

Meeting Date
<b>November 15, 2016</b>



AGENDA	
Section	Consent
Item No.	<i>II.A.1</i>

**AGENDA REPORT**  
*BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS*

SUBJECT:	Cost-Share Agreement Between IRL Council and Board of County Commissioners of Brevard County for Developing a Shoreline Habitat Restoration and Management Plan – Phase I
DEPT/OFFICE:	Natural Resources Management Department (NRM)

Requested Action:

It is requested that the Board authorize: 1) the Chairman to execute a Grant Agreement substantially in the form of Attachment A, subject to County Attorney and Risk Management final approval; 2) waive legal venue in Brevard County, as the current agreement indicates legal venue in Indian River County; 3) authorize the County Manager or designee to execute future amendments, as required to implement the work approved under the IRL Council Cost-Share Agreement #IRL2016-013; and 4) any necessary budget change requests.

Summary Explanation & Background:

The Indian River Lagoon National Estuary Program (IRLNEP) offers a Cooperative Cost-Share Initiative Program to fund projects identified as “high priority” by local stakeholders and the IRL Council that effectively implement the Action Plans identified within the updated 2008 Indian River Lagoon Comprehensive Conservation and Management Plan (CCMP). A project proposal submitted by Brevard County has been selected for funding through this cost-share program.

On May 13, 2016, the Indian River Lagoon Council Board of Directors approved funding for the County’s Developing a Shoreline Habitat Restoration and Management Plan – Phase I project as part of the FY 2016-2017 IRLNEP Work Plan. On October 19, 2016, Brevard County received a draft cost-share contract for the aforementioned project. The objective of this contract is to provide cost-share dollars to facilitate the development of a shoreline habitat restoration and management plan for the Brevard County portion of the Indian River Lagoon. Phase I of this project, selected for funding during FY2016-17, will: (1) Complete a shoreline survey to collect attribute data of the IRL’s coastline within Brevard County; (2) Perform a wind and wave analysis, and; (3) Create a GIS map of shorelines including model-generated “shoreline suitability”. The ultimate goals of the Plan are to: identify and prioritize environmental enhancement and erosion protection opportunities along the IRL in Brevard County; accelerate implementation of living shorelines projects to stabilize shorelines and reduce erosion; maintain, enhance and restore estuary habitat along the IRL shoreline; and protect water quality in the Lagoon.

***Fiscal Impact:***

FY16/17: \$279,877 (IRLNEP Revenue: \$99,877; Brevard County NRM budgeted match – Stormwater Fund 1110: \$150,000; St. Johns River Water Management District Revenue: \$30,000)  
 FY 17/18: No Fiscal Impact

**Contact:** Jane Hart, NRM: 321-633-2016

Clerk to the Board instruction: Originals will be provided for execution upon final County Attorney and Risk Management approval.

Exhibits Attached:

**Attachment A:** Cost-share Agreement #IRL2016-013 Between IRL Council and Brevard County

Contract /Agreement (If attached):	Reviewed by County	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	PR	<input type="checkbox"/>
Attorney							

County Manager	Assistant County Manager	Department Director / Extension
Stockton Whitten		Virginia Barker/ X 5-2435



Tammy Rowe, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001  
Fax: (321) 264-6972  
Tammy.Rowe@brevardclerk.us

November 16, 2016

MEMORANDUM

TO: Virginia Barker, Natural Resources Management Director Attn: Jane Hart

RE: Item II.A.1., Cost-Share Agreement with IRL Council for Developing a Shoreline Habitat Restoration and Management Plan – Phase I

The Board of County Commissioners, in regular session on November 15, 2016, executed Cost-Share Agreement substantially in the form of Attachment A, subject to County Attorney and Risk Management final approval; waived the legal venue in Brevard County, as the current Agreement indicates legal venue in Indian River County; authorized the County Manager, or his designee, to execute future amendments, as required to implement the work approved under the IRL Council Cost-Share Agreement #IRL2016-013; and authorized any necessary budget change request. Enclosed is executed Agreement for your action.

**Upon execution by the IRL Council, please return the fully-executed Agreement to this office for inclusion in the official record.**

Your continued cooperation is greatly appreciated.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS  
SCOTT ELLIS, CLERK

Tammy Rowe, Deputy Clerk

/ds

Encl. (1)

cc: County Manager  
Finance  
Budget

**AGENCY COST-SHARE AGREEMENT  
BY AND BETWEEN THE IRL COUNCIL AND  
THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA, FOR  
DEVELOPING A SHORELINE HABITAT RESTORATION AND MANAGEMENT PLAN FOR  
BREVARD COUNTY – PHASE I**

THIS AGREEMENT (“Agreement”) is entered into by and between the IRL COUNCIL (“Council”), whose address is 1235 Main Street, Sebastian, Florida 32958, and the BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY (“Recipient”), whose address is 2725 Judge Fran Jamieson Way, Building A, Viera, Florida 32940. All references to the parties hereto include the parties, their officers, employees, agents, successors, and assigns.

**RECITALS**

The waters of the state of Florida are among its basic resources, and the Council has been authorized by the United States Environmental Protection Agency to be the local sponsor for the Indian River Lagoon National Estuary Program.

Pursuant to the IRL Council Interlocal Agreement, the Council is responsible for managing the Indian River Lagoon National Estuary Program.

The Council has determined that providing cost-share funding to Recipient for the purposes provided for herein will benefit the management of the water resources of the Indian River Lagoon.

The parties have agreed to jointly fund the following project to benefit the water resources in accordance with the funding formula further described in the Statement of Work, Attachment A (hereafter “the Project”):

This project will: (1) Complete a shoreline survey of 175 miles of the IRL’s coastline within Brevard County; (2) Perform a wind and wave analysis, (3) Create GIS data layers that spatially represent shoreline conditions and features throughout the Brevard County portion of the IRL, (4) engage community through a live oyster propagation program, (5) install 1,180 linear feet of oyster reef living shoreline along the Indian River Lagoon in Brevard County.

In consideration of the above recitals, and the funding assistance described below, Recipient agrees to perform and complete the activities provided for in the Statement of Work, Attachment A. Recipient shall complete the Project in conformity with the contract documents and all attachments and other items incorporated by reference herein. This Agreement consists of all of the following documents: (1) Agreement, (2) Attachment A- Statement of Work; and (3) all attachments, if any. The parties hereby agree to the following terms and conditions.

**1. TERM; WITHDRAWAL OF OFFER**

- (a) The term of this Agreement is from the date upon which the last party has dated and executed the same (“Effective Date”) until September 30, 2017 (“Completion Date”). Recipient shall not commence the Project until any required submittals are received and approved. Recipient shall commence performance within fifteen (15) days after the Effective Date and shall complete performance in accordance with the time for completion stated in the Statement of Work. Time is of the essence for every aspect of this Agreement, including any time extensions. Notwithstanding specific mention that

certain provisions survive termination or expiration of this Agreement, all provisions of this Agreement that by their nature extend beyond the Completion Date survive termination or expiration hereof.

- (b) This Agreement constitutes an offer until authorized, signed and returned to the Council by Recipient. This offer terminates forty-five (45) days after receipt by Recipient; provided, however, that Recipient may submit a written request for extension of this time limit to the Council's Project Manager, stating the reason(s) therefor. The Project Manager shall notify Recipient in writing if an extension is granted or denied. If granted, this Agreement shall be deemed modified accordingly without any further action by the parties.

2. **DELIVERABLES.** Recipient shall fully implement the Project, as described in the Statement of Work, Attachment A. Recipient is responsible for the professional quality, technical accuracy, and timely completion of the Project. Both workmanship and materials shall be of good quality. Unless otherwise specifically provided for herein, Recipient shall provide and pay for all materials, labor, and other facilities and equipment necessary to complete the Project. The Council's Project Manager shall make a final acceptance inspection of the Project when completed and finished in all respects. Upon satisfactory completion of the Project, the Council will provide Recipient a written statement indicating that the Project has been completed in accordance with this Agreement. Acceptance of the final payment by Recipient shall constitute a release in full of all claims against the Council arising from or by reason of this Agreement.

3. **OWNERSHIP OF DELIVERABLES.** Unless otherwise provided herein, the Council does not assert an ownership interest in any of the deliverables under this Agreement.

4. **AMOUNT OF FUNDING.**

- (a) For satisfactory completion of the Project, the Council shall pay Recipient approximately thirty-six percent (36%) of the total cost of the Project, but in no event shall the Council cost-share exceed \$99,877. The Council cost-share is not subject to modification based upon price escalation in implementing the Project during the term of this Agreement. Recipient shall be responsible for payment of all costs necessary to ensure completion of the Project. Recipient shall notify the Council's Project Manager in writing upon receipt of any additional external funding for the Project not disclosed prior to execution of this Agreement.

- (b) **In-Kind Services.** Recipient agrees to provide \$180,000 in the form of cash and/or in-kind services for the Project, as further described in the Statement of Work, which shall count toward Recipient's cost-share obligation.

5. **PAYMENT OF INVOICES**

- (a) Recipient shall submit one invoice upon successful completion of the Project by one of the following two methods: (1) by mail to the IRL Council, 1235 Main Street, Sebastian, Florida 32958, or (2) by e-mail to [sakuma@irlcouncil.org](mailto:sakuma@irlcouncil.org). The invoice shall be submitted in detail sufficient for proper pre-audit and post-audit review. It shall include a copy of contractor and supplier invoices to Recipient and proof of payment. Recipient shall be reimbursed for approximately thirty-six percent (36%) of approved costs or the not-to-exceed sum of \$99,877, whichever is less. The Council shall not withhold any retainage from this reimbursement. If necessary for audit purposes, Recipient shall provide additional supporting information as required to document invoices.

- (b) **End of Council Fiscal Year Reporting.** The Council's fiscal year ends on September 30. Irrespective of the invoicing frequency, the Council is required to account for all encumbered funds at that time. When authorized under the Agreement, submittal of an invoice as of September 30 satisfies this requirement. The invoice shall be submitted no later than October 30. If the Agreement does not authorize submittal of an invoice as of September 30, Recipient shall submit, prior to October 30, a description of the additional work on the Project completed between the last invoice and September 30, and an estimate of the additional amount due as of September 30 for such Work. If there have been no prior invoices, Recipient shall submit a description of the work completed on the Project through September 30 and a statement estimating the dollar value of that work as of September 30.
- (c) **Final Invoice.** The final invoice must be submitted no later than 45 days after the Completion Date; provided, however, that when the Completion Date corresponds with the end of the Council's fiscal year (September 30), the final invoice must be submitted no later than 30 days after the Completion Date. **Final invoices that are submitted after the requisite date shall be subject to a penalty of 10 percent of the invoice. This penalty may be waived by the Council, in its sole judgment and discretion, upon a showing of special circumstances that prevent the timely submittal of the final invoice. Recipient must request approval for delayed submittal of the final invoice not later than ten (10) days prior to the due date and state the basis for the delay.**
- (d) All invoices shall include the following information: (1) Council contract number; (2) Council encumbrance number; (3) Recipient's name and address (include remit address, if necessary); (4) Recipient's invoice number and date of invoice; (5) Council Project Manager; (6) Recipient's Project Manager; (7) supporting documentation as to cost and/or Project completion (as per the cost schedule and other requirements of the Statement of Work); (8) Progress Report (if required); (9) Diversity Report (if otherwise required herein). Invoices that do not correspond with this paragraph shall be returned without action within twenty (20) business days of receipt, stating the basis for rejection. Payments shall be made within forty-five (45) days of receipt of an approved invoice.
- (e) **Travel expenses.** If the cost schedule for this Agreement includes a line item for travel expenses, travel expenses shall be drawn from the project budget and are not otherwise compensable.
- (f) **Payments withheld.** The Council may withhold or, on account of subsequently discovered evidence, nullify, in whole or in part, any payment to such an extent as may be necessary to protect the Council from loss as a result of: (1) defective work not remedied; (2) failure to maintain adequate progress in the Project; (3) any other material breach of this Agreement. Amounts withheld shall not be considered due and shall not be paid until the ground(s) for withholding payment have been remedied.
- (g) **Annual budgetary limitation.** For multi-fiscal year agreements, the Council must budget the amount of funds that will be expended during each fiscal year as accurately as possible. The Statement of Work, Attachment A, includes the parties' current schedule for completion of the Work and projection of expenditures on a fiscal year basis (October 1 – September 30) ("Annual Spending Plan"). If Recipient anticipates that expenditures will exceed the budgeted amount during any fiscal year, Recipient shall promptly notify the Council's Project Manager and provide a proposed revised work schedule and Annual Spending Plan that provides for completion of the Work without increasing the Total

Compensation. The last date for the Council to receive this request is August 1 of the then-current fiscal year. The Council may in its sole discretion prepare a Council Supplemental Instruction Form incorporating the revised work schedule and Annual Spending Plan during the then-current fiscal year or subsequent fiscal year(s).

6. **LIABILITY AND INSURANCE.** Each party is responsible for all personal injury and property damage attributable to the negligent acts or omissions of that party, its officers, employees and agents. Nothing contained herein shall be construed or interpreted as denying to any party any remedy or defense available under the laws of the state of Florida, nor as a waiver of sovereign immunity of the state of Florida beyond the waiver provided for in section 768.28, Fla. Stat., as amended. Each party shall acquire and maintain throughout the term of this Agreement such liability, workers' compensation, and automobile insurance as required by their current rules and regulations, which may include participation in a self-insurance program.
7. **FUNDING CONTINGENCY.** This Agreement is at all times contingent upon funding availability, which may include a single source or multiple sources, including, but not limited to: (1) revenues appropriated by the Council's Board of Directors; (2) annual appropriations by the Florida Legislature, or (3) appropriations from other agencies or funding sources. Agreements that extend for a period of more than one Fiscal Year are subject to annual appropriation of funds in the sole discretion and judgment of the Council's Board of Directors for each succeeding Fiscal Year. Should the Project not be funded, in whole or in part, in the current Fiscal Year or succeeding Fiscal Years, the Council shall so notify Recipient and this Agreement shall be deemed terminated for convenience five (5) days after receipt of such notice, or within such additional time as the Council may allow. For the purpose of this Agreement, "Fiscal Year" is defined as the period beginning on October 1 and ending on September 30.
8. **PROJECT MANAGEMENT**

- (a) The Project Managers listed below shall be responsible for overall coordination and management of the Project. Either party may change its Project Manager upon three (3) business days prior written notice to the other party. Written notice of change of address shall be provided within five (5) business days. All notices shall be in writing to the Project Managers at the addresses below and shall be sent by one of the following methods: (1) hand delivery; (2) U.S. certified mail; (3) national overnight courier; (4) e-mail or, (5) fax. Notices via certified mail are deemed delivered upon receipt. Notices via overnight courier are deemed delivered one (1) business day after having been deposited with the courier. Notices via e-mail or fax are deemed delivered on the date transmitted and received.

COUNCIL

Kathy Hill, Project Manager  
IRL Council  
1235 Main Street  
Sebastian, Florida 32958  
(772) 742-2858 ext. 102  
E-mail: [hill@irlcouncil.org](mailto:hill@irlcouncil.org)

RECIPIENT

Jane Hart, Environmental Specialist  
Brevard County Natural Resources  
Management Department  
2725 Judge Fran Jamieson Way, Bldg A  
Viera, FL 32940  
(321) 633-2016 ext. 56721  
E-mail: [jane.hart@brevardfl.gov](mailto:jane.hart@brevardfl.gov)

- (b) The Council's Project Manager shall have sole responsibility for transmitting instructions, receiving information, and communicating Council policies and decisions regarding all matters pertinent to performance of the Project. The Council's Project

Manager may issue a Council Supplemental Instruction (CSI) form, Attachment B, to authorize minor changes in the Project that the parties agree are not inconsistent with the purpose of the Project, do not affect the Council cost-share or Completion Date, or otherwise significantly modify the terms of the Agreement.

9. **PROGRESS REPORTS AND PERFORMANCE MONITORING**

- (a) **Progress Reports.** Recipient shall provide to the Council Project update/status reports as provided in the Statement of Work. Reports will provide detail on progress of the Project and outline any potential issues affecting completion or the overall schedule. Reports may be submitted in any form agreed to by Council's Project Manager and Recipient, and may include emails, memos, and letters.
- (b) **Performance Monitoring.** For as long as the Project is operational, the Council shall have the right to inspect the operation of the Project during normal business hours upon reasonable prior notice. Recipient shall make available to the Council any data that is requested pertaining to performance of the Project.

10. **TERMINATION.** The IRL Council may terminate this Agreement without cause upon 10 days written notice. In such event Recipient shall be compensated for all Work performed in accordance with this Agreement to the effective date of termination. If Recipient materially fails to fulfill its obligations under this Agreement, including any specific milestones established herein, the Council shall provide Recipient written notice of the deficiency by forwarding a Notice to Cure, citing the specific nature of the breach. Recipient shall have thirty (30) days to cure the breach. If Recipient fails to cure the breach within the thirty (30) day period, the Council shall issue a Termination for Default Notice and this Agreement shall be terminated upon receipt of said notice. In such event, Recipient shall refund to the Council all funds provided to Recipient pursuant to this Agreement within thirty (30) days of such termination. The Council may also terminate this Agreement upon ten (10) days written notice in the event any of material misrepresentations in the Project Proposal.

**ADDITIONAL PROVISIONS (Alphabetical)**

11. **ASSIGNMENT.** Recipient shall not assign this Agreement, or any monies due hereunder, without the Council's prior written consent. Recipient is solely responsible for fulfilling all work elements in any contracts awarded by Recipient and payment of all monies due. No provision of this Agreement shall create a contractual relationship between the Council and any of Recipient's contractors or subcontractors.

12. **AUDIT; ACCESS TO RECORDS; REPAYMENT OF FUNDS.**

- (a) **Maintenance of Records.** Recipient shall maintain its books and records such that receipt and expenditure of the funds provided hereunder are shown separately from other expenditures in a format that can be easily reviewed. Recipient shall keep the records of receipts and expenditures, copies of all reports submitted to the Council, and copies of all invoices and supporting documentation for at least three (3) years after expiration of this Agreement. In accordance with generally accepted governmental auditing standards, the Council shall have access to and the right to examine any directly pertinent books and other records involving transactions related to this Agreement. In the event of an audit, Recipient shall maintain all required records until the audit is completed and all questions are

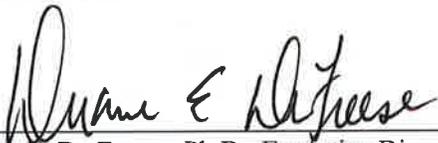
resolved. Recipient will provide proper facilities for access to and inspection of all required records.

- (b) **Repayment of Funds.** Council funding shall be subject to repayment after expiration of this Agreement if, upon audit examination, the Council finds any of the following: (1) Recipient has spent funds for purposes other than as provided for herein; (2) Recipient has failed to perform a continuing obligation of this Agreement; (3) Recipient has received duplicate funds from the Council for the same purpose; and/or (4) Recipient has received more than one hundred percent (100%) contributions through cumulative public agency cost-share funding.
13. **CIVIL RIGHTS.** Pursuant to chapter 760, Fla. Stat., Recipient shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin, age, handicap, or marital status.
14. **DISPUTE RESOLUTION.** Recipient is under a duty to seek clarification and resolution of any issue, discrepancy, or dispute involving performance of this Agreement by submitting a written statement to the Council's Project Manager no later than ten (10) business days after the precipitating event. If not resolved by the Project Manager, the Project Manager shall forward the request to the Council's General Counsel, which shall issue a written decision within ten (10) business days of receipt. This determination shall constitute final action of the Council and shall then be subject to judicial review upon completion of the Project.
15. **DIVERSITY REPORTING.** The Council is committed to the opportunity for diversity in the performance of all cost-sharing agreements, and encourages Recipient to make a good faith effort to ensure that women and minority-owned business enterprises (W/MBE) are given the opportunity for maximum participation as contractors. The Council will assist Recipient by sharing information on W/MBEs. Recipient shall provide with each invoice a report describing: (1) the company names for all W/MBEs; (2) the type of minority, and (3) the amounts spent with each during the invoicing period. The report will also denote if there were no W/MBE expenditures.
16. **GOVERNING LAW, VENUE, ATTORNEY'S FEES, WAIVER OF RIGHT TO JURY TRIAL.** This Agreement shall be construed according to the laws of Florida and shall not be construed more strictly against one party than against the other because it may have been drafted by one of the parties. As used herein, "shall" is always mandatory. In the event of any legal proceedings arising from or related to this Agreement: (1) venue for any state or federal legal proceedings shall be in Indian River County; (2) each party shall bear its own attorney's fees, including appeals; (3) for civil proceedings, the parties hereby consent to trial by the court and waive the right to jury trial.
17. **INDEPENDENT ENTITIES.** The parties to this Agreement, their employees and agents, are independent entities and not employees or agents of each other. Nothing in this Agreement shall be interpreted to establish any relationship other than that of independent entities during and after the term of this Agreement. Recipient is not a contractor of the Council. The Council is providing cost-share funding as a cooperating governmental entity to assist Recipient in accomplishing the Project. Recipient is solely responsible for accomplishing the Project and directs the means and methods by which the Project is accomplished. Recipient is solely responsible for compliance with all labor and tax laws pertaining to Recipient, its officers, agents, and employees.

18. **INTEREST OF RECIPIENT.** Recipient certifies that no officer, agent, or employee of the Council has any material interest, as defined in chapter 112, Fla. Stat., either directly or indirectly, in the business of Recipient to be conducted hereby, and that no such person shall have any such interest at any time during the term of this Agreement.
19. **NON-LOBBYING.** Pursuant to section 216.347, Fla. Stat., as amended, Recipient agrees that funds received from the Council under this Agreement shall not be used for the purpose of lobbying the Legislature or any other state agency.
20. **PERMITS.** Recipient shall comply with all applicable federal, state and local laws and regulations in implementing the Project and shall include this requirement in all subcontracts pertaining to the Project. Recipient shall obtain any and all governmental permits necessary to implement the Project. Any activity not properly permitted prior to implementation or completed without proper permits does not comply with this Agreement and shall not be approved for cost-share funding.
21. **PUBLIC ENTITY CRIME.** A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted vendor list.
22. **PUBLIC RECORDS.** Records of Recipient that are made or received in the course of performance of the Project may be public records that are subject to the requirements of chapter 119, Fla. Stat. If Recipient receives a public records request, Recipient shall promptly notify the Council's Project Manager. Each party reserves the right to cancel this Agreement for refusal by the other party to allow public access to all documents, papers, letters, or other material related hereto and subject to the provisions of chapter 119, Fla. Stat., as amended.
23. **ROYALTIES AND PATENTS.** Recipient certifies that the Project does not, to the best of its information and belief, infringe on any patent rights. Recipient shall pay all royalties and patent and license fees necessary for performance of the Project and shall defend all suits or claims for infringement of any patent rights and save and hold the Council harmless from loss to the extent allowed by Florida law.

**IN WITNESS WHEREOF**, the IRL Council has caused this Agreement to be executed on the day and year written below in its name by its Executive Director, and Recipient has caused this Agreement to be executed on the day and year written below in its name by its duly authorized representatives, and, if appropriate, has caused the seal of the corporation to be attached. This Agreement may be executed in separate counterparts, which shall not affect its validity. Upon execution, this Agreement constitutes the entire agreement of the parties, notwithstanding any stipulations, representations, agreements, or promises, oral or otherwise, not printed or inserted herein. This Agreement cannot be changed by any means other than written amendments referencing this Agreement and signed by all parties.

IRL COUNCIL

By:   
Duane E. De Freese, Ph.D., Executive Director

Date: DECEMBER 6, 2016

BOARD OF COUNTY COMMISSIONERS OF  
BREVARD COUNTY, FLORIDA

By:   
JIM BARFIELD, CHAIRMAN

Typed Name and Title  
Date: NOVEMBER 15, 2016

APPROVED BY THE IRL  
GENERAL COUNSEL

Carolyn S. Ansay, General Counsel

Attest:   
SCOTT ELLIS, CLERK  
Typed Name and Title

**ATTACHMENTS**

- Attachment A – Statement of Work
- Attachment B – Council Supplemental Instruction Form

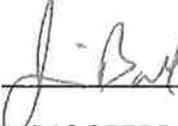
Cost-share: Agency general  
Last updated: 09-27-2016

IN WITNESS WHEREOF, the IRL Council has caused this Agreement to be executed on the day and year written below in its name by its Executive Director, and Recipient has caused this Agreement to be executed on the day and year written below in its name by its duly authorized representatives, and, if appropriate, has caused the seal of the corporation to be attached. This Agreement may be executed in separate counterparts, which shall not affect its validity. Upon execution, this Agreement constitutes the entire agreement of the parties, notwithstanding any stipulations, representations, agreements, or promises, oral or otherwise, not printed or inserted herein. This Agreement cannot be changed by any means other than written amendments referencing this Agreement and signed by all parties.

IRL COUNCIL

BOARD OF COUNTY COMMISSIONERS OF  
BREVARD COUNTY, FLORIDA

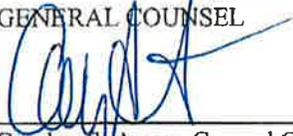
By: \_\_\_\_\_  
Duane E. De Freese, Ph.D., Executive Director

By:  \_\_\_\_\_  
JIM BARFIELD, CHAIRMAN

Date: \_\_\_\_\_

Typed Name and Title  
Date: NOVEMBER 15, 2016

APPROVED BY THE IRL  
GENERAL COUNSEL

  
\_\_\_\_\_  
Carolyn S. Ansay, General Counsel

Attest:  \_\_\_\_\_  
SCOTT ELLIS, CLERK  
Typed Name and Title

**ATTACHMENTS**

- Attachment A – Statement of Work
- Attachment B – Council Supplemental Instruction Form

Cost-share: Agency general  
Last updated: 09-27-2016

## **ATTACHMENT A - STATEMENT OF WORK**

### **Developing a Shoreline Habitat Restoration and Management Plan for Brevard County – Phase I**

#### **I. INTRODUCTION**

The Indian River Lagoon (IRL) is a diverse, shallow-water estuary stretching 156 miles along more than 30 percent of Florida's east coast and is classified by the USEPA as an Estuary of National Significance. Urbanization, degradation of water quality, loss of seagrass and mangrove habitat, fisheries decline, and emerging disease and mortality of marine species have all impacted the health of the IRL in recent years. The IRL and its shoreline face additional challenges as global warming and associated sea-level rise are predicted to contribute to further habitat loss, water quality problems and stresses on plant and animal species. In addition, erosion of the shoreline is occurring as a result of strong storms, wave action, sea level rise, and development. These issues, combined with the continued rise in population along the coastal zone highlight the necessity of planning and preparation to protect coastal resources.

Traditionally, stabilization of the shoreline in many areas of the Lagoon has been accomplished with hard structures such as seawalls, bulkheads and rock revetments, creating a barrier between land and water. As an alternative, living shorelines maintain continuity of the natural land-water interface by utilizing vegetation, living and natural elements and oyster reefs or rock for added stability. Living shorelines not only provide coastal stabilization and resilience of the shoreline, they also reduce erosion, provide critical habitat for near shore species and improve water quality by filtering nutrients and sediments from overland stormwater runoff.

#### **II. OBJECTIVE**

The objective of this project will: (1) Complete a shoreline survey of 175 miles of the IRL's coastline within Brevard County; (2) Perform a wind and wave analysis, (3) Create GIS data layers that spatially represent shoreline conditions and features throughout the Brevard County portion of the IRL, (4) engage community through a live oyster propagation program, (5) install 1,180 linear feet of oyster reef living shoreline along the Indian River Lagoon in Brevard County, and (6) prepare a final report.

This objective conforms to the action plans outlined in the Indian River Lagoon Comprehensive Conservation and Management Plan to continue the restoration and rehabilitation of impacted coastal wetlands.

#### **III. SCOPE**

UCF shall perform all work required to collect data and complete shoreline assessment data listed below. Brevard County will use the data to create an Arc-GIS map of 175 miles of shoreline to identify areas suitable for establishing sustainable living shorelines.

#### **IV. TASK IDENTIFICATION**

Brevard County will contract with UCF to collect shoreline assessment data along 175 miles of Brevard County's IRL coastline by watercraft, add to an Arc-GIS shoreline map developed by county, and combine the collected data with SJRWMD wind and wave analysis tool to build a shoreline model to guide the successful placement of sustainable living shorelines. The target shoreline is the urbanized portion of the county. Federally-owned properties within the County with public access limitations are not included in the survey (see Figure 1).

##### **ITEM 1. Task 1. Shoreline Survey – UCF**

Prior to performing the field assessment, the historic and existing shoreline location will be mapped and analyzed in the GIS environment. This data will be cross-referenced with Bing Bird's Eye View and/or Google street view to capture locations of hardened and natural shorelines. If hardened, attempts will be made to identify the material (i.e. rip rap, bulkhead, etc.). UCF will verify these lines and collect additional transect point data during the field shoreline survey. Watercraft capable of maneuvering in the near shore environment will be used. During the field survey, attribute data will be collected approximately every 100 feet in developed areas, approximately every 1,000 feet in areas with natural edges, and at every visible outfall. At these intervals, the following data will be collected and recorded:

- GPS location and latitude/longitude
- GPS point name and transect number on data sheet
- A photo to characterize shoreline combined with notation of a GPS point name on a data sheet that corresponds to naming of photos.
- Shoreline type (natural, hard-armored)
- Type of hard armoring
- Habitat type and width
- Vegetation type (natural, exotic, mix, sod, none)
- Adjacent land use (natural, commercial, residential, public)
- Severity of erosion based on the SJRWMD categories of severe, moderate, or low
- Shoreline slope
- Characterization of land use at the upland edge of the transect
- Oyster presence (Y/N)
- Water depth at 5 feet and 10 feet distance from shoreline or apparent OHW line
- Type of bottom (hard, soft, sand, muck)
- Outfall data will include photographs, approximate size (diameter) and type (i.e. concrete, metal, PVC, other), depth and approximate flow velocity of discharge water.

The assessment will include the presence and species composition of terrestrial, intertidal, or subtidal vegetation, oysters, mudflat, etc. and width of each habitat type. Erosion severity shall be described using three categories established by SJRWMD (severe, moderate, low) based on depth of eroded shoreline and presence/absence of vegetation. Adjacent land use shall be classified as natural, commercial, or private property. Shoreline slope shall be estimated using width of intertidal habitat vs. known local tidal range from low to high intertidal zone.

**ITEM 2. Deliverable 1: Quarterly updates on extent of surveyed shorelines.**

**Due Date/Performance Period: Shoreline surveys should be complete and ready to enter into the map and model (Task 2) by June 30, 2017.**



**Task 2. Wind and Wave Analysis –UCF**

St. Johns River Water Management District (SJRWMD) engineering staff will provide the modeling protocol for the wind and wave analysis to UCF. Brevard County Natural Resources Management Department (NRMD) will contract with University of Central Florida to conduct the wind and wave analysis in accordance with SJRWMD protocols. Boat wake energy will be estimated by calculating the distance between shoreline points and nearest boating channel. Publically available wind data will be used to estimate range of wind speeds and frequencies of directions. A SWAN (Simulating Waves Nearshore) model grid will be created using mean sea level and water level associated with storm surge. Model runs will be conducted using wind speeds at both water levels to evaluate wind energy along shorelines throughout Brevard County. Wind and wave analysis results will be compared to published data on *Spartina alterniflora* thresholds (i.e. Roland and Douglas 1995) to guide restoration planning.

**ITEM 3. Deliverable 2: Quarterly updates on wind and wave analysis protocol development.**

**Due Date/Performance Period: Development of wind and wave analysis by UCF will be completed by August 30, 2017. The results of the shoreline model that will result from this analysis plus from data collected in Task 1 will be submitted by September 30, 2017.**

**Task 3. GIS Mapping - UCF**

Brevard County Natural Resources Management Department will contract with UCF to supplement a shoreline map created by Brevard County. UCF staff will combine the data from Task 1 with the IRL wind and wave data (Task 2) to create a geodatabase in Geographic Information System (GIS) using ESRI ArcGIS 10.1. Shoreline attribute data will be converted into GIS layers for subsequent analyses and mapping. Maps created will spatially display shoreline attributes of the study area.

**ITEM 4. Deliverable 3: GIS map of shorelines from UCF data (Tasks 1 and 2).**

**Due Date/Performance Period: GIS map of shorelines will be submitted by July 30, 2017. GIS map of shorelines including model-generated "restoration suitability" will be submitted by September 30, 2017.**

**Task 4. Oyster Gardening – Brevard County and Zoo**

Brevard County Natural Resources Management Department will contract with the Brevard Zoo to engage the Brevard County community in a citizen-based oyster propagation program to raise juvenile oysters to populate living shoreline oyster reef sites constructed during FY16-17. Oyster Gardening workshops will be held throughout the county to provide training and education about oyster gardening, living shorelines, and issues facing the lagoon. Since the launch of the Oyster Gardening program in 2014 by Brevard County and the Brevard Zoo, citizens representing over 1,000 shoreline locations <sup>have</sup> been trained as citizen scientists to grow oysters off their docks for restoration projects.

For this project task, volunteer oyster gardeners will be provided with approximately 1000 seed oysters and two oyster cages for propagation. Juvenile oysters will be gardened at docks in Brevard County, and finally relocated to restoration sites within the county. The oysters used in this project are not for human consumption. Their intended purpose is to be used for restoration efforts only.

Oysters:

Oyster spat will be purchased from Florida Oceanographic Society/Research Aquaculture Inc. at approximately 1/8-inch size (3mm). Spat purchased will be set on cured shell with approximately 10 spat set on each shell. Oyster spat will be the offspring of broodstock collected in Brevard County. Anticipated delivery of spat and distribution to volunteer gardeners is November 2016.

Volunteer Gardeners:

Volunteer coordination will be carried out by the Brevard Zoo. Citizens who register as oyster gardeners will attend scheduled workshops where they will receive educational materials and participate in cage

building. Each gardener will receive 2 cages, rope for suspension, gloves, scrub brushes, and an Oyster Gardening Manual. All oyster gardening materials are provided to participants at no charge.

After attending the workshops, oyster gardeners will secure their cages to their docks and await oyster distribution at a future date. Oyster spat on shell (in mesh bags) will be available for pick up at designated locations on distribution day (determined by the date spat will be delivered from hatchery). Each gardener will be advised to bring a container for transport of their oysters to their dock gardening sites. At each site, approximately 1000 oysters will be distributed evenly into cages, for a total of about 500 oysters per cage (50 shells with approximately 10 spat on each shell).

Gardener responsibilities will include keeping their cages clean and free of fouling organisms weekly. Gardeners will care for their oysters for a term of 6 -9 months. At the end of the oyster gardening term, the young adult oysters will be permanently relocated to reef sites at a size of approximately 1-3 inches (25-75mm). Reef sites will be selected during Task 5 of this project.

**ITEM 5. Deliverable 4: Summary report of Oyster Gardening task activities including number of workshop events, number of volunteer gardeners, estimated number of oyster spat distributed, and estimated number of live oysters returned.**

**Due Date/Performance Period: October 1, 2016 - September 30, 2017**

**Task 5. Pilot Oyster Reef Living Shorelines - Brevard County and Zoo**

Brevard County Natural Resources Management Department will prepare design documents and obtain all required permits for construction of 1,180 linear feet of oyster reef living shorelines along the IRL in Brevard County during FY16-17. The pilot sites will include living oyster reefs as wave breaks and native salt marsh vegetation as appropriate for design. Brevard County Natural Resources Management Department will contract with the Brevard Zoo for construction which includes volunteer coordination, site preparation, materials, hauling, and installation.

**ITEM 6. Deliverable 5: Summary report of Pilot Oyster Reef Living Shoreline installation activities including map of selected sites, acquired permits and design drawings.**

**Due Date/Performance Period: October 1, 2016 - September 30, 2017**

**Task 6. Final Report - UCF**

University of Central Florida will prepare a final report describing tasks completed during this project. The report will include a summary of UCF's assessment methodology and field challenges and successes.

The project scope, final GIS map of "stabilization suitability" and future plans for living shorelines will be featured on the County's website and posted on the Brevard County Natural Resources Management's Facebook page by County. The map, and information on living shorelines as an alternative and beneficial shoreline stabilization method, will also be presented by Brevard County and Zoo staff at Oyster Gardening Workshops held throughout the County.

V. TIME FRAMES and DELIVERABLES

ITEM 7. **Proposed Schedule:**

- **Task 1 - Shoreline Survey**  
**Deliverable 1:** Progress updates on field data collection: due on 12/31/16, 3/31/17 and 6/30/16.  
**Due Date/Performance Period:** Shoreline surveys should be complete and ready to enter into the model as of June 30, 2017.
  
- **Task 2 - Wind and Wave Analysis**  
**Deliverable 2:** Quarterly updates on wind and wave analysis protocol development due on 12/31/16, 3/31/17 and 6/30/17.  
**Due Date/Performance Period:** Development of wind and wave analysis should be completed by August 30, 2017.
  
- **Task 3 - GIS Mapping**  
**Deliverable 3:** GIS map of shorelines that includes data from Tasks 1 and 2, plus GIS map of shorelines that includes “stabilization suitability”.  
**Due Date/Performance Period:** GIS map of shorelines will be submitted by July 30, 2017. GIS map of shorelines including model-generated “shoreline suitability” will be submitted by September 30, 2017
  
- **Task 4 – Community Oyster Gardening:**  
**Deliverable 4:** Summary report of Oyster Gardening task activities including number of workshop events, number of volunteer gardeners, estimated number of oyster spat distributed, and estimated number of live oysters returned.  
**Due Date/Performance Period:** October 1, 2016 - September 30, 2017
  
- **Task 5 – Pilot Oyster Reef Living Shorelines**  
**Deliverable 5:** Summary report of Pilot Oyster Reef Living Shoreline installation activities including map of selected sites, acquired permits and design drawings.  
**Due Date/Performance Period:** October 1, 2016 - September 30, 2017
  
- **Task 6 – Final Report**  
**Deliverable 6:** Final Report  
**Due Date/Performance Period:** September 30, 2017

**VI. BUDGET**

**Project Budget including in-kind and cash match amounts and source of all funds.**

<b>Task Line Item</b>	<b>Task Description</b>	<b>IRL Funding Amount</b>	<b>Cost Share Funding Amount</b>	<b>Cost Share Funding Source (cash or in-kind)</b>
1	Shoreline Survey	\$70,937	\$0	
2	Wind and wave analysis	\$14,169	\$0	
3	GIS Map	\$13,511	\$0	
4	Oyster Gardening	\$0	\$150,000	Brevard County NRMD cash Match*
5	Pilot Oyster Reef Living Shorelines	\$0	\$30,000	SJRWMD Grant to NRMD
6	Final Report	\$1,260	\$0	
	Project Total Cost	\$99,877	\$180,000	<b>TOTAL: \$279,877</b>

\*Match funds are provided by Brevard County Natural Resources Management Department through cost share agreement #28256 with SJRWMD to construct living shoreline pilot projects along 1,180 feet of the IRL during FY 2016/17. The sites will include native salt marsh vegetation and living oyster reefs as wave breaks. Brevard County will fund \$150,000 of the project with a cost share from the SJRWMD of \$30,000.

**ATTACHMENT B — COUNCIL’S SUPPLEMENTAL INSTRUCTIONS (sample)**  
COUNCIL SUPPLEMENTAL INSTRUCTIONS #

DATE:

TO:

FROM: \_\_\_\_\_, Project Manager

CONTRACT/PURCHASE ORDER NUMBER:

CONTRACT TITLE:

The Work shall be carried out in accordance with the following supplemental instruction issued in accordance with the Contract Documents without change in the Contract Sum or Contract Time. Prior to proceeding in accordance with these instructions, indicate your acceptance of these instructions for minor changes to the work as consistent with the Contract Documents and return to the Council’s Project Manager.

1. CONTRACTOR’S SUPPLEMENTAL INSTRUCTIONS:
2. DESCRIPTION OF WORK TO BE CHANGED:
3. DESCRIPTION OF SUPPLEMENTAL INSTRUCTION REQUIREMENTS:

**Contractor’s approval: (choose one of the items below):**

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

(It is agreed that these instructions shall not result in a change in the Total Compensation or the Completion Date.)

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

(Contractor agrees to implement the Supplemental Instructions as requested, but reserves the right to seek a Change Order in accordance with the requirements of the Agreement.)

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_, Council Project Manager

Acknowledged: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_, Council Contracts Administrator

cc: Contract/Purchasing file