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CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

Memorandum

MIAMI-DADE COUNTY

Agenda Item No. 8(M)(1)

Date: September 3, 2014

To: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Resolution Authorizing Execution of Agreement No. 4600003055 with the South Florida Water Management District for Ecological Monitoring as part of the Biscayne Bay Coastal Wetlands Project

Resolution No. R-765-14

Recommendation

It is recommended that the Board of County Commissioners (Board) approve the attached resolution authorizing the execution of Agreement No. 4600003055 with the South Florida Water Management District. This Agreement provides Miami-Dade County with $118,800 over a four (4) year period to perform water quality and vegetation monitoring activities at the Deering Estate and along the L-31E Canal as part of the Biscayne Bay Coastal Wetlands Project.

Scope

This Agreement encompasses parts of Commission Districts 8 (Commissioner Lynda Bell) and 9 (Commissioner Dennis Moss).

Fiscal Impact/Funding Source

This Agreement provides Miami-Dade County with a total of $118,800 over a four (4) year period to perform monitoring activities. No matching funds are required by the County. This agreement will have no fiscal impact on current and future annual County budgets.

Track Record / Monitor

The Chief of Restoration and Enhancement Section, Stephen Blair, within the Department of Regulatory and Economic Resources, Division of Environmental Resources Management (RER-DERM), will monitor the activities performed with these funds.

Background

The Biscayne Bay Coastal Wetlands Project is a component of the Comprehensive Everglades Restoration Plan (CERP). The project goal is to improve the ecology of Biscayne Bay, including the freshwater wetlands, tidal creeks and near-shore habitat by adjusting the quantity, quality, timing and distribution of freshwater entering the bay and Biscayne National Park. The project study area is divided into three geographic sub-regions: Deering Estate, Cutler Wetlands and L-31E Wetlands.

As elements of the Biscayne Bay Coastal Wetlands Project Phase I, the Deering Estate Project and the L-31E Culvert Project have been constructed by the South Florida Water Management District. These projects are intended to improve the flow of freshwater to Biscayne Bay and Biscayne National Park, enhance the nearshore freshwater and estuarine habitats, restore the salinity distribution within the southwestern shoreline of Biscayne Bay, and re-establish productive nursery habitat along the bay shoreline. Under the proposed Agreement with the South Florida Water Management District, Miami-Dade County will perform the required monitoring of water quality and vegetation for the Deering Estate and L-31E Culvert Projects through FY2018.

Jack Osterholt, Deputy Mayor

MEMORANDUM
(Revised)

TO: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

DATE: September 3, 2014

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Agenda Item No. 8(M)(1)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Ordinance creating a new board requires detailed County Mayor's report for public hearing**

_____ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 8(M)(1)
9-3-14

RESOLUTION NO. R-765-14

RESOLUTION AUTHORIZING THE MAYOR OR MAYOR'S DESIGNEE TO EXECUTE AGREEMENT NUMBER 4600003055 WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT FOR ECOLOGICAL MONITORING FOR THE DEERING ESTATE AND L-31E CULVERT PROJECTS AS PART OF THE BISCAYNE BAY COASTAL WETLANDS PROJECT; AUTHORIZING THE MAYOR OR MAYOR'S DESIGNEE TO EXECUTE AMENDMENTS TO THIS AGREEMENT FOR TIME EXTENSION AND ADDITIONAL FUNDS; AND AUTHORIZING THE MAYOR OR MAYOR'S DESIGNEE TO EXERCISE THE PROVISIONS CONTAINED THEREIN

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board authorizes the Mayor or Mayor's designee to execute Agreement Number 4600003055 with the South Florida Water Management District for Ecological Monitoring for the Deering Estate and L-31E Culvert Projects as part of the Biscayne Bay Coastal Wetlands Project; in substantially the form attached hereto and made part hereof; authorizes the Mayor or Mayor's designee to execute amendments to this agreement for time extension and to accept additional funds that may become available for this agreement; and authorizes the Mayor or Mayor's designee to exercise the provisions contained therein.

The foregoing resolution was offered by Commissioner **Sally A. Heyman**, who moved its adoption. The motion was seconded by Commissioner **Lynda Bell** and upon being put to a vote, the vote was as follows:

Rebeca Sosa, Chairwoman	**aye**		
Lynda Bell, Vice Chair	**aye**		
Bruno A. Barreiro	**absent**	Esteban L. Bovo, Jr.	**aye**
Jose "Pepe" Diaz	**absent**	Audrey M. Edmonson	**aye**
Sally A. Heyman	**aye**	Barbara J. Jordan	**aye**
Jean Monestime	**aye**	Dennis C. Moss	**aye**
Sen. Javier D. Souto	**aye**	Xavier L. Suarez	**absent**
Juan C. Zapata	**aye**		

The Chairperson thereupon declared the resolution duly passed and adopted this 3rd day of September, 2014. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: *Christopher Agrippa*
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Abbie Schwaderer-Raurell

ORIGINAL

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
LOCAL GOVERNMENTAL AGREEMENT

AGREEMENT NO. 4600003055

BETWEEN THE

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

AND

MIAMI-DADE COUNTY
BOARD OF COUNTY COMMISSIONERS

THIS AGREEMENT is entered into as of the _____ by and between the South Florida Water Management District (**DISTRICT**) and Miami Dade County Board of County Commissioners (**COUNTY**).

WHEREAS, the **DISTRICT** is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes, to include entering into contracts with public agencies, private corporations or other persons; and

WHEREAS, the **DISTRICT** desires to provide financial assistance to the **COUNTY** for Ecological Monitoring of the Biscayne Bay Coastal Wetlands Project including the Deering Estate and L-31E Culverts; and

WHEREAS, the **COUNTY** warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms and conditions of this **AGREEMENT**; and

NOW, THEREFORE, in consideration of the covenants and representations set forth herein and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the parties agree as follows:

1. The **DISTRICT** agrees to contribute funds and the **COUNTY** agrees to perform the work set forth in Exhibit "A" attached hereto and made a part hereof, subject to availability of funds and in accordance with their respective authorities for the project in support of the ecological monitoring project.

2. The period of performance of this **AGREEMENT** shall commence on October 1, 2014 and continue for a period of four (4) years including **DISTRICT** fiscal years 2015 through 2018.

3. The total **DISTRICT** contribution shall not exceed the amount of One Hundred Eighteen Thousand Eight Hundred Dollars and No Cents ($118,800.00). The **DISTRICT** will provide the full amount based on the Payment and Deliverable Schedule set forth in Exhibit "B", attached hereto and made a part of this **AGREEMENT**. The **DISTRICT's** contribution is subject to adequate documentation to support actual expenditures within the not-to-exceed **AGREEMENT** funding limitation of $118,800.00. In no event shall the **DISTRICT** be liable for any contribution hereunder in excess of this amount. This **AGREEMENT** is subject to multi-year

funding allocations, and funding for each applicable fiscal year of this **AGREEMENT** will be subject to Governing Board budgetary appropriation. In the event the **DISTRICT** does not approve funding for any subsequent fiscal year, this **AGREEMENT** shall terminate upon expenditure of the current funding, notwithstanding other provisions in this **AGREEMENT** to the contrary. The **DISTRICT** will notify the **COUNTY** in writing after the adoption of the final **DISTRICT** budget for each subsequent fiscal year if funding is not approved for this **AGREEMENT**.

4. The **COUNTY** shall submit quarterly financial reports to the **DISTRICT** providing a detailed accounting of all expenditures incurred hereunder throughout the term of this **AGREEMENT**. The **COUNTY** shall report and document the amount of funds expended per month during the quarterly reporting period and the **AGREEMENT** expenditures to date within the maximum not-to-exceed **AGREEMENT** funding limitation.

5. The **COUNTY** is not required to cost share any specific and determined amount for this **AGREEMENT.**

6. All work to be performed under this **AGREEMENT** is set forth in Exhibit "A", Statement of Work, which is attached hereto and made a part of this **AGREEMENT**. The **COUNTY** shall submit quarterly progress reports detailing the status of work to date for each task. The work specified in Exhibit "A" shall be under the direction of the **COUNTY** but shall be open to periodic review and inspection by either party. No work set forth in Exhibit "A" shall be performed beyond the expiration date, unless authorized through execution of an amendment to cover succeeding periods.

7. The **COUNTY** is hereby authorized to contract with third parties (subcontracts) for services awarded through a competitive process required by Florida Statutes. The **COUNTY** shall not subcontract, assign or transfer any other work under this **AGREEMENT** without the prior written consent of the **DISTRICT's** Project Manager. The **COUNTY** 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 **COUNTY** that the **DISTRICT** shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract(s).

8. Both the **DISTRICT** and the **COUNTY** shall have joint ownership rights to all work items, including but not limited to, all documents, technical reports, research notes, scientific data, computer programs, including the source and object code, which are developed, created or otherwise originated hereunder by the other party, its subcontractor(s), assign(s), agent(s) and/or successor(s) as required by the Exhibit "A", Statement of Work. Both parties' rights to deliverables received under this **AGREEMENT** shall include the unrestricted and perpetual right to use, reproduce, modify and distribute such deliverables at no additional cost to the other party. Notwithstanding the foregoing, ownership of all equipment and hardware purchased by the **COUNTY** under this **AGREEMENT** shall be deemed to be the property of the **COUNTY** upon completion of this **AGREEMENT**. The **COUNTY** shall retain all ownership to tangible property.

9. The **COUNTY**, to the extent permitted by law, assumes any and all risks of personal injury, bodily injury and property damage attributable to negligent acts or omissions of the **COUNTY** and the officers, employees, servants and agents thereof. The **COUNTY** represents that it is self-funded for Worker's Compensation and liability insurance, covering bodily injury, personal injury and property damage, with such protection being applicable to the **COUNTY,** its officers and employees while acting within the scope of their employment during performance of under this **AGREEMENT**. In the event that the **COUNTY** subcontracts any part or all of the work hereunder to any third party, the **COUNTY** shall require each and every subcontractor to identify the **DISTRICT** as an additional insured on all insurance policies as required by the **COUNTY**.

Any contract awarded by the **COUNTY** shall include a provision whereby the **COUNTY's** subcontractor agrees to indemnify, pay on behalf, and hold the **DISTRICT** harmless from all damages arising in connection with the **COUNTY's** subcontract.

10. The **COUNTY** and the **DISTRICT** further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; (2) the consent of the State of Florida or its agents and agencies to be sued; or (3) a waiver of sovereign immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes.

11. The parties to this **AGREEMENT** are independent entities and are not employees or agents of the other parties. Nothing in this **AGREEMENT** shall be interpreted to establish any relationship other than that of independent entities, between the **DISTRICT**, the **COUNTY**, their employees, agents, subcontractors or assigns, during or after the term of this **AGREEMENT**. The parties to this **AGREEMENT** shall not assign, delegate or otherwise transfer their rights and obligations as set forth in this **AGREEMENT** without the prior written consent of the other parties. Any attempted assignment in violation of this provision shall be void.

12. The parties to this **AGREEMENT** assure that no person shall be excluded on the grounds of race, color, creed, national origin, handicap, age or sex, from participation in, denied the benefits of, or be otherwise subjected to discrimination in any activity under this **AGREEMENT**.

13. The **COUNTY**, its employees, subcontractors or assigns, shall comply with all applicable federal, state and local laws and regulations relating to the performance of this **AGREEMENT**. The **DISTRICT** undertakes no duty to ensure such compliance, but will attempt to advise the **COUNTY**, upon request, as to any such laws of which it has present knowledge.

14. Either party may terminate this **AGREEMENT** at any time for convenience upon thirty (30) calendar days prior written notice to the other party. In the event of termination, all funds not expended by the **COUNTY** for authorized work performed through the termination date shall be returned to the **DISTRICT** within sixty (60) days of termination.

15. The **COUNTY** shall allow public access to all project documents and materials in accordance with the provisions of Chapter 119, Florida Statutes. Should the **COUNTY** assert any exemptions to the requirements of Chapter 119 and related Statutes, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the **COUNTY**.

16. The **COUNTY** shall maintain records and the **DISTRICT** shall have inspection and audit rights below. The **COUNTY** shall similarly require each subcontractor to maintain and allow access to such records for audit purposes:

A. Maintenance of Records: The **COUNTY** shall maintain all financial and non-financial records and reports directly or indirectly related to the negotiation or performance of this **AGREEMENT** including supporting documentation for any service rates, expenses, research or reports. Such records shall be maintained and made available for inspection for a period of five (5) years from the expiration date of this **AGREEMENT**.

B. Examination of Records: The **DISTRICT** or designated agent shall have the right to examine in accordance with generally accepted governmental auditing standards all records directly or indirectly related to this **AGREEMENT**. Such examination may be made only within five (5) years from the expiration date of this **AGREEMENT**.

C. Extended Availability of Records for Legal Disputes: In the event that the **DISTRICT** should become involved in a legal dispute with a third party arising from performance under this **AGREEMENT**, the **COUNTY** shall extend the period of maintenance for all records relating to

the **AGREEMENT** until the final disposition of the legal dispute. All such records shall be made readily available to the **DISTRICT**.

17. Whenever the **DISTRICT's** contribution includes state or federal appropriated funds, the **COUNTY** shall, in addition to the inspection and audit rights set forth in paragraph 16 above, maintain records and similarly require each subcontractor to maintain and allow access to such records in compliance with the requirements of the Florida State Single Audit Act and the Federal Single Audit Act, as follows:

A. Maintenance of Records: The **DISTRICT** shall provide the necessary information to the **COUNTY** as set forth in Exhibit "C". The **COUNTY** shall maintain all financial/non-financial records through:

(1) Identification of the state or federal awarding agency, as applicable
(2) Project identification information included in the Catalog of State Financial Assistance (CSFA) or the Catalog of Federal Financial Assistance (CFDA), as applicable
(3) Audit and accountability requirements for state projects as stated in the Single Audit Act and applicable rules of the Executive Office of Governor, rules of the Chief Financial Officer and rules of the Auditor General and the State Projects Compliance Supplement
(4) Audit/accountability requirements for federal projects as imposed by federal laws and regulations
(5) Submission of the applicable single audit report to the **DISTRICT**, as completed per fiscal year

B. Examination of Records: The **DISTRICT** or designated agent, the state awarding agency, the state's Chief Financial Officer and the state's Auditor General and/or federal awarding agency shall have the right to examine the **COUNTY's** financial and non-financial records to the extent necessary to monitor the **COUNTY's** use of state or federal financial assistance and to determine whether timely and appropriate corrective actions have been taken with respect to audit findings and recommendations which may include onsite visits and limited scope audits.

18. All notices or other communication regarding this **AGREEMENT** shall be in writing and forwarded to the attention of the following individuals:

South Florida Water Management District
Attn: Bahram Charkhian, Project Manager
(561) 682-2284
Attn: Donna Lavery, Contract Specialist
(561) 682-6420
P.O. Box 24680
3301 Gun Club Road
West Palm Beach, FL 33416-4680

Miami-Dade County
Attn: Stephen Blair, Project Manager
(305) 372-6853
701 N.W. First Court
Miami, FL 33136

19. **COUNTY** shall send its invoices and any attachments to the attention of Accounts Payable at the address listed below and shall send a copy of all invoices clearly marked "Copy" and any attachments via email to vendorinvoices@sfwmd.gov. All invoices must reference the **DISTRICT'S** Contract Number and Purchase Order (PO) Number specified on the cover/signature page of the **AGREEMENT**. **COUNTY'S** invoices must include an invoice number not previously used. **COUNTY** must submit its invoices in compliance with the terms and conditions of this **AGREEMENT** in order to receive prompt payment by the **DISTRICT** as described in Section 218.70, F.S. **COUNTY'S** failure to follow the instructions set forth in the **AGREEMENT** regarding a proper invoice and acceptable services and/or deliverables may result in an unavoidable delay in payment by the **DISTRICT**.

South Florida Water Management District
Attention: Accounts Payable
P.O. Box 24682
West Palm Beach, Florida 33416-4682

20. **COUNTY** recognizes that any representations, statements or negotiations made by **DISTRICT** staff do not suffice to legally bind **DISTRICT** in a contractual relationship unless they have been reduced to writing and signed by an authorized **DISTRICT** representative. This **AGREEMENT** shall inure to the benefit of and shall be binding upon the parties, their respective assigns, and successors in interest.

21. This **AGREEMENT** may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A photocopy, electronic or facsimile copy of this **AGREEMENT** and any signatory hereon shall be considered for all purposes as original.

22. This **AGREEMENT** may be amended, extended or renewed only with the written approval of the parties. The **DISTRICT** shall be responsible for initiating any amendments to this **AGREEMENT**, if required.

23. This **AGREEMENT**, and any work performed hereunder, is subject to the Laws of the State of Florida. Nothing in this **AGREEMENT** will bind any of the parties to perform beyond their respective authority, nor does this **AGREEMENT** alter the legal rights and remedies which the respective parties would otherwise have, under law or at equity.

24. Should any term or provision of this **AGREEMENT** be held, to any extent, invalid or unenforceable, as against any person, entity or circumstance during the term hereof, by force of any statute, law, or ruling of any forum of competent jurisdiction, such invalidity shall not affect any other term or provision of this **AGREEMENT**, to the extent that the **AGREEMENT** shall remain operable, enforceable and in full force and effect to the extent permitted by law.

25. Failures or waivers to insist on strict performance of any covenant, condition, or provision of this **AGREEMENT** by the parties shall not be deemed a waiver of any of its rights or remedies, nor shall it relieve the other party from performing any subsequent obligations strictly in accordance with the terms of this **AGREEMENT**. No waiver shall be effective unless in writing and signed by the party against whom enforcement is sought. Such waiver shall be limited to provisions of this **AGREEMENT** specifically referred to therein and shall not be deemed a waiver of any other provision. No waiver shall constitute a continuing waiver unless the writing states otherwise.

26. Any dispute arising under this **AGREEMENT** which cannot be readily resolved shall be submitted jointly to the signatories of this **AGREEMENT** with each party agreeing to seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative dispute resolution mutually acceptable to the parties. A joint decision of the signatories, or their designees, shall be the disposition of such dispute.

27. This **AGREEMENT** states the entire understanding and agreement between the parties and supersedes any and all written or oral representations, statements, negotiations, or agreements previously existing between the parties with respect to the subject matter of this **AGREEMENT**.

28. Any inconsistency in this **AGREEMENT** shall be resolved by giving precedence in the following order:
   (a) Terms and Conditions outlined in preceding paragraphs 1 – 27
   (b) Exhibit "A" Statement of Work
   (c) Exhibit "B" Payment and Deliverable Schedule
   (d) all other exhibits, attachments and documents specifically incorporated herein by reference

IN WITNESS WHEREOF, the parties or their duly authorized representatives hereby execute this **AGREEMENT** on the date first written above.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

By:_____
Dorothy A. Bradshaw, Procurement Bureau Chief

SFWMD OFFICE OF COUNSEL APPROVED
By: _____
Name: _____
Date: 5-5-14

SFWMD PROCUREMENT APPROVED
By: _____
Date: 5-5-14

MIAMI-DADE COUNTY BOARD OF COUNTY COMMISSIONERS

By:_____
Signature of Authorized Individual

Title:_____

EXHIBIT "A"

Statement of Work

Ecological Monitoring for

Biscayne Bay

Coastal Wetlands Project

Deering Estate and L-31E Culverts Projects

1.0 INTRODUCTION/BACKGROUND

The Comprehensive Everglades Restoration Plan (CERP) Biscayne Bay Coastal Wetlands (BBCW) Project includes three components: (1) the Deering Estate Flow-way, (2) the L-31E Culverts, and (3) the proposed Cutler Wetlands Flow-way (**Figure 1**). The projects are essential to achieving restoration of tidal wetlands and nearshore habitats within Biscayne Bay, including Biscayne National Park. Florida Department of Environmental Protection (FDEP) permit 0271729-006, which was issued by the FDEP to the South Florida Water Management District (District or SFWMD), authorized the District to construct and operate two components of the BBCW Project—the L-31 East (L-31E) Culverts (**Figure 2**) and Deering Estate Flow-way (**Figure 3**).

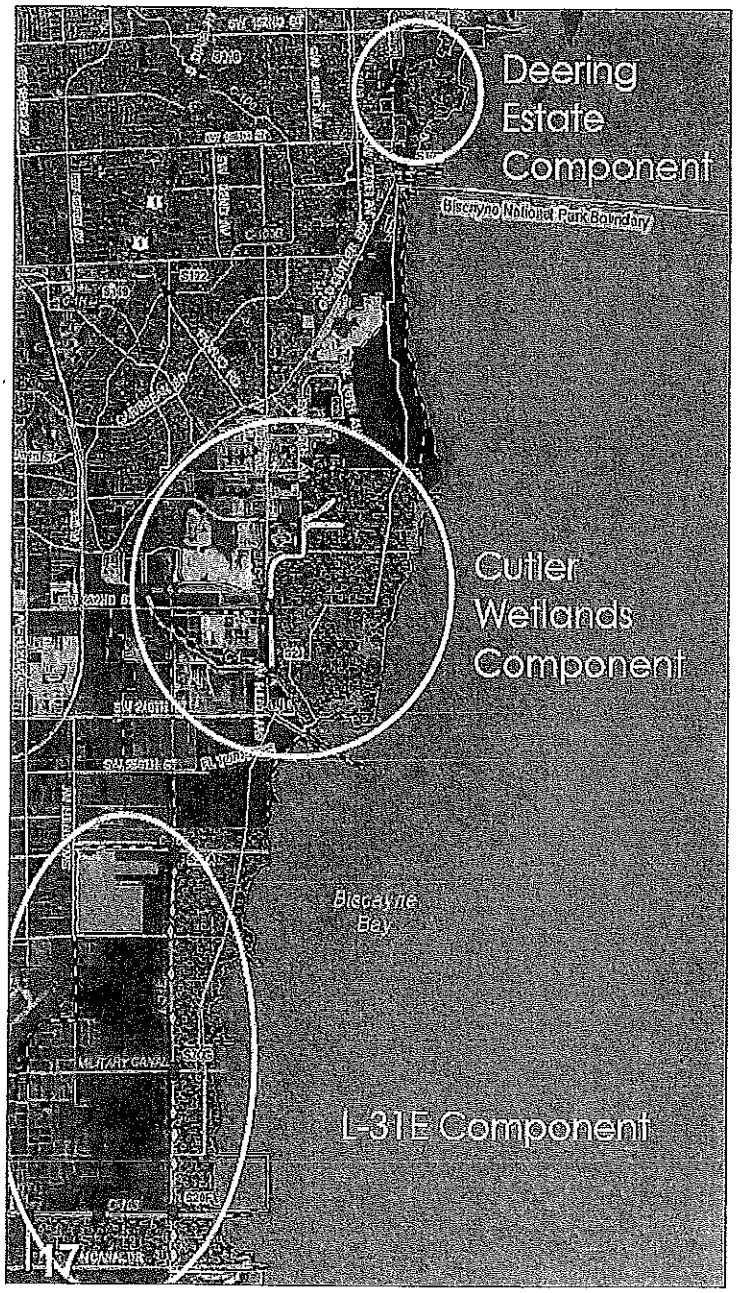


Figure 1. Biscayne Bay Coastal Wetlands (BBCW) project components.

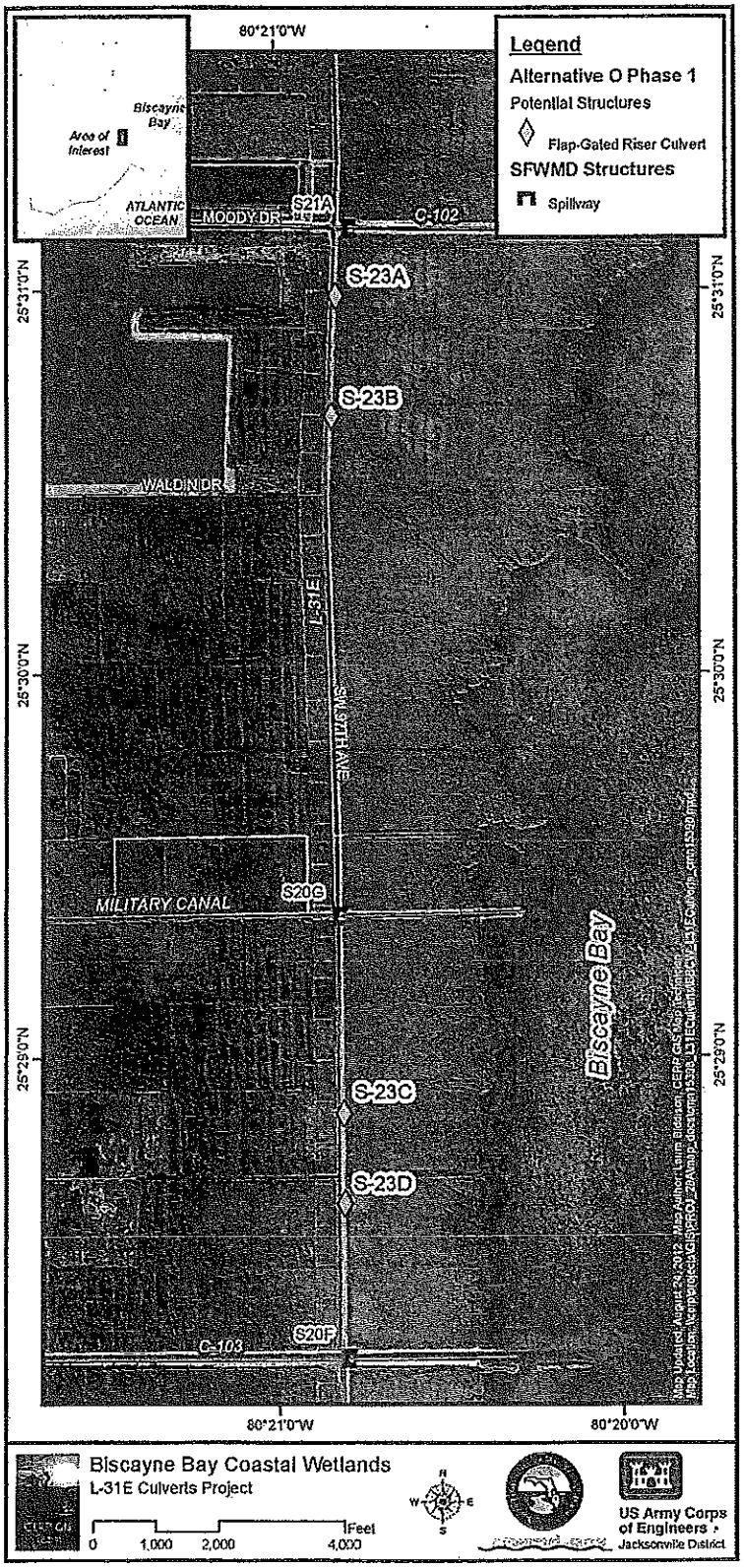


Figure 2. BBCW Project L-31 East (L-31E) culverts.

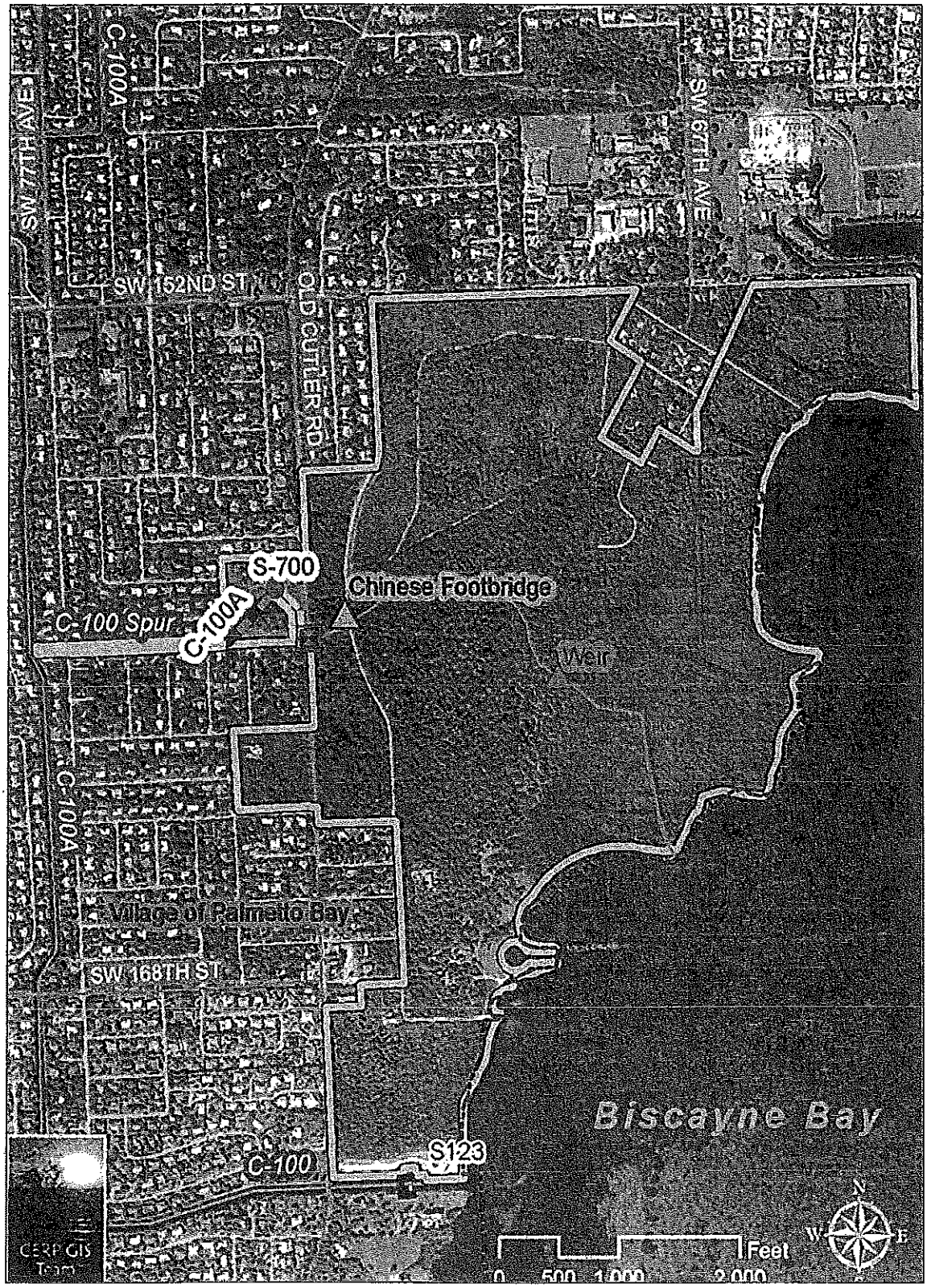


Figure 3. BBCW Project Deering Estate Flow-way component features.

This monitoring effort satisfies various Specific Conditions of the FDEP and United States Army Corps of Engineers (USACE) permits, which require the District to submit an annual report to FDEP detailing the progress of the BBCW Project, and to incorporate the annual monitoring report into the South Florida Environmental Report and assess performance of BBCW, L-31E Culverts and Deering Estate Flow way Components. This document also serves as a comprehensive reference for water quality monitoring needed to evaluate the L-31E Culverts and Deering Estate Flow-way components' performance toward meeting the planned restoration goals, and to satisfy the water quality monitoring requirements of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA) permit.

1.1.0 L-31E Culverts

The L-31E Culverts component is located in Miami-Dade County between the C-102 and C-103 canals (Sections 4, 9, 28, 33, and Township 56 South Range 40 East and 57 South Range 40 East). The component's goal is to reestablish, at least in part, historical sheetflow and wetland hydroperiods downstream of the project area. This component may also provide the additional benefit of mitigating impacts of discharging fresh water via the existing canals. The component is expected to achieve its objectives by redirecting flow that was historically discharged through structures S-21A, S-20F, and S-20G. This flow is now discharged into the coastal wetlands east of the L-31E levee, along Biscayne Bay, via four flap-gated culverts: S-23A, S-23B, S-23C, and S-23D (**Figure 2**). Construction for the culverts began on January 11, 2010, and was completed on June 10, 2010. The baseline monitoring event was conducted in August 2010 and was followed by monthly monitoring events. SFWMD completed the first annual mitigation monitoring event in January 2012.

1.2.0 Deering Estate Flow-Way

The Deering Estate Flow-way component is located in southeastern Miami-Dade County at 1580 Old Cutler Road, Palmetto Bay, Florida (**Figure 3**). This component included construction of a 500-foot extension of a spur canal off the C-100A canal, a 100 cubic feet per second (cfs) pump station with associated discharge piping, and an outlet spreader structure. Excluding the spreader structure, these components were constructed on a 9.7-acre tract referred to as the "Powers Addition Parcel", located west of, and adjacent to, the Deering Estate.

The Deering Estate Flow-way will redirect up to 100 cfs of water from the C-100A canal system, through the C-100A spur canal into the Cutler Drain on the component site, and within the Deering Estate Flow-way, thus restoring a portion of the historic freshwater flow through the flow-way and into Biscayne Bay (**Figure 3**). SFWMD completed construction of this component in April 2012, and water quality monitoring was initiated in May 2012. The project became operational in November 2012.

The District (SFWMD) and Miami-Dade County are cooperating on this component with the following goals:

- Redirect up to 100 cfs of the existing point-source discharge from the S-123 structure by optimizing the capture and conveyance of fresh water from the C-100A spur canal to the coastal wetlands in the immediate vicinity of the Cutler Drain, east of Old Cutler Road
- Rehydration of the wetland region east of Old Cutler Road, and restoration of a more natural freshwater flow regime
- Establishment of an educational wetland on the Power's Addition Parcel

2.0 OBJECTIVE:

The monitoring efforts described in this document were established to satisfy the existing and anticipated requirements of various permits and to evaluate the performance of the Deering Estate Flow way and L-31 E Culverts.

2.1.0 To evaluate the performance of the L-31E Culverts, monitoring is required under this Agreement as described below:

1. **Semi-annual vegetation monitoring at two 100-meter transects located downstream of Culverts S-23A and S-23D** (See Figures 4,5,and various figures in Attachment A.)
2. **Semi-annual aquatic food web monitoring and documentation of various species** of birds, amphibians, invertebrates, fish, and reptiles observed within the vicinity of culverts S-23A and S-23D (Please see Figures 4 ,5, table1, and Table A in Attachment A)
3. **Sawgrass Mapping** – Annual field mapping of *Cladium jamaicense* (sawgrass) communities within a 370-acre area located east of the L-31E culverts S-23A and S-23B. The objective of this task is to create a baseline map showing the distribution and relative abundance of *C. jamaicense* within the effective area of culverts S-23A and S-23B and to document changes in the aerial coverage of sawgrass on an annual basis (See Figure 6)

2.2.0 To evaluate performance of the Deering Estate Flow-way component monitoring to be conducted under this Agreement shall be:

1. Monthly monitoring of surface water level and physical parameters at the two existing wetland staff gauges (See Figure 7 and Table 2)
2. Continuous monitoring (frequency: hourly) of groundwater level and specific conductivity at the two groundwater monitoring stations (See Figure 7 and Table 3)

3.0 DURATION

This Agreement will begin October 1, 2014 and the expiration date of the Agreement will be September 30, 2018.

4.0 MODIFICATION OR TERMINATION CONDITIONS

The monitoring plan for Deering Estate Flowway and L-31E Culverts Projects will be periodically reviewed for effectiveness and may be modified. It is fully expected that the requirement to monitor certain parameters, groups of parameters, may be reduced or modified following demonstrations that a parameter or group of parameters no longer represent a source of concern. The number of monitoring stations may be reduced or stations may be relocated to optimize the ability of the monitoring to provide appropriate data for evaluation of the effectiveness of the project. Any changes to the scope of work

must be approved by both the District and the County project managers through an executed amendment to this Agreement prior to implementation.

5.0 SCOPE OF WORK

Miami Dade County will collect data, evaluate results, and submit monthly and reports as specified to evaluate performance of both L-31E Culverts and Deering Estate Component and the scope of services shall include:

5.1.0 Task 1- Aquatic Food Web Monitoring

The County shall document through opportunistic field observations various species of birds, amphibians, invertebrates, fish, and reptiles were observed within the vicinity of culverts S-23A and S-23D during semi- annual sampling events (please refer to table 1 and table A template for this task in Attachment A

Table 1- Template for list of species observed within the vicinity of culverts S-23A and S-23D during the first and second year of routine ecological monitoring.

Type	Reporting Period	
	Species	Common Name
Culvert S-23A		
Invertebrates		
Amphibians		
Reptiles		
Birds		
Fish		
Other species		
Culvert S-23D		
Invertebrates		
Reptiles		
Birds		
Fish		
Other species		

4.2.0 Task 2- Vegetation Monitoring

Vegetation monitoring shall be conducted using the line-intercept method along two 100-meter transects previously established downstream of Culverts S-23A and S-23D (**refer to District Agreement 4600002160**). The coverage of plant species occurring in both the ground cover and canopy strata shall be recorded within the coastal wetlands located downstream of Culverts S-23A and S-23D on a semi-annual basis.

Additionally, the County shall measure the height of ten randomly selected *R. mangles* individuals located at each of the following points along the transect: start (5 meters), middle (50 meters), and end (100 meters), along vegetation transect S-23D on a semi-annual basis (refer to Attachment A). The County shall include in semi-annual reports an assessment of any change in vegetation community within specified vegetation transect S-23A and S-23D (See figures 4, 5, table 1, and Attachment A)

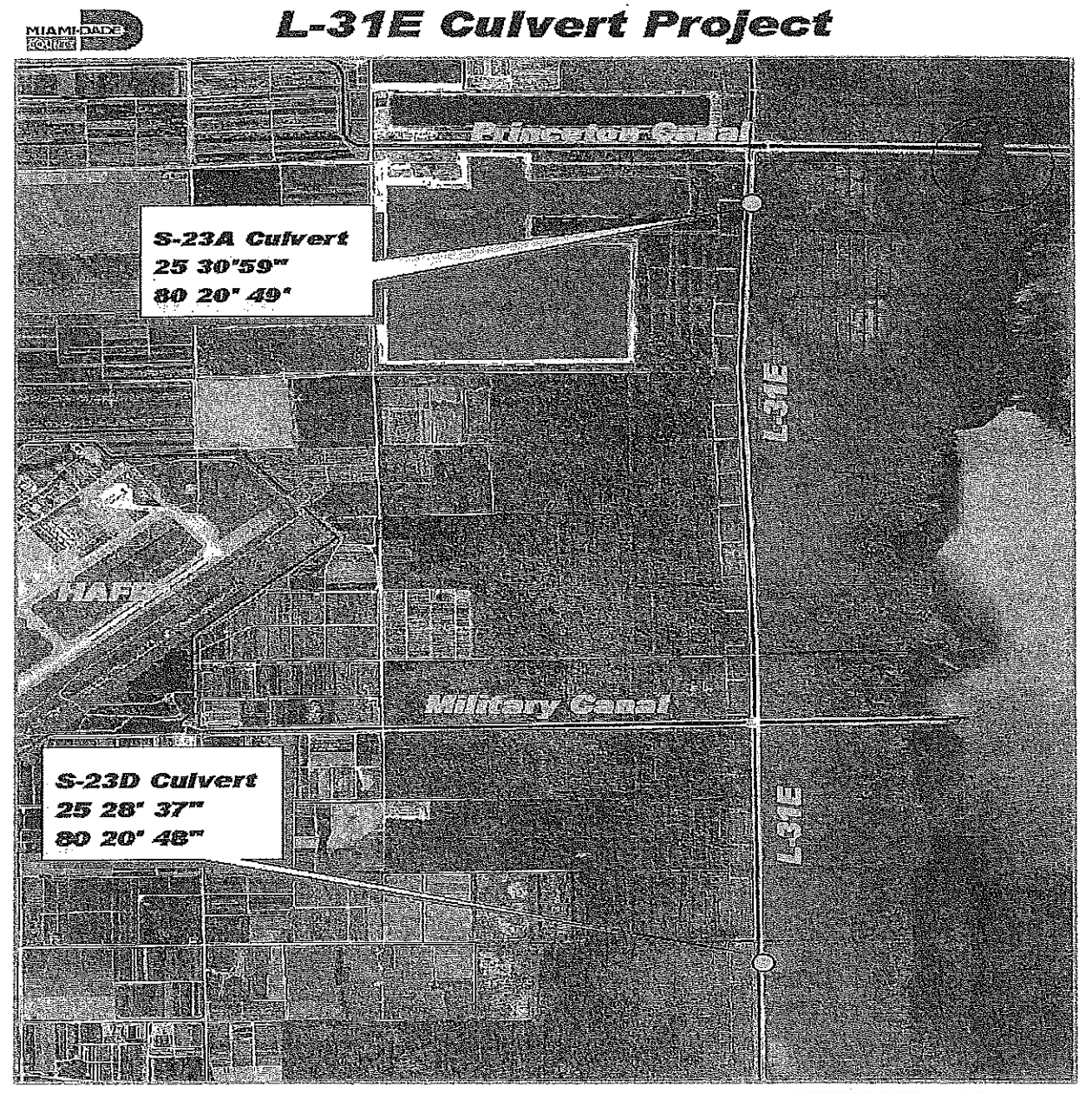


Figure 4. Locations of L-31 E Monitoring Stations

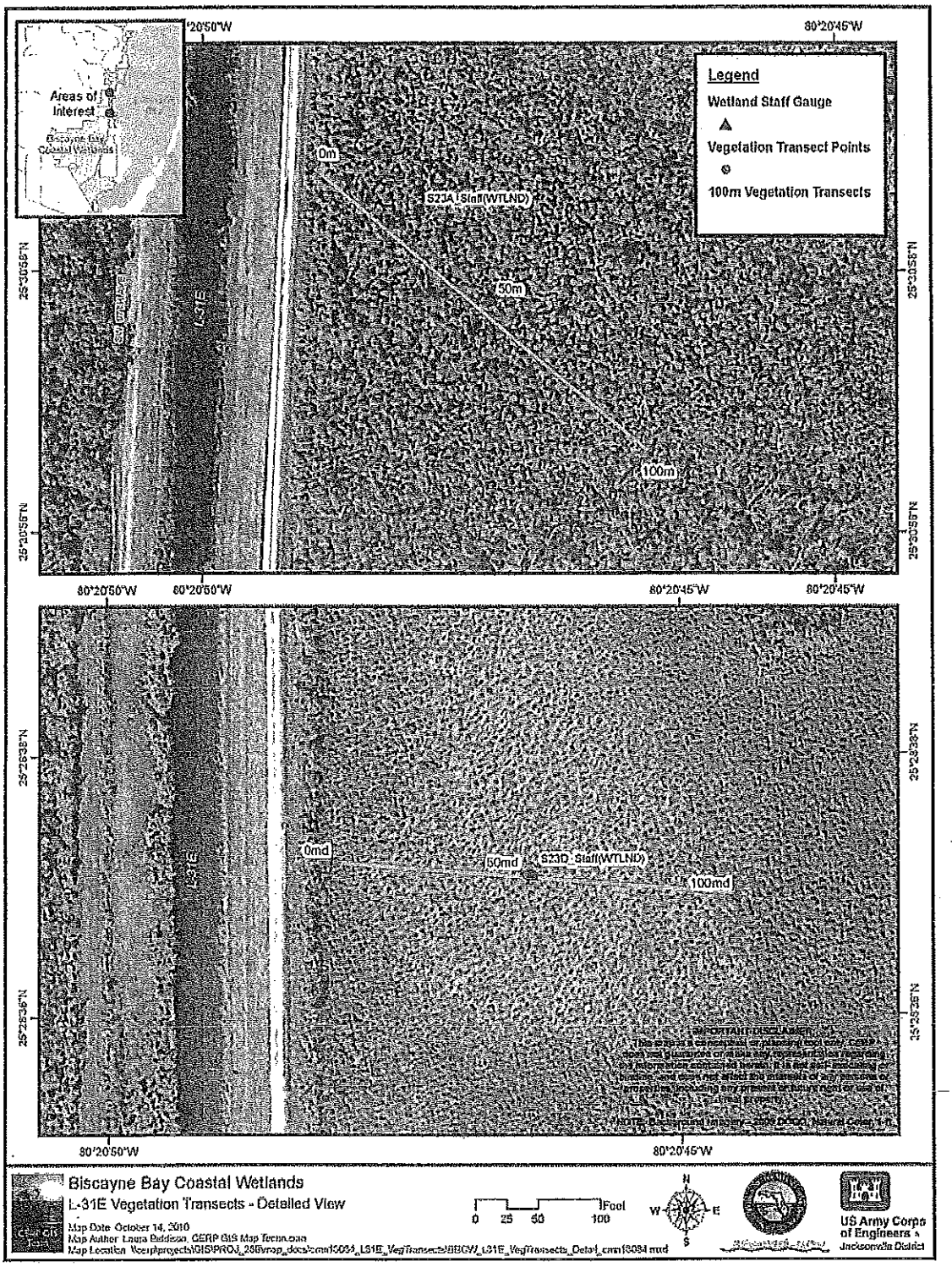


Figure 5. Location of 100-meter transects east of the levee at culverts S23-A (top) and S-23D (bottom).

5.3.0 Task 3- Sawgrass Mapping.

The County shall initiate annual mapping of Sawgrass vegetation (*Cladium jamaicense*) within an approximately 370 acre area of largely scrub mangrove/buttonwood dominated landscape coastal wetlands, located downstream of L-31E Culverts S-23A and S-23B. The County shall map the designated area and provide relative coverage of sawgrass present within (See figure 6, area bounded by the red boarder). This task shall be conducted annually (February of each year).

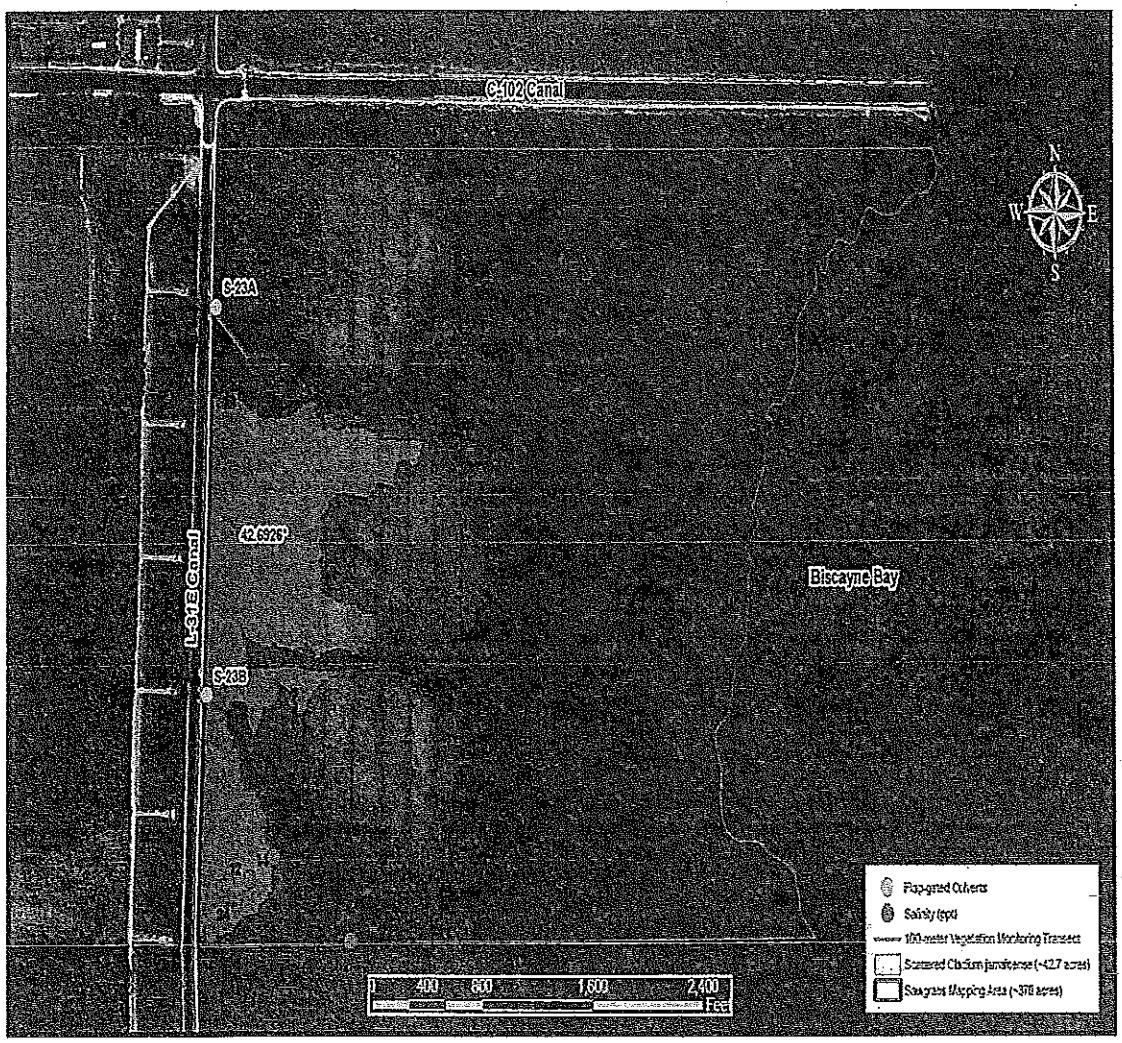


Figure 6. April 2013 *Cladium jamaicense* (sawgrass) survey.

5.4.0 Task 4- Groundwater monitoring. Continuous monitoring of groundwater level and physical parameters at the two groundwater monitoring stations

The County shall continue monitoring groundwater (frequency: collecting instantaneous 'hourly' readings) utilizing deployed YSI 600LS multi-parameter sondes at each of the two stations. The following parameters shall be recorded: Depth, pressure, temperature, conductivity, and salinity inside the wells at an hourly sampling interval (Figure 7 and Table 2).

Table 2. Coordinates for Deering Estate Stations.

Station Name	Description	Latitude	Longitude
5	Monitoring Well	885279.49	468718.07
2	Monitoring Well	883587.85	469241.68

5.5.0 Task 5- Monthly monitoring of surface water level and physical parameters within the wetlands increased at the two wetland staff gauges

The County shall continue record monthly wetland stage and measure physical properties at each of the two stations (Figure 7 and Table 3).

Table 3. Coordinates for Deering Estate Staff Gauges.

Staff Gauge	Description	Latitude	Longitude
1	*east staff gauge*	885124.742	469012.886
3	*west staff gauge*	885363.133	468759.938

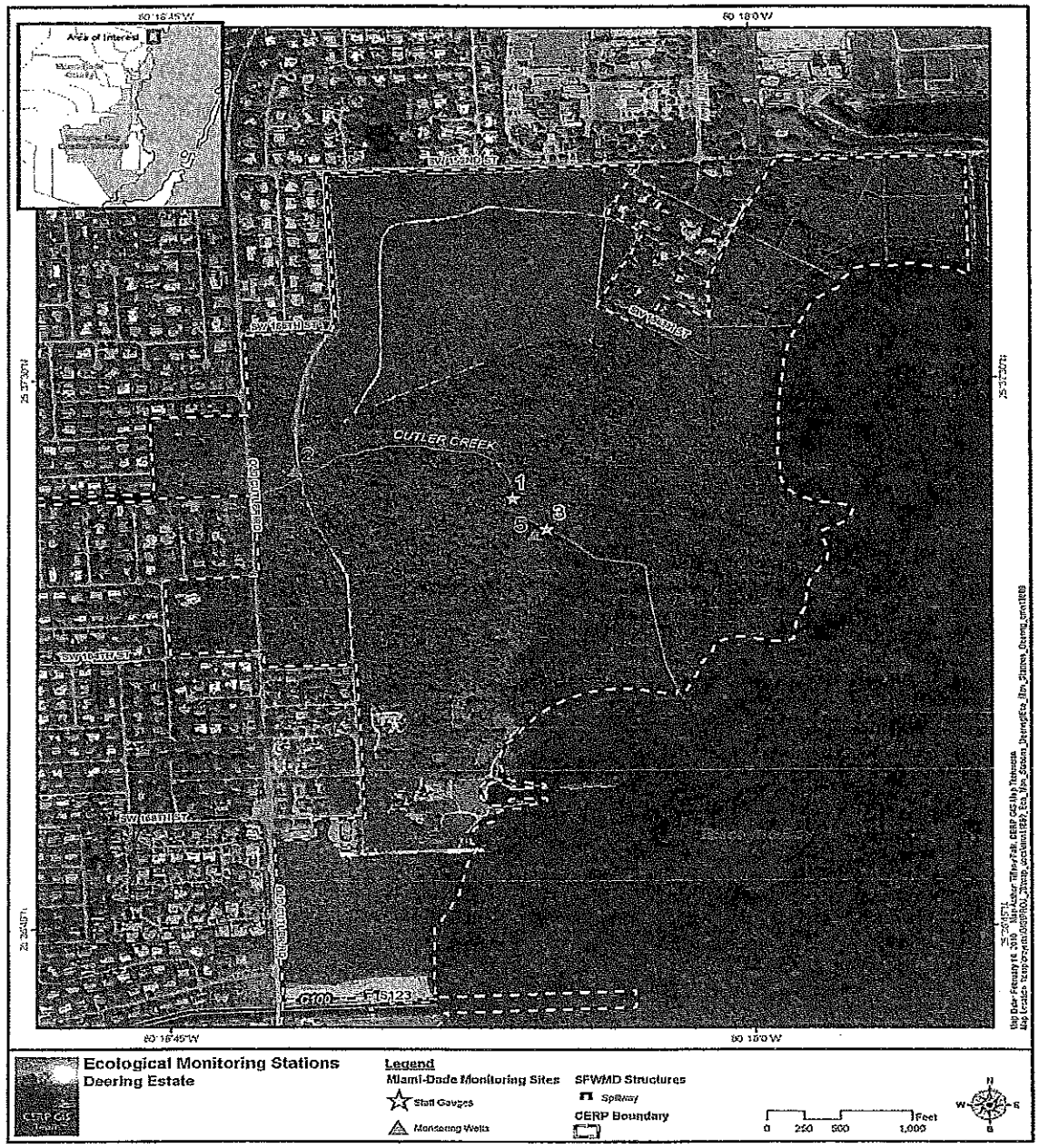


Figure 7. Location of Ecological Monitoring Stations

5.6.0 Task 6- Data analysis and Reporting

The County shall submit quarterly reports within (30) days of the end of the [calendar] Quarter. The due date for each quarterly submittal is listed in **Table 4 of Deliverables.** The County shall provide an electronic copy of the quarterly report that will include at minimum the following:

1. Identify activities undertaken during the reporting period and record any changes within areas that covered under tasks Section 1 through 19 and Tasks1through 6

2. State any problems encountered

3. Attest to the validity of the data

4. Submit maps and show the distribution and relative abundance of *C. jamaicense* within the effected area of culverts S-23A and S-23B

5. Submit graphical comparison of vegetation species within vegetation transects S-23A and S-23D for entire period

6. All quality assurance data with field QA/QC reports (*i.e.,* the results of field blanks, equipment blanks, precision as percent relative standard deviation, accuracy checks, method blanks and calibration data (initial and continuing verification)) consistent with the Field Sampling Quality Manual (FSQM) and CERP QASAR

7. Electronic scans of all sample chain of custody forms, field equipment calibration, field equipment maintenance and field notes in accordance with the deliverable schedule

8. GIS maps monitoring networks and pictures

9. All electronic data in accordance with the deliverable schedule. The reports shall also include results of all internal and external system and performance audits.

6.0 FIELD NOTES

Relevant field observations, as required by FDEP SOPs, can be in hard copy (waterproof paper) or electronic format. Field notes shall be stored in a notebook that is project specific. Please refer to the Quality Assurance Systems Requirements (CERP QASR) manual for more detail. Field service contractors shall provide copies of all field notes to the District within one week of sample collection.

7.0 SAMPLING TEAM

The sample team shall review and validate the sampling data collected during the course of the sampling event. This includes header sheets, field notes, and calibration sheets. Signature by the samplers indicates the data have been reviewed and validated.

8.0 DATA QUALITY

The data quality objectives of the field testing parameters for this project are covered by the table Field Quality Assurance Objectives (FQAO) in the field testing section of the CERP QASR.

9.0 DATA QUALITY QUALIFIERS

Data not meeting the quality objectives must be qualified using standard FDEP qualifier codes (F.A.C. 62-160) or corrective actions may be taken as outlined in the CERP QASR manual.

10.0 CALIBRATION SHEET

The County shall ensure that the proper equipment protocols, as identified in the approved CERP QA/QC, are used to collect each sample.

Field multiparameter probe calibrations shall be recorded as required on a supplemental page of the header sheet in hard copy or electronic format.

11.0 FIELD INSTRUMENT CALIBRATION DOCUMENTATION

FDEP SOPs and CERP Quality Assurance Systems Requirements should be followed as minimum requirements. Usually, field multi-parameter probe calibrations are recorded on a supplemental page of the header sheet (or equivalent, e.g., the County uses field notes for this purpose). The exact requirements of the calibration are dependent on the model of probe, the parameters measured, the range of parameters expected, and the range of parameters encountered.

12.0 FIELD DATA VALIDATION AND RESPONSIBILITIES

All staff associated with the project is responsible for ensuring the accuracy and completeness of data.

13.0 ETHICS AND DATA INTEGRITY

Every person performing field sampling must commit to following project specific requirements, South SFWMD field SOPs or County field SOP, the requirements in the FSQM, CERP Quality Assurance Systems Requirements (QASR), to ensure that samples collected are of acceptable quality and legally defensible. For further information, see the District's FSQM, QASR, or County Ethics Policy.

14.0 QUALITY ASSURANCE COMPLIANCE

Audits will be performed according to the QASR. CERP QASR Quality Assurance staff shall be responsible for performing annual field audits. Audit reports will be prepared, distributed, and retained in CERPZONE by the SFWMD project manager. Audits will be performed to evaluate adherence to regulatory requirements for field activities.

15.0 FREQUENCY OF AUDITS

At a minimum, field audits will be performed annually by the designated auditor for the project. Field audits may be done with or without notice, or on a more frequent basis, depending on perceived need.

16.0 AUDIT REPORTS, CORRECTIVE ACTIONS, AND RESPONSES

Findings of an audit and corresponding corrective actions shall be summarized in a formal audit report and sent to the field project manager, staff supervisor, and/or external contractors. The District QA/QC Administrator CERP is responsible for evaluating the accuracy of the audit findings. The field project manager and staff supervisor are responsible for responding to the audit and discussing deficiencies and corrective actions with specific staff. A written response shall be submitted within one month of the audit report. Data gathered during a period when significant deficiencies were noted may be flagged accordingly.

17.0 CORRECTIONS

If sample collectors or the project manager discover errors in any of the field notes, header sheets, or calibration sheets, corrections may be required. Changes are made by striking through the error, writing the correction, initialing and dating the change. Corrective actions shall include a detailed explanation of the error and may include data flagging, system audits, or reworking or recollection of samples.

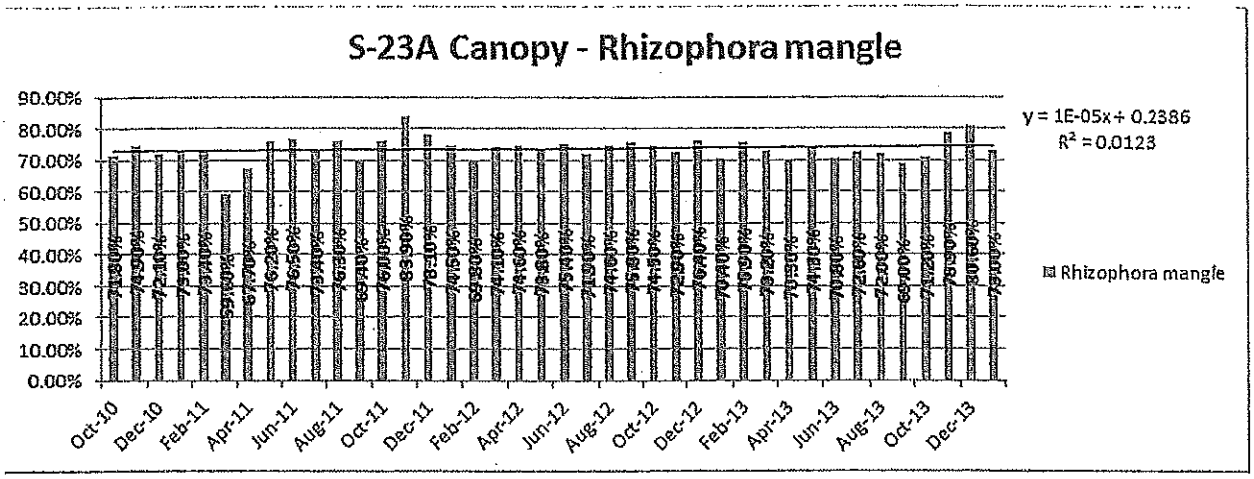
18.0 CONTINGENCIES

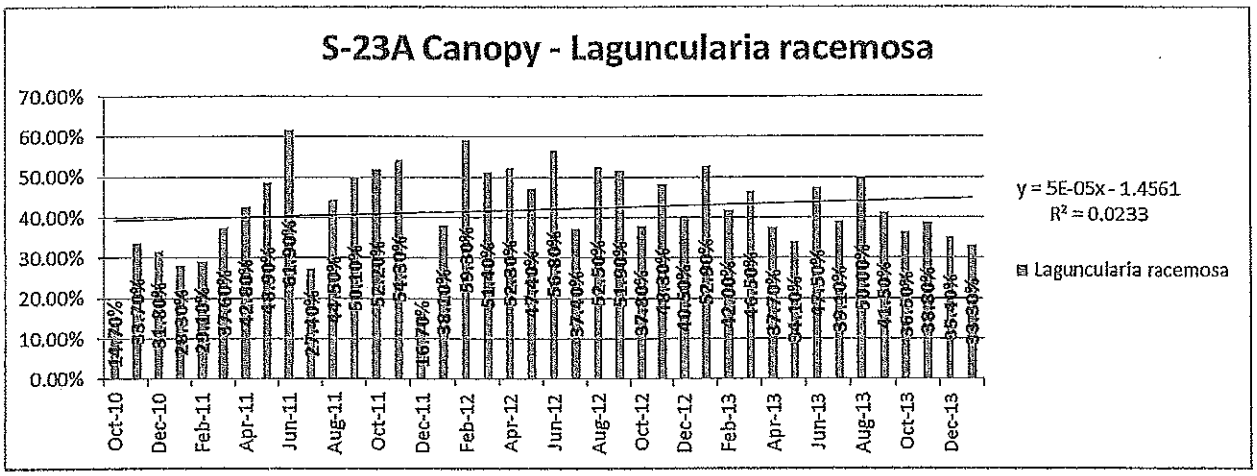
Every effort shall be made to complete all the tasks as described; however, it is recognized that some measurements may be missed occasionally due to inclement weather, unforeseen unsafe working conditions, or equipment failure. The District may amend this Agreement for a time extension in the event of a natural disaster or major storm.

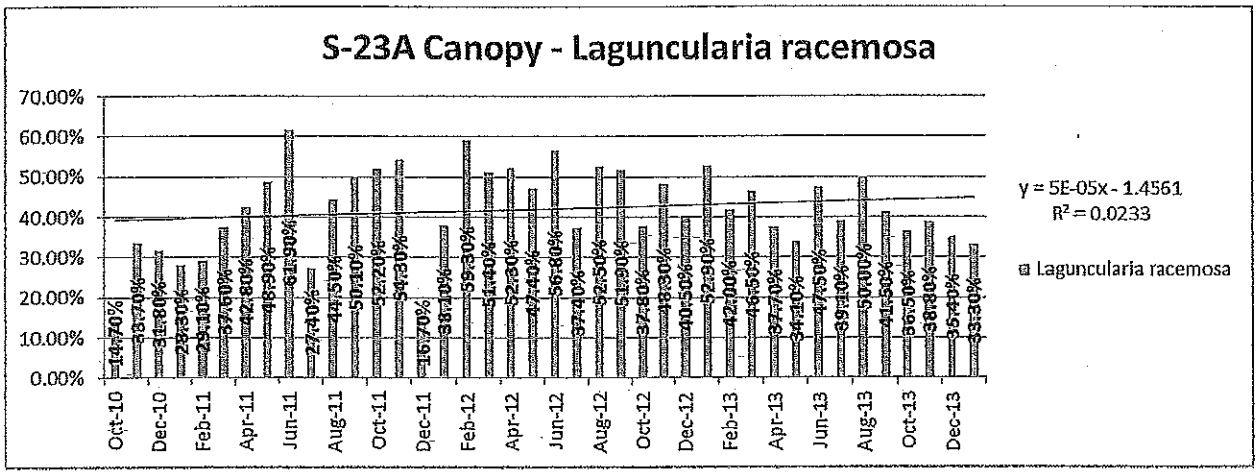
Attachment A:
Examples of Various Deliverables

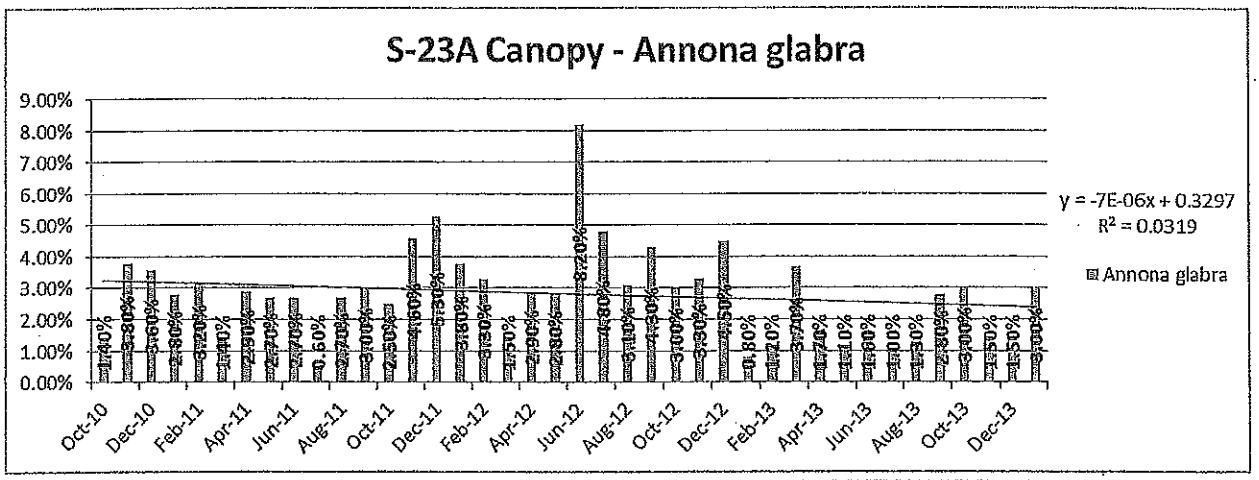
Table A- List of species observed within the vicinity of culverts S-23A and S-23D during the first and second year of routine ecological monitoring.

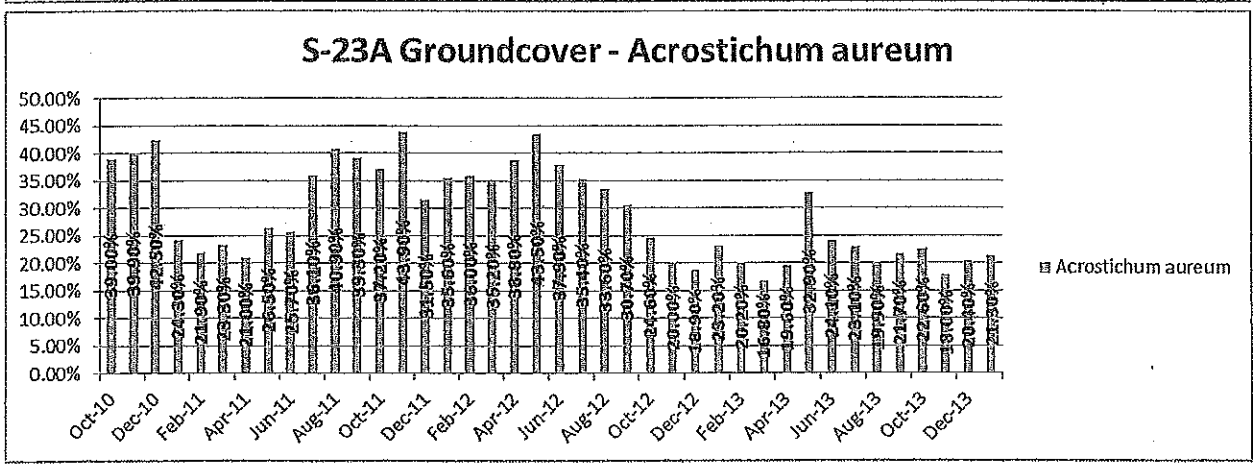
Type	First Year		Second Year	
	Species	Common Name	Species	Common Name
		Culvert S-23A		
Invertebrates	*Cardisoma guanhumi*	blue land crab	*Cardisoma guanhumi*	blue land crab
	Gonatista grisea	grizzled mantid		
Amphibians	*Osteopilus septentrionalis*	Cuban tree frog	*Osteopilus septentrionalis*	Cuban tree frog
Reptiles	*Nerodia fasciata*	banded water snake	*Nerodia fasciata*	banded water snake
			Agkistrodon piscivorus	water moccasin
Birds	*Butorides virescens*	little green heron	*Butorides virescens*	little green heron
	Dumetella carolinensis	gray catbird	*Dumetella carolinensis*	gray catbird
Fish			*Caranx hippos*	crevalle jack
		Culvert S-23D		
Invertebrates	*Callinectes sapidus*	blue crab	*Callinectes sapidus*	blue crab
Reptiles	*Nerodia fasciata*	banded water snake	*Nerodia fasciata*	banded water snake
			Kinosternon baurii	striped mud turtle
			Agkistrodon piscivorus	water moccasin
Birds	*Ardea alba*	great egret	*Ardea alba*	great egret
	Ardea Herodias	great blue heron	*Ardea Herodias*	great blue heron
	Butorides virescens	little green heron	*Butorides virescens*	little green heron
Fish	*Cichla ocellaris*	butterfly peacock bass	*Cichla cellaris*	butterfly peacock bass
	Cichlasoma urophthalmus	Mayan cichlid	*Cichlasoma urophthalmus*	Mayan cichlid
	Eucinostomus califomiensis	graceful mojarra	*Eucinostomus califomiensis*	graceful mojarra
	Eucinostomus melanopterus	flagfin mojarra	*Eucinostomus melanopterus*	flagfin mojarra
	Gambusia holbrooki	eastern mosquitofish	*Gambusia holbrooki*	eastern mosquitofish
	Poecilia latipinna	sailfin molly	*Poecilia latipinna*	sailfin molly
			Centropomus undecimalis	common snook
	Floridichthys carpio	goldspotted killifish	*Floridichthys carpio*	goldspotted killifish
	Mugil curema	white mullet	*Mugil curema*	white mullet
	Strongylura marina	Atlantic needlefish	*Strongylura marina*	Atlantic needlefish

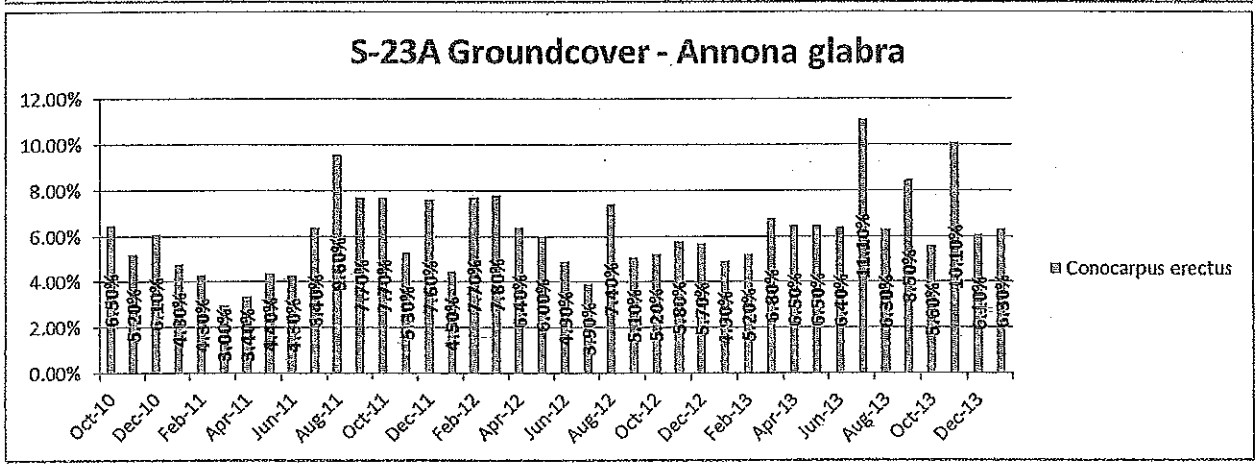

S-23A Canopy - Rhizophora mangle
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
y = 1E-05x + 0.2386
R² = 0.0123
Rhizophora mangle

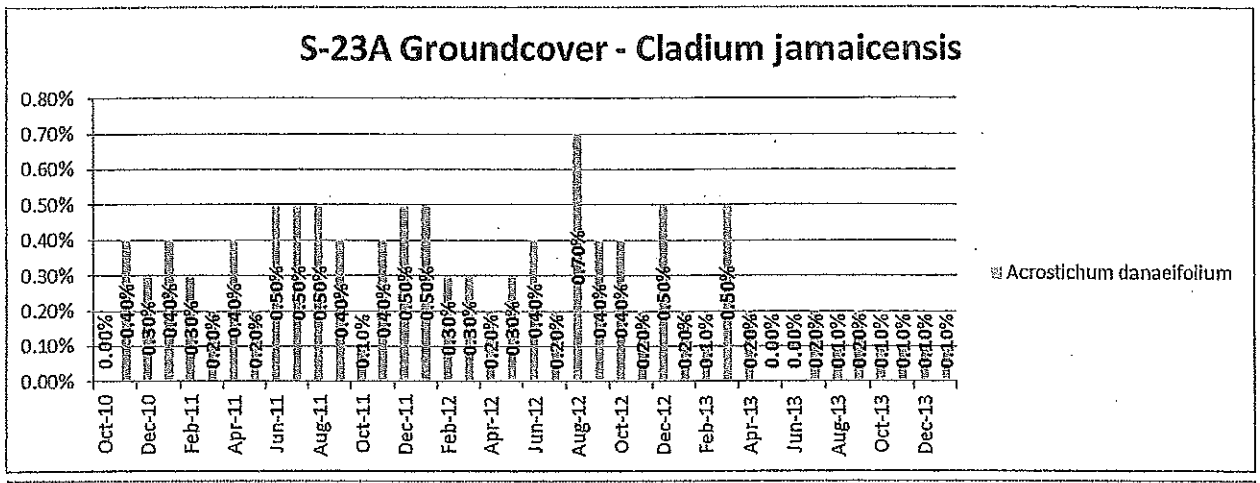

S-23A Canopy - Laguncularia racemosa
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
y = 5E-05x - 1.4561
R² = 0.0233
Laguncularia racemosa

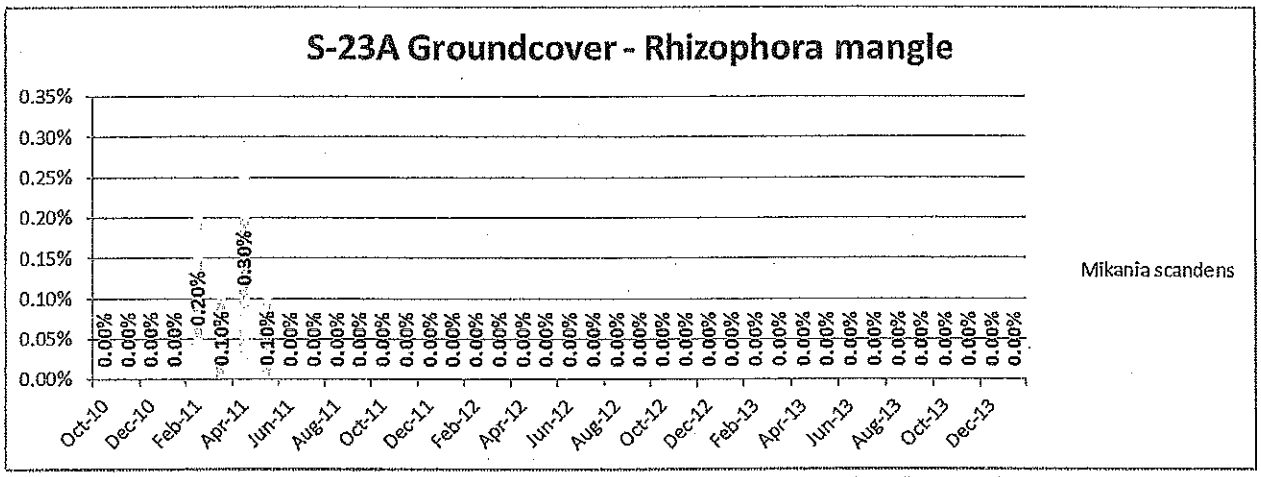

S-23A Canopy - Laguncularia racemosa
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
y = 5E-05x - 1.4561
R² = 0.0233
Laguncularia racemosa


S-23A Canopy - Annona glabra
9.00%
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
y = -7E-06x + 0.3297
R² = 0.0319
Annona glabra


S-23A Groundcover - Acrostichum aureum
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
Acrostichum aureum


S-23A Groundcover - Annona glabra
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
Conocarpus erectus


S-23A Groundcover - Cladium jamaicensis
0.80%
0.70%
0.60%
0.50%
0.40%
0.30%
0.20%
0.10%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
Acrostichum danaeifolium


S-23A Groundcover - Rhizophora mangle
0.35%
0.30%
0.25%
0.20%
0.15%
0.10%
0.05%
0.00%
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
Dec-13
Mikania scandens

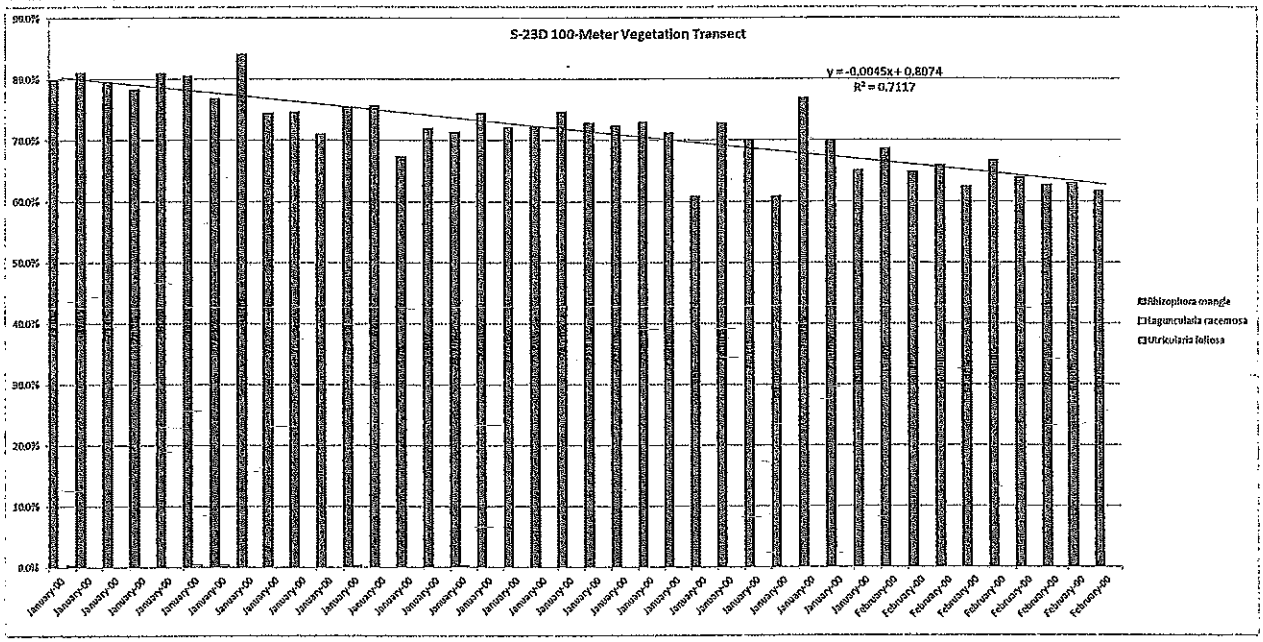

S-23D 100-Meter Vegetation Transect
y = -0.0045x + 0.8074
R² = 0.7117
Rhizophora mangle
Hagunculada racemosa
Utricularia foliosa

EXHIBIT "B"

PAYMENT AND DELIVERABLES SCHEDULE

The County hereby agrees to provide the District with all deliverables and invoices as defined in the payment and deliverables tables below. Acceptability of all work shall be based on the judgment by the District that the work is technically credible, accurate, precise and timely. The District shall review and forward, within thirty (30) working days of receipt, recommended revisions (letter format) for each report for incorporation by the County.

The County shall submit invoices on a quarterly basis. Payment of invoices shall be contingent upon delivery by the County and acceptance by the District of all deliverables and work products due within the invoiced period. The County shall submit invoices in amounts not-to-exceed those listed in the Payment and Deliverables Schedule. **All invoices shall list the deliverables submitted to the District as set forth under Section 1 through 18 and tasks 1 through 6 as required by this Agreement.**

The District shall only be obligated to pay for expenditures within the not-to-exceed amounts specified below for tasks 1 through 6. In the event actual expenditures by the County are less than the not-to-exceed for a particular task, the County shall have the right to apply the unexpended balance towards a subsequent task. The County shall provide written notice of its decision to exercise this right. In no event shall the District's total obligation exceed **$29,700 (FY15), $29,700 (FY16), 29,700 (FY17), and $29,700 (FY18).**

Payment and Deliverables Schedules

Year	Component	Tasks	Description of Tasks	Frequency Reporting	Due dates	Total Amount Not to Exceed
First Year	L-31E Culverts	Task 1	Aquatic Food Web Monitoring	1st - Semi- Annual	Complete by March 2015	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	First semi-annual reporting for Tasks 1 and 2		Due by April 2015	
		Task 1	Aquatic Food Web Monitoring	2nd - Semi- Annual	Complete by August 2015	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	2nd semi-annual reporting for Tasks 1 and 2		Due by September 2015	
		Task 3	Sawgrass Mapping	Annual	Complete by February 2015	$13,500
		Task 6	Annual report for Task 3		Due by March 2015	
	Deering Estate Flow way	Task 4	Ground water Monitoring	Monthly	Due by January 2015	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	First Quarter Report		
		Task 4	Ground water Monitoring	Monthly	Due by April 2015	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	2nd Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by July 2015	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Third Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by September 2015	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Fourth Quarter		
1st Year Total (October 2014 through September 2015)						$29,700

Payment and Deliverables Schedules- Continued

Year	Component	Tasks	Description of Tasks	Frequency Reporting	Due dates	Total Amount Not to Exceed
2ndYear	L-31E Culverts	Task 1	Aquatic Food Web Monitoring	1st - Semi- Annual	Complete by March 2016	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	First semi-annual reporting for Tasks 1 and 2		Due by April 2016	
		Task 1	Aquatic Food Web Monitoring	2nd - Semi- Annual	Complete by August 2016	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	2nd semi-annual reporting for Tasks 1 and 2		Due by September 2016	
		Task 3	Sawgrass Mapping	Annual	Complete by February 2016	$13,500
		Task 6	Annual report for Task 3		Due by March 2016	
	Deering Estate Flow way	Task 4	Ground water Monitoring	Monthly	Due by January 2016	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	First Quarter Report		
		Task 4	Ground water Monitoring	Monthly	Due by April 2016	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	2nd Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by July 2016	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Third Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by September 2016	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Fourth Quarter		
2nd year Total (October 2015 through September 2016)						$29,700

Payment and Deliverables Schedules-Continued

Year	Component	Tasks	Description of Tasks	Frequency Reporting	Due dates	Total Amount Not to Exceed
Third Year	L-31E Culverts	Task 1	Aquatic Food Web Monitoring	1st - Semi- Annual	Complete by March 2017	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	First semi-annual reporting for Tasks 1 and 2		Due by April 2017	
		Task 1	Aquatic Food Web Monitoring	2nd - Semi- Annual	Complete by August 2017	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	2nd semi-annual reporting for Tasks 1 and 2		Due by September 2017	
		Task 3	Sawgrass Mapping	Annual	Complete by February 2017	$13,500
		Task 6	Annual report for Task 3		Due by March 2017	
	Deering Estate Flow way	Task 4	Ground water Monitoring	Monthly	Due by January 2017	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	First Quarter Report		
		Task 4	Ground water Monitoring	Monthly	Due by April 2017	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	2nd Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by July 2017	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Third Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by September 2017	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Fourth Quarter		
3rd year Total (October 2016 through September 2017)						$29,700

Payment and Deliverables Schedules-Continued

Year	Component	Tasks	Description of Tasks	Frequency Reporting	Due dates	Total Amount Not to Exceed
Fourth Year	L-31E Culverts	Task 1	Aquatic Food Web Monitoring	1st - Semi- Annual	Complete by March 2018	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	First semi-annual reporting for Tasks 1 and 2		Due by April 2018	
		Task 1	Aquatic Food Web Monitoring	2nd - Semi- Annual	Complete by August 2018	$2,500
		Task 2	Vegetation Monitoring			
		Task 6	2nd semi-annual reporting for Tasks 1 and 2		Due by September 2018	
		Task 3	Sawgrass Mapping	Annual	Complete by February 2018	$13,500
		Task 6	Annual report for Task 3		Due by March 2018	
	Deering Estate Flow way	Task 4	Ground water Monitoring	Monthly	Due by January 2018	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	First Quarter Report		
		Task 4	Ground water Monitoring	Monthly	Due by April 2018	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	2nd Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by July 2018	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Third Quarter		
		Task 4	Ground water Monitoring	Monthly	Due by September 2018	$2,800
		Task 5	Staff Stage recoding	Monthly		
		Task 6	Quarterly Report for Tasks 4 and 5	Fourth Quarter		
4th year Total (October 2017 through September 2018)						$29,700