

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2019	2020	2021	2022	2023
Capital Expenditures	_____	_____	_____	_____	_____
Operating Costs	<u>\$41,499</u>	<u>\$58,668</u>	<u>\$17,169</u>	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	<u>\$41,499</u>	<u>\$58,688</u>	<u>\$17,169</u>	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

Is Item Included in Current Budget? Yes X No _____

Does this item include the use of federal funds? Yes _____ No X

Budget Account No.:

Fund 1224 Department 380 Unit 3057 Object 3401 Program Lwlp/Monitoring
Project

B. Recommended Sources of Funds/Summary of Fiscal Impact:
Vessel Registration Fees - Environmental Enhancement – Saltwater

C. Department Fiscal Review: *S. Henry*

III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Dev. and Control Comments:

[Signature] 11/6/18
OFMB *[Signature]* for Kevin Jackson, FZ
Contract Development and Control
11/6/18 *[Signature]*

B. Legal Sufficiency:

Anne Deland 11-7-18
Assistant County Attorney

C. Other Department Review:

Department Director

CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES

This Contract is made as of the _____ day of _____, 20____, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and Florida Fish & Wildlife Conservation Commission, Fish & Wildlife Research Institute, a State Agency authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. is 59-3105845.

In consideration of the mutual promises contained herein, the COUNTY and the CONSULTANT agree as follows:

ARTICLE 1 - SERVICES

The CONSULTANT'S responsibility under this Contract is to provide professional/consultation services in the area of fisheries monitoring, as more specifically set forth in the Scope of Work detailed in Exhibit "A".

The COUNTY'S representative/liaison during the performance of this Contract shall be Deborah Drum, Director Environmental Resources Management, telephone no. (561) 233-2400.

The CONSULTANT'S representative/liaison during the performance of this Contract shall be Ashley Ross, Grant Administrator, telephone no. (727) 502-4783.

ARTICLE 2 - SCHEDULE

The CONSULTANT shall commence services upon execution of this Contract and complete all services by July 29, 2021.

Reports and other items shall be delivered or completed in accordance with the detailed schedule set forth in Exhibit "A".

ARTICLE 3 - PAYMENTS TO CONSULTANT

- A. The total amount to be paid by the COUNTY under this Contract for all services described in the Scope of Work Exhibit A shall not exceed a total contract amount of one hundred seventeen thousand three hundred thirty six dollars and 00/100 Dollars (\$117,336.00). The CONSULTANT will bill the COUNTY on a deliverable basis, at the amounts set forth in Exhibit "B" for services rendered toward the completion of the Scope of Work. Where incremental billings for partially completed items are permitted, the total billings shall not exceed the estimated percentage of completion as of the billing date.
- B. Invoices received from the CONSULTANT pursuant to this Contract will be reviewed and approved by the COUNTY's representative, to verify that services have been rendered in conformity with the Contract. Approved invoices will then be sent to the Finance Department for payment. Invoices will normally be paid within thirty (30) days following the COUNTY representative's approval.
- C. Final Invoice: In order for both parties herein to close their books and records, the CONSULTANT will clearly state "final invoice" on the CONSULTANT'S final/last billing to the COUNTY. This shall constitute CONSULTANT'S certification that all services have been properly performed and all charges and costs have been invoiced to Palm Beach County. Any other charges not properly included on this final invoice are waived by the

CONSULTANT.

ARTICLE 4 – IN-KIND SERVICES

The Consultant will provide in-kind services of \$41,367. Comprising of two staff: includes field time, lab time, and analysis and reporting: (\$31,819 total personnel costs), all nets (Equipment and supplies: (\$5,401), and travel costs (\$4,147) as more particularly described in Exhibit A.

ARTICLE 5 - TRUTH-IN-NEGOTIATION CERTIFICATE

Signature of this Contract by the CONSULTANT shall also act as the execution of a truth-in-negotiation certificate certifying that the wage rates, over-head charges, and other costs used to determine the compensation provided for in this Contract are accurate, complete and current as of the date of the Contract and no higher than those charged the CONSULTANT'S most favored customer for the same or substantially similar service.

The said rates and costs shall be adjusted to exclude any significant sums should the COUNTY determine that the rates and costs were increased due to inaccurate, incomplete or noncurrent wage rates or due to inaccurate representations of fees paid to outside consultants. The COUNTY shall exercise its rights under this Article 4 within three (3) years following final payment.

ARTICLE 6 - TERMINATION

This Contract may be terminated by the CONSULTANT upon sixty (60) days' prior written notice to the COUNTY in the event of substantial failure by the COUNTY to perform in accordance with the terms of this Contract through no fault of the CONSULTANT. It may also be terminated, in whole or in part, by the COUNTY, with cause upon five (5) business days written notice to the CONSULTANT or without cause upon ten (10) business days written notice to the CONSULTANT. Unless the CONSULTANT is in breach of this Contract, the CONSULTANT shall be paid for services rendered to the COUNTY'S satisfaction through the date of termination. After receipt of a Termination Notice, except as otherwise directed by the COUNTY, in writing, the CONSULTANT shall:

- A. Stop work on the date and to the extent specified.
- B. Terminate and settle all orders and subcontracts relating to the performance of the terminated work.
- C. Transfer all work in process, completed work, and other materials related to the terminated work to the COUNTY.
- D. Continue and complete all parts of the work that have not been terminated.

ARTICLE 7 - PERSONNEL

The CONSULTANT represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the COUNTY.

All of the services required hereinunder shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the services shall be fully qualified and, if

required, authorized or permitted under state and local law to perform such services.

Any changes or substitutions in the CONSULTANT'S key personnel, as may be listed in Exhibit "A", must be made known to the COUNTY'S representative and written approval must be granted by the COUNTY'S representative before said change or substitution can become effective.

The CONSULTANT warrants that all services shall be performed by skilled and competent personnel to the highest professional standards in the field.

All of the CONSULTANT'S personnel (and all Subcontractors), while on County premises, will comply with all COUNTY requirements governing conduct, safety and security.

ARTICLE 8 - SUBCONTRACTING

The CONSULTANT agrees that it shall not subcontract any of the services to be provided under this Contract.

ARTICLE 9 - FEDERAL AND STATE TAX

The COUNTY is exempt from payment of Florida State Sales and Use Taxes. The COUNTY will sign an exemption certificate submitted by the CONSULTANT. The CONSULTANT shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the COUNTY, nor is the CONSULTANT authorized to use the COUNTY'S Tax Exemption Number in securing such materials.

The CONSULTANT shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this contract.

ARTICLE 10 - AVAILABILITY OF FUNDS

The COUNTY'S performance and obligation to pay under this contract for subsequent fiscal years are contingent upon annual appropriations for its purpose by the Board of County Commissioners.

ARTICLE 11 - INSURANCE

Without waiving the right to sovereign immunity as provided by *s.768.28 f.s.*, CONSULTANT acknowledges to be self-insured for liability under Florida sovereign immunity statutes with coverage limits of \$200,000 Per Person and \$300,000 Per Occurrence; or such monetary waiver limits that may change and be set forth by the legislature.

In the event CONSULTANT maintains third-party liability in lieu of exclusive reliance of self-insurance under *s.768.28 f.s.*, CONSULTANT shall agree to maintain said insurance policies at limits not less than \$500,000 per occurrence.

CONSULTANT agrees to maintain or to be self-insured for Worker's Compensation in accordance with Florida Statute 440.

Upon request, CONSULTANT shall provide an affidavit or Certificate of Insurance evidencing insurance, self-insurance and/or sovereign immunity status

Compliance with the foregoing requirements shall not relieve CONSULTANT of its liability and obligations under this Agreement.

ARTICLE 12 - INDEMNIFICATION

Each party shall be liable for its own actions and negligence. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, Florida Statutes, nor shall the same be construed to constitute agreement by either party to indemnify the other party for such other party's negligent, willful or intentional acts or omissions.

ARTICLE 13 - SUCCESSORS AND ASSIGNS

The COUNTY and the CONSULTANT each binds itself and its partners, successors, executors, administrators and assigns to the other party and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Contract. Except as above, neither the COUNTY nor the CONSULTANT shall assign, sublet, convey or transfer its interest in this Contract without the prior written consent of the other.

ARTICLE 14 - REMEDIES

This Contract shall be governed by the laws of the State of Florida. Any legal action necessary to enforce the Contract will be held in a court of competent jurisdiction located in Palm Beach County, Florida. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity, by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

No provision of this Contract is intended to, or shall be construed to, create any third party beneficiary or to provide any rights to any person or entity not a party to this Contract, including but not limited to any citizen or employees of the COUNTY and/or CONSULTANT.

ARTICLE 15 - CONFLICT OF INTEREST

The CONSULTANT represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Chapter 112, Part III, Florida Statutes, and the Palm Beach County Code of Ethics. The CONSULTANT further represents that no person having any such conflict of interest shall be employed for said performance of services.

The CONSULTANT shall promptly notify the COUNTY's representative, in writing, by certified mail, of all potential conflicts of interest of any prospective business association, interest or other circumstance which may influence or appear to influence the CONSULTANT'S judgement or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONSULTANT may undertake and request an opinion of the COUNTY as to whether the association, interest or circumstance would, in the opinion of the COUNTY, constitute a conflict of interest if entered into by the CONSULTANT. The COUNTY agrees to notify the CONSULTANT of its opinion by certified mail within thirty (30) days of receipt of notification by the CONSULTANT. If, in the opinion of the COUNTY, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONSULTANT, the COUNTY shall so state in the notification and the CONSULTANT shall, at its option, enter into said association, interest or circumstance and it shall be deemed not in conflict of interest with respect to services provided to the COUNTY by the CONSULTANT under the terms of this Contract.

ARTICLE 16 - EXCUSABLE DELAYS

The CONSULTANT shall not be considered in default by reason of any failure in performance if such failure arises out of causes reasonably beyond the control of the CONSULTANT or its subcontractors and without their fault or negligence. Such causes include, but are not limited to, acts of God, force majeure, natural or public health emergencies, labor disputes, freight embargoes, and abnormally severe and unusual weather conditions.

Upon the CONSULTANT'S request, the COUNTY shall consider the facts and extent of any failure to perform the work and, if the CONSULTANT'S failure to perform was without it or its subcontractors fault or negligence, the Contract Schedule and/or any other affected provision of this Contract shall be revised accordingly, subject to the COUNTY'S rights to change, terminate, or stop any or all of the work at any time.

ARTICLE 17 - ARREARS

The CONSULTANT shall not pledge the COUNTY'S credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgement, lien, or any form of indebtedness. The CONSULTANT further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Contract.

ARTICLE 18 - DISCLOSURE AND OWNERSHIP OF DOCUMENTS

The CONSULTANT shall deliver to the COUNTY's representative for approval and acceptance, and before being eligible for final payment of any amounts due, all documents and materials prepared by and for the COUNTY under this Contract.

To the extent allowed by Chapter 119, Florida Statutes, all written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the COUNTY or at its expense will be kept confidential by the CONSULTANT and will not be disclosed to any other party, directly or indirectly, without the COUNTY'S prior written consent unless required by a lawful court order. All drawings, maps, sketches, programs, data base, reports and other data developed, or purchased, under this Contract for or at the COUNTY'S expense shall be and remain the COUNTY'S property and may be reproduced and reused at the discretion of the COUNTY.

All covenants, agreements, representations and warranties made herein, or otherwise made in writing by any party pursuant hereto, including but not limited to any representations made herein relating to disclosure or ownership of documents, shall survive the execution and delivery of this Contract and the consummation of the transactions contemplated hereby.

Notwithstanding any other provision in this Contract, all documents, records, reports and any other materials produced hereunder shall be subject to disclosure, inspection and audit, pursuant to the Palm Beach County Office of the Inspector General, Palm Beach County Code, Sections 2-421 - 2-440, as amended.

ARTICLE 19 - INDEPENDENT CONTRACTOR RELATIONSHIP

The CONSULTANT is, and shall be, in the performance of all work services and activities under this Contract, an Independent Contractor, and not an employee, agent, or servant of the COUNTY.

All persons engaged in any of the work or services performed pursuant to this Contract shall at all times, and in all places, be subject to the CONSULTANT'S sole direction, supervision, and control. The CONSULTANT shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the CONSULTANT'S relationship and the relationship of its employees to the COUNTY shall be that of an Independent Contractor and not as employees or agents of the COUNTY.

The CONSULTANT does not have the power or authority to bind the COUNTY in any promise, agreement or representation.

ARTICLE 20 - CONTINGENT FEES

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Contract and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this Contract.

ARTICLE 21 - ACCESS AND AUDITS

The CONSULTANT shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least three (3) years after completion or termination of this Contract. The COUNTY shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CONSULTANT'S place of business.

Palm Beach County has established the Office of the Inspector General in Palm Beach County Code, Section 2-421 - 2-440, as may be amended. The Inspector General's authority includes but is not limited to the power to review past, present and proposed County contracts, transactions, accounts and records, to require the production of records, and to audit, investigate, monitor, and inspect the activities of the CONSULTANT, its officers, agents, employees, and lobbyists in order to ensure compliance with contract requirements and detect corruption and fraud.

Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be in violation of Palm Beach County Code, Section 2-421 - 2-440, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

ARTICLE 22 - NONDISCRIMINATION

The COUNTY is committed to assuring equal opportunity in the award of contracts and complies with all laws prohibiting discrimination. Pursuant to Palm Beach County Resolution R2017-1770, as may be amended, the CONSULTANT warrants and represents that throughout the term of the Contract, including any renewals thereof, if applicable, all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, gender identity or expression, or genetic information. Failure to meet this requirement shall be considered default of the Contract.

ARTICLE 23 - AUTHORITY TO PRACTICE

The CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business, and that it will at all times conduct its

business activities in a reputable manner. Proof of such licenses and approvals shall be submitted to the COUNTY's representative upon request.

ARTICLE 24 - SEVERABILITY

If any term or provision of this Contract, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this Contract, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Contract shall be deemed valid and enforceable to the extent permitted by law.

ARTICLE 25- PUBLIC ENTITY CRIMES

As provided in F.S. 287.132-133, by entering into this contract or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by F.S. 287.133(3)(a).

ARTICLE 26 - MODIFICATIONS OF WORK

The COUNTY reserves the right to make changes in Scope of Work, including alterations, reductions therein or additions thereto. Upon receipt by the CONSULTANT of the COUNTY'S notification of a contemplated change, the CONSULTANT shall, in writing: (1) provide a detailed estimate for the increase or decrease in cost due to the contemplated change, (2) notify the COUNTY of any estimated change in the completion date, and (3) advise the COUNTY if the contemplated change shall affect the CONSULTANT'S ability to meet the completion dates or schedules of this Contract.

If the COUNTY so instructs in writing, the CONSULTANT shall suspend work on that portion of the Scope of Work affected by a contemplated change, pending the COUNTY'S decision to proceed with the change.

If the COUNTY elects to make the change, the COUNTY shall initiate a Contract Amendment and the CONSULTANT shall not commence work on any such change until such written amendment is signed by the CONSULTANT and approved and executed on behalf of Palm Beach County.

ARTICLE 27 - NOTICE

All notices required in this Contract shall be sent by certified mail, return receipt requested, hand delivery or other delivery service requiring signed acceptance. If sent to the COUNTY, notices shall be addressed to:

Deborah Drum, Director
Department of Environmental Resources Management
2300 North Jog Road, 4th Floor
West Palm Beach, FL 33411-2743

With copy to:

Palm Beach County Attorney's Office

301 North Olive Ave.
West Palm Beach, Florida 33401

If sent to the CONSULTANT, notices shall be addressed to:

Ashley Ross, Grant Administrator
Fish & Wildlife Research Institute
100 8th Avenue S.E.
St. Petersburg, Florida 33701

ARTICLE 28 - ENTIRETY OF CONTRACTUAL AGREEMENT

The COUNTY and the CONSULTANT agree that this Contract sets forth the entire agreement between the parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto in accordance with Article 25- Modifications of Work.

ARTICLE 29 - CRIMINAL HISTORY RECORDS CHECK

The CONSULTANT, CONSULTANT'S employees, subcontractors of CONSULTANT and employees of subcontractors shall comply with Palm Beach County Code, Section 2-371 - 2-377, the Palm Beach County Criminal History Records Check Ordinance ("Ordinance"), for unescorted access to critical facilities ("Critical Facilities") or criminal justice information facilities ("CJI Facilities") as identified in Resolution R-2003-1274, as amended. The CONSULTANT is solely responsible for the financial, schedule, and/or staffing implications of this Ordinance. Further, the CONSULTANT acknowledges that its Contract price includes any and all direct or indirect costs associated with compliance with this Ordinance, except for the applicable FDLE/FBI fees that shall be paid by the COUNTY.

This Contract may include sites and/or buildings which have been designated as either "critical facilities" or "criminal justice information facilities" pursuant to the Ordinance and Resolution R2003-1274, as amended. COUNTY staff representing the COUNTY department will contact the CONSULTANT(S) and provide specific instructions for meeting the requirements of this Ordinance. Individuals passing the background check will be issued a badge. The CONSULTANT shall make every effort to collect the badges of its employees and its subcontractors' employees upon conclusion of the contract and return them to the COUNTY. If the CONSULTANT or its subcontractor(s) terminates an employee who has been issued a badge, the CONSULTANT must notify the COUNTY within two (2) hours. At the time of termination, the CONSULTANT shall retrieve the badge and shall return it to the COUNTY in a timely manner.

The COUNTY reserves the right to suspend the CONSULTANT if the CONSULTANT 1) does not comply with the requirements of County Code Section 2-371 - 2-377, as amended; 2) does not contact the COUNTY regarding a terminated CONSULTANT employee or subcontractor employee within the stated time; or 3) fails to make a good faith effort in attempting to comply with the badge retrieval policy.

ARTICLE 30 - REGULATIONS; LICENSING REQUIREMENTS

The CONSULTANT shall comply with all laws, ordinances and regulations applicable to the services contemplated herein, to include those applicable to conflict of interest and collusion. CONSULTANT is presumed to be familiar with all federal, state and local laws, ordinances, codes

and regulations that may in any way affect the services offered.

ARTICLE 31 - SCRUTINIZED COMPANIES (when contract value is greater than \$1 million)

- A. As provided in F.S. 287.135, by entering into this Contract or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies that boycott Israel List, or is engaged in a boycott of Israel, pursuant to F.S. 215.4725.
- B. **When contract value is greater than \$1 million:** As provided in F.S. 287.135, by entering into this Contract or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies With Activities in Sudan List or Scrutinized Companies With Activities in The Iran Petroleum Energy Sector List created pursuant to F.S. 215.473 or is engaged in business operations in Cuba or Syria.

If the COUNTY determines, using credible information available to the public, that a false certification has been submitted by CONSULTANT, this Contract may be terminated and a civil penalty equal to the greater of \$2 million or twice the amount of this Contract shall be imposed, pursuant to F.S. 287.135. Said certification must also be submitted at the time of Contract renewal, if applicable.

ARTICLE 32 - PUBLIC RECORDS

Notwithstanding anything contained herein, as provided under Section 119.0701, F.S., if the CONSULTANT: (i) provides a service; and (ii) acts on behalf of the COUNTY as provided under Section 119.011(2) F.S., the CONSULTANT shall comply with the requirements of Section 119.0701, Florida Statutes, as it may be amended from time to time. The CONSULTANT is specifically required to:

- A. Keep and maintain public records required by the COUNTY to perform services as provided under this Contract.
- B. Upon request from the COUNTY's Custodian of Public Records, provide the COUNTY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. The CONSULTANT further agrees that all fees, charges and expenses shall be determined in accordance with Palm Beach County PPM CW-F-002, Fees Associated with Public Records Requests, as it may be amended or replaced from time to time.
- C. 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 contract term and following completion of the Contract, if the Consultant does not transfer the records to the public agency.
- D. Upon completion of the Contract the CONSULTANT shall transfer, at no cost to the COUNTY, all public records in possession of the CONSULTANT unless notified by COUNTY's representative/liaison, on behalf of the COUNTY's

Custodian of Public Records, to keep and maintain public records required by the COUNTY to perform the service. If the CONSULTANT transfers all public records to the COUNTY upon completion of the Contract, the CONSULTANT shall destroy any duplicate public records that are exempt, or confidential and exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of the Contract, the CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically by the CONSULTANT must be provided to COUNTY, upon request of the COUNTY's Custodian of Public Records, in a format that is compatible with the information technology systems of COUNTY, at no cost to COUNTY.

Failure of the CONSULTANT to comply with the requirements of this article shall be a material breach of this Contract. COUNTY shall have the right to exercise any and all remedies available to it, including but not limited to, the right to terminate for cause. CONSULTANT acknowledges that it has familiarized itself with the requirements of Chapter 119, F.S., and other requirements of state law applicable to public records not specifically set forth herein.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, PLEASE CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT RECORDS REQUEST, PALM BEACH COUNTY PUBLIC AFFAIRS DEPARTMENT, 301 N. OLIVE AVENUE, WEST PALM BEACH, FL 33401, BY E-MAIL AT RECORDSREQUEST@PBCGOV.ORG OR BY TELEPHONE AT 561-355-6680.

Attachments:

Exhibit A: Scope of Work
Exhibit B: Schedule of Payments

Remainder of page intentionally left blank.


IN WITNESS WHEREOF, the Board of County Commissioners of Palm Beach County, Florida has made and executed this Contract on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

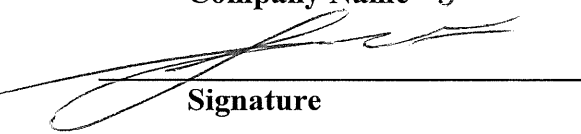
ATTEST:
SHARON R. BOCK
CLERK AND COMPTROLLER


PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS:

By: _____
Deputy Clerk

By: _____
Mayor

WITNESS:

Signature
Ashley C. Ross
Name (type or print)

CONSULTANT:
Fish and Wildlife Research Institute
Company Name

Signature
HENRY NORRIS
Typed Name
DEPUTY DIRECTOR
Title

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY
By 
Assistant County Attorney

APPROVED AS TO TERMS
AND CONDITIONS
By 
Deborah Drum, Director
Department of Environmental Resources Management

SCOPE OF WORK
Lake Worth Lagoon Fisheries Monitoring Program
2018-2020

I. INTRODUCTION/BACKGROUND:

The Lake Worth Lagoon (Lagoon) is an estuary that has suffered extensive loss of estuarine habitats and degraded water quality due to human development activities over the past century. Seawalls associated with private residences and businesses have replaced approximately 87% of the Lagoon's shoreline (PBCERM 2010). In an effort to regain valuable lost estuarine habitats, Palm Beach County Department of Environmental Resources Management (PBCERM) constructed 12 habitat restoration projects in the Lake Worth Lagoon from 2008 to 2013. These projects have restored 14 acres of oyster, 41 acres of mangrove and *Spartina*, 11 acres of seagrass, and 5 acres of artificial reef fisheries habitats (PBCERM 2010). Despite these efforts, estuarine habitats within Lake Worth Lagoon are under a continued threat from development.

Existing collections of Fisheries-Independent Monitoring (FIM) data in estuarine habitats in Lake Worth have focused on fish use and recruitment to restoration projects in Central Lake Worth. This data, while useful in assessing the success of the restoration efforts, are not applicable to other portions of the lagoon. The Fisheries Independent Monitoring (FIM) program's recent expansion into the Northern Lagoon is has collected and processed only a single year of data. The Northern Lagoon area is approximately 0.75 miles (East / West) wide by 2.75 miles (North / South) long with approximately 5.5 miles of shoreline with a northern extent in MacArthur Beach State Park. This area includes some of the healthiest seagrass beds within the Lagoon. This area also includes approximately 30 privately owned submerged lands that extend between 1,200 and 2,000 feet into the Lagoon.

The FIM program data is critical for assessing the health of systems that support inshore and reef fisheries like the Lagoon, particularly for those species that utilize seagrass during their early life history (e.g., snappers). In the first year of baseline FIM program stratified-random sampling (SRS) in the Lagoon, Palm Beach County collected a total of 13,731 animals, which included 99 taxa of fishes and 7 taxa of selected invertebrates, from 136 samples (Paperno 2017). Bay Anchovy, *Anchoa mitchilli* (n=4,977) and juvenile mojarras, *Eucinostomus* spp. (n=3,031) were the most numerous taxa collected, representing 58.3% of the total catch. Hardhead Catfish, *Ariopsis felis* (n=848), Dusky Anchovy, *Anchoa lyolepis* (n=757), and Silver Jenny, *Eucinostomus gula* (n=576) were the next most abundant taxa collected, accounting for an additional 15.9% of the total catch. Nineteen selected taxa (n=644 animals) i.e., taxa of direct economic importance, composed 4.7% of the total catch (Table 1). The most abundant selected taxa were juvenile shrimp (*Farfantepenaeus* spp.), followed by Sheepshead (*Archosargus probatocephalus*), White Mullet (*Mugil curema*), Common Snook (*Centropomus undecimalis*), and Lane Snapper (*Lutjanus synagris*). The presence of juvenile and adult sizes of several species (e.g., Gray Snapper, *Lutjanus griseus*, Mutton Snapper, *Lutjanus analis*, Atlantic Croaker, *Micropogonias undulatus* etc.) highlight the importance of the system to many of these taxa.

Comparisons of the FIM program data from the Northern and Central Lagoon show that while several taxa are common between areas, the Central Lagoon is generally less diverse (60 taxa) than the Northern Lagoon (93 taxa) (Paperno 2017). Both Northern and Central areas had similar numbers of selected taxa (Northern - 17 taxa; Central - 15 taxa), but the species compositions differed. The select taxa collected most often in the Northern area were *Farfantepenaeus* spp. (n=113), *A. probatocephalus* (n=84), *M. curema* (n=56), *L. synagris* (n=29),

and *C. undecimalis* (n=26). The select taxa collected most often in the Central area were *Farfantepenaeus* spp. (n=181), *M. curema* (n=20), and Striped Mullet, *Mugil cephalus* (n=16).

This project has been designed to continue to expand Palm Beach County's assessment of fish species presence in Northern Lake Worth Lagoon. This effort builds on the baseline data collected from the Munyon and Singer Islands area. Sampling effort will include Munyon Island, Munyon Cove and Singer Island area (Northern Lake Worth Lagoon).

Table 1. Catch statistics for Selected Taxa collected during Northern and Central Lake Worth stratified-random sampling (November 2016 - August 2017). Taxa are ranked in order of decreasing number.

Species	Number	Standard Length (mm)	
		Min	Max
<i>Farfantepenaeus</i> spp., shrimp	297	35	435
<i>Archosargus probatocephalus</i> , Sheepshead	94	187	315
<i>Mugil curema</i> , White Mullet	76	17	303
<i>Centropomus undecimalis</i> , Common Snook	31	304	771
<i>Lutjanus synagris</i> , Lane Snapper	31	37	131
<i>Mugil cephalus</i> , Striped Mullet	22	19	307
<i>Lutjanus griseus</i> , Gray Snapper	19	13	166
<i>Elops saurus</i> , Ladyfish	14	216	468
<i>Callinectes sapidus</i> , Blue Crab	13	6	167
<i>Trachinotus falcatus</i> , Permit	11	35	87
<i>Lutjanus analis</i> , Mutton Snapper	10	35	212
<i>Albula vulpes</i> , Bonefish	7	35	435
<i>Trachinotus carolinus</i> , Pompano	5	153	174
<i>Menticirrhus americanus</i> , Southern Kingfish	4	34	279
<i>Micropogonias undulatus</i> , Atlantic Croaker	4	34	282
<i>Pogonias cromis</i> , Black Drum	3	209	226
<i>Cynoscion nebulosus</i> , Spotted Seatrout	1	14	14
<i>Lutjanus apodus</i> , Schoolmaster	1	169	169
<i>Sciaenops ocellatus</i> , Red Drum	1	477	477
Total	644	6	771

II. OBJECTIVES:

The collection of FIM data is useful in gauging the effects of natural and anthropogenic disturbances, restoration projects, protective management measures and changes in water quality and hydrology on fish and macro-invertebrates. Palm Beach County propose to build on the existing one-year baseline data collection of fish community data in the Northern Lagoon, an area under threat of modification or loss due to development by private landowners. The goal of this program is to collect FIM data that address these local management concerns and that can be utilized in the broader state assessment of fisheries resources. This satisfies the goal of collection and assessment of ecologically functional metrics associated with structural elements (habitats) that are supported through grant-funding.

Consultant's Objectives:

- 1) Continue to develop a monitoring program, based on the methods of the long-term Florida Wildlife Research Institute (FWRI) FIM program (FWC-FWRI. 2015), to assess the fish diversity and habitat utilization in the Northern Lagoon. The program will be designed such that it can be replicated and expanded in the Lagoon as resources become available in the future.
- 2) Conduct two years of monthly FIM sampling in the Northern Lagoon and continued quarterly sampling near restoration sites (Grassy Flats and Snook Islands) in Central Lagoon.
- 3) Prepare a final report describing the fisheries resources in the Northern Lagoon and near restorations sites in the Central Lagoon.

III. TASK IDENTIFICATION:

Task 1: Monthly field sampling. Beginning in January 2019 and continuing through December 2020, monthly stratified-random sampling shall be conducted to provide comprehensive abundance and distribution data on fishes that occur in the Northern Lagoon. All sampling will be conducted during daytime hours (one hour after sunrise to one hour before sunset). Monthly sampling shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines (Table 2).

Task 2: Quarterly field sampling. Beginning in January 2019 and continuing through December 2020, stratified-random sampling shall be conducted to provide comprehensive abundance and distribution data on fishes that occur near the Grassy Flats and Snook Islands restoration projects in the Central Lagoon. All sampling will be conducted during daytime hours (one hour after sunrise to one hour before sunset). Quarterly sampling shall consist of 8 randomly selected 21.3-m seine stations, 6 40-m seine stations (Table 2).

The 21.3-m seine is made of 1/8-inch #35 knotless nylon stiff material Delta mesh with #7 (or comparable) finish. The net is exactly 70 feet long and six (6) feet high with a 6-ft. x 6-ft. x 6-ft. bag placed in the center. The top and bottom lines are 1/8-inch 450-lb. test braided nylon. The sponge floats are SB4 (3" diameter by 1 1/2" long with a 1/2" hole) and spaced at 8" on center along the wings and front of bag. The float spacing along the sides and back of the bag are every 12 inches on center. The bottom line is leaded with #13, 1.3 oz. leads (1" long, 3/8" hole) spaced every 6" on center on the main net (wings) and front of the bag. The leads are spaced every 12 inches on center along the sides and back of the bag. The top and bottom braided nylon lines extend 2-3 feet beyond the net, so they can be tied to PVC poles for fishing (there should be a 12" gap between the mesh and the seine poles once the top and bottom lines are tied off).

The 40-m (120') seine is a long center-bag seine, 8' (2.4-m) deep, made of 1" stretch knotted nylon mesh (#9 twine), hung on the half. The floatline is made of a single 3/8-inch black twisted polypropylene rope with floats (SB4, 3" diameter x 1 1/2" width, with 1/2" hole) spaced every 12" (30.5 cm) on center. The leadline is made of two 1/4-inch black twisted polypropylene ropes with barrel leads (1.5 oz, ~42.5 g) spaced every 12" (30.5 cm) inches on center. The bag of the net is 8' (2.4-m) deep by 8' (2.4-m) tall by 8' (2.4-m) wide and located in the center of the net (i.e., such that the corners of the bag are exactly 61' (18.6-m) from the ends of the seine). Both the lead and float lines continue onto the sides and back of the bag (leads and floats are the same at mouth of bag, along both sides, and along back of bag, per defined specs above). Both the lead and float lines (without the floats and leads attached) are extended an extra 3' (1-m) from each end of the seine meshing, to be used to attach the net to a pole, used to pull the net through the water. With the rope extensions on each end of the net, the float line and lead line are a total of 136' (41.5-m) and the mesh part of the net is 130' (39.6-m) long including the 8' (2.4-m) for the bag mouth.

The 183-m (600') haul seine is a long center-bag seine, 3-m (10') deep, made of 38-mm (1½") stretch nylon mesh. The float and lead line are made of ½" black twisted polypropylene rope. The float and lead line are a double rope with the lead and floats being attached to the outer rope (See Figure 1). The wings are made of double selvedge #9 nylon twine 38-mm (1½") stretch mesh. The barrel leads (2.0 ounce #8) will be placed every 15-cm (6") on center on the wing and every 30.5-cm (12") on center along the sides and back of the bag. The floats will be SB5 (3½" diameter x 1½" width, with ½" hole) and spaced every 30.5-cm (12") on center on the wings and along the sides and back of the bag. The bag will be 3-m x 3-m x 3-m, centered on the net and made of double selvedge #15 nylon twine 38-mm (1½") stretch mesh. The lead and float line (without the floats and leads attached) will be extended an extra 3-m from each end of the net to be used to pull the net through the water. With the extensions on each end of the net, the float line and lead line will be a total of 189-m (620') and the mesh part of the net will be 183-m (600') long including the 3-m (10') for the bag mouth.

One County staff will assist the Consultant in the field during the sampling events, if needed. Typically, each sampling event will require one to one and a half field days, however, additional days may be needed to complete the required 21 net hauls during months when monthly and quarterly sampling events coincide, or when unexpected conditions (i.e., weather, equipment failure) occur. County support includes participating in preparing equipment, setting and pulling in each net, recording data, and identifying/measuring the catch in each net. The Consultant will provide in-kind services comprising of two additional staff (2 staff: includes field time, lab time, and analysis and report: \$31,860 total personnel costs), all nets (Equipment and supplies: \$5,400), and travel costs (\$4,160).

Quantitative seine sampling techniques will follow standardized FIM procedures. At each station, water temperature, (°C), salinity (ppt), pH, and dissolved oxygen (ppm) shall be recorded with a YSI multi-probe instrument. Comprehensive habitat information will also be recorded at each sampling station according to standardized FIM procedures.

Table 2. Sample effort per each sample event

Area	21.3-m seine	40-m haul seine	183-m haul seine	Total
Central Lake Worth Lagoon (quarterly sampling)				
Grassy Flats	4 (2 onshore, 2 offshore)	3	0	7
Snook Islands	4 (2 onshore, 2 offshore)	3	0	7
Northern Lake Worth Lagoon (monthly sampling)				
Munyon/Singer Islands	4 (2 onshore, 2 offshore)	0	3	7
Annual Total (quarterly)	32	24	0	56
Annual Total (monthly)	48	0	36	84
Grand Total (Annual)	80	24	36	140

Task 3: Species identification and sample processing. All fish and macro-crustaceans shall be identified and enumerated. From each sample, 10 individuals of each species shall be randomly measured (standard length to nearest mm), but up to 40 fish of rare or economically important species shall be measured (remaining individuals shall be counted by species). Representative samples shall be returned to the laboratory for quality control purposes; animals not identified to species in the field shall be returned to the laboratory for identification to the lowest possible taxonomic level.

Task 4&5: Analyses and report writing. Quarterly progress and Annual data summary reports will

be provided to Palm Beach County. Additionally, data and results shall be shared with local and regional resource management agencies (e.g., U.S. Fish and Wildlife Service, Florida Department of Environmental Protection), and shall be disseminated in the form of presentations at scientific conferences and/or manuscripts for publication.

IV. TIMEFRAMES AND DELIVERABLES:

Progress Reports and invoices shall be submitted according to the schedule below and shall describe progress to date, any problems, and resolution of these problems or recommendations for resolving these problems (Table 3). Letter or e-mail format for progress reports shall be acceptable. These Progress Reports are not data reports. The 3rd Progress Report shall include a proposed outline/format for the Annual Reports. The Annual and Final Reports shall be cumulative, i.e., the Annual Report shall cover all data, including that covered in the first three Progress Reports and the Final Report shall cover all data collected during the two-year study. The Annual and Final Reports shall include, at a minimum, description of objectives, methods, analyses, results in graphic or tabular format, discussion and interpretation of results, and recommendations for future work. Data tables can be included as appendices. Community descriptions can be done with parametric and non-parametric statistical analysis methods depending on what type of analysis is supported by the data. The Final Report, Appendices, and all data in a spreadsheet or database format shall be submitted as the final product.

Table 3. Timeline

Task	2019												2020	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1. Monthly field sampling	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Quarterly field sampling		x			x			x			x			x
3. Species id and sample processing	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Analyses										x	x	x	x	
5. Report writing			x	x		x	x		x	x		x	x	x

Task	2020												2021		
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1. Monthly field sampling	x	x	x	x	x	x	x	x	x	x					
2. Quarterly field sampling			x			x			x						
3. Species id and sample processing	x	x	x	x	x	x	x	x	x	x	x	x			
4. Analyses										x	x	x	x		
5. Report writing	x	x		x	x		x	x			x	x	x	x	x

Payments and Invoicing

Each invoice shall include the Commission Contract Number, Contractor’s Federal Employer Identification (FEID) Number, dates of services, and details of services being invoiced. Invoices shall be submitted both electronically and one original hard copy via mail plus all supporting documentation to the PBC project manager. Consultant acknowledges that the County may reject invoices lacking documentation necessary to justify invoiced expenses. Multiple tasks may be combined on a single invoice. No more than nine (9) invoices may be submitted under this contract. The final invoice is due by **May 31, 2021**. If a task is not completed, the invoice will be reduced by the amount listed in section V for the associated incomplete task.

V. BUDGET / COST SCHEDULE:

Product	Date Due	Invoice Amount
<i>FY 19/20</i>		
<i>1st Progress Report</i>	Apr 15, 2019	\$ 13,833
<i>2nd Progress Report</i>	Jul 15, 2019	\$ 13,833
<i>3rd Progress Report</i>	Oct 15, 2019	\$ 13,833
<i>1st Annual Report</i>	Mar 1, 2020	\$ 17,169
FY 19/20 Total		\$ 58,668
<i>FY 20/21</i>		
<i>4th Progress Report</i>	Apr 15, 2020	\$ 13,833
<i>5th Progress Report</i>	Jul 15, 2020	\$ 13,833
<i>6th Progress Report</i>	Oct 15, 2020	\$ 13,833
<i>Draft Final Report</i>	Mar 1, 2021	\$ 7,169
<i>Final Report</i>	May 31, 2021	\$ 10,000
FY 20/21 Total		\$ 58,668
Total		\$117,336

References

FWC-FWRI. 2015. Fisheries-Independent Monitoring Program Procedure Manual. Florida Fish and Wildlife Research Institute. St. Petersburg, Florida.

Palm Beach County Department of Environmental Resources Management (PBCERM). 2010. Lake Worth Lagoon Initiative: Summary of Projects and Fiscal Year 2010-2011 Funding Requests.

Paperno, R. 2017. Central Lake Worth Lagoon Fisheries Monitoring Program: 1st Annual Report. Florida Fish and Wildlife Research Institute report to Palm Beach County, Environmental Resources Management, Contract # R2016-1697.

SCHEDULE OF PAYMENTS

The Scope of Work to be completed by CONSULTANT as defined in Exhibit "A" consists of specific completion phases which shall be clearly identified on a phase-by-phase basis upon submission to the COUNTY of certain "deliverables"* as expressly indicated below. Compensation for the work tasks stated herein shall be in accordance with the following Schedule of Payments:

Deliverable 1

Task(s) to be completed by April 15, 2019:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of quarterly progress report.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected.

Completion Time: 4 month Compensation for Phase 1: \$ 13,833.00
Deliverable(s) Required: 1st progress report.

Deliverable 2

Task(s) to be completed by July 15, 2019:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of quarterly progress report.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected.

Completion Time: 3 month Compensation for Phase 1: \$ 13,833.00
Deliverable(s) Required: 2nd progress report.

Deliverable 3

Task(s) to be completed October 15, 2019:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of quarterly progress report. The 3rd Progress Report shall include a proposed outline/format for the Annual Reports.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected.

Completion Time: 3 month Compensation for Phase 1: \$ 13,833.00
Deliverable(s) Required: 3rd progress report.

Deliverable 4

Task(s) to be completed March 1, 2020:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of FY 18/19 Annual Report.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected. The 1st Annual Report and shall cover all data collected during the first year. The reports shall include, at a minimum, description of objectives, methods, analyses, results (a summary of differences between the catch composition at Grassy Flats, Snook Islands, and northern Lake Worth in graphic or tabular format. Data tables can be included as appendices. Community descriptions can be done with parametric and non-parametric statistical analysis methods depending on what type of analysis is supported by the data.

Completion Time: 4.5 month Compensation for Phase 1: \$ 17,169.00
Deliverable(s) Required: 1st Annual Report.

Deliverable 5

Task(s) to be completed April 15, 2020:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of quarterly progress report.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected.

Completion Time: 3 month Compensation for Phase 1: \$ 13,833.00
Deliverable(s) Required: 4th progress report.

Deliverable 6

Task(s) to be completed July 15, 2020:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of quarterly progress report. The 6th Progress Report shall include a proposed outline/format for the Annual Reports.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected.

Completion Time: 3 month Compensation for Phase 1: \$ 13,833.00
Deliverable(s) Required: 5th progress report.

Deliverable 7

Task(s) to be completed October 15, 2020:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of quarterly progress report.

A quarterly progress report describing the activities completed including a species list of all the fish taxa collected.

Completion Time: 3 month Compensation for Phase 3: \$ 13,833.00
Deliverable(s) Required: 6th quarterly progress report.

Deliverable 8

Task(s) to be completed by March 1, 2021:

Task 1: 3 Monthly field sampling events in the Northern Lagoon, shall consist of four randomly selected 21.3-m seine stations and three 183-m haul seines.

Task 2: Quarterly field sampling at Snook and Grassy Flats. Quarterly sampling shall consist of eight randomly selected 21.3-m seine stations and six 40-m seine stations, within the study area.

Task 3: Species identification and sample processing. All fish shall be identified and enumerated from each sample.

Task 4&5: Analyses and report writing. Preparation of Draft Final Report

The Draft Final Report shall be cumulative, i.e., the Annual Report shall cover all data, including that covered in the first 6th Progress Reports and the 1st Annual Report and shall cover all data collected during the two year study. The Final Reports shall include, at a minimum, description of objectives, methods, analyses, results (a summary of differences between the catch composition at Grassy Flats, Snook Islands, control area, and northern Lake Worth in graphic or tabular format), discussion and interpretation of results, and recommendations for future work. Data tables can be included as appendices. Community comparisons of the restoration sites can be done with parametric and non-parametric statistical analysis methods depending on what type of analysis is supported by the data. The Draft Final Report, Appendices, and all data in a spreadsheet or database format shall be submitted as the final product.

Completion Time: 4.5 month Compensation for Phase 4: \$ 7,169.00

Deliverable(s) Required: The Draft Final Report, Appendices, and all data in a spreadsheet or database format shall be submitted as the final product.

Deliverable 9

Task(s) to be completed by May 31, 2021:

Task 3&4: Analyses and report writing. Preparation of Final Report

The Final Report shall be cumulative, i.e., the Annual Report shall cover all data, including that covered in the first 6th Progress Reports and the 1st Annual Report and shall cover all data collected during the two year study and incorporate Palm Beach County comments from the Draft Report if appropriate. The Final Reports shall include, at a minimum, description of objectives, methods, analyses, results (a summary of differences between the catch composition at Grassy Flats, Snook Islands, control area, and northern Lake Worth in graphic or tabular format), discussion and interpretation of results, and recommendations for future work. Data tables can be included as appendices. Community comparisons of the restoration sites can be done with parametric and non-parametric statistical analysis methods depending on what type of

analysis is supported by the data. The Final Report, Appendices, and all data in a spreadsheet or database format shall be submitted as the final product.

Completion Time: 3 month Compensation for Phase 4: \$ 10,000

Deliverable(s) Required: The Final Report, Appendices, and all data in a spreadsheet or database format shall be submitted as the final product. .

* "Deliverables" shall be defined as progress reports, prepared maps, bid documents, completed drawings, specific reports, work plans, documentation of meetings attended, assessment study reports, analysis reports, summary reports, recommendation reports and related draft reports verifiable deliverables.