Agenda Item: 3L-2

# PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS

# **AGENDA ITEM SUMMARY**

Meeting Date:	April 20, 2021	( <b>X</b> ) Consent ( ) Workshop	()Regular ()Public Hearing
Department:	Environmental Resources	Management	·
	I. EXECU	TIVE BRIEF	
Motion and Title: \$	Staff recommends motion	ı to:	
Inwater Research C		onitoring in an amou	een Palm Beach County and nt not to exceed \$36,424.80,
assignments, certif amendments that c Contract including	ications and other forms as do not substantially chang	sociated with the Co e the scope of work	future time extensions, task entract, and necessary minor s, terms or conditions of the he Contract's not-to-exceed
Research Group (I Contract, provides of Worth Lagoon (LW County. IRG is an through unique in win water assessment collect data utilized within the lagoon at sea turtle population.	IRG) for sea turtle monitor for continued monitoring and the sites by an organization that focuses water sampling and data cont of sea turtles in LWL in 20 for management strategies and adjacent waterways. The	ring, on February 11 d assessment of sea related to restoration of solution techniques. 205, and has continues related to restoration to LWL Management	oved a Contract with Inwater, 2020 (R2020-0166). This turtle populations in the Lake t corporation based in Martin forts of key coastal species IRG conducted the first ever ed to assess populations and on and enhancement efforts Plan recommends assessing ironmental restoration efforts
habitat quality and developmental hab	previous studies have four bitat for green sea turtles.	nd that LWL and adja This fifteen-year d	ered an indicator species of acent areas are an important ata set is used to evaluate VL health, seagrass density,
Attachment: 1. Contract			
Recommended by	y:	Dung	3-10-21 SAS 3/9/2 Date
Approved by:	Assistant County Admi	nistrator	3/30/2\ Date

# **II. FISCAL IMPACT ANALYSIS**

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2021	2022	2023	2024	2025		
Capital Expenditures					- Andrews Are Provinces		
Operating Costs	<u>\$18,212</u>	<u>\$18,212</u>					
External Revenues							
Program Income (Coun	ty)						
In-Kind Match (County)			-				
NET FISCAL IMPACT	\$18,212	\$18,212					
# ADDITIONAL FTE POSITIONS (Cumulativ	re)						
Is Item Included in Curr Does this item include				No _ No _	X		
Budget Account No.: Fo	und <u>1227_</u> De <sub>l</sub>	partment <u>38</u> 0	<u>Units 4008</u>	Object 3401	<u>L_</u>		
Pollu	nded Sources ution Recovery nt Fiscal Revi	/ Trust Fund	lean	-			
A. OFMB Fiscal and /or Contract Dev. and Control Comments:							
OFMB  B. Legal Suff  Assistant  C. Other Dep Review:	Wen 319 County Attor	1021 fos.	tract Develor 3-292	Jawbor omentand Co	3/09/21 htrol		
	nt Director						

# ATTACHMENT 1

(Revised 01/28/21)

#### 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 Inwater Research Group, Inc. a corporation authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. is 65-1090322.

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 in water sea turtle 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 of the Palm Beach County Department of Environmental Resources Management, telephone no. 561-233-2400.

The CONSULTANT'S representative/liaison during the performance of this Contract shall be Michael Bresette, telephone no. 772-349-5905.

## **ARTICLE 2 - SCHEDULE**

The CONSULTANT shall commence services upon execution of this contract and complete all services by April 30, 2022.

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 and materials including, if applicable, "out of pocket" expenses (specified in paragraph C below) shall not exceed a total contract amount of Thirty Six Thousand, Four Hundred Twenty Four Dollars and Eighty Cents (\$36,424.80). The CONSULTANT shall notify the COUNTY's representative in writing when 90% of the "not to exceed amount" has been reached. The CONSULTANT will bill the COUNTY on a monthly basis, or as otherwise provided, 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. In the event that a survey day cannot be completed due to weather and the CONSUTANT is unable to reschedule, the invoice for that period will be reduced by a total of Two Thousand, Fifty One Dollars and Eighty Five Cents (\$2,057.80) per missed day.
- 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. "Out-of-pocket" expenses including, but not limited to, mailing charges, copying fees, telephone charges and miscellaneous supplies shall not be reimbursed under this Contract. Any travel, per diem, mileage, meals, or lodging expenses which may be reimbursable under the terms of this Contract will be paid in accordance with the rates and conditions set forth in Section 112.061, Florida Statutes.
- D. <u>Final Invoice</u>: In order for both parties herein to close their books and records, the CONSULTANT will clearly state "<u>final invoice</u>" 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.
- E. In order to do business with Palm Beach County, CONSULTANTS are required to create a Vendor Registration Account OR activate an existing Vendor Registration Account through the Purchasing Department's Vendor Self Service (VSS) system, which can be accessed at <a href="https://pbcvssp.co.palm-beach.fl.us/webapp/vssp/AltSelfService">https://pbcvssp.co.palm-beach.fl.us/webapp/vssp/AltSelfService</a>. If CONSULTANT intends to use sub-consultants, CONSULTANT must also ensure that all sub-consultants are registered as consultants in VSS. All subcontractor agreements must include a contractual provision requiring that the sub-consultant register in VSS. COUNTY will not finalize a contract award until the COUNTY has verified that the CONSULTANT and all of its sub-consultants are registered in VSS.

## ARTICLE 4 - TRUTH-IN-NEGOTIATION CERTIFICATE

Signature of this Contract by the CONSULTANT shall also act as the execution of a truth-innegotiation 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 5 - 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 6 - 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 herein under 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 7 - SUBCONTRACTING**

The COUNTY reserves the right to accept the use of a subcontractor or to reject the selection of a particular subcontractor and to inspect all facilities of any subcontractors in order to make a determination as to the capability of the subcontractor to perform properly under this Contract. The CONSULTANT is encouraged to seek additional small business enterprises for participation in subcontracting opportunities. If the CONSULTANT uses any subcontractors on this project the following provisions of this Article shall apply:

If a subcontractor fails to perform or make progress, as required by this Contract, and it is necessary to replace the subcontractor to complete the work in a timely fashion, the CONSULTANT shall promptly do so, subject to acceptance of the new subcontractor by the COUNTY.

## ARTICLE 8 - 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 <u>not</u> 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 9 - 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 10 - INSURANCE

- A. CONSULTANT shall, at its sole expense, agree to maintain in full force and effect at all times during the life of this Contract, insurance coverages and limits (including endorsements), as described herein. CONSULTANT shall agree to provide the COUNTY with at least ten (10) day prior notice of any cancellation, non-renewal or material change to the insurance coverages. The requirements contained herein, as well as COUNTY'S review or acceptance of insurance maintained by CONSULTANT are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by CONSULTANT under the contract.
- B. <u>Commercial General Liability</u> CONSULTANT shall maintain Commercial General Liability at a limit of liability not less than \$500,000 Each Occurrence. Coverage shall not contain any endorsement excluding Contractual Liability or Cross Liability unless granted in writing by COUNTY'S Risk Management Department. CONSULTANT shall provide this coverage on a primary basis.
- C. <u>Business Automobile Liability</u> CONSULTANT shall maintain Business Automobile Liability at a limit of liability not less than \$500,000 Each Accident for all owned, non-owned and hired automobiles. In the event CONSULTANT doesn't own any automobiles, the Business Auto Liability requirement shall be amended allowing CONSULTANT to agree to maintain only Hired & Non-Owned Auto Liability. This amended requirement may be satisfied by way of endorsement to the Commercial General Liability, or separate Business Auto coverage form. CONSULTANT shall provide this coverage on a primary basis.
- D. <u>Worker's Compensation Insurance & Employers Liability</u> CONSULTANT shall maintain Worker's Compensation & Employers Liability in accordance with Florida Statute Chapter 440. CONSULTANT shall provide this coverage on a primary basis.
- E. Professional Liability CONSULTANT shall maintain Professional Liability or equivalent Errors & Omissions Liability at a limit of liability not less than \$1,000,000 Each Claim. When a self-insured retention (SIR) or deductible exceeds \$10,000, COUNTY reserves the right, but not the obligation, to review and request a copy of CONSULTANT'S most recent annual report or audited financial statement. For policies written on a "Claims-Made" basis, CONSULTANT shall maintain a Retroactive Date prior to or equal to the effective date of this Contract. The Certificate of Insurance providing evidence of the purchase of this coverage shall clearly indicate whether coverage is provided on an "occurrence" or "claims made" form. If coverage is provided on a "claims made" form the Certificate of Insurance must also clearly indicate the "retroactive date" of coverage. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced, or any other event triggering the right to purchase a Supplement Extended Reporting Period (SERP) during the

life of this Contract, CONSULTANT shall purchase a SERP with a minimum reporting period not less than 3 years. CONSULTANT shall provide this coverage on a primary basis.

Additional Insured CONSULTANT shall endorse the COUNTY as an Additional Insured with a CG 2026 Additional Insured - Designated Person or Organization endorsement, or its equivalent, to the Commercial General Liability. The Additional Insured endorsement shall read "Palm Beach County Board of County Commissioners, a Political Subdivision of the State of Florida, its Officers, Employees and Agents." CONSULTANT shall provide the Additional Insured endorsements coverage on a primary basis.

- F. Waiver of Subrogation CONSULTANT hereby waives any and all rights of Subrogation against the COUNTY, its officers, employees and agents for each required policy. When required by the insurer, or should a policy condition not permit an insured to enter into a preloss agreement to waive subrogation without an endorsement to the policy, then CONSULTANT shall agree to notify the insurer and request the policy be endorsed with a Waiver of Transfer of rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which specifically prohibits such an endorsement, or which voids coverage should CONSULTANT enter into such an agreement on a pre-loss basis.
- G. Certificate(s) of Insurance Prior to execution of this Contract, CONSULTANT shall deliver to the COUNTY'S representative as identified in Article 26, a Certificate(s) of Insurance evidencing that all types and amounts of insurance coverages required by this Contract have been obtained and are in full force and effect. Such Certificate(s) of Insurance shall include a minimum ten (10) day endeavor to notify due to cancellation or non-renewal of coverage. The certificate of insurance shall be issued to

Palm Beach County c/o Deborah Drum, Director Department of Environmental Resources Management 2300 North Jog Road, 4<sup>th</sup> Floor West Palm Beach, FL 33411-2743

- H. <u>Umbrella or Excess Liability</u> If necessary, CONSULTANT may satisfy the minimum limits required above for Commercial General Liability, Business Auto Liability, and Employer's Liability coverage under Umbrella or Excess Liability. The Umbrella or Excess Liability shall have an Aggregate limit not less than the highest "Each Occurrence" limit for either Commercial General Liability, Business Auto Liability, or Employer's Liability. The COUNTY shall be specifically endorsed as an "Additional Insured" on the Umbrella or Excess Liability, unless the Certificate of Insurance notes the Umbrella or Excess Liability provides coverage on a "Follow-Form" basis.
- I. Right to Review COUNTY, by and through its Risk Management Department, in cooperation with the contracting/monitoring department, reserves the right to review, modify, reject or accept any required policies of insurance, including limits, coverages, or endorsements, herein from time to time throughout the term of this Contract. COUNTY reserves the right, but not the obligation, to review and reject any insurer providing coverage because of its poor financial condition or failure to operate legally.

#### **ARTICLE 11 - INDEMNIFICATION**

CONSULTANT shall protect, defend, reimburse, indemnify and hold COUNTY, its agents, employees and elected officers harmless from and against all claims, liability, expense, loss, cost, damages or causes of action of every kind or character, including attorney's fees and costs, whether at trial or appellate levels or otherwise, arising during and as a result of their performance of the terms of this Contract or due to the acts or omissions of CONSULTANT.

#### ARTICLE 12 - 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 13 - 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 14 - 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 15 - 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 16 - 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 17 - 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 18 - 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 19 - 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 20 - 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 five (5) 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 21 - 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.

As a condition of entering into this Contract, the CONSULTANT represents and warrants that it will comply with the COUNTY'S Commercial Nondiscrimination Policy as described in Resolution 2017-1770, as amended. As part of such compliance, the CONSULTANT shall not discriminate on the basis of race, color, national origin, religion, ancestry, sex, age, marital status, familial status, sexual orientation, gender identity or expression, disability, or genetic information in the solicitation, selection, hiring or commercial treatment of subcontractors, vendors, suppliers, or commercial customers, nor shall the CONSULTANT retaliate against any person for reporting instances of such discrimination. The CONSULTANT shall provide equal opportunity for subcontractors, vendors and suppliers to participate in all of its public sector and private sector subcontracting and supply opportunities, provided that nothing contained in this clause shall prohibit or limit otherwise lawful efforts to remedy the effects of marketplace discrimination that have occurred or are occurring in the COUNTY'S relevant marketplace in Palm Beach County. The CONSULTANT understands and agrees that a material violation of this clause shall be considered a material breach of this Contract and may result in termination of this Contract, disqualification or debarment of the company from participating in COUNTY contracts, or other sanctions. This clause is not enforceable by or for the benefit of, and creates no obligation to, any third party. CONSULTANT shall include this language in its subcontracts.

## **ARTICLE 22 - 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 23 - 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 24 - 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 25 - 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 26 - 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 N Jog Road, 4<sup>th</sup> 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:

Michael Bresette Inwater Research Group, Inc. 4160 NE Hyline Drive Jensen Beach, FL 34957

#### ARTICLE 27 - 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 28 - 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 Resolutions R2013-1470 and R2015-0572, 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 above referenced Resolutions, 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 29 - 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 30 - SCRUTINIZED COMPANIES**

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. Pursuant to F.S. 287.135(3)(b), if CONSULTANT is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel, this Contract may be terminated at the option of the COUNTY.

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 31 - 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.

## **ARTICLE 32 - COUNTERPARTS**

This Contract, including the exhibits referenced herein, may be executed in one or more counterparts, all of which shall constitute collectively but one and the same Contract. The COUNTY may execute the Contract through electronic or manual means. CONSULTANT shall execute by manual means only, unless the COUNTY provides otherwise.

## ARTICLE 33 - E-VERIFY - EMPLOYMENT ELIGIBILITY

CONSULTANT warrants and represents that it is in compliance with section 448.095, Florida Statutes, as may be amended, and that it: (1) is registered with the E-Verify System (E-Verify.gov), and beginning January 1, 2021, uses the E-Verify System to electronically verify the employment eligibility of all newly hired workers; and (2) has verified that all of CONSULTANT's subconsultants performing the duties and obligations of this CONTRACT are registered with the E-Verify System, and beginning January 1, 2021, use the E-Verify System to electronically verify the employment eligibility of all newly hired workers.

CONSULTANT shall obtain from each of its subconsultants an affidavit stating that the subconsultant does not employ, contract with, or subcontract with an Unauthorized Alien, as that term is defined in section 448.095(1)(k), Florida Statutes, as may be amended. CONSULTANT shall maintain a copy of any such affidavit from a subconsultant for, at a minimum, the duration of the subcontract and any extension thereof. This provision shall not supersede any provision of this CONTRACT which requires a longer retention period.

knowingly violated Section 448.09(1), Florida Statutes, as may be amended. If COUNTY has a good faith belief that CONSULTANT's subconsultant has knowingly violated section 448.09(1), Florida Statutes, as may be amended, COUNTY shall notify CONSULTANT to terminate its contract with the subconsultant and CONSULTANT shall immediately terminate its contract with the subconsultant. If COUNTY terminates this CONTRACT pursuant to the above, CONSULTANT shall be barred from being awarded a future contract by COUNTY for a period of one (1) year from the date on which this CONTRACT was terminated. In the event of such contract termination, CONSULTANT shall also be liable for any additional costs incurred by COUNTY as a result of the termination.

(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:

JOSEPH ABRUZZO CLERK OF THE CIRCUIT COURT AND COMPTROLLER	PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS:		
By: Deputy Clerk	By:		
Signature  Ryan Welsh  Name (type or print)  Signature  Cody Mott  Name (type or print)	CONSULTANT:  INWATER RESEARCH GROUP  Company Name  Signature  Michael Bresette  Typed Name  President  Title		
APPROVED AS TO FORM AND LEGAL SUFFICIENCY  By Scott A. Stone, Assistant County Attorney  APPROVED AS TO TERMS AND CONDITIONS  By Deborah Drum, Department Director	(corp. seal)		

SCOPE OF WORK

#### PROPOSAL FOR:

# ASESSMENT OF MARINE TURTLES IN THE NORTHERN LAKE WORTH LAGOON – 2021-2022



## PREPARED FOR:

Palm Beach County Department Of Environmental Resources Management 2300 Jog Road, 4<sup>th</sup> Floor West Palm Beach, FL 33411

## PREPARED BY:

Inwater Research Group 4160 NE Hyline Drive Jensen Beach, FL 34957

January 2021

#### INTRODUCTION

Since March of 2005, Inwater Research Group, Inc. (IRG) has been conducting marine turtle population assessments in the Lake Worth Lagoon on behalf of the Palm Beach County Department of Environmental Resources Management (PBCERM). The primary objectives of these prior studies were to:

- 1) Obtain baseline data on species abundance, size frequencies, and sex ratios. These baseline data consist of quantitative measurements that can be used to determine stage-specific abundance, and in the future, determine recoveries or declines in these populations.
- 2) Determine Catch per Unit Effort (CPUE) at specific sites in Lake Worth Lagoon. This measurement will allow direct comparisons over time within Lake Worth Lagoon and with other ongoing research projects throughout the state.
- 3) Document the prevalence of fibropapillomatosis (FP), a potentially deadly disease that occurs at a high frequency among sea turtles in Indian River Lagoon and Florida Bay.
- 4) Obtain blood samples for genetic, sex ratio, and disease analysis.
- 5) Determine spatial distribution of sea turtles within Lake Worth Lagoon by collecting GPS waypoints for sightings and captures.

The above objectives have been met and confirmed that sea turtles are present in the lagoon year-round, identified specific areas of particularly high abundance, and provided baseline data on the abundance, size class structure, genetic origin, and disease incidence of marine turtles in the lagoon.

In order to take advantage of and build upon the baseline information gathered in the prior work and to gather current information on the population levels, health, and habitat use of turtles in a particularly important and vulnerable parts of the lagoon, additional efforts are proposed to gather data in the northern segment of Lake Worth Lagoon near Little Munyon Island and Jupiter Inlet (Figures 1 and 2). This proposal includes sea turtle abundance surveys as well as continued capture and tagging efforts that will include an assessment of rates and severity of FP. It will also further investigate recently observed differences in diet between seasons and study site. We have also secured funding from outside sources to deploy two acoustic receivers and eight acoustic tags for green turtles captured within the Jupiter Inlet study area. The primary objectives of the proposed work are to:

- 1) Conduct seasonal sea turtle monitoring efforts in the area near Little Munyon Island and in the vicinity of the Jupiter Inlet in 2021-2022.
- 2) Collect sea turtle abundance data on a permanently established monitoring transect near Little Munyon Island that will serve as an accurate index in-water abundance monitoring site for the area.
- 3) Conduct capture and tagging efforts in the Little Munyon Island and Jupiter Inlet areas to gather and document data on size class distribution and FP incidence and severity.
- 4) Examine dietary preferences of captured green turtles by season and study site.

- 5) Attach acoustic tags on up to eight (8) juvenile green turtles in the Jupiter Inlet and place two acoustic receivers at locations near the inlet to assess green turtle movement in the area. These tags and receivers will be provided by funding from the Jupiter Inlet District.
- 6) Attach acoustic tags on up to ten (10) juvenile green turtles in the Munyon Island area (upon approval from ERM at a per tag rate) to assess sea turtle movement in the area once receivers are deployed at various locations throughout the area by ERM.

Sea turtles are viewed as an indicator species of the health of the lagoon. Long-term efforts to monitor the sea turtle population residing in the Lake Worth Lagoon is a valuable addition to the comprehensive program to restore the Lake Worth Lagoon being conducted by PBCERM. Local, state, and federal restoration plans include altering the amount of freshwater discharged to the lagoon, improving water quality, and constructing habitat restoration projects, all of which will lead to an increase in the amount of seagrass and other habitats in the lagoon and improve developmental habitat for juvenile green turtles. This project will help determine how sea turtles respond to these changes.

In 2019, a clear seasonal difference was detected between diet samples collected from green turtles captured in the winter compared to the summer at Little Munyon Island. During the winter, red algae were present in all samples and made up the greatest volume in samples (85.7% among samples), and seagrass only constituted 8.7% among samples. In the summer samples, however, seagrass (*Halodule wrightii*) was present in 100% of samples and constituted 81.9% of the volume among samples. At Jupiter Inlet, turtles were foraging predominantly on seagrass (*Halodule wrightii* and *Halophila johnsonii*) and there were little differences between seasons. Results from the 2020 captures are pending, but to further investigate differences diet between seasons and study sites, we propose dividing field days between four seasonal (quarterly) sampling events at each of the two study sites.

Since recapture and tag return data at this study site are sparse, the deployment of acoustic tags and receivers at strategic points throughout the LWL would be a cost-effective method for monitoring movements of turtles within the area. An acoustic tag-based study would benefit from the presence of nearby receivers by other researchers that are part of the cooperative Florida Atlantic Coastal Telemetry (FACT) array, if turtles move outside of the lagoon. IRG has received outside funding to deploy eight acoustic tags and two receivers at the Jupiter Inlet site, and will continue to apply for additional grant funding to deploy a preliminary acoustic array and acoustic tags at the Little Munyon site. If a grant or other alternate funding is received for deployment of acoustic receivers and/or tags, movement data from the acoustic study could be integrated into subsequent reporting, which would require an updated scope of work for this contract and for future contracted efforts. Additionally, researchers studying other marine species within the lagoon could also deploy acoustic tags and use the same receivers to study movements of their target species within the lagoon. Developing and maintaining a long-term acoustic array within the Lake Worth Lagoon system is a cost effective solution to tracking turtles, elasmobranchs, and fish and to monitor the effects of lagoon restoration.

#### **SCOPE OF WORK**

#### Materials and Methods

Sixteen days of field work to gather sea turtle data will be conducted. Field work will include eight days of quantitative visual transects and capture effort focused on the area in the northern lagoon near Little Munyon Island and eight days of field work focused on the area near Jupiter Inlet. Effort will be divided into quarterly sampling periods spread throughout a 12-month period, dependent on favorable field conditions.

#### Visual Surveys

Sea turtle abundance and species composition will be evaluated using Haphazard Unmarked Nonlinear Transect (HUNT) surveys and permanently established grid transects.

HUNT transects will be conducted at both sites using the methodology employed in the previous phases of the project. The abundance data collected (observations per transect kilometer) will be directly comparable with data collected in the previous phases, allowing for a long-term assessment of sea turtle abundance at the selected sites. Data collected for all observations will include species, size class (juvenile, subadult, or adult), position in the water column (surface or underwater), and the GPS waypoint of the observation. Attempts will be made to conduct 40 kilometers of HUNT transects at the Little Munyon Island site based upon favorable environmental conditions. The turtles near Jupiter Inlet are clustered in such a small geographical area that a turtle is usually sighted so quickly that it likely biases abundance estimates at this site. HUNTs will only be used at the Jupiter Inlet study site when conducting exploratory visual surveys outside the main capture location.

A permanent transect grid has been established at the Little Munyon Island site (Figure 3). The layout of the transect grid was established to encompass the entire area of high-density turtle sightings in the Little Munyon Island area. The permanent transect grid covers a total of 10 km and be run at least twice during the contract period when and if conditions are suitable for meeting the assumptions of density estimation (most importantly, when tide level, cloud cover, and water visibility allow for top to bottom visibility across the entire transect grid). Data collected for all observations will include species, size class (juvenile, subadult, or adult), position in the water column (surface or underwater), and the GPS waypoint of the observation. Large amounts of variability in the results of these surveys over the last few years have raised the possibility that the transect grid lines may be too closely spaced, resulting in oversampling (the possibility the same turtle is being counted more than once in a survey run). In this proposal, we use a revised transect grid utilized in 2019 and sample on that grid at least twice.

#### <u>Captures</u>

Capture efforts will also be conducted at both the Little Munyon Island and Jupiter Inlet sites. Captures by dip net and hand captures by the "rodeo" technique will be used to safely and efficiently capture turtles. Dip net captures shall be conducted using a large mesh nylon net with a three-foot diameter hoop mounted on a twelve-foot long handle. Observers in the tower guide the boat into position for the net operator in the bow to quickly "scoop" a resting or slowly swimming turtle. The boat then slowly follows the turtle until a dip net capture attempt can be made. If conditions of water depth and/or clarity or the behavior of the turtle are such that a capture cannot be easily and safely accomplished, the pursuit is terminated.

Hand captures (rodeo) consist of the boat closely following a turtle at slow speed until a diver is able to jump from the boat to capture the turtle by hand. Rodeo captures will be employed for turtles which are too large, in water too deep, or swimming too actively for the dip net capture method. Rodeo captures will be limited to waters greater than one meter deep for diver safety and to avoid impacts to seagrasses. The boat then slowly follows the turtle until a rodeo capture attempt can be made. If conditions of water depth and/or clarity or the behavior of the turtle are such that a capture cannot be easily and safely accomplished, the pursuit is terminated.

When environmental conditions do not allow for captures to be conducted by dip net and rodeo methods, tangle nets will be used. Tangle net captures utilize a large-mesh tangle net 150 meters long by 5 meters deep, consisting of 40 centimeter stretch (knot to knot) multi-filament mesh suspended from a foam core braided polyethylene top (float) line with fixed buoys spaced 3.5 meters apart. The bottom (lead) line consists of small diameter lead core line. Each end of the net is secured with a small Danforth-type anchor. When turtles encounter the net and become entangled, they are quickly removed and placed on the deck of the boat. Using tangle nets increases the likelihood of bycatch for non-target species such as marine mammals and elasmobranchs, and therefore are only to be used when environmental conditions are not sufficient for preferred capture methods.

A minimum of 48 hours of capture effort will be conducted annually. All captured turtles will be measured, weighed, photographed, and tagged with flipper and implanted tags prior to release. Tumors associated with fibropapillomatosis (FP) will be measured and recorded on a standardized tumor score sheet.

Morphometric data will be collected for each turtle captured using forestry calipers and a flexible tape. Measurements include straight standard carapace length, straight minimum carapace length, straight carapace width, straight plastron length, curved carapace length, curved carapace width, and head width. Inconel #681 tags are applied to the trailing edge of each front flipper and a passive integrated transponder (PIT) tag is subcutaneously applied to the right front flipper. Before insertion of any tags, all flippers are scanned for the presence of any pre-existing PIT tags. Turtles are also weighed and photographed before they are released.

Tumors associated with FP will be measured and recorded at both sites on a standardized tumor score sheet. The total tumor score is used to assign turtles to severity categories. Throughout the processing period, the turtle is kept moist with wet towels and pads on the deck of the boat. Turtles with FP are kept separate from other turtles and separate sets of measuring and tagging gear are used. After all samples and measurements are taken (approximately 25 minutes), the turtle is released near the original capture site. After the release, tagging and measuring equipment is disinfected with a bleach solution. The rate and severity of FP incidence will be compared with data gathered since 2005 in the previous phases, with the goal of establishing any long term trends in Lake Worth Lagoon.

#### <u>Diet</u>

Dietary samples will be extracted from captured green turtles at both sites using a technique called "lavage." The lavage process flushes food items from the esophagus and mouth areas. During this procedure turtles were held on their back with their posterior slightly elevated. A soft plastic veterinarian's stomach tube is

lubricated with vegetable oil and cautiously inserted into the mouth and throat area. Seawater is then pumped through the tube using a veterinarian's double action pump. The tube is gently moved back and forth along the length of the esophagus and dietary items are collected in a bucket positioned under the turtle's head. The extracted diet sample are strained through a fine mesh net (mesh ~1mm) and placed into a collection jar. A 4% formalin-seawater solution is used to preserve the sample for future analysis. Date, location and tag numbers of the turtle are recorded on the collection jar.

#### Acoustic Tracking

Up to ten (10) turtles will be tagged with acoustic transmitters within the Munyon Island monitoring area to document temporal and spatial distribution, habitat utilization, and potential movement of individuals within the lagoon and possibly into adjacent waters. Vemco V13 or similar coded transmitters weighing less than 25 g will be attached to the carapace by using a two-part cool-setting epoxy. Prior to attachment, the desired area on the posterior carapace will be cleared of epibionts using a scrubbing pad or light sandpaper. The area will be wiped with an alcohol pad and allowed to air dry before attaching the transmitter. Epoxy will then be used to secure the transmitter to the carapace. Drying time is between 30 and 60 minutes depending upon ambient temperatures and humidity. Turtles will be released close to the point of capture. The tags will send a signal to a series of receivers strategically placed within the lagoon. The receivers will allow the team to monitor the movement of turtles within the northern Lake Worth Lagoon. Data from the receivers will be downloaded every 8 – 10 months.

## <u>Analysis</u>

Two separate but complementary methods will be employed to provide quantitative data on relative abundance. The HUNT method visual transects that are associated with capture efforts at both sites generate an index of abundance expressed in terms of sightings per transect kilometer, which is used for comparisons of abundance between different sites, different habitat types, and to discern seasonal and annual fluctuations in population levels within a site. The permanently established transects to be conducted at the Little Munyon Island site using the Distance 6.0 analysis can also provide abundance data expressed as observations per kilometer and thus be comparable to previous HUNT transects. Using Distance 6.0 allows for the variability in surface weather conditions and water clarity that occur between survey days to be accounted for in the determination of effective transect swath width, which produces lower variable estimates of abundance and also allows for calculation of turtle density, since the actual effective area of each transect run is calculated. Dietary lavage samples from both sites will be sorted under a dissecting microscope and identified to the lowest practicable taxon by Karen Holloway-Adkins of East Coast Biologists in Indialantic, Florida.

## **DELIVERABLES**

A summary report will be provided following completion of the first eight field days. The report will summarize the completed field work and provide a status update of data analysis. After the completion of an additional eight field days, a final report will be compiled. The final comprehensive report will include all results from all work and will contain data, maps, and analysis described above. The report will include:

- Results from HUNT and grid transects
- Number of turtles observed and abundance estimates
- Capture locations, tag numbers, and morphometric data from captured turtles.
- Species and size class distribution
- Maps showing capture and sighting locations (accompanying GIS files)
- FP incidence and severity
- Dietary analysis results
- Comparisons to previous LWL data and other nearby lagoon and nearshore reef populations.
- Presentation to Lake Worth Lagoon stakeholders.
- Weather Conditions
- Acoustic tagging data (if possible)\*

\*At the time of this Scope of Work, an array of acoustic receivers is being planned for the northern Lake Worth Lagoon within the timeframe of this contract. This effort includes planned receiver coverage within the Munyon Island monitoring Area and is being coordinated by PBCERM and other stakeholders of Lake Worth Lagoon.

The final report will be provided no later than 60 days after completion of the last field day. Reports will be submitted electronically (Word, Excel, PDF, digital photos).

Cost: \$36,424.80\*\*

\*\*Includes the cost of ten (10) acoustic tags which would require additional written approval from PBCERM.

## **COST PROPOSAL**

Item	Units	Unit Cost	Total Cost
Expendables (Biopsy kit, tags, PIT tags)	1	\$480.00	\$480.00
Vessel (fuel, dockage, insurance)	16	\$350.00	\$5,600.00
Field labor (4 IRG biologists x 8 h/day x 16 days)	512	\$42.50	\$21,760.00
Travel (80 miles/day @ \$0.51/mile)	16	\$40.80	\$652.80
Diet analysis	40	\$80.00	\$3,200.00
Vemco V13 Acoustic tags*	10	350.00	\$3,500.00*
Report Preparation (1 IRG biologist x 8 h/day x 4 days)	32	\$38.50	\$1,232.00

Total Project Cost \$36,424.80

<sup>\*</sup>Requires additional written approval from PBCERM to proceed with this task.

#### 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:

## FIRST SESSION (First Eight (8) Field Days)

Task(s) to be completed: Field work of quantitative visual transects and capture effort, and summary report of field work completed in first session and status of data analysis

Completion Time: Dependent upon conditions; Summary Report – 30 days after the completion of the eighth (8<sup>th</sup>) field day.

Compensation for First Session: \$16,462.40 - To be paid upon receipt and approval of Summary Report

Deliverable(s) Required: First Session Summary Report

## SECOND SESSION (Second Eight (8) Field Days)

Task(s) to be completed: Field work of quantitative visual transects and capture effort, and final report compiling results and analysis of field work completed in first and second sessions

Completion Time: Dependent upon conditions; Final Report -60 days after the completion of the sixteenth  $(16^{th})$  field day.

Compensation for Second Session: \$16,462.40 - To be paid upon receipt and approval of Final Report Deliverable(s) Required: Final Report

## OPTIONAL TASK (Acoustic Tagging)

Task(s) to be completed: Upon written approval with a Notice To Proceed from PBC ERM, up to ten (10) sea turtles in the Munyon Island area of Lake Worth Lagoon will be tagged with acoustic transmitters.

Completion Time: Dependent upon conditions; Final Report -60 days after the completion of the sixteenth (16<sup>th</sup>) field day.

Compensation for Acoustic Tags: Not to exceed \$3,500.00 (\$350 per tag, not to exceed 10 tags) Deliverable(s) Required: Tagging data and summary of effort to be included in Final Report.

#### Total = \$36,424.80

- \* "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 and verifiable deliverables.
- \*\* In the event that a survey day cannot be completed due to weather and the CONSULTANT is unable to reschedule, the invoice for that period will be reduced by a total of Two Thousand, Fifty Seven Dollars and Eighty Cents (\$2,057.80) per missed day.