

2024 SOUTH FLORIDA WATER MANAGEMENT DISTRICT

INDIAN RIVER LAGOON LICENSE PLATE FUNDING AGREEMENT

Recipient: Martin County Board of

County Commissioners

Recipient's Project Manager:

Michael Yustin

Address: 2401 SE Monterey Road,

Stuart, FL 34996

Telephone No.: 772-220-7114

Agreement Number: 4600005036

PO Number: 95000_

Must reference above on all invoices.

District Funding Amount: \$60,000.00

SFWMD Project Manager: Matthew Biondolillo

Telephone No.: (561) 682-6312

Email: mbiondol@sfwmd.gov

Contract Specialist: Dora C. Dixon

Telephone No.: (561) 682-6420

Email: ddixon@sfwmd.gov

Address:

3301 Gun Club Road P.O. Box 24680 West Palm Beach. FL 33416-4680

Insurance: NA

Federal Employer Identification Number: 59-6000743

Project Title: Martin County Indian River Lagoon Restoration Project

Description: The purpose of this project is to use clams to assists in ongoing seagrass restoration efforts in Martin County. In particular, the project will involve the spawning and production of several species of clams in conjunction with planting in areas that historically contained dense populations of seagrass near the St. Lucie Inlet.

This **Agreement** is entered into between "the Parties", the South Florida Water Management **District**, (the "**District**"), and the undersigned Applicant, hereinafter referred to as the "**Recipient**". The **Recipient** 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 shall abide by all legal, financial, and reporting requirements, such as matching funds and final reports for all funding received by the **Recipient** from the **District**.

ARTICLE 1 – PROJECT

- 1.1 The **Recipient** shall, to the satisfaction of the **District**, fully and timely perform all work items described in the "Statement of Work," attached hereto as Exhibit "A", and made a part of this **Agreement.**
- 1.2 As part of the services to be provided by the **Recipient** under this **Agreement**, the **Recipient** shall substantiate, in whatever forum reasonably requested by the **District**, any supporting documentation utilized as a basis for payment by the **District**. This paragraph shall survive the expiration or termination of this **Agreement**.
- 1.3 Attached to this **Agreement** are the following exhibits which are incorporated herein:

Exhibit A: Statement of Work

Exhibit B: Payment and Deliverable Schedule

ARTICLE 2 - TERM OF THE AGREEMENT

- 2.1 The period of performance of this **Agreement** shall commence on the last date of execution of this **Agreement** and shall continue for a period of one (1) year.
- 2.2 The Parties agree that time is of the essence in the performance of each and every obligation under this **Agreement**.

ARTICLE 3 - COMPENSATION/CONSIDERATION

- 3.1 As consideration for the Project required by this Agreement, the District shall reimburse the Recipient an amount not to exceed the District Funding Amount specified on page one (1) of this Agreement. Such amount is contingent upon Recipient's documentation verifying actual expenditures of the invoiced amount for the District's reimbursement of seventy-five (75%) of the project costs and Recipient's documentation of at least twenty-five percent (25%) of the total project costs (match). Recipient's match may be documented by direct expenses and/or in-kind services. The District shall only be obligated to pay for documented actual expenditures within the not-to-exceed amount specified on the cover page of this Agreement and therefore, no additional consideration shall be authorized.
- 3.2 The **Recipient** assumes sole responsibility for all work, which shall be performed pursuant to Exhibit "A." By providing funding hereunder, the **District** does not make any warranty, guaranty, or any representation whatsoever regarding any of the work performed hereunder, including but not limited to the adequacy or sufficiency of all or any part of work described in Exhibit "A".

3.3 The **Recipient** hereby agrees that it shall use other sources of funding for all work associated with the design and permitting aspects of the Project. **District** funds shall only be used for the Project and tasks identified in Exhibit "A".

ARTICLE 4 – FUNDING PAYMENTS AND REPORTING

- 4.1 The **District** shall make payment to the **Recipient** upon completion and acceptance of the deliverable(s) as described in the "Payment and Deliverable Schedule", and receipt of a fully documented reimbursement package. The **Recipient's** reimbursement request package shall contain all backup documentation required to substantiate actual expenditures (see Attachment 1 to Exhibit "B"). The request shall include but is not limited to:
 - Recipient's invoice (include the District's Agreement Number and Purchase Order number);
 - Signed certification letter on **Recipient's** letterhead (signed by an authorized representative of the **Recipient**) that the Project has been completed in accordance with Exhibit "A" of this **Agreement**.
 - Tasks completed per the **Agreement** (if all tasks finished, a statement indicating that the project is completed per the **Agreement**); and
 - Vendor invoices/application for payment) for the **District Project Manager(s)** to ascertain that each deliverable in the invoice has been substantially complete.
- 4.2 The **Recipient's** invoice shall reference the **District's** Agreement Number and purchase order number and shall be emailed to APInvoice@sfwmd.gov or mailed to Accounts Payable at the following address:

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

The **Recipient** shall not submit an invoice to any other address at the **District** except as identified in article 4.3.

4.3 The **Recipient** shall submit the quarterly reports and all other deliverables, along with copies of all invoices, and documentation of the actual costs incurred and invoiced to the **District** for its 75% reimbursement and the **Recipient's** 25% match, to the Project Manager at the following address:

South Florida Water Management District ATTN: Matthew Biondilillo 3301 Gun Club Road West Palm Beach, FL 33406 Phone: 561-682-6312

Email: mbiondol@sfwmd.gov

4.4 The **District** shall have the right to inspect all work and review all reports before authorization of payment is made to the **Recipient**. It is the policy of the **District** that payment for all goods and services shall be made in a timely manner and that interest payments are made on late payments. In accordance with the applicable sections of Chapter 218 Florida Statues; Florida Prompt Payment Act, a "proper" invoice is defined as an invoice that conforms to all statutory requirements and all District requirements as set forth in the **Agreement** for invoice submission. The time at which payment shall be due from the **District** shall be forty-five (45) days from receipt of a proper invoice and acceptance of services and/or deliverables, based on compliance with the statutory requirements set forth in the applicable sections of Chapter 218 Florida Statutes and upon satisfaction of the **District** conditions as detailed in the **Agreement**.

Failure of the **Recipient** 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**.

Any disputes regarding invoice payments which cannot be resolved by the appropriate department of the **District** shall be concluded by final written decision of the District Procurement Bureau Chief not later than sixty (60) days after the date on which the proper invoice was received by the **District**.

ARTICLE 5 - PROJECT MANAGEMENT

- 5.1 The Parties shall direct all matters arising in connection with the performance of this **Agreement** to the attention of the Project Manager for attempted resolution or action. The Project Manager shall be responsible for overall coordination and oversight relating to the performance of this **Agreement**.
- 5.2 All notices, demands, or other communications to the **Recipient** under this **Agreement**, other than those set forth in paragraph 4.2 above, shall be in writing and shall be deemed received if sent by electronic mail, U.S. mail or overnight carrier, or otherwise required by law. The **Recipient** shall provide all notices to the persons listed on the cover page of this **Agreement**. All notices required to by this **Agreement** shall be considered delivered upon receipt.
- 5.3 Should either Party change its address, written notice of such new address shall promptly be sent to the other Party.
- 5.4 All correspondence to the **District** under this **Agreement** shall reference the **District's** Agreement Number.

ARTICLE 6 - INDEMNIFICATION AND INSURANCE

6.1 The following indemnification clause shall only be applicable to Investor-owned Utilities or Private Entities:

For value received, which is hereby acknowledged, the **Recipient** shall defend, indemnify, save and hold the **District**, its officers, directors, board members, agents, assigns, and employees, harmless from liabilities, damages, losses, and costs including, but not limited to reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentionally wrong

- conduct of the **Recipient** and other persons employed or utilized by the **Recipient** in the performance of the **Agreement**. The **District** shall have the right to approve counsel selected by the **Recipient** to defend the **District** in the event the **District** is named in any legal action.
- 6.2 Government entities will be responsible for their own acts of negligence up to the amounts in Section 768.28, Florida Statutes. The entity assumes any and all risks of personal injury, bodily injury and property damage attributable to negligent acts or omissions. This in no way means that an agency consents to be sued. It should warrant and represent that it is self-funded for Worker's compensation and liability insurance, covering at a minimum bodily injury, personal injury and property damage with protection being applicable to the officers, employees, servants and agents while acting within the scope of their employment during performance under this **Agreement**. It is further agreed 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; of (3) a waiver of sovereign immunity of the State of Florida beyond the wavier provided in Section 768.28, Florida Statues.
- 6.3 **LIABILITY/INSURANCE**: The **Recipient** shall investigate all claims of every nature at its expense. Each party is responsible for all personal injury and property damage attributable to the negligent acts of omissions of that party and the officers, employees and agents thereof. Nothing herein shall be construed as an indemnity or a waiver of sovereign immunity enjoyed by any party hereto, as provided in Section 768.28, Florida Statutes, as amended from time to time. or any other law providing limitations on claims.

ARTICLE 7 - TERMINATION/REMEDIES

- 7.1 It is the policy of the **District** to encourage good business practices by requiring recipients to materially perform in accordance with the terms and conditions of the **Agreement**. In accordance with **District** Rule 40E-7, Part II, Florida Administrative Code, "material breach" is defined as any substantial, unexcused non-performance by failing to perform an act that is an important part of the transaction or performing an act inconsistent with the terms and conditions of the **Agreement**.
 - If the **Recipient** materially fails to fulfill its obligations under this **Agreement**, the **District** will provide written notice of the deficiency by forwarding a Cure Notice citing the specific nature of the material breach. The **Recipient** shall have thirty (30) days to cure the breach. If the **Recipient** fails to cure the breach within the thirty (30) day period, the **District** shall issue a Termination for Default Notice. Once the **District** has notified the **Recipient** that it has materially breached its contract with the **District**, by sending a Termination for Default Notice, the **District's** Governing Board shall determine whether the **Recipient** should be suspended from doing future work with the **District**, and if so, for what period of time. The **District's** Governing Board may consider the factors detailed in Rule 40E-7, Part II, Florida Administrative Code in making a determination as to whether a **Recipient** should be suspended, and if so, for what period of time. Should the **District** terminate for default in accordance with this provision, the **District** shall be entitled to recover procurement costs in addition to all other remedies under law and/or equity.
- 7.2 The **District** may terminate this **Agreement** at any time for convenience upon thirty (30) calendar days prior written notice to the **Recipient**. The performance of work under this **Agreement** may be

terminated by the **District** in accordance with this clause in whole, or from time to time in part, whenever the **District** shall determine that such termination is in the best interest of the **District**. Any such termination shall be affected by delivery to the **Recipient** of a Notice of Termination specifying the extent to which performance of work under the **Agreement** is terminated, and the date upon which such termination becomes effective. In the event of termination for convenience, the **District** shall compensate the **Recipient** for all authorized and accepted work performed through the termination date. The **District** shall be relieved of any and all future obligations hereunder, including but not limited to, lost profits and consequential damages under this **Agreement**. The **District** may withhold all payments to the **Recipient** for such work until such time as the **District** determines the exact amount due to the **Recipient**.

7.3 In the event a dispute arises, which the Project Managers cannot resolve between themselves, the Parties shall have the option to submit to non-binding mediation. The mediator or mediators shall be impartial, shall be selected by the Parties, and the cost of the mediation shall be borne equally by the Parties. The mediation process shall be confidential to the extent permitted by law.

ARTICLE 8 - RECORDS RETENTION

- 8.1 The **Recipient** shall maintain records and the **District** shall have inspection and audit rights as follows:
 - A. Maintenance of Records. The **Recipient** 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 completing performance and receiving final payment under this **Agreement**.
 - B. Examination of Records. The **District** or its 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 date of final payment under this **Agreement** and upon reasonable notice, time and place.
 - 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 **Recipient** shall extend the period of maintenance for all records relating to the **Agreement** until the final disposition of the legal dispute, and all such records shall be made readily available to the **District**.

8.2 Public Records

A. Compliance with Florida Laws: Recipient must provide public access to all records concerning this Agreement according to applicable Florida laws including Chapter 119, Florida Statutes. If Recipient asserts any exemptions to Florida's public records laws, Recipient has the burden of establishing and defending the exemption. Recipient's failure to comply with this section is a breach of this Agreement.

- B. Recordkeeping and Public Access: Under the applicable sections of Chapter 119, Florida Statutes a request to inspect or copy public records relating to a District contract for services must be made directly to the District. In addition, Recipient must: (1) keep and maintain public records required by the District in order to perform the service; (2) upon request from the District's custodian of public records, provide the District with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law; (3) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement if the Recipient does not transfer the records to the District; and (4) transfer, at no cost, to the District, all public records in possession of the Recipient or keep and maintain public records required by the District to perform the service. If the Recipient transfers all public records to the District upon completion of the Agreement, the **Recipient** shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the **Recipient** keeps and maintains public records upon completion of the Agreement, the Recipient shall meet all applicable requirements for retaining the public records. All records stored electronically must be provided to the District upon request from the District's custodian of public records, in a format that is compatible with the information technology systems of the District. At the conclusion of the Agreement with the District, Recipient shall provide all applicable records associated with this Agreement on electronic media (CD-ROM or USB flash drive).
- QUESTIONS REGARDING IF THE RECIPIENT HAS THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE RECIPIENT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT **TELEPHONE** NUMBER (561) 682-2729. **EMAIL** ADDRESS PUBLICRECORDS@SFWMD.GOV AND MAILING ADDRESS: 3301 GUN CLUB ROAD, WEST PALM BEACH, FL 33406.

ARTICLE 9 - STANDARDS OF COMPLIANCE

- 9.1 The **Recipient**, 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 **Recipient**, upon request, as to any such laws of which it has present knowledge.
- 9.2 The laws of the State of Florida shall govern all aspects of this **Agreement**. The exclusive venue for any dispute(s) arising out of or related to this **Agreement** shall be in a court of competent jurisdiction located in Palm Beach County, Florida.
- 9.3 Pursuant to the applicable sections of Chapter 216, Florida Statutes, the **Recipient** is prohibited from the expenditure of any funds under this **Agreement** to lobby the Legislature, the judicial branch, or state agency.

- 9.4 The Recipient shall allow public access to all Project documents and materials in accordance with the provisions of Chapter 119 of the Florida Statutes. Should the Recipient 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 Recipient
- 9.5 The **Recipient** shall obtain, at its sole expense, all necessary licenses, authorizations and permits from the appropriate private party or federal, state, municipal or local agency, and other governmental approvals, prior to commencing performance of this **Agreement**. A delay in obtaining permits shall not give rise to a claim by the **Recipient** for additional compensation. If the **Recipient** is unable to obtain all necessary permits in a timely manner, either party may elect to terminate this **Agreement**, each party to bear its own costs, notwithstanding other provisions of this **Agreement** to the contrary.
- 9.6 The **Recipient** hereby assures 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 is otherwise subjected to discrimination in any activity under this **Agreement**. The **Recipient** shall take all measures necessary to effectuate these assurances.
- 9.7 The Recipient is hereby authorized to contract with third parties (subcontracts) for services awarded through a competitive process required by Florida Statutes. The Recipient shall not subcontract, assign or transfer any other work under this Agreement without the prior written consent of the District's Project Manager. The Recipient 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 Recipient that the District shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract(s).
- 9.7 Pursuant to Section 287.133 of the Florida Statutes, a person or affiliate who has been placed on the convicted vendor list may not submit a bid, proposal, or reply to a request to provide any goods or services related to the construction of the Project contemplated herein. **Recipient** also assures that it is not on the District's Suspension of Contractors List. **Recipient** agrees to include a provision to this effect in all requests for proposals and subcontracts related to construction of this project.
- 9.8 **Scrutinized Companies.** Recipient shall comply with section 287.135, Florida Statutes. The Recipient further understands and accepts that this **Agreement** shall be either void by the **District** or subject to immediate termination by the **District** in the event there is any misrepresentation or false certification on the part of the Recipient. The **District**, in the event of such termination, shall not incur any liability to the Recipient for any work or materials furnished.
- 9.9 Antitrust Violations. Recipient must comply with Section 287.137, Florida Statutes. A Recipient or an affiliate who has been placed on the antitrust violator vendor list following a conviction or being held civilly liable for an antitrust violation may not be awarded or perform work as a Recipient under an Agreement with the District.

ARTICLE 10 - RELATIONSHIP BETWEEN THE PARTIES

- 10.1 The Recipient shall be considered an independent contractor and neither party shall be considered an employee or agent of the other party. Nothing in this Agreement shall be interpreted to establish any relationship other than that of an independent contractor between the parties and their respective employees, agents, subcontractors, or assigns, during or after the performance on this Agreement. Both parties are free to enter into contracts with other parties for similar services.
- 10.2 The **Recipient** shall not assign, delegate, or otherwise transfer its rights and obligations as set forth in this **Agreement** without the prior written consent of the **District**. Any attempted assignment in violation of this provision shall be null and void.
- 10.3 It is the intent and understanding of the Parties that this Agreement is solely for the benefit of the Recipient and the District. No person or entity other than the Recipient or the District shall have any rights or privileges under this Agreement in any capacity whatsoever, either as third-party beneficiary or otherwise.

ARTICLE 11 - GENERAL PROVISIONS

- 11.1 Notwithstanding any provisions of this **Agreement** to the contrary, the Parties shall not be held liable for any failure or delay in the performance of this **Agreement** that arises from fires, floods, strikes, embargoes, acts of the public enemy, unusually severe weather, outbreak of war, restraint of Government, riots, civil commotion, force majeure, act of God, or for any other cause of the same character which is unavoidable through the exercise of due care and beyond the control of the Parties. Failure to perform shall be excused during the continuance of such circumstances, but this **Agreement** shall otherwise remain in effect. This provision shall not apply if the "Statement of Work" of this **Agreement** specifies that performance by the **Recipient** is specifically required during the occurrence of any of the events herein mentioned.
- 11.2 Any inconsistency in this **Agreement** shall be resolved by giving precedence in the following order:
 - (a) Terms and Conditions outlined in Articles 1-11
 - (b) Exhibit "A" Statement of Work
 - (c) All other exhibits, attachments, and documents specifically incorporated herein by reference
- 11.3 Failures or waivers to insist on strict performance of any covenant, condition, or provision of this Agreement by the Parties, their successors and assigns 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.
- 11.4 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.
- 11.5 This **Agreement** may be amended only with the written approval of the Parties.

- 11.6 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, email or facsimile copy of this Agreement and any signatory hereon shall be considered for all purposes as original.
- 11.7 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**. The **Recipient** recognizes that any representations, statements or negotiations made by **District** staff do not suffice to legally bind the **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. This **Agreement** may be amended only with the written approval of the Parties.

IN WITNESS WHEREOF, the Parties or their duly authorized representatives hereby execute this **Agreement** on the date written below.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

	Candida Heater, Director Administrative Services Division
Date	e:
SFWMD Procurement Approved By: Date: 07/26/2024	

MARTIN COUNTY BOARD OF COUNTY COMMISSIONERS

By: _	ee next page for signatures		
	Authorized Official		
Title:			
Date			

ATTEST:	BOARD OF COUNTY COMMISSIONERS MARTIN COUNTY, FLORIDA
CAROLYN TIMMANN, CLERK OF THE CIRCUIT COURT AND COMPTROLLER	HAROLD E. JENKINS II, CHAIRMAN
	APPROVED AS TO FORM & LEGAL SUFFICIENCY
	SARAH W. WOODS, COUNTY ATTORNEY

EXHIBIT "A" STATEMENT OF WORK Martin County Indian River Lagoon Restoration Project

INTRODUCTION

Over the last 10 years, seagrass populations have declined throughout the Indian River Lagoon (IRL) due to poor water quality and algal blooms. In the Southern IRL, several years of Lake Okeechobee discharges and poor water quality, caused seagrass to decline by 50% from 2015 to 2017, likely due to reduced salinities and decreased light availability (Kahn A., 2018). Seagrass habitats provide food to grazing herbivores, shelter and nursery grounds for juvenile fishes and invertebrates, stabilizes sediments and improves water quality through absorbing pollutants. Seagrass habitats are the backbone of the IRL, supporting high biodiversity in this coastal ecosystem. The decline in seagrass culminated in the loss of 840 manatees during the winter/spring of 2021 in the IRL. Manatee starvation because of a lack of food was the primary driver of this mortality event (FWRI, 2022). Due to the scale of decline and the importance of seagrass habitat, a major focus of resource management agencies is to restore seagrass habitat throughout the IRL. Most of these projects focus on plantings in areas that previously supported meadows, however they don't consider the environmental conditions that caused the loss of seagrass in the first place.

Martin County currently has funding in place to carry out a seagrass restoration and planting project in the Southern IRL. The County takes the position that to restore seagrass habitat, it is also necessary to improve conditions in the water column and the sediments. For that reason, the seagrass restoration project will have a strong research component. Elements of that project include planting seagrass, removing a benthic cyanobacteria (*Lyngbya spp.*) that is carpeting seagrass meadows, conducting a seedbank analysis and monitoring conditions within the sediments and water column. As the overarching goal of the project is to try a wide assortment of different restoration strategies in hopes of guiding future restoration efforts, the proposal described here seeks to add two types of clam co-restoration to the endeavor.

Recently, interest in using clam species in co-restoration with seagrass has been increasing due to the positive benefits these clams can provide to seagrass via water and sediment quality enhancements (Gagnon et al. 2019). For example, resource managers have been experimenting with co-restoring seagrass habitat with commercially significant hard clams (M. mercenaria and M. campechiensis). These clams benefit seagrass populations by enhancing filtration, removing algae, and transferring of nutrients from water to sediments (Carroll et al. 2008, Wall et al. 2008). Another emerging area of research has been focused on the potential of clams from the family Lucinidae to have a positive influence on seagrass survival, particularly under stressful environmental conditions (Chin et al. 2021). These clams harbor chemosynthetic bacteria in their gills, which synthesize sugars using sulfides in sediments to sustain and fuel growth for the clam (Cavanaugh 1983). Research has shown that the presence of these clams results in lower porewater sulfide concentrations in seagrass sediments, increasing seagrass growth and survival by removing a toxin that is particularly damaging to seagrass during periods of poor water clarity, extreme high or low salinity, and other non-optimal conditions (Reynolds et al. 2007, Van der Heide et al. 2012, Chin et al. 2021). In essence, these clams detoxify sediments and help to protect seagrass during times of high plant stress. However, despite the potential of lucinid clams to increase seagrass survival, there has been very little research on propagation and utilization of these clams in restoration. The purpose of this grant application will be to fund the spawning, rearing and release of a species of Lucinid (Divalinga quadrisulcata) and along with the Veneridid (Mercenaria campechiensis) in conjunction with seagrass plantings that will be occurring in the next year. The County is partnering with the Great Florida Shellfish Company, a local hatchery servicing the IRL on this project. This project will represent the first time that Divalingas have been spawned in a commercial aquaculture setting.

2.0 BENEFITS TO THE IRL

Healthy and resilient seagrass habitat is vital to the IRL because it is the basis of estuarine food chains and is critical to biodiversity. This project will serve as a proof of concept or pilot project that will help guide long-term restoration strategies not only within Martin County but throughout the IRL and beyond. It will pioneer the use of a new family of clams that has shown promise, but that has not been utilized in past seagrass restoration projects. It will also expand the use of *Mercenaria spp.* clams in the Southern IRL.

3.0 LOCATION OF PROJECT

Please see attached map for the project location. The project will focus on a 100-acre area roughly a half mile north of the St. Lucie Inlet. The project is northwest of Sailfish Point/ Bathtub Beach, east of the Intracoastal Waterway and 1-2 miles south of the Stuart Causeway. The focal area will also be just east of SFWMD long term seagrass monitoring plots. The target area has excellent tidal flushing and historically housed some of the most robust seagrass meadows found within Martin County.

4.0 SCOPE OF WORK

The main purpose of this project will be to spawn, rear, and release one species of lucinid clam (*Divalinga quadrisulcata*) and one species of hard clam (*M. campechiensis*) in conjunction with a larger seagrass restoration project in the Southern IRL. One million of each species will be produced and released during the project. *D. quadrisulcata* has been chosen because it is one of the most common Lucinid species in the seagrass meadows of the Southern IRL. The cultured Lucinid clams and *M. campechiensis* will be released into the County's restoration planting areas. Matching funds will be used for seagrass planting in the restoration project area.

5.0 WORK BREAKDOWN STRUCTURE

Task 1: Clam Collection - Multiple collection events will be needed to gather enough *D. quadrisulcata* for potential spawning. The County has identified a donor site for one species of Lucinid clam (*D. quadrisulcata*) near the St. Lucie Inlet. The *M. campechiensis*. will be collected from the Sebastian Inlet area.

Deliverable 1: A report will be generated highlighting the number of clams collected, their size and the location where they were found.

Task 2: Clam spawning and rearing - Once collected the clams will be taken to the hatchery and inspected to determine their ability to spawn. If they are not ready to spawn, they will be placed into a conditioning system where they are maintained at a specific temperature and will be provided with their symbionts. Once the spawn occurs the eggs will be collected and fertilized, then placed into a larval rearing system where they are drained and fed daily through the larval stage.

When the larval stage ends, the animals will be set in a downwelling raceway system where they are fed, drained, and sized each day until they are ready to move on to the next stage of growth. Each phase of development requires the best possible water quality and symbiont availability to ensure high survival rates and proper development. It is expected that the Lucinid clams will take between 8 to 12 weeks to reach a 1 mm size in the hatchery facility. Upon reaching that size, they will be moved to a nursery system where they can be grown larger in the estuary. It may take an additional 4 to 6 weeks to reach a 4 mm size depending on water temperatures. The goal will be to produce at least 1 million of each species.

Deliverable 1: A report will be generated documenting the methodology and the number of clams produced through the process.

Task 3: Clam release – Once ready, the *D. quadrisulcata* and *M. campechiensis* clams will be released into the seagrass restoration areas. The clams will be released across 10-acres of the restoration area at a density of 100,000 of each clam per acre.

Deliverable 1: A report will be generated documenting the locations and the methodologies for the clam release events.

Literature cited:

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Van der Heide, T., Govers, L. L., de Fouw, J., Olff, H., van der Geest, M., van Katwijk, M. M., ... van Gils, J. A. (2012). A three-stage symbiosis forms the foundation of seagrass ecosystems. *Science*, 336(6087), 1432–1434. https://doi.org/10.1126/science.1219973

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Location Map of Clam/Seagrass Restoration Areas



EXHIBIT "B" TASK & DELIVERABLE SCHEDULE

Recipient may invoice the District requesting a reimbursement of 75% of the total costs to complete each deliverable within the not-to-exceed maximum amount shown below. Payment is contingent upon the Recipient providing documentation with each invoice showing actual expenditures, including its minimum 25% cost share, as well as providing the deliverables as described in the Payment and Deliverable Schedule. The District shall only be obligated to reimburse for documented actual expenditures within the not-to-exceed amounts specified below.

All deliverables submitted hereunder are subject to review and acceptance by the District. Acceptability of all work will be based on the judgment of the District that the work is technically complete and accurate.

The Recipient shall be responsible for submitting Quarterly Reports starting after the first quarter following Agreement execution to the SFWMD Project Manager. The Recipient shall deliver to SFMWD a complete set of deliverables for this task including a summary sheet of all invoices paid for each period. The Recipient shall be responsible for all aspects of managing and completing the project as described in Exhibit "A".

TASK	DELIVERABLES (quarterly and final reports)	SCHEDULE (time from contract execution)	Not-to-exceed amount
1	Collection of Claims	1 – 2 months	\$5,000.00
2	Spawning and rearing of clams	2 – 8 months	\$45,000.00
3	Clam release	8 – 10 months	\$10,000.00
4	Final report	10 – 12 months	\$0.00
		TOTAL:	\$60,000.00

Attachment 1 Documentation Required for all Contract Payments

Listed below are the minimum requirements for documentation to support invoice payment requests. Additional requirements may be in effect for this contract depending on the source of funds for this work.

Contractors and Recipients performing work must maintain accurate books, records, documents and other evidence that sufficiently and properly support all direct and indirect costs expended in the performance of the contract or agreement. The Contractor or Recipient shall allow the District, Federal, State, or other parties providing contract funding, access to periodically inspect, review or audit such documents as books, vouchers, records, reports, canceled checks, payroll registers or any and all similar material as deemed necessary. These records shall be maintained for five years following the close of the contract or agreement.

Project deliverables and services performed by the Contractor or Recipient should be in a proper and satisfactory manner as described in the Statement of Work. Only Contractor or Recipient expenditures for goods, services and other deliverables falling within the categories agreed to pursuant to the Statement of Work and approved contract budget should be paid. All costs should be reasonable, appropriate, necessary, valid and eligible. Expenditures should be made in accordance with applicable laws, rules and regulations and complete (transactions are documented, and all funds are accounted for).

Expenditures for periods prior to the current billing period will only be approved if supported by adequate documentation along with a written explanation as to why the expense was not submitted during the correct billing period.

Expenditures for work performed prior to the execution of an agreement are not allowable unless specifically provided for in the contract.

Invoices for fixed unit rate contracts must show the number of service units being billed, the cost per unit, and be in agreement with contract terms and conditions.

<u>In detail</u>, invoices and the documentation accompanying invoices for services under contracts which are not fixed price must include the following:

1. The beginning and end date of the work period being invoiced should be specified on all contractor, Recipient and subcontractor invoices. The invoice date and the date of services and deliverables provided should not precede the date that a contract was executed unless specifically provided for in the contract. Similarly, the end date of contracts and related agreements should not be exceeded in terms of invoice dates, services, etc. without the execution of a contract amendment. Deliverables should be specifically quantifiable, measurable, and verifiable. The completion of all tasks/services included in the Statement of Work should be required to meet all deliverables prior to approval for final Contractor or Recipient payment.

- 2. Detailed description of material purchased, work completed, and/or service performed, in direct relation to each project or project component, along with project name or number should be provided.
- 3. Supporting documentation for each invoice should be complete, mathematically accurate, sufficient in detail, and verifiable.
 - a. The invoicing of labor costs, if applicable, should be accompanied by documentation supporting the pay rate and the employees' job title along with approved timesheets covering the period of service. Pay rates and job titles must agree to rates and job titles specified in the contract. Summary schedules should be supported by detailed records totaling the amounts on the summary schedule. The Contractor or Recipient must maintain and provide upon request the relevant payroll register pages covering the period of service.
 - b. If the contract specifies that indirect costs may be charged based on a specified rate, then the calculation must be provided. In the absence of this indirect costs will not be allowable.
 - c. Purchases or rental of commodities such as materials, equipment, tools, etc. should be accompanied by an invoice or receipt from the supplier that describes what was purchased, the date of purchase, the number of units, and the cost per unit. Purchases should be allowable per the agreement, directly related to the scope of work, reasonable and within the agreement period.
 - d. Invoices for services provided should be in sufficient detail as to determine 1) what was provided (to determine how it relates to the overall contract); 2) when the services were provided (to determine whether the amounts being billed pertain to the correct period); 3) the unit price and total cost of what was provided (to determine whether it's reasonable given the task performed); and 4) minimum performance standards were achieved in accordance with contract requirements and expectations.
 - e. Vehicle and/or equipment allowance and usage charges should be reported in detail by number of hours used and dates of use. Contractors/Recipients must maintain documentation by use of a log that shows the vehicle/equipment description, the location where the item was in use, if a vehicle it should show the beginning and ending odometer readings along with total mileage and if a piece of equipment it should show the beginning and ending times that the equipment was in use for and who the operators were. A copy of the log for the applicable time frame must be submitted with the invoice package. Usage of vehicles and equipment should be reasonable based on the task being performed and agree to the rates as specified in the contract.
 - f. The requirements above also apply to subcontractors.