass, mangrove, salt marsh and oyster habitat in a degraded area of the Lagoon. This area, off of the Town of Palm Beach, is currently covered in muck sediments, which have accumulated as a result of stormwater discharges through the adjacent C-51 flood control canal. Phase I involved creating two small islands that were stabilized by limestone rock, which will provide oyster reef habitat. Phase II entails placing a sand cap which will entomb approximately 30,000 cubic yards of muck and provide the substrate and elevations necessary to support the diverse wetland habitats. The newly created wetland will restore critical estuarine habitat for fisheries and wildlife (including endangered species), improve water quality and provide an ecotourism destination that will support fishing and kayaking activities.

- Stabilize 30,000 cubic yards of muck with a sand cap and limestone rock
- Place a sand cap over muck substrate to create 12 acres of seagrass, mangrove, salt marsh and oyster habitat
- Plant spartina plugs and red mangrove seedlings
- Perform bathymetric surveys

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, construction as-built drawings and report summarizing the results of the bathymetric surveys.

Completion Date(s): June 30, 2017

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, bathymetric survey report, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 4: Bryant Park Living Shoreline

Description: Living shorelines provide important habitat for marine organisms, feeding areas for birds and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the Lake Worth Lagoon system. The Bryant Park Living Shoreline project will construct 1,100 linear feet of mangrove and spartina planters and 1,000 linear feet of rip-rap along portions of Bryant Park's 2,600 foot-long bulkheaded shoreline. The planters and rip-rap will create a natural living shoreline that will attenuate waves and boat wakes, provide shoreline protection, increase the life span of the seawalls, and increase resilience to climate change and sea level rise. The project will replace mangrove, spartina and oyster reef habitats that have been lost due to bulkheaded shoreline development within the Lake Worth Lagoon.

- Complete construction plans and bid job;
- Install approx. 1,000' of planters creating a 0.24 acre living shoreline.
- Plant red mangrove seedlings and spartina plugs;

DEP permit No. 50-0312260-001.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 5: Old Bridge Park (Steinhardt Cove) Living Shoreline

Description: Living shorelines provide important habitat for marine organisms, feeding areas for birds and shelter for a variety of wildlife. The enhanced shoreline also provides an important marine refuge during prolonged high-volume freshwater inflows into the Lake Worth Lagoon system. The Old Bridge Park Living Shoreline project (formerly named Steinhardt Cove) will remove exotic vegetation and install native plants along 1,100 linear feet of shoreline. Rip-rap and sheet pile will be installed to protect the eroding shoreline and provide mangrove, spartina, and oyster reef habitats, add shoreline resilience to climate change and sea level rise and enhance recreational fishing opportunities.

- Complete construction plans and bid job;
- Remove exotic vegetation and install a trail shade shelters and native plants along 1,200 linear feet of shoreline
- Restore sheetpile wall to protect the site from crosion
- Install 1,200 tons of riprap along 0.18 acres of shoreline creating a mangrove planter
- Plant red mangrove seedlings and spartina plugs;
- Install Kiosk;
- DEP permit No. 50-0312260-001.

<u>Deliverables:</u> Copies of all issued permits, executed subcontracts, photographs, and construction as-built drawings.

Completion Date(s): June 30, 2017

<u>Performance Standards:</u> The Department Grant Managers will review executed subcontracts, issued permits, photographs, and construction as-built drawings for compliance with all requirements under this Agreement.

Task 6: Monitoring

Description: The Lake Worth Lagoon (LWL) Initiative has prioritized the 4 construction projects to restore several acres of critical habitat, including seagrass, mangrove, marsh grasses, oyster reefs and artificial reefs within the lagoon. Restoration of these estuarine resources will provide habitat for fisheries and wildlife (including endangered species), improve water quality and provide an ecotourism destination that will continue to support boating, fishing, birding and kayaking activities. The Lake Worth Lagoon Monitoring objective is to document the Lagoon's environmental health and to monitor any improvements based on the implementation of construction projects designed to benefit habitat and water quality. The environmental technical data will be compiled in final reports which meet the requirements of 62-160, Florida Administrative Code.

The following information should be included in the monitoring and survey reports: Lake Worth Lagoon Fixed Transect Seagrass Monitoring

Annual monitoring of 9 transects (total of 27 stations) located throughout the north, central and south Lake Worth Lagoon (LWL) has been conducted since 2000. Monitoring will be conducted in June-August 2015/16, and include species presence/absence, depth distribution, abundance, shoot density and bed width/edge location and 1-m² photostations at Transects 1, 3, and 5. A Sampling and Analysis Plan will be developed for the proposed monitoring that complies with the requirements of 62-160, Florida Administrative Code. The Sampling and Analysis Plan will outline how the results of the 2015 and 2016 monitoring results will be compiled, analyzed and compared to the data collected between 2000 and

2015/16. The final report will include maps, tables and graphs depicting trends in seagrass cover, abundance and bed extent relative to water quality and storm water discharges.

Oyster Monitoring in Lake Worth Lagoon

The eastern oyster (Crassostrea virginica) will be monitored at three long-term natural oyster reef stations, as well as at an additional three man-made reef stations in LWL at: John's Island, Grassy Flats, and Snook Islands. This 18-month project includes 15 months of field sampling for the collection, analysis and summary of oyster data from six sites within the LWL. The goal of this study is to determine settled oyster density, reproductive development, prevalence and intensity of the *Perkinsus marinus* parasite, and recruitment of established oysters. Oyster vitality will also be related to incidence of the oyster disease *Perkinsus marinus* (dermo). Analysis of data generated from samples collected under this Sampling and Analysis Plan will be used to guide management decisions affecting oyster restoration projects. Descriptive statistics, figures and summaries of data will be generated for quarterly reports. For the final report, data will be statistically compared between stations and among months. The Final report shall summarize all data collected for the eighteen month period of the study.

Central Lake Worth Lagoon Fisheries Monitoring Program

The project is designed to assess fish species presence in and utilization of specific restored habitats in the central Lake Worth Lagoon. Monitoring will include the 13 acre Grassy Flats restoration site, the 20 acre Snook Islands restoration site, and a control area that includes habitats similar to pre-restoration habitats at Grassy Flats. Sampling will be conducted quarterly. Each sample event will consist of two (2) days of sampling (21 net pulls in two days) in three (3) zones (Snook Islands, Grassy Flats, and the control). Each sample event will include four (4) 21-m seine hauls in each of the three (3) zones (two (2) inshore and two (2) offshore) and three (3) 40-m seine hauls in each zone. Environmental data consisting of water chemistry, habitat characteristics, current and tidal conditions will be recorded for each sample. All fish and selected invertebrate species captured will be identified to the lowest practical taxonomic level. The Final report will detail methods and materials used and results obtained and include objectives, methods, analyses, results (in graphic or tabular format), discussion and interpretation of results, and recommendations for future work. The subprojects for State Fiscal Year 2014-2015 include:

- Water Quality Monitoring
- Seagrass Survey
- Oyster Monitoring Study
- Fisheries Monitoring
- Dredged Hole Survey
- Muck accretion measurements
- Post construction/restoration project monitoring (plant recruitment/wildlife utilization)

Deliverables:

- Sampling and Analysis Plan for the proposed monitoring that complies with the requirements of 62-160, Florida Administrative Code. The Sampling and Analysis Plan will outline how the results of the 2015 and 2016 monitoring results will be compiled, analyzed and compared to the data in previous studies.
- 2. Water Quality Final Report that documents short and long term trends relative to the FDEP's F.A.C. 62-302 Criteria for Surface Water Classifications; document the impacts on biological resources, such as sea grasses and oyster beds from CERP projects; determine the chemical and biological parameters that will best evaluate the water quality of the lagoon; locate and establish monitoring stations at locations within the lagoon currently not being monitored.

- 3. Lake Worth Lagoon Fixed Transect Seagrass Monitoring and Survey reports. The final report will assess small scale, area-specific changes in seagrass cover; monitor for species presence/ absence, depth distribution, abundance, shoot density and bed width/edge location. Data will include maps, tables & graphs for individual transects, station photos & spreadsheets of all data collected.
- 4. Oyster Monitoring and Survey reports in Lake Worth Lagoon. The final report will analyze oyster data from six sites in the Lake Worth Lagoon. The summarization will assess settled oyster abundance, reproductive and disease monitoring and spat recruitment. The primary goal is to determine settled oyster density, reproductive development, prevalence and intensity of the Perkinsus marinus parasite, and recruitment of established oysters at six location in the LWL.
- 5. Central Lake Worth Lagoon Fisheries Monitoring Survey reports. The objective will be to assess the fish diversity and habitat utilization at selected locations in the LWL through the conduction of one year of monitoring (4 quarterly events) in the Central lagoon. The final report will compare the fisheries resources at the new Grassy Flats restoration site to the well-established Snook Islands Restoration site and the control site in the immediate vicinity. The goal is to access the utilization of restored habitats at the Grassy Flats restoration project site by juvenile and adult fish species common in the central LWL.

Completion Date(s): After execution of the agreement prior to implementation of monitoring. Thirty-six (36) months from the start date of Agreement.

<u>Deliverable 1:</u> Sampling and Analysis Plan- January 2015 or at least 30 days prior to sampling for review and approval.

Deliverable 2: Water Quality Final Report - July 2017

Deliverable 3: Seagrass Final Report- January 2016.

<u>Deliverable 4:</u> Oyster final Report-July 2016.

Deliverable 5: Fisheries Final Report-June 2016.

Performance Standards: The Department Grant Managers will review the Sampling and Analysis Plan for the proposed monitoring. The Department Grant Managers will review the revised Sampling and Analysis Plan to ensure any comments received from DEP have been addressed appropriately. The Department Grant Managers will review the monitoring and survey Final reports for completeness and to ensure they include the components described, and for compliance with the guidelines described in the task description and the Sampling and Analysis Plan.

PROJECT BUDGET BY CATEGORY and TASK:

Task No.	Category	DEP Funding	Match
	Salaries	\$10,570	\$10,570
1 Peanut Island Reef	Fringe Benefits	\$4,430	\$4,430
Complex	Contractual	\$75,000	\$75,000
	TOTAL FOR TASK	\$90,000	\$90,000
2	Salaries	\$40,929	\$40,929
West Palm Beach Currie Park Living Shoreline	Fringe Benefits	\$19,071	\$19,071
	Contractual	\$300,000	\$300,000
	TOTAL FOR TASK	\$360,000	\$360,000

	Total Project Cost:	\$4,1	50,000
	Total:	\$2,075,000	\$2,075,000
Monitoring	Total for Task	\$150,000	\$150,000
6	Contractual	\$75,000	\$75,000
	Fringe Benefits		
	Salaries	\$75,000	\$75,000
Living Shoreline	TOTAL FOR TASK	\$190,000	\$190,000
(Steinhardt Cove)	Contractual	\$150,000	\$150,000
Old Bridge Park	Fringe Benefits	\$12,922	\$12,922
5	Salaries	\$27,078	\$27,078
	TOTAL FOR TASK	\$325,000	\$325,000
Shoreline	Contractual	\$250,000	\$250,000
Bryant Park Living	Fringe Benefits	S24,425	S24,425
4	Salaries	\$50,575	\$50,575
	TOTAL FOR TASK	\$960,000	\$960,000
Flats Restoration Phase II	Contractual	\$900,000	\$900,000
3 Palm Beach Grassy	Fringe Benefits	\$19,763	\$19,763
	Salaries	\$40,237	\$40,237

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

TASK#	POSITION(S) TITLE	SALARY PER HOUR	FRINGE
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
1	Senior Professional Engineer	65,48	50.16%
	Professional Engineer	41.26	50.16%
Peanut Island	Project Coordinator I	23.81	50.16%
Reef	Technical Assistant II	22.94	50.16%
Complex	Sr. Environmental Analyst	30.05	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	0%
	Deputy Director PBC ERM	62.69	50.16%
1	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
2	Senior Professional Engineer	65.48	50.16%
2	Professional Engineer	41.26	50.16%
	Project Coordinator I	23.81	50.16%
West Palm	Technical Assistant II	22.94	50.16%
Beach Currie Park Living Shoreline	Sr. Environmental Analyst	35.32	50.16%
	Sr. Environmental Analyst	28.77	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Sr. Environmental Analyst	30.05	50.16%
	Student Employees	11.60	0

	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
	Senior Professional Engineer	65.48	50.16%
	Professional Engineer	41.26	50.16%
3	Project Coordinator	23.81	50.16%
Dalm Danal	Technical Assistant II	22.94	50.16%
Palm Beach Grassy Flats	Sr. Environmental Analyst	35.32	50.16%
Restoration	Sr. Environmental Analyst	28.77	50.16%
Phase II	Sr. Environmental Analyst	30.05	50.16%
	Environmental Analyst	25.14	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Technical Assistant III	27.13	50.16%
	Student Employees	11.60	0%
	Deputy Director PBC ERM	62.69	50.16%
	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
4	Senior Professional Engineer	65.48	50.16%
4	Professional Engineer	41.26	50.16%
	Project Coordinator I	23.81	50.16%
Bryant Park Living	Technical Assistant II	22.94	50.16%
Shoreline	Sr. Environmental Analyst	35.32	50.16%
W.	Sr. Environmental Analyst	28.77	50.16%
	Sr. Environmental Analyst	30.05	50.16%
	Environmental Analyst	25.14	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	0%
	Deputy Director PBC ERM	62.69	50.16%
5	Environmental Director	55.44	50.16%
	Environmental Program Supervisor	46.74	50.16%
Old Bridge	Senior Professional Engineer	65.48	50.16%
Park (Steinhardt	Professional Engineer	41.26	50.16%
	Project Coordinator I	23.81	50.16%
Cove) Living	Technical Assistant II	22.94	50.16%
Shoreline	Sr. Environmental Analyst	30.05	50.16%
	Contract Manager	31.23	50.16%
	Student Employees	11.60	0%

6 Lake Worth Lagoon Monitoring	Environmental Program Supervisor	45.38	50.16
	Environmental Analyst	24.41	50.16
	Environmental Program Supervisor	48.72	50.16%
	Environmental Analyst	24.01	50.16%
	Technical Assistant III	26.34	50.16%
	Environmentalist I	19.83	50.16%
	Student Employees	11.00	0%
	Contract Manager	30.32	50.16%

ATTACHMENT B PAYMENT REQUEST SUMMARY FORM

Grantee:	Grantee's Grant Manager:		
Mailing Address:			
	Payment Request No.:		
DEP Agreement No.: S0751			
Date Of Request:	Performance		
	Period:		
Task/Deliverable Amount	Task/Deliverable		
Requested:S	No.:		

GRANT EXPENDITURES SUMMARY SECTION

[Effective Date of Grant through End-of-Grant Period]

Listiecti	ve Date of Grant throu	gn Enu-or-Grant Per	100]	
CATEGORY OF EXPENDITURE	AMOUNT OF THIS REQUEST	TOTAL CUMULATIVE PAYMENT REQUESTS	MATCHING FUNDS	TOTAL CUMULATIVE MATCHING FUNDS
Salaries	S	S	\$	S
Fringe Benefits	S	S	S	S
Travel (if authorized)	SN/A	SN/A	SN/A	SN/A
Subcontracting:				
Planning	S	S	S	S
Design	S	S	S	S
Construction	S	S	S	S
Equipment Purchases	SN/A	SN/A	SN/A	SN/A
Supplies/Other Expenses	SN/A	SN/A	SN/A	SN/A
Land	SN/A	SN/A	SN/A	SN/A
Indirect	SN/A	SN/A	SN/A	SN/A
TOTAL AMOUNT	\$N/A	SN/A	SN/A	SN/A
TOTAL TASK/DELIVERABLE BUDGET AMOUNT	S		S	
Less Total Cumulative Payment Requests of:	\$		\$	
TOTAL REMAINING IN TASK	S		S	

GRANTEE CERTIFICATION

The undersigned certifies that the amount being requested for reimbursement above was for items that were charged to and utilized only for the above cited grant activities.

Grantee's Grant Manager's Signature	Grantee's Fiscal Agent
-	
Print Name	Print Name
Telephone Number	Telephone Number

INSTRUCTIONS FOR COMPLETING PAYMENT REQUEST SUMMARY FORM

GRANTEE: Enter the name of the grantee's agency.

MAILING ADDRESS: Enter the address that you want the state warrant sent.

DEP AGREEMENT NO.: This is the number on your grant agreement.

DATE OF REQUEST: This is the date you are submitting the request.

TASK/DELIVERABLE AMOUNT REQUESTED: This should match the amount on the "TOTAL

TASK/DELIVERABLE BUDGET AMOUNT" line for the "AMOUNT OF THIS REQUEST" column.

GRANTEE'S GRANT MANAGER: This should be the person identified as grant manager in the grant Agreement.

PAYMENT REQUEST NO.: This is the number of your payment request, not the quarter number.

PERFORMANCE PERIOD: This is the beginning and ending date of the performance period for the task/deliverable that the request is for (this must be within the timeline shown for the task/deliverable in the Agreement).

TASK/DELIVERABLE NO.: This is the number of the task/deliverable that you are requesting payment for and/or claiming match for (must agree with the current Grant Work Plan).

GRANT EXPENDITURES SUMMARY SECTION:

"AMOUNT OF THIS REQUEST" COLUMN: Enter the amount that was expended for this task during the period for which you are requesting reimbursement for this task. This must agree with the currently approved budget in the current Grant Work Plan of your grant Agreement. Do not claim expenses in a budget category that does not have an approved budget. Do not claim items that are not specifically identified in the current Grant Work Plan. Enter the column total on the "TOTAL AMOUNT" line. Enter the amount of the task on the "TOTAL TASK BUDGET AMOUNT" line. Enter the total cumulative amount of this request and all previous payments on the "LESS TOTAL CUMULATIVE PAYMENT REQUESTS OF" line. Deduct the "LESS TOTAL CUMULATIVE PAYMENT REQUESTS OF" from the "TOTAL TASK BUDGET AMOUNT' for the amount to enter on the "TOTAL REMAINING IN TASK" line.

"TOTAL CUMULATIVE PAYMENT REQUESTS" COLUMN: Enter the cumulative amounts that have been requested to date for reimbursement by budget category. The final request should show the total of all requests; first through the final request (this amount cannot exceed the approved budget amount for that budget category for the task you are reporting on). Enter the column total on the "TOTALS" line. Do not enter anything in the shaded areas.

"MATCHING FUNDS" COLUMN: Enter the amount to be claimed as match for the performance period for the task you are reporting on. This needs to be shown under specific budget categories according to the currently approved Grant Work Plan. Enter the total on the "TOTAL AMOUNT" line for this column. Enter the match budget amount on the "TOTAL TASK BUDGET AMOUNT" line for this column. Enter the total cumulative amount of this and any previous match claimed on the "LESS TOTAL CUMULATIVE PAYMENTS OF" line for this column. Deduct the "LESS TOTAL CUMULATIVE PAYMENTS OF" from the "TOTAL TASK BUDGET AMOUNT" for the amount to enter on the "TOTAL REMAINING IN TASK" line.

"TOTAL CUMULATIVE MATCHING FUNDS" COLUMN: Enter the cumulative amount you have claimed to date for match by budget category for the task. Put the total of all on the line titled "TOTALS." The final report should show the total of all claims, first claim through the final claim, etc. Do not enter anything in the shaded areas.

GRANTEE CERTIFICATION: Must be signed by both the Grantee's Grant Manager as identified in the grant agreement and the Grantee's Fiscal Agent.

NOTES:

If claiming reimbursement for travel, you must include copies of receipts and a copy of the travel reimbursement form approved by the Department of Financial Services, Chief Financial Officer.

Documentation for match claims must meet the same requirements as those expenditures for reimbursement.

ATTACHMENT C

Contract Payment Requirements Florida Department of Financial Services, Reference Guide for State Expenditures Cost Reimbursement Contracts

Invoices for cost reimbursement contracts must be supported by an itemized listing of expenditures by category (salary, travel, expenses, etc.). Supporting documentation must be provided for each amount for which reimbursement is being claimed indicating that the item has been paid. Check numbers may be provided in lieu of copies of actual checks. Each piece of documentation should clearly reflect the dates of service. Only expenditures for categories in the approved contract budget should be reimbursed.

Listed below are examples of the types of documentation representing the minimum requirements:

(1) Salaries: A payroll register or similar documentation should be submitted. The payroll register

should show gross salary charges, fringe benefits, other deductions and net pay. If an individual for whom reimbursement is being claimed is paid by the hour, a document

reflecting the hours worked times the rate of pay will be acceptable.

(2) Fringe Benefits: Fringe Benefits should be supported by invoices showing the amount paid on behalf of the

employee (e.g., insurance premiums paid). If the contract specifically states that fringe benefits will be based on a specified percentage rather than the actual cost of fringe

benefits, then the calculation for the fringe benefits amount must be shown.

Exception: Governmental entities are not required to provide check numbers or copies

of checks for fringe benefits.

(3) Travel: Reimbursement for travel must be in accordance with Section 112.061, Florida Statutes,

which includes submission of the claim on the approved State travel voucher or electronic

means.

(4) Other direct costs: Reimbursement will be made based on paid invoices/receipts. If nonexpendable property

is purchased using State funds, the contract should include a provision for the transfer of the property to the State when services are terminated. Documentation must be provided to show compliance with Department of Management Services Rule 60A-1.017, Florida Administrative Code, regarding the requirements for contracts which include services and that provide for the contractor to purchase tangible personal property as defined in Section

273.02, Florida Statutes, for subsequent transfer to the State.

(5) In-house charges: Charges which may be of an internal nature (e.g., postage, copies, etc.) may be reimbursed

on a usage log which shows the units times the rate being charged. The rates must be

reasonable.

(6) Indirect costs: If the contract specifies that indirect costs will be paid based on a specified rate, then the

calculation should be shown.

Contracts between state agencies, and or contracts between universities may submit alternative documentation to substantiate the reimbursement request that may be in the form of FLAIR reports or other detailed reports.

The Florida Department of Financial Services, online Reference Guide for State Expenditures can be found at this web address: http://www.fldfs.com/aadir/reference_guide.htm

ATTACHMENT D

PROGRESS REPORT FORM

DEP Agreement No.:	80751				
Grantee Name:					
Grantee Address:					
Grantee's Grant Manager:	Telephone No.:				
Reporting Period:					
Project Number and Title:					
Provide the following inform	ation for all tasks and deliverables identifie	d in the Grant			
Work Plan: a summary of pro	pject accomplishments for the reporting period	l; a comparison			
of actual accomplishments to	goals for the period; if goals were not met, I	provide reasons			
why; provide an update on	the estimated time for completion of the	e task and an			
explanation for any anticipate					
NOTE: Use as many pages as	necessary to cover all tasks in the Grant World	k Plan.			
		l'			
The following formers should be	F-11 3				
The following format should b	e ionowea:				
Progress for this reporting per	uind.				
Identify any delays or problem					
dentity any delays of problen	is encountereu:				
l'i					
*					
		i i			
This report is submitted in accordance with the reporting requirements of DEP Agreement No.					
50/51 and accurately reflects th	e activities associated with the project.				
Signature of Grantee's Grant M	anager D	ate			
	g	m. w			

ATTACHMENT E

SPECIAL AUDIT REQUIREMENTS

The administration of resources awarded by the Department of Environmental Protection (which may be referred to as the "Department", "DEP", "FDEP" or "Grantor", or other name in the contract/agreement) to the recipient (which may be referred to as the "Contractor", Grantee" or other name in the contract/agreement) may be subject to audits and/or monitoring by the Department of Environmental Protection, as described in this attachment.

MONITORING

In addition to reviews of audits conducted in accordance with OMB Circular A-133 and Section 215.97, F.S., as revised (see "AUDITS" below), monitoring procedures may include, but not be limited to, on-site visits by Department staff, limited scope audits as defined by OMB Circular A-133, as revised, and/or other procedures. By entering into this Agreement, the recipient agrees to comply and cooperate with any monitoring procedures/processes deemed appropriate by the Department of Environmental Protection. In the event the Department of Environmental Protection determines that a limited scope audit of the recipient is appropriate, the recipient agrees to comply with any additional instructions provided by the Department to the recipient regarding such audit. The recipient further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Chief Financial Officer or Auditor General.

AUDITS

PART I: FEDERALLY FUNDED

This part is applicable if the recipient is a State or local government or a non-profit organization as defined in OMB Circular A-133, as revised.

- In the event that the recipient expends \$500,000 or more in Federal awards in its fiscal year, the recipient must have a single or program-specific audit conducted in accordance with the provisions of OMB Circular A-133, as revised. EXHIBIT 1 to this Attachment indicates Federal funds awarded through the Department of Environmental Protection by this Agreement. In determining the Federal awards expended in its fiscal year, the recipient shall consider all sources of Federal awards, including Federal resources received from the Department of Environmental Protection. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by OMB Circular A-133, as revised. An audit of the recipient conducted by the Auditor General in accordance with the provisions of OMB Circular A-133, as revised, will meet the requirements of this part.
- In connection with the audit requirements addressed in Part I, paragraph 1, the recipient shall fulfill the requirements relative to auditee responsibilities as provided in Subpart C of OMB Circular A-133, as revised.
- 3. If the recipient expends less than \$500,000 in Federal awards in its fiscal year, an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, is not required. In the event that the recipient expends less than \$500,000 in Federal awards in its fiscal year and elects to have an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, the cost of the audit must be paid from non-Federal resources (i.e., the cost of such an audit must be paid from recipient resources obtained from other than Federal entities).
- 4. The recipient may access information regarding the Catalog of Federal Domestic Assistance (CFDA) via the internet at http://12.46.245.173/cfda/cfda.html.

PART II: STATE FUNDED

This part is applicable if the recipient is a nonstate entity as defined by Section 215.97(2)(m), Florida Statutes.

- 1. In the event that the recipient expends a total amount of state financial assistance equal to or in excess of \$500,000 in any fiscal year of such recipient, the recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. EXHIBIT 1 to this Attachment indicates state financial assistance awarded through the Department of Environmental Protection by this Agreement. In determining the state financial assistance expended in its fiscal year, the recipient shall consider all sources of state financial assistance, including state financial assistance received from the Department of Environmental Protection, other state agencies, and other nonstate entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a nonstate entity for Federal program matching requirements.
- 2. In connection with the audit requirements addressed in Part II, paragraph 1; the recipient shall ensure that the audit complies with the requirements of Section 215.97(7), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2), Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.
- 3. If the recipient expends less than \$500,000 in state financial assistance in its fiscal year, an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, is not required. In the event that the recipient expends less than \$500,000 in state financial assistance in its fiscal year, and elects to have an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, the cost of the audit must be paid from the non-state entity's resources (i.e., the cost of such an audit must be paid from the recipient's resources obtained from other than State entities).
- 4. For information regarding the Florida Catalog of State Financial Assistance (CSFA), a recipient should access the Florida Single Audit Act website located at https://apps.fldfs.com/fsaa for assistance. In addition to the above websites, the following websites may be accessed for information: Legislature's Website at http://www.leg.state.fl.us/Welcome/index.cfm, State of Florida's website at http://www.myflorida.com/, Department of Financial Services' Website at http://www.fldfs.com/ and the Auditor General's Website at http://www.state.fl.us/audgen.

PART III: OTHER AUDIT REQUIREMENTS

(NOTE: This part would be used to specify any additional audit requirements imposed by the State awarding entity that are solely a matter of that State awarding entity's policy (i.e., the audit is not required by Federal or State laws and is not in conflict with other Federal or State audit requirements). Pursuant to Section 215.97(8), Florida Statutes, State agencies may conduct or arrange for audits of State financial assistance that are in addition to audits conducted in accordance with Section 215.97, Florida Statutes. In such an event, the State awarding agency must arrange for funding the full cost of such additional audits.)

PART IV: REPORT SUBMISSION

 Copies of reporting packages for audits conducted in accordance with OMB Circular A-133, as revised, and required by PART I of this Attachment shall be submitted, when required by Section .320 (d), OMB Circular A-133, as revised, by or on behalf of the recipient <u>directly</u> to each of the following: A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically: FDEPSingleAudit@dep.state.fl.us

B. The Federal Audit Clearinghouse designated in OMB Circular A-133, as revised (the number of copies required by Sections .320 (d)(1) and (2), OMB Circular A-133, as revised, should be submitted to the Federal Audit Clearinghouse), at the following address:

Federal Audit Clearinghouse Bureau of the Census 1201 East 10th Street Jeffersonville, IN 47132

Submissions of the Single Audit reporting package for fiscal periods ending on or after January 1, 2008, must be submitted using the Federal Clearinghouse's Internet Data Entry System which can be found at http://harvester.census.gov/fac/

- Other Federal agencies and pass-through entities in accordance with Sections .320 (e) and (f),
 OMB Circular A-133, as revised.
- Pursuant to Section .320(f), OMB Circular A-133, as revised, the recipient shall submit a copy of the reporting package described in Section .320(c), OMB Circular A-133, as revised, and any management letters issued by the auditor, to the Department of Environmental Protection at one the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically: FDEPSingleAudit@dep.state.fl.us

- 3. Copies of financial reporting packages required by PART II of this Attachment shall be submitted by or on behalf of the recipient <u>directly</u> to each of the following:
 - A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically: FDEPSingleAudit@dep.state.fl.us

B. The Auditor General's Office at the following address:

State of Florida Auditor General Room 401, Claude Pepper Building 111 West Madison Street Tallahassee, Florida 32399-1450

 Copies of reports or management letters required by PART III of this Attachment shall be submitted by or on behalf of the recipient <u>directly</u> to the Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically: FDFPSingleAudit@dep.state.fl.us

- 5. Any reports, management letters, or other information required to be submitted to the Department of Environmental Protection pursuant to this Agreement shall be submitted timely in accordance with OMB Circular A-133, Florida Statutes, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.
- 6. Recipients, when submitting financial reporting packages to the Department of Environmental Protection for audits done in accordance with OMB Circular A-133, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date that the reporting package was delivered to the recipient in correspondence accompanying the reporting package.

PART V: RECORD RETENTION

The recipient shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of 5 years from the date the audit report is issued, and shall allow the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General access to such records upon request. The recipient shall ensure that audit working papers are made available to the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General upon request for a period of 3 years from the date the audit report is issued, unless extended in writing by the Department of Environmental Protection.

EXHIBIT - 1

FUNDS AWARDED TO THE RECIPIENT PURSUANT TO THIS AGREEMENT CONSIST OF THE FOLLOWING:

Federal Resou	Federal Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following:					
Federal Program Number	Federal Agency	CFDA Number	CFDA Title	Funding Amount	State Appropriation Category	
				-		

State Resource	State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Matching Resources for Federal Programs:						
Federal Program Number	Federal Agency	CFDA	CFDA Title	Funding Amount	State Appropriation Category		

State Resource	State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Resources Subject to Section 215.97, F.S.:						
State	State CSFA Title					State	
Program		State	CSFA	or		Appropriation	
Number	Funding Source	Fiscal Year	Number	Funding Source Description	Funding Amount	Category	
Original	Line Item 1627A	2014-2015	37.037	Save Our Everglades Trust Fund	\$2,075,000.00	141120	
Agreement							
			·				

	Total Award	\$2,075,000.00	

For each program identified above, the recipient shall comply with the program requirements described in the Catalog of Federal Domestic Assistance (CFDA) [http://12.46.245.173/cfda/cfda.html] and/or the Florida Catalog of State Financial Assistance (CSFA) [https://apps.fldfs.com/fsaa/searchCatalog.aspx]. The services/purposes for which the funds are to be used are included in the Contract scope of services/work. Any match required by the recipient is clearly indicated in the Contract.

ATTACHMENT F QUALITY ASSURANCE REQUIREMENTS

 All sampling and analyses performed under this Contract must conform to the requirements set forth in Chapter 62-160, Florida Administrative Code (F.A.C.) and "Requirements for Field and Analytical Work performed for the Department of Environmental Protection under Contract" (DEP-QA-002/02), February 2002.

2. <u>Laboratories</u>

- a. The CONTRACTOR shall ensure that all laboratory testing activities are performed by laboratories certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP) for all applicable matrix/method/analyte combinations to be measured. For non-potable water matrix, the certification requirement is considered satisfied if the laboratory is certified for the contracted analyte in at least one method that uses the same analytical technology as the contract-proposed method.
- b. If the laboratory is not certified for some or all of the proposed test measurements, the laboratory shall apply for certification within one month of Contract execution. Within six months of Contract execution, the laboratory shall be fully certified for all applicable matrix/method (or analytical technology)/analyte combinations to be performed. Regardless of when the laboratory receives certification, the laboratory must implement all applicable standards of the National Environmental Laboratory Accreditation Conference (NELAC) upon Contract execution.
- c. Laboratories shall maintain certification as specified in item 2.a above during the life of the Contract. Should certification for an analyte or test method be lost, all affected tests shall be immediately subcontracted to a laboratory with current DoH ELCP certification in the appropriate matrix/method/analyte combination(s). The CONTRACTOR shall notify the DEP contract manager in writing before any change to a sub-contracted laboratory is made.
- d. A copy of the DoH ELCP Certificate and the associated list of specific fields of accreditation for each contracted or sub-contracted laboratory shall be provided to the DEP contract manager upon Contract execution or upon receiving DoH certification (see items 2.a and 2.b above).
- e. The CONTRACTOR shall ensure that an acceptable initial demonstration of capability (IDOC), as described in Appendix C of Chapter 5 of the NELAC Standards is performed. Each laboratory that performs any of the proposed matrix/method (or analytical technology)/analyte combination(s) must have the requisite IDOC documentation and supporting laboratory records. IDOCs shall be performed and shall meet the contract specified requirements for precision, accuracy, and the method detection limit (MDL) and/or practical quantitation limit(PQL) before the test procedure is used to generate data for this Contract. If requested by the Department, documentation that supports the IDOC shall be made available for review.
- f. When performance test samples are not required by DoH ELCP for certification, the laboratory shall obtain, analyze and evaluate performance test samples, standard reference materials (SRM) or other externally assayed quality control (QC) samples, hereinafter known collectively as quality control check (QCC) samples.
 - (i) The laboratory shall ensure that the selected QCC samples(s) represent all matrix/method/analyte combinations that are not subject to certification requirements.
 - (ii) These samples shall be analyzed at six-month intervals and the results shall be within the acceptable range established by the QCC sample provider.
 - (iii) Before providing analytical services for this Contract, the laboratory must provide to the DEP contract manager the results of the QCC sample(s) and the associated acceptable range(s) as established by the QCC sample provider. The submitted results must be from QCC samples that have been completed within the previous six months prior to the submission date.
- g. Any non-standard laboratory procedures or methods that are proposed for use (i.e., those not approved by DEP for standard environmental analyses) shall be submitted for review and approval in accordance with DEP-QA-001/01, "New and Alternative Analytical Laboratory Methods," February 1, 2004. These procedures or methods shall be approved by the DEP contract manager before use under this Contract and must be cited or described in the required planning document (see Section 6).
- h. The CONTRACTOR shall ensure that Practical Quantitation Limits (PQLs) and Method Detection Limits (MDLs) required by the Contract are listed in the planning document (see Section 6).
- i. The CONTRACTOR shall ensure that the selected laboratory test methods listed in the planning document can provide results that meet the Contract data quality objectives.
- The CONTRACTOR shall ensure that all laboratory testing procedures follow the analytical methods as approved in the planning document (see Section 6).

- k. The CONTRACTOR shall ensure that the all laboratory quality control measures are consistent with Chapter 5 of the NELAC standards.
- In addition, the CONTRACTOR shall ensure that the quality control requirements specified in the attached addenda are followed.
- m. The CONTRACTOR shall ensure that all sample results are calculated according to the procedures specified in the analytical methods approved in the planning document.

3. FIELD ACTIVITIES

- "Sample" refers to samples that have been either collected or analyzed under the terms of this Contract.
- a. "Sample" refers to samples that have been either collected or analyzed under the terms of this Contract.b. The CONTRACTOR shall ensure that all sample collection and field testing activities are performed in accordance with the Department's "Standard Operating Procedures for Field Activities" (DEP-SOP-001/01, March 31, 2008). The specific standard operating procedures (SOPs) to be used for this Contract shall be cited in the planning document (see Section 6).
- Any non-standard field procedure shall be submitted for review and approval to the DEP contract manager in accordance with section FA 2000 of DEP-SOP-001/01. All non-standard procedures and methods must be approved by the DEP contract manager before use under this Contract and must be cited or described in the planning document.
- Per the quality control measures outlined in the DEP SOPs (FQ 1000 and the calibration requirements of the FT-series for field testing), the CONTRACTOR shall ensure that the following field quality controls (and any additional quality control measures specified in the addenda) are incorporated into the project design:
 - (i) Matrix-Related Quality Controls The CONTRACTOR shall ensure that the laboratory is provided with sufficient sample volume to analyze at least one set of matrix spikes and either matrix spike duplicates or laboratory duplicates as follows:
 - (1) The first time a sample from a sample collection matrix (see Table FA 1000-1) is collected;
 - (2) One in each additional 20 samples of the sample collection matrix, after the first 20 samples; and
 - (3) The last time samples are collected for the sample collection matrix.
 - (ii) Field-Generated Quality Control (QC) Blanks Blanks associated with field activities as defined in FQ 1210 of the DEP SOPs shall be collected according to the requirements of FQ 1230.
 - (1) If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the CONTRACTOR shall investigate and attempt to determine the cause of the QC blank contamination. The outcome of this investigation shall be reported and shall include a discussion of the corrective measures taken to minimize future occurrences of QC blank contamination.
 - (2) If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the CONTRACTOR shall ensure that the analyte in the affected sample is reported as estimated ("J" with a narrative explanation) unless the analyte concentration in the affected sample is at least 10 times the reported QC blank value concentration.

4. REPORTING, DOCUMENTATION AND RECORDS RETENTION

- The CONTRACTOR shall ensure that all laboratory and field records as outlined in Rules 62-160.240 and .340, F.A.C. are retained for a minimum of five years after the project completion.
- All field and laboratory records that are associated with work performed under this Contract shall be organized so that any information can be quickly and easily retrieved for inspection, copying or distribution.
- The CONTRACTOR shall ensure that all laboratory reports are issued in accordance with NELAC requirements. These reports shall be submitted to the DEP contract manager and shall include the following information:
 - Laboratory sample identification (ID) and associated Field ID
 - Analytical/test method
 - Parameter/analyte name
 - Analytical result (including dilution factor)
 - Result unit
 - Applicable DEP Qualifiers per Table 1 of Chapter 62-160, F.A.C.
 - Result comment(s) to include corrective/preventive actions taken for any failed QC measure (e.g., QC sample, calibration failure, etc.) or other problem related to the analysis of the samples
 - Date and time of sample preparation (if applicable)
 - Date and time of sample analysis

- ▶ Results of laboratory verification of field preservation
- Sample matrix
- ▶ DoH ELCP certification number for each laboratory (must be associated with the test result(s) generated by the laboratory)
- MDL
- ▶ PQL
- Sample type (such as blank type, duplicate type, etc.)
- Field and laboratory QC blank results:
 - Laboratory QC blank analysis results as required by the method, NELAC Chapter 5 and the planning document (see Section 6 below);
 - Field quality control results including trip blanks, field blanks, equipment blanks, and field duplicates (or replicates) as specified in the planning document (see Section 6)
- Results of sample matrix spikes, laboratory duplicates or matrix spike duplicates, as applicable
- Results of surrogate spike analyses (if performed)
- Results of laboratory control samples (LCS)
- Link between each reported quality control measure (e.g., QC blanks, matrix spikes, LCS, duplicates, calibration failure, etc.) and the associated sample result(s)
- Acceptance criteria used to evaluate each reported quality control measure
- d. The CONTRACTOR shall ensure that the following field-related information is reported to the DEP contract manager:
 - Site and/or facility name, address and phone number
 - Field ID for each sample container and the associated analytes (test methods) for which the container was collected
 - Date and time of sample collection
 - Sample collection depth
 - Sample collection method identified by the DEP SOP number, where applicable
 - ▶ If performed, indicate samples that were filtered
 - ▶ Field test measurement results:
 - DEP SOP number (FT-series), where applicable
 - Parameter name
 - Result
 - Result unit
 - Applicable Data Qualifiers per Table 1 of Chapter 62-160, F.A.C.
 - Narrative comments discussing corrective/preventive actions taken for any failed QC measure (e.g., blank contamination, meter calibration failure, split sample results, etc.), unacceptable field measurement or other problems related to the sampling event.
- e. The Department reserves the right to request some or all of the laboratory or field information in a specified format.
 - i) The GONTRACTOR shall submit the data electronically using the following format:
 - (ii) The GONTRACTIOR shall use the following format for reporting results:
- f. Legal or exidentiary chain of custody, as defined in HD 1000 of the DBP-SOP-001/01 and the NELAG Standards, shall be executed and shall be stipulated in the planning document.
- 5. AUDITS
 - a. AUDITS BY THE DEPARTMENT Pursuant to Rule 62-160.650, F.A.C., the Department may conduct audits of field and/or laboratory activities. In addition to allowing Department representatives to conduct onsite audits, the CONTRACTOR, upon request by the Department, must provide all field and laboratory records pertinent to the contracted field and laboratory activities. If an audit by the Department results in a determination that the reported data are not usable for the purpose(s) or do not meet the data quality objectives specified by the Contract, the DEP contract manager shall pursue remedies available to the Department, including those outlined in Section 8 below.
 - b. PLANNING REVIEW AUDITS -
 - (i) Initial: Prior to the completion of the sampling and analysis events and after the second completed sampling and analysis event but no later than fourth, the CONTRACTOR and all associated subcontractors shall review the planning document (see Section 6 below) relative to the completed field and laboratory activities to determine if the data quality objectives are being met,

identify any improvements to be made to the process, and refine the sampling and/or analytical design or schedule. Within one month of the review, a summary of the review, including any corrective action plans or amendments to the planning document, shall be sent to the DEP contract manager and a copy shall be maintained with the permanent project records.

(ii) Ongoing: Planning reviews as described in item (i) above shall occur annually.

- c. QUALITY SYSTEMS AUDITS The CONTRACTOR and all subcontractors shall ensure that any required laboratory and field quality system and management systems audits are performed according to the respective Quality Manuals for each contracted and sub-contracted entity. These audits shall be documented in the CONTRACTOR's and subcontractors' records.
- d. STATEMENTS OF USABILITY As a part of the audit process and the final report, the CONTRACTOR shall provide statements about data usability relative to the Contract Data Quality Objectives and Data Quality Indicators specified in the planning document, this attachment and the addenda.
 - (i) The CONTRACTOR shall ensure that all acceptance and usability criteria required by this Contract not specified above are listed in the planning document.
 - (ii) The CONTRACTOR shall ensure that the results of all quality control measures described above are evaluated according to the acceptance criteria listed in this attachment, the addenda and the planning document.
 - (iii) The CONTRACTOR shall ensure that all sample results are evaluated according to the additional usability criteria specified in the planning document.

6. PLANNING DOCUMENT

- a. The CONTRACTOR shall submit the planning document identified below to the DEP contract manager no later than 120 days prior to the commencement of field and laboratory activities. Failure to submit the planning document in this required timeframe shall result in a delay of approval to begin work until the document has been submitted to the Department and approved by the DEP contract manager. The document shall be submitted as a
 - Quality Assurance Project Plan (QAPP). The plan shall be consistent with the EPA Document EPA-QA/R-5, EPA Requirements for Quality Assurance Project Plans, dated March 2001.
 - Sampling and Analysis Plan (or project proposal). The plan shall discuss the information contained in the document "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract", DEP-QA-002/02.
 - (iii) Research QA Rian. The plan shall include a detailed project proposal or sampling and analysis plan that discusses the information contained in the document "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract", DEP-QA-002/02" and the additional topics specified in Rule 62-160.600, F.A.C.
- b. The CONTRACTOR and subcontractors may submit a version of the planning document to the Department for approval no more than three times. If the CONTRACTOR fails to obtain approval for the planning document after the third (final) submission to the Department, the DEP contract manager may suspend or terminate the Contract.
- c. The DEP Contract number shall appear on the title page of the submitted planning document. Within forty-five (45) days of receipt of the properly identified planning document by the Department, the Department shall review and either approve the planning document or provide comments to the CONTRACTOR and affected subcontractors as to why the planning document is not approved. If further revisions are needed, the CONTRACTOR shall then have fifteen (15) days from the receipt of review comments to respond. The Department shall respond to all revisions to the planning document within thirty (30) days of receipt of any revisions.
- d. If the review of the planning document by the Department is delayed, through no fault of the CONTRACTOR, beyond sixty (60) days after the planning document is received by the Department, the CONTRACTOR shall have the option, after the planning document is approved, of requesting and receiving an extension in the term of the Contract for a time period not to exceed the period of delayed review and approval. This option must be exercised at least sixty (60) days prior to the current termination date of the Contract.
- e. Work may not begin for specific Contract tasks until approval has been received by the CONTRACTOR from the DEP contract manager. Sampling and analysis for the Contract may not begin until the planning document has been approved.

- f. Once approved, the CONTRACTOR shall follow the protocols specified in the approved planning document including, but not limited to:
 - Ensuring that all stated quality control measures are collected, analyzed and evaluated for acceptability;
 - Using only the protocols approved in the planning document; and
 - Using only the equipment approved in the planning document.
- g. If any significant changes in procedures or test methods, changes in equipment, changes in subcontractor organizations or changes in key personnel occur, the CONTRACTOR shall submit appropriate revisions of the planning document to the DEP contract manager for review. The proposed revisions may not be implemented until they have been approved by the DEP contract manager. If the CONTRACTOR fails to submit the required revisions, the DEP contract manager may suspend or terminate the Contract. These amendments shall be
 - (i) Provided in a new planning document,
 - (ii) Provided as amended sections of the current planning document,
 - (iii) Documented through written or electronic correspondence with the DEP contract manager and incorporated into the approved planning document.

7. DELIVERABLES

- a. The following lists the expected schedule for the deliverables that are associated with the Quality Assurance requirements of this Contract:
 - Copy of DoH ELCP Certificate(s) and the associated list(s) of specific fields of accreditation, per item 2.d above.
 - (ii) Copies of the QCC sample results per item 2.f. above.
 - (iii) Non-standard laboratory or field procedures The CONTRACTOR shall submit to the DEP contract manager all required information necessary for review of non-standard procedures per items 2.g. and 3.c. above.
 - (iv) Reports of planning review audits as specified in item 5.b. above.
 - (v) Statements of Usability as specified in item 5.d. above.
 - (vi) Planning document per Section 6, above.

8. Consequences

- a. Failure to comply with any requirement of this attachment may result in:
 - (i) Immediate termination of the Contract.
 - (ii) Withheld payment for the affected activities.
 - (iii) Contract suspension until the requirement(s) has been met.
 - (iv) A request to refund already disbursed payments.
 - (V) A request to redo work affected by the non-compliant activity.
 - (vi) Other remedies available to the Department.

Addendum 1 Quality Control Requirements for Laboratories Performing Chemical Analysis

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this Contract. Note: "Sample" refers to samples that have been either collected or analyzed under the terms of this Contract.

- Matrix-Related Quality Control Samples The CONTRACTOR shall ensure that samples associated with this Contract are used for matrix spikes, and either laboratory duplicates or matrix spike duplicates. The laboratory shall analyze these samples:
 - a. The first time samples from a sample collection matrix (see Table FA 1000-1) are submitted to the laboratory under this Contract for analysis. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
 - b. After the first 20 samples from the sample collection matrix have been analyzed, at least one matrix spike and either laboratory duplicates or matrix spike duplicates shall be composed using a sample or samples selected from each additional 20 samples of the sample collection matrix submitted to the laboratory.
 - c. The last time samples from the sample collection matrix are received and analyzed. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
 - Spike levels must be at the concentrations specified in item 3 below.
 - e. If the selected sample concentration is expected to be below the Contract-specified practical quantitation limit (PQL) listed in the planning document, then matrix spike duplicates must be used.
- Per NELAC Chapter 5 requirements, as least one Laboratory Control Sample (LCS; also known as Laboratory Fortified Blank) shall be prepared, analyzed and evaluated with each batch of 20 samples or less.
 - a. The acceptance criteria for the LCS shall be specified in the planning document.
 - b. If the LCS is unacceptable, the samples associated with the LCS shall be reprocessed with a new LCS. If the samples cannot be reprocessed, the data must be appropriately qualified.
- 3. For applicable analytes denoted in the planning document, a QC check sample, standard reference material (SRM) or other quality control sample, hereinafter identified collectively as quality control check samples (QCCS), shall be processed with each sample preparation batch and analyzed for evaluation according to the acceptance limits established for the QCCS.
 - a. Analysis of a QCCS is required for but not limited to the following analyses:
 - (i) Chlorophyll the assay for the QCCS or its original formulation shall have been determined by an organization external to the laboratory;
 - (ii) Biochemical oxygen demand (BOD) or carbonaceous BOD (CBOD) the method-specified glucose/glutamic acid check solution shall be used; and,
 - (iii) Copper in seawater the QCCS shall be any seawater-matrix SRM assayed by an organization external to the laboratory.
 - b. If the QCCS is unacceptable, the samples associated with the QCCS shall be reprocessed with a new QCCS. If the samples cannot be reprocessed, the data must be appropriately qualified for all contracted samples in the preparation batch.
- 4. Spiking/Fortification Requirements All spike fortifications must take place prior to any required sample preparation steps (e.g., sample extraction, sample digestion, pH adjustment, etc.). The final concentration of any spike fortification shall be at the applicable level identified below.
 - a. If any of the samples in the preparation batch are non-detect (i.e., below the MDL specified in the planning document), the spiking level must not be greater than 2 times the Contract-specified PQL.
 - b. The concentration of a spiked sample cannot exceed 5 times the highest concentration of any contracted sample in the preparation batch.
- 5. Evaluation of Matrix Spikes The results of matrix spikes must meet the acceptance criteria specified by the Contract and listed in the planning document or the data must be appropriately qualified.
 - a. If the failure is reported to be due to *sample* matrix interference, the laboratory shall document the process by which this conclusion is determined.
- Evaluation of Laboratory Duplicate/Replicate Samples All replicate samples (sample duplicates, matrix spike duplicates, LCS duplicates or other replicates) must be evaluated for a precision criterion not to exceed 20 % RPD. This criterion shall be listed in the planning document.
 - In the event that laboratory replicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.

- 7. Instrument Calibration In addition to calibration procedures specified in the analytical methods listed in the planning document, the CONTRACTOR shall ensure that the following requirements are met:
 - All sample results shall be chronologically bracketed between acceptable calibration verifications.
 - b. Initial Calibration Requirements
 - (i) The minimum number of calibration standards required to calibrate each instrument used for the contracted analyses shall conform to the analytical method approved in the planning document. If the minimum number of calibration standards is not specified in the method, the number must be specified in the planning document and shall be consistent with the NELAC Chapter 5 standards.
 - (ii) Unless otherwise specified by the method, all sample results shall be based on the initial calibration curve responses.
 - (iii) If linear regressions are used, the correlation coefficient shall be equal to or greater than 0.995 for all regressions.
 - (iv) Immediately after performing an initial calibration, the accuracy of the calibration shall be verified using a second source. A second source may be a standard, a Standard Reference Material (SRM), or other sample type with a verified concentration such as a QC Check Sample. Standards must have been prepared from a different lot or vendor.
 - (v) The acceptance criteria for second-source verifications shall be specified in the planning document.
 - (vi) Sample analysis cannot proceed if an initial calibration is unacceptable.
 - c. Continuing Calibration Requirements:
 - (i) When an initial calibration is not performed on the day of analysis, a continuing calibration standard shall be analyzed, evaluated and determined to be acceptable prior to analyzing samples.
 - (ii) A continuing calibration standard shall be analyzed and evaluated at the end of the analytical run.
 - (iii) The acceptance criteria for continuing calibration verifications shall be specified in the planning document.
 - (iv) For each analytical run, the analytical sensitivity must be evaluated using a continuing calibration standard prepared at the Contract-specified PQL. The analyzed value of this standard must be within 70% 130% of the expected value. If this PQL check fails, the blank and associated sample results must be reported as "estimated" per Chapter 62-160, F.A.C. unless the affected results are at least 10 times the absolute value of the observed bias of the PQL check.
 - (v) If continuing calibration verification fails, samples not chronologically bracketed by acceptable calibration verifications must be reanalyzed or appropriately qualified.
 - d. Sample results below the Contract-specified PQL and above the highest calibration standard shall be appropriately qualified.
- 8. Quality Control Blanks
 - a. If a Contracted analyte is detected in any analytical QC blank, the sample results that are associated with the blank must be reported with the appropriate qualifier from Chapter 62-160, F.A.C., unless the affected sample concentrations are at least 10 times higher than the calculated QC blank concentration.
 - Sample results must be chronologically bracketed with acceptable beginning and ending analytical QC blanks.
 - c. If a Contracted analyte is detected in the field blank, equipment blank or trip blank, the result must be confirmed by reanalyzing a new aliquot of the blank unless the sample concentration results associated with the blank are at least 10 times the calculated blank concentration. The laboratory must investigate the blank contamination to determine that positive blank results are not due to a laboratory error and report the affected samples and field-generated blank results with appropriate qualifiers and/or comments.
- 9. If any quality control measure or calibration verification fails (including those specified above), samples that are associated with the failure must be reanalyzed, if possible. Sample data that are associated with a failed quality control measure or calibration must be appropriately qualified as specified in Chapter 62-160, F.A.C. An explanatory comment must be attached to the final report for each result that has a qualifier code other than U, I, or A. Any additional qualifier codes used but not explicitly listed in Chapter 62-160, F.A.C. must be identified and defined in the report.
- 10. The reported MDL and PQL for each sample must be adjusted for dilution factors and any relevant preparation weights and volumes.
- 11. For all organic analyses using either gas chromatography or HPLC, analytes with concentrations above the method detection limit shall be confirmed by at least one of the qualitative identification measures listed below. Confirmation must occur the first time an analyte is detected at a sampling point.

- ▶ Second column/same detector
- ▶ Second column/alternate detector
- ▶ Same column/alternate detector
- Mass spectrometry
- ▶ Alternate wavelength

Addendum 2 Quality Control Requirements for Laboratories Performing Microbiological Testing

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this Contract. Note: "Sample" refers to samples that have been either collected or analyzed under the terms of this Contract.

- All microbiological analyses must conform to the requirements for facilities, personnel qualifications, equipment specifications and quality control measures discussed in AWWA Standard Methods, section 9020 (all acceptable editions)
- 2. Holding Times Any sample that exceeds the holding time specified in 40 CFR Part 136 (for non-potable water) or 40 CFR Part 141 (for drinking water compliance) must be appropriately qualified with a "Q". The holding begins with the sample collection date and time and ends with the date and time of the placement of the processed sample into or on the applicable growth medium.
 - a. For non-potable water, the maximum transport time to the laboratory is 6 hours and samples should be processed within 2 hours of receipt at the laboratory. For purposes of contractual services and to determine compliance with this requirement, the Department will allow no greater than 6 hours from time of collection to the time of receipt by the laboratory AND no greater than 8 hours from time of collection to the placement of the processed sample into or on the applicable growth medium
 - b. All samples that are either received after 6 hours OR placed into or on growth medium after 8 hours will be considered outside of holding time and must be qualified with a "Q" qualifier.
 - (i) All samples that exceed the method-specified incubation period (range of minimum to maximum) shall be qualified with a "J" qualifier.
 - c. For drinking water compliance, the time from sample collection to placement of the processed sample into or on the applicable growth medium may not exceed 30 hours.
 - (i) All samples that are processed after 30 hours will be considered outside of holding time and must be qualified with a "Q" qualifier.
 - (ii) All samples that exceed the method-specified incubation period (range of minimum to maximum hours) shall be qualified with a "J" qualifier.
 - d. In order to evaluate the holding time for each sample, the following information shall be documented.
 - (1) Date and time of sample collection
 - (2) Date and time of laboratory receipt of the sample
 - (3) Date and time the analysis begins (The time at which the sample is placed in or on the appropriate media for incubation).
 - (4) Date and time incubation begins
 - (5) Date and time analysis ends The date and time incubation ends and plates/tubes are read.
- 3. <u>Dilutions for membrane filter analysis</u> In order to achieve the recommended range of target organisms (20 60 colony forming units (CFU) for fecal coliform, enterococci and fecal streptococcus or 20 80 for total coliforms and E.coli), multiple dilutions of a sample must be run. While the general history of a sample site may be well known, the water will be influenced by many environmental factors at any one time.
 - a. A minimum of 3 dilutions will be run for each sample analysis (except blanks). The three dilution volumes may vary according to the range of expected values or an understanding of the environmental conditions at the time of sampling. Waters of a higher quality (low microbial density) may benefit from a dilution series of 100 mL, 50 mL, and 25 mL of sample volume, whereas, lower quality waters (high microbial density) might require only 10 mL, 1.0 mL, and 0.1 mL. Use a 100 mL dilution for all blanks (including field and equipment blanks). Table 1 provides suggested volumes for varying water sources and has been adapted from Table 9222:III, Standard Methods, 20th Edition, and can be used for microbiological samples:

Table 1: Suggested sample dilutions				
Water source Dilutions (Sample Volume, mL				
Equipment, field blanks	100			
Lakes, reservoirs, rivers	100, 50, 10 or 50, 10, 25			
Wells, springs	100, 50, 10 or 100, 50, 25			
Water supply intake	50, 10, 1			
Natural bathing waters	50, 10, 1			

Sewage treatment plant	10, 1, 0.1
Farm ponds, rivers	1, 0.1, 0.01
Stormwater runoff	1, 0.1, 0.01
Raw municipal sewage	0.1, 0.01, 0.001
Feedlot runoff	0.1, 0.01, 0.001
Sewage sludge	0.01, 0.001, 0.0001

QUALITY CONTROL BLANKS

- The number and types of blanks to be run shall follow method requirements with these modifications:
 - If the membrane filter technique is used, the sample set(s) shall be associated with a beginning and ending filtration blank processed within a time period not to exceed 30 minutes. The environmental field samples shall be filtered after the beginning blank and before the ending blank.
 - If filtration funnels are not sanitized by U light between samples, additional sterility blanks shall be filtered after every 10 samples processed within the 30-minute set
- The results of any blank must be < 1 CFU/100 mL or the associated sample results must be reported with the appropriate qualifier from Chapter 62-160, F.A.C. ("V" for filtration blanks and "J" for field-generated

Laboratory Quality Control Duplicates

- a. At least 10% of the samples (or one per test run) shall be duplicated.
- All duplicate results shall be evaluated per method specifications using the precision criterion. The range of the transformed duplicates shall not exceed the precision criterion established by the laboratory. In the event that laboratory duplicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.
- Field Quality Control Duplicates or Replicates In the event that agreement (less than or equal the laboratory established precision criterion) is not observed between results from field-generated replicate samples, the laboratory must investigate the replicate analyses to determine that poor precision is not due to a laboratory error and report the results with appropriate qualifiers and/or comments. The laboratory shall use the analytical method specifications for precision control as a guide to evaluation of the field-generated replicate results.

6. Colony Counts

- In addition to the requirements listed below, all analytical results shall be calculated by the procedures established in the microbiological method(s) approved for the Contract and listed in the planning document.
- The laboratory shall make every attempt to ensure that colony counts are in the method-specified ideal range (20 - 60 colony forming units (CFU) for fecal coliform, enterococci and fecal streptococcus or 20 -80 for total coliforms and E.coli). Reported values from colony plate counts outside this range shall be qualified with a "B" (unless the reported value is from a 100 mL sample and the count is less than 20).
- If all counts are above 60, the result shall be calculated and reported from the highest dilution. This result must be reported as "estimated".
- Calculating Raw Data for Final Reporting Standard Methods (SM) 9222D and EPA Method 1600 offer slightly differing guidance on the calculation and reporting of microbiological data. Although this guidance is not intended to capture every scenario possible in the calculation and reporting of the test data, the most common scenarios are discussed with the emphasis on reporting the data result, the dilution factor, and the data qualifier. For detailed discussions on additional scenarios, see the applicable method.
 - a. Interpretation of Standard Methods SM 9222, B.6, 20th Ed. and EPA 1600, Appendix B. calculations:

$$CFU/100 \text{ mL} = C \times 100$$

Where.

CFU/100 mL = Number of enterococci or fecal coliform colony forming units per 100 mL of sample.

C = Total number of positive colonies counted on all acceptable dilutions.

V = Total volume, equal to the sum of all acceptable dilutions (sample volumes used, in

- When one dilution in a series has a count within the ideal CFU range (see above): (i)
 - (a) Use the count from the dilution that is within range to calculate the final result in the equation

- (ii) When more than one dilution in a series has an acceptable count within the ideal range use the applicable method below. Since this calculation is not a laboratory sample replicate, do not use an "A" qualifier.
 - (1) SM 9222D Use the sum of all dilutions within the ideal range and the sum of the counts from all dilutions in the ideal range in the equation above.
 - (2) EPA 1600 Independently calculate a final value for each dilution within the ideal range in the equation above and report the average of these values.
- (iii) When no dilutions fall within the ideal range:
 - (1) For both methods: A "B" qualifier is not required if all dilutions were less than the lower acceptable limit (20 CFUs), and one of the dilutions was 100 mL. For this situation, report the calculated value from the 100 mL dilution without a "B".
 - (2) SM 9222D Use the sum of all dilutions in the equation to calculate the final result. Include dilutions that have a zero count. Report the final result with a "B" qualifier.
 - (3) EPA 1600:
 - (a) If all counts are under the lower acceptable limit (20 CFUs) or are both above and below the limit, choose the dilution with the count that is closest to the ideal range to calculate final result and report with a "B" qualifier.
 - (b) If all counts are above the upper acceptable limit (60 or 80 CFUs), use the dilution with the smallest volume filtered to calculate final result and report with a "B" qualifier.
- (iv) If counts from all dilutions are zero:
 - (1) For SM 9222D- Use "1" as the total number of colonies counted and include all dilutions in the equation to calculate final result. Report with a "U" qualifier.
 - (2) For EPA 1600 Use "1" as the total number of colonies counted and use only the highest filtration volume as total volume in the equation above to calculate final result. Report with a "U" qualifier.
- (v) If there are >200 target colonies in all dilutions:
- (vi) For both methods Use the upper limit of the ideal range (60 or 80) and the smallest filtration volume in mL to calculate an estimated final result. Report with a "Z" qualifier.
- (vii) If there are >200 non-target colonies, or if the colonies are not distinct enough to count (confluent growth) in all dilutions:
 - (1) For both methods Report as "No Result" with a "Z" qualifier.
- 8. Use of Dilution Factor (DF) field

Where,

a. Use the following equation to determine dilution factor for all samples:

$$DF = \frac{100}{V}$$

DF = Dilution Factor

V = Total volume (sum of dilutions in mL used in final calculation)

- 9. Verification
 - a. Frequency
 - Independently verify at least 10 isolated colonies from a positive sample per month.
 - (ii) Verify atypical colonies of different morphological types to check for false negatives.
 - (iii) Also, verify any ambiguous colonies as needed.
 - b. Procedure
 - (i) Use aseptic techniques to transfer growth from each colony into individual tubes. For 10 colonies, there should be 10 tubes total, for each verification test media.
 - (ii) See Table 2 for the method requirements for fecal coliform and Enterococci. Follow the method requirements for all others.

Method Verify with the following:						
Enterococci EPA 1600	BHI Agar Slant 35 ± 0.5°C 48 ± 3 h (use growth for gram staining)	BHII 35 ± 0.5°C 24 ± 2 h (turbidity)	Gram stain (gram positive cocci)	BHI 45 ± 0.5°C 48 ± 3 h (turbidity)	BEA 35 ± 0.5°C 48 ± 3 h (growth w/ black/brown precipitate)	BHI w/6.5% NaCl 35 ± 0.5°C 48 ± 3 h (turbidity)
Fecal Coliforms SM9222D	LTB $35 \pm 0.5^{\circ}C$ $48 \pm 3 h$ (turbidity and gas)	EC 44.5 ± 0.2 °C 24 ± 2 h (turbidity and gas)				

c. Reporting

- Adjust colony counts for the original positive sample based on percent of colonies verified positive.
 - (1) For example: A sample dilution has a colony count of 30 fecal coliforms. Ten of these positive blue colonies were used in the verification tests, but only 8 verified positive for both EC and LTB. This means only 80% were verified positive and therefore the final count of 30 is adjusted by 80% to 24 colonies.
- (ii) For verified samples, report as "Verified" in the comment field.
- 10. Data Qualifier Codes The use of Data Qualifier Codes is not discussed in the methods, but the Department's QA-Rule 62-160 F.A.C. requires that data qualifiers be used when the data is being submitted to the State. The purpose of the Data Qualifier Codes is to communicate the reliability of the reported data to the consumer. Table 3 identifies those Data Qualifier codes that are generally associated with microbiological data reporting. Others may apply. The laboratory must apply any applicable data qualifiers as listed in Table 1 of the Quality Assurance Rule (62-160, F.A.C.)
 - a. Any data point which is derived from any analysis other than the direct calculation of the number of colonies on a membrane filter that were within the recommended range of the method must be qualified with one or more of the Data Qualifier Codes listed below.
 - b. Any result associated with a failed QC test must be reported with applicable data qualifiers.
 - c. Any result that is associated with a failure to meet test requirements (e.g., holding time, incubation time, etc.) shall also be qualified with applicable data qualifiers.
 - d. Failure to report data with appropriate data qualifier codes will be returned to the laboratory without payment for services until corrections are made.

Table 3

Typical Data Qualifier Codes to be used when Reporting Microbiological Data to the FDEP under the Overflow Purchase Order or Contract (others may apply)

Quali fier	62-160 Regula	62-160 Regulatory Meaning (rule) or Contract Requirement/Interpretation (contract)			
Α	Rule	Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.			
	Contract Requirement	Two or more replicates of the same volume of sample are run and the data averaged.			
В	Rule	Results based upon colony counts outside the acceptable range. This code applies to microbiological tests and specifically to membrane filter colony counts. The code is to be used if the colony count is generated from a plate in which the total number of coliform colonies is outside the method indicated ideal range. This code is not to be used if a 100 mL sample has been filtered and the colony count is less than the lower value of the ideal range.			
	Contract Requirement	Based on colony counts outside the method specified range of 20 – 60 colonies per membrane filter. This code is not required if a 100 mL sample has been run, the density reported is below 20 and only this sample value was reported.			
J	Rule	Estimated value. A "J" value shall be accompanied by a detailed explanation to justify the reason(s) for designating the value as estimated. Where possible, the organization shall report whether the actual value is estimated to be less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V, or Y, however, if additional reasons exist for identifying the value as an estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. Examples of situations in which a "J" code must be reported include: instances where a quality control item associated with the reported value failed to meet the established quality control criteria (the specific failure must be identified); instances when the sample matrix interfered with the ability to make any accurate determination; instances when data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample); instances when the analyte was detected at or above the method detection limit in a blank other than the method blank (such as calibration blank or field-generated blanks and the value of 10 times the blank value was equal to or greater than the associated sample value); or instances when the field or laboratory calibrations or calibration verifications did not meet calibration acceptance criteria.			
į	Contract Requirement	In addition to the above examples, other "J" code situations are: quality control duplicate failures, ongoing precision recovery (OPR) spike failures, matrix spike failures, incubation period or temperature failures, other QC check failures.			
	Rule	Sampled, but analysis lost or not performed.			
0	Contract Requirement	Sample taken but analysis lost, invalidated, or not performed.			

Table 3

Typical Data Qualifier Codes to be used when Reporting Microbiological Data to the FDEP under the Overflow Purchase Order or Contract (others may apply)

Quali fier	62-160 Regula	tory Meaning (rule) or Contract Requirement/interpretation (contract)
Q	Rule	Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- u	Contract Requirement	Sample received after 6 hours OR analyzed beyond 8 hours.
Ų	Rule	Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
	Contract Requirement	Organism was analyzed for but not detected.
V	Rule	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. Note: unless specified by the method, the value in the blank shall not be subtracted from associated samples.
	Contract Requirement	Analyte was detected in both samples and method blank. Use this code when the sample result is less than or equal to 10 times the value of the blank. Do not subtract the value of the blank from the sample result.
Υ	Rule	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Rule	Too many colonies were present for accurate counting. Historically, this condition has been reported as "too numerous to count" (TNTC). The "Z" qualifier code shall be reported when the total number of colonies of all types is more than 200 in all dilutions of the sample. When applicable to the observed test results, a numeric value for the colony count for the microorganism tested shall be estimated from the highest dilution factor (smallest sample volume) used for the test and reported with the qualifier code.;
	Contract Requirement	Colonies on plate too numerous to count (TNTC). Results shall be reported as the maximum recommended count of typical target colonies (60 CFU /lowest volume used x 100 mL). If atypical, non-target, spreading colonies or other interferences occur where typical target organisms cannot be determined, report "No Result" in the results column and "Z" in the Data Qualifier column.