Agenda Item: **3L-4**

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date:	February 7, 2023	(X) Consent ( ) Workshop	( ) Regular ( ) Public Hearing
Department:	Environmental Resources Management		

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve Consultant Services Authorization (CSA) No. APTIM-01 to Contract approved on January 10, 2023 with Aptim Environmental & Infrastructure, LLC (APTIM) in an amount not to exceed $217,838.91 providing for sea turtle monitoring services during the 2023 sea turtle nesting season.

Summary: The Board of County Commissioners approved the Contract with APTIM, a Palm Beach County company, on January 10, 2023. CSA No. APTIM-01 authorizes APTIM to manage permit-required sea turtle monitoring activities in association with the South Lake Worth Inlet Sand Transfer Plant Reconstruction Project, the Ocean Ridge Shore Protection Project, and the Singer Island Dune Restoration Project. The CSA is funded by the Beach Improvement Fund and is eligible for cost sharing from the Florida Department of Environmental Protection. The Contract requires APTIM to adhere to 20% mandatory Small Business Enterprise (SBE) subcontracting goal as the Affirmative Procurement Initiative. APTIM committed to an overall 22.0% SBE participation in the contract. SBE participation for this CSA is 96.6%. **The cost to the County is $217,838.91.** Districts 1 and 4 (YBH)

Background and Justification: The scope of work associated with the CSA is based on sea turtle monitoring conditions included in the state and federal environmental permits issued for the referenced projects. Data management, quality control, and data analysis services will also be provided. These services will enable the County to comply with permit-required data analysis and reporting requirements, as well as tracking sea turtle use of project areas.

Attachment:
1. CSA No. APTIM-01 with Exhibits A – D

Recommended by: mcm ybh _____ 12-28-2022
Department Director **Date**

Approved by: _____ 1/25/23
Assistant County Administrator **Date**

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2023	2024	2025	2026	2027
Capital Expenditures					
Operating Costs	152,487	65,352			
External Revenues					
Program Income (County)					
In-Kind Match (County)					
NET FISCAL IMPACT	152,487	65,352			
No. 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 3652 Department 381 Unit M037 Object 3120
Fund 3652 Department 381 Unit M015 Object 3120

Reporting Category ____

B. Recommended Sources of Funds/Summary of Fiscal Impact:

Beach Improvement Fund	2023	2024
3652-381-M037-3120 Singer Island Dune Project	$ 87,141	$ 37,346
3652-381-M015-3120 Ocean Ridge Shore Protection	$ 65,346	$ 28,006

C. Department Fiscal Review: 12/22/22

III. REVIEW COMMENTS

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

1/5/23

1/5/2023
OFMB 1/5

Contract Dev. and Control 1/23/23
1/23/23

B. Legal Sufficiency:

1/24/23
Assistant County Attorney

C. Other Department Review:

Department Director

CONSULTANT SERVICES AUTHORIZATION

CSA #: APTIM-01 CONSULTANT: Aptim Environmental & Infrastructure, LLC

ACCOUNT: various CONTRACT: R2023-

[Fiscal approval of Budget Availability: see attached BAS (Exhibit A)]

PROJECT MANAGER: Teal Kawana PHONE: 561-681-3852

CONTRACT MANAGER: Juan Cueto PHONE: 561-233-2431

PROJECT NAME: 2023 Sea Turtle Monitoring – Singer Island & Ocean Ridge

LOCATION/DISTRICT #: Singer Island & Ocean Ridge / Districts 1 & 4

TASK DESCRIPTION (use additional pages if necessary): The Consultant shall monitor sea turtle nesting along the beaches of Singer Island and Ocean Ridge and provide data management and analysis, as described in the attached APTIM proposal dated December 12, 2022 (Exhibit C). OEBO Schedules 1 and 2 (Exhibit B), and the Contract History (Exhibit D) are attached hereto and made part of this CSA.

DELIVERABLES: See attached APTIM proposal dated December 12, 2022 (Exhibit C).

CSA TYPE: FIXED PRICE $189,055.41
NOT-TO-EXCEED $28,783.50

DUE DATE: 12/31/2023

TOTAL AMOUNT $217,838.91

(Check where appropriate)
for Contract and Subcontract Amounts:

		Black	Hispanic	Women	Other (specify)	White Male
M/WBE(State)	☐	$	$	$	$	
SBE-M/WBE*	☐	$	$	$	$	
SBE	☒	$	$	$210,574.19	$	$

*certified as both an SBE and a State MBE
TOTAL SBE-M/WBE PARTICIPATION: $210,574.19

(REMAINDER OF PAGE LEFT INTENTIONALLY BLANK)

CONSULTANT REP: _____ DATE: 12/15/22
Nicole Sharp, P.E., Coastal Market/Lead/Program Manager

APPROVED AS TO TERMS AND CONDITIONS:

ERM DIRECTOR: _____ DATE: 12-28-22
Deborah Drum

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

ASSISTANT COUNTY ATTORNEY: _____ DATE: 1/24/2023
Yelizaveta B. Herman

ATTEST: JOSEPH ABRUZZO
CLERK & COMPTROLLER: _____ DATE: _____
Deputy Clerk

BOARD OF COUNTY COMMISSIONERS: _____ DATE: _____
Gregg K. Weiss, Mayor

Exhibit A
p. 1 of 1

Palm Beach County
Environmental Resources Management

INTERDEPARTMENTAL BUDGET AVAILABILITY STATEMENT

REQUEST DATE: 12/22/2022

REQUESTED BY: Juan Cueto

PHONE: 233-2431

PROJECT TITLE: 2023 Sea Turtle Monitoring
Singer Island & Ocean Ridge

PROJECT NO: CSA #Aptim-01

SITE: Singer Island/Ocean Ridge

ACTIVITY: 014- Monitoring

CONTRACTOR/CONSULTANT NAME: Aptim Environmental & Infrastructure, LLC (APTIM)

SCOPE OF SERVICES: Provide monitoring services for sea turtle activities in South Lake Worth Inlet STP, Ocean Ridge Shore, and Singer Island Dune Restoration. CSA# APTIM-01

BUDGET ACCOUNT NUMBER(S):

Fund	Dept	Unit	Obj	SObj	Program	(Proj) Task	(Site) Sub Task	(Activity) Task Ord	Amount
3652	381	M037	3120		E037	E170	CCTY	014	$124,487
3652	381	M015	3120		E015	E170	CCTY	014	$93,352

BAS APPROVED BY: _____ **DATE:** 12/22/22

ENCUMBRANCE NUMBER: _____

\\pbcgov.org\ERM\Data\fss\FinancialManagement\Fiscal\BAS\BAS22\BAS_2022 Sea Turtle Monitoring South Lake Worth Inlet STP_Singer Island Dune_R2019-1542.docx

OEBO SCHEDULE 1

LIST OF PROPOSED CONTRACTOR/CONSULTANT AND SUBCONTRACTOR/SUBCONSULTANT PARTICIPATION

SOLICITATION/PROJECT/BID NAME: 2023 Sea Turtle Monitoring - Singer Island & Ocean Ridge

SOLICITATION/PROJECT/BID No.: CSA No. APTIM-01

NAME OF PRIME RESPONDENT/BIDDER: Aptim Environmental & Infrastructure

ADDRESS: 6401 Congress Avenue, Suite 140, Boca Raton, FL 33431

CONTACT PERSON: Katy Brown, Lead Marine Biologist

PHONE NO.: 561-361-3181 **E-MAIL:** kathryn.brown@aptim.com

SOLICITATION OPENING/SUBMITTAL DATE:

DEPARTMENT: Environmental Resources Management

PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED THE PRIME CONTRACTOR/CONSULTANT ON THIS PROJECT. PLEASE ALSO LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY ALL SUBCONTRACTORS /SUBCONSULTANTS ON THE PROJECT.

	Name, Address and Phone Number	(Check all Applicable Categories) Non-SBE	M/WBE Minority/Women Business	SBE Small Business	DOLLAR AMOUNT OR PERCENTAGE OF WORK Black	Hispanic	Women	Caucasian	Other (Please Specify)
1	Aptim Environmental & Infrastructure, LLC	☑	☐	☐				$7,264.72	
2.	D.B. Ecological Services, Inc.	☐	☑	☑			$210,574.19		
3.		☐	☐	☐					
4.		☐	☐	☐					
5.		☐	☐	☐					
	Total						$210,574.19	$7,264.72	

(Please use additional sheets if necessary)

Total Bid Price $ 217,838.91

Total SBE - M/WBE Participation $210,574.19

Note:

1. **The amount listed on this form for a Subcontractor/subconsultant must be supported by price or percentage listed on the properly executed Schedule 2 or attached signed proposal.**
2. **Firms may be certified by Palm Beach County as an SBE and/or and M/WBE. If firms are certified as both an SBE and/or M/WBE, please indicate the dollar amount under the appropriate category.**
3. **Modification of this form is not permitted and will be rejected upon submittal.**

Exhibit B
p. 1 of 2

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: CSA # APTIM-01

SOLICITATION/PROJECT NAME: 2023 Sea Turtle Monitoring – Singer Island & Ocean Ridge

Prime Contractor: Aptim Environmental & Infrastructure, LLC Subcontractor: DB Ecological Services, Inc.

(Check box(s) that apply)

☑SBE ☑WBE ☐MBE ☐M/WBE ☐Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 4/20/2021.

The undersigned affirms they are the following (select one from each column **if applicable**):

Column 1	**Column 2**			**Column 3**
☐Male ☑Female	☐African-American/Black	☐Asian American	☑Caucasian American	☐Supplier
	☐Hispanic American	☐Native American		

S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any **S/M/WBE** participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
	Biological monitoring services				$210,574.19

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: $210,574.19

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

_____ **Price or Percentage:** _____

Name of 2nd/3rd tier Subcontractor/subconsultant

Aptim Environmental & Infrastructure, LLC
Print Name of Prime

By: _____
Authorized Signature

Nicole Sharp
Print Name

Coastal Market Lead
Title

Date: 12/15/22

DB Ecological Services, Inc.
Print Name of Subcontractor/subconsultant

By: Christine Perretta
Authorized Signature

Christine Perretta
Print Name

President
Title

Date: 12/13/22

Revised 09/17/2019

Exhibit C

CSA No.: APTIM-01

Aptim proposal (23 pages)

Dated December 12, 2022

2023 Sea Turtle Monitoring – Singer Island & Ocean Ridge

Exhibit C
(23 pages)

APTIM
6401 Congress Avenue, Ste. 140
Boca Raton, FL 33487
Tel: +1 561 391 8102
Fax: +1 561 391 9116

December 12, 2022

Juan Cueto
Palm Beach County
Environmental Resources Management (ERM)
Engineering Services Section
2300 North Jog Road - Fourth Floor
West Palm Beach, FL 33411-2743

Re: Proposal for 2023 Sea Turtle Monitoring in Ocean Ridge and Singer Island

Dear Juan:

This proposal is provided at your request for Aptim Environmental and Infrastructure, LLC (APTIM) to provide professional services to assist Palm Beach County (County) in permit-required sea turtle monitoring at Singer Island and Ocean Ridge for the 2023 sea turtle nesting season. APTIM has retained D.B. Ecological Services, Inc. to conduct this monitoring as they have extensive experience in monitoring for sea turtles.

Scope of Services

APTIM will oversee the scope of work proposed by D.B. Ecological Services (Attachment 1), Inc. and provide the necessary administrative coordination to the County. D.B. Ecological has provided the enclosed proposal and cost breakdown for Ocean Ridge and Singer Island sea turtle monitoring tasks, which states:

> "All work to be performed as indicated in the 2023 Palm Beach County Scope for the associated projects. This cost proposal is to provide services from 1 March 2023 – 31 December 2023. Work will be performed adhering to all marine turtle regulations imposed by the US Fish & Wildlife Service and the Florida Fish & Wildlife Conservation Commission."

Fee Proposal

The fee for the services contained in this proposal is $217,838.91 and will be billed monthly on a lump sum basis in proportion to the percentage of the work completed unless otherwise noted. Attached please find a spreadsheet that details the various tasks of the work estimated with the approved rates and classifications (Attachment 2). The total fee for APTIM's oversight and administrative coordination is $7,264.72. The proposal from our sub consultant, D.B. Ecological, is provided as Attachment 3. The cost for D.B. Ecological's work has been organized in the following tasks:

Task 1 – Ocean Ridge Sea Turtle Monitoring

1a – APTIM Review and Coordination (LS)
1b – Ocean Ridge Sea Turtle Monitoring (LS)
1c – Ocean Ridge Additional Tasks (T&M)
1d – Ocean Ridge Optional Tasks (T&M)

APTIM

Task 2 – Singer Island Sea Turtle Monitoring

2a – APTIM Review and Coordination (LS)
2b – Singer Island Sea Turtle Monitoring (LS)
2c – Singer Island Optional Task (T&M)

The Additional and Optional Services may be requested by the County on an as needed basis. These tasks will be compensated on a "Not to Exceed" basis and require the associated back-up documentation. This proposal details the additional services and deliverables that will be provided pending the County's issuance of a Notice-to-Proceed for the Additional and Optional Services.

The services proposed herein will be performed in accordance with this proposal, the Professional Services Agreement R2023-XXXX (dated January 10, 2023) between Palm Beach County and Aptim Environmental & Infrastructure, LLC for Coastal and Marine Engineering Services. We will commence work upon receipt of a Consultant Services Authorization from Palm Beach County. The sea turtle monitoring and reporting shall be completed by December 31, 2023, barring any circumstances beyond our control.

Thank you for the opportunity to continue to serve Palm Beach County. Please call me if you have any questions.

Sincerely,

Katy Brown
Lead Marine Biologist
Aptim Environmental & Infrastructure, LLC

cc: Teal Kawana, PBC-ERM
Christine Perretta, D.B. Ecological Services, Inc.
Debra Neese, APTIM
Jeffery Andrews, CH, PSM, APTIM

Authorized Corporate Signature

Nicole S. Sharp, P.E.
Printed Name

Coastal Restoration & Modeling Program Manager
Title

PALM BEACH COUNTY, FL

2023 SEA TURTLE MONITORING

OCEAN RIDGE AND SINGER ISLAND

ATTACHMENT 1

SCOPE OF WORK

December 12, 2022

Scope of Work
2023 Singer Island Sea Turtle Monitoring

Palm Beach County's Department of Environmental Resources Management (COUNTY) intends to contract with APTIM (CONSULTANT), to provide sea turtle monitoring services in support of State permit requirements issued to Palm Beach County for the Singer Island Dune Restoration Project. The project is 1.25 miles in length extending from Water Glades through Martinique and encompassing existing sea turtle monitoring zones 1-4. (See attached survey map).

The CONSULTANT shall obtain all Florida Fish and Wildlife Conservation Commission (FWC) permits required for sea turtle monitoring, including authorization for nest relocation. All standard sea turtle permit required reports shall be submitted to FWC by the CONSULTANT. The CONSULTANT shall utilize trained and experienced staff to conduct all monitoring activities. All data shall be collected and entered into a computerized data management system, quality control and assurance conditions satisfied, and then submitted to the COUNTY as set forth in this Scope of Work. The COUNTY may, at its discretion, conduct independent surveys and observe data collection and analysis techniques for the purpose of comparing and validating compliance with FWC guidelines and this contract. Proven and unjustifiable discrepancies of more than 10% of observations on a given day may be cause for contract termination.

All sea turtle crawl data shall be entered into the COUNTY's web-based data management system (database). In the event the COUNTY's database fails to function as designed, the CONSULTANT and the COUNTY shall determine mutually agreeable alternatives for data management and reporting. All physical beach monitoring data shall be compiled, stored, and submitted as outlined in each Task.

In order to maintain consistency in data collection techniques, the CONSULTANT shall conduct all monitoring and evaluation practices in accordance with the most current version of the FWC Marine Turtle Conservation Handbook. The CONSULTANT shall be required to follow the stated methodology unless written approval has been given for alternate methods. In the event of a conflict between the guidelines and scope of work, the scope shall prevail and the CONSULTANT shall notify the COUNTY of any conflicts. The CONSULTANT (including all monitoring staff) shall also be required to have read and understood the guidelines and to attend an early season consistency meeting with COUNTY staff. Additional training and/or clarification of monitoring criteria shall be provided as necessary at that meeting.

Task 1: Daily Nesting Surveys and Beach Monitoring

Daily surveys for sea turtle monitoring activity shall be conducted for all zones between March 1 and October 31. The locations of all crawls marked for evaluation are to be collected with a real time corrected DGPS unit with sub-meter accuracy. GPS data shall be uploaded to the database within one business day of data collection and examined for accuracy of content and position and for real-time correction. If necessary, data may be post-processed to obtain sub-meter accuracy using a base station approved by the COUNTY. Each occurrence where post-processing is necessary, as well as the steps taken to identify and resolve the problem, shall be reported to the COUNTY with the appropriate monthly data submittal.

The following parameters shall be recorded for each crawl encountered on a daily survey form approved by the COUNTY:

A. Date
B. Start and end time of survey
C. Weather conditions during survey
D. Survey zone
E. Species of turtle
F. Crawl type
G. Estimated distance from the egg chamber or landward extent of the non-nesting emergence to the high water line

H. Estimated distance from the egg chamber or landward extent of the non-nesting emergence to the toe of dune
I. Number of abandoned body pits
J. Number of abandoned egg chambers
K. Any obstructions (natural or man-made) encountered by the turtle and the turtle's response to that obstruction. Interactions with beach furniture, boats, or recreational equipment shall be recorded on a FWC Obstructed Nesting Attempt form and submitted to FWC per FWC guidelines and the COUNTY with the appropriate monthly data submittal.

Additionally, each nest record must contain a designation of marked/staked (yes/no) and clutch located (yes/no). If the nest is marked, a unique nest identification number must be assigned according to the COUNTY's naming convention.

If authorized by the FWC Marine Turtle Permit, nests may be relocated for conservation purposes, in accordance with FWC guidelines. All relocated nests must be marked for evaluation, regardless of species or marking rotation. Relocated nests shall be identified by the addition of "R" after the marked nest number (example: CC-060314-4BR-SIN).

Zone boundary markers will be installed at the beginning of the season (if missing) and maintained by the CONSULTANT in the dune at historical locations within the entire survey area throughout the nesting season.

Frequency: Daily from March 1 through October 31.

Deliverable: Each crawl record, including all parameters mentioned above, shall be entered into the COUNTY's database within one business day of collection. If the database is malfunctioning, the CONSULTANT will immediately notify the COUNTY. Original datasheets are to be scanned to PDF format and submitted with the monthly deliverable. A monthly summary of daily surveys will be submitted as described in Task 4 (Program Management) and will confirm survey extents and times and summarize any unusual activity on the beach. All original or post-processed GPS datafiles shall be submitted with the appropriate monthly data submittal. Any crawl location that cannot be corrected through real-time or post-processing shall be reported to the COUNTY with the appropriate monthly data submittal.

Task 2: Escarpment Mapping

Weekly visual surveys for escarpment formation shall be conducted for the entire survey area. Persistent escarpments, present for at least two weeks, which are steeper than 60° that exceed 18 inches in height for a distance of 100 feet or greater shall be mapped as a line feature with DGPS. The average height of any escarpments meeting the above criteria shall be estimated and the maximum height measured.

Frequency: Weekly from March 1 to September 30. Task to be a not-to-exceed item based on the number of weeks an escarpment is mapped.

Deliverable: A cumulative summary spreadsheet of all surveys, including date and time, environmental conditions (winds, tide, and sea state), zone, average height, and maximum height and length of the escarpments (as a Microsoft Excel file), as well as GIS line features of escarpments (as ArcMap shapefiles in NAD83, Florida East) and the original GPS datafiles shall be included with each monthly data submittal.

Task 3: Nest Evaluations and Monitoring

Selected nests shall be located, marked, tracked throughout the incubation period, and nest contents evaluated, if applicable. Nests shall be marked approximately 2 feet west of the egg chamber using a 2 foot (or larger) painted wooden stake. An additional painted wooden stake shall be placed at the toe of the dune in the dune vegetation. Precise measurements (distance and bearing) shall be made to the dune stake and recorded on the datasheet. If nest poaching occurs, an alternate staking method, proposed by the CONSULTANT and approved by the COUNTY, may be implemented in high-risk poaching areas upon FWC recommendation.

The clutch location for each marked nest shall be established using the protocol in the FWC Handbook. Nests marked for evaluation shall be monitored throughout the incubation period.

The nest marking rotation for each species shall be developed in consultation with the COUNTY prior to the start of each sea turtle nesting season. The nest marking protocol shall take into account variable nesting densities and potential losses due to erosion or depredation in the project and non-project areas to ensure similar sample sizes for each treatment. Historic and predicted trends shall be used to formulate the protocol. A running count shall be maintained and the beach shall be surveyed in the same direction each day to ensure randomization of nests selected for marking. By July 15 of each nesting season, the CONSULTANT shall compare the current data to predictions and, as necessary, make adjustments to the marking protocol to ensure a sufficient number of evaluated nests.

When sufficient numbers of nests are available, the following minimum numbers of nests shall be marked for each species:

A. Loggerhead – 100 nests in the dune fill (fill) and 100 nests on the berm (non-fill)
B. Green – 100 nests in the dune fill (fill) and 100 nests on the berm (non-fill)
C. Leatherback – all nests

Every marked nest shall be checked daily for:

A. Presence of nest stakes – if the nest stake is missing, the stake shall be reset, that day, using either the distance and bearing information recorded in the database or GPS coordinates, unless continued stake loss due to ongoing, extreme tidal events is likely
B. Evidence of overwash – overwash events shall be categorized as to severity using the following criteria:
    a. 1 = overwash over the egg chamber but less than 1 meter west of the egg chamber
    b. 2 = overwash extent greater than 1 meter west of the egg chamber
C. Evidence of predation – all depredation events, by a mammalian predator or nesting turtle, that involve loss of viable eggs and/or hatchlings (not just loss of hatchlings) shall be recorded using the following parameters:
    a. Predator species
    b. Number of eggs lost
    c. Incubation stage at time of depredation
        i. Pre-hatchling emergence
        ii. Post-hatchling emergence

    All predated nests shall be assigned a fate of "Predated" on the first instance of egg loss, even if viable eggs remain intact; these nests shall not be evaluated for reproductive success. Depredation events by non-mammalian predators, such as crabs, birds, or ants, shall be recorded only in the comments section; these nests shall be evaluated for reproductive success. If hatchlings are depredated after leaving the chamber, but before entering the water, the number of depredated hatchlings and the predator, shall be recorded in the comments section; these nests shall be evaluated for reproductive success.
D. Evidence of hatchling emergence – each marked nest, older than 45 days post-deposition, shall be checked daily for hatchling emergence. If emergence is noted, the estimated number of emerged hatchlings shall be recorded.
E. Evidence of disorientation – **all** hatchling emergences observed in the survey area (not just those from marked nests) shall be evaluated for disorientation. A disorientation report shall be completed online or via Mobile App for any amount of disoriented hatchlings. All disorientation events shall be recorded on the FWC Marine Turtle Disorientation Incident Mobile Application or submitted in the FWC online portal. COUNTY staff and FWC can view the reports via the online portal.

All appropriate information shall be recorded daily on a nest inspection datasheet (automatically generated by the database).

Each marked nest shall be evaluated for reproductive success no earlier than 72 hours post-emergence or 70 days post deposition, whichever is earlier, in accordance with FWC guidelines. For each marked nest, the following parameters shall be recorded on a hatch success form approved by the COUNTY:

A. Number of hatched eggs
B. Number of unhatched eggs
C. Number of pipped live eggs
D. Number of pipped dead eggs
E. Number of live hatchlings
F. Number of dead hatchlings
G. Number of spacer eggs
H. Depth to the top of the chamber (inches)
I. Depth to the bottom of the chamber (inches)

Each marked nest shall be assigned a fate according to the following codes:

A. Hatched (H) – hatched, eggs found
B. Hatched, emergence not observed (HNO) – hatched, emergence not observed, eggs found
C. Predated (PD) – predated, any number of eggs lost
D. Protected (PR) – marked solely for protection or project purposes
E. Poached (PV) – poached, any number of eggs lost
F. Washout (WO) – eroded prior to anticipated or actual emergence, any number of eggs lost
G. Lost (L) – not evaluated due to erosion after anticipated or actual emergence or proximity to a viable nest, all marking stakes removed and GPS coordinates unavailable, etc
H. Could Not Locate (CNL) – eggs unable to be located
I. Scavenged (SCV) – predated after hatchling emergence, any number of eggs lost
J. Turtle Scattered (TS) – eggs scattered by nesting female, any number of eggs lost

For nests assigned a fate of "Lost", an explanation of the circumstances must be entered into the comments section (example: nest eroded on 9/21 from Hurricane Xavier at 74 days post-deposition). If hatchling emergence is not observed after 70 days, the nest site shall be excavated to locate the clutch. A nest fate of "Could Not Locate" may only be used after a 4'x4'x4' area has been excavated. All relocated nests must be marked and evaluated, regardless of species or marking rotation.

Frequency: Daily from March 1 until the last marked nest is evaluated.

Deliverable: Each nest inspection event and hatch success record, including the above mentioned parameters, shall be entered into the COUNTY's database within one business day of collection. Copies of nest inspection sheets and hatch success datasheets are to be scanned to PDF format and provided with the appropriate monthly data submittal.

Task 4: Program Management, Quality Assurance/Quality Control, and Reporting

All data reporting forms shall be checked for accuracy and clarity by a CONSULTANT supervisor or senior staff member and all problems resolved within one business day of data collection. Data shall be entered into the COUNTY's database and each entry verified for accuracy by at least one other person within four (4) weeks of data collection. Persons performing data entry and all verification checks shall initial and date each original datasheet. Alternative methods for data verification and quality assurance may be implemented by the CONSULTANT if approved in advance by the COUNTY.

Deliverable: A summary of the range of dates reviewed, all problems encountered associated with any task and problem resolution shall be included with each monthly data submittal. All deliverables and invoices shall be submitted on or before the 15th of each month following the month of data collection in order to receive payment. For reporting purposes, the COUNTY will be copied on or sent copies of reports submitted under Marine Turtle Permit requirements including but not limited to INBS/SNBS reports, Shoreline Protection Project Excel

Spreadsheets, reproductive reports, and annual summaries in format specified by FWC and as detailed in applicable permit conditions.

Deliverables and Invoices
All deliverable reports and support data to compile the report shall be provided in electronic formats (Word, Excel, ArcGIS, PDF). Palm Beach County ERM shall be notified of spreadsheet submission via email cc to the Project Manager. All deliverables shall be complete and accurate before full payment for each task shall be authorized.

Optional Task A - Late Season Construction Monitoring
If construction activities occur between November 1 and November 30, daily sea turtle nesting surveys and nest monitoring and evaluations shall be conducted through November 30 in accordance with permit conditions and Tasks 1 and 3.

Frequency: Daily surveys and monitoring of nests shall occur until the last nest has been evaluated.

Data Reporting: As described in Tasks 1 and 3.

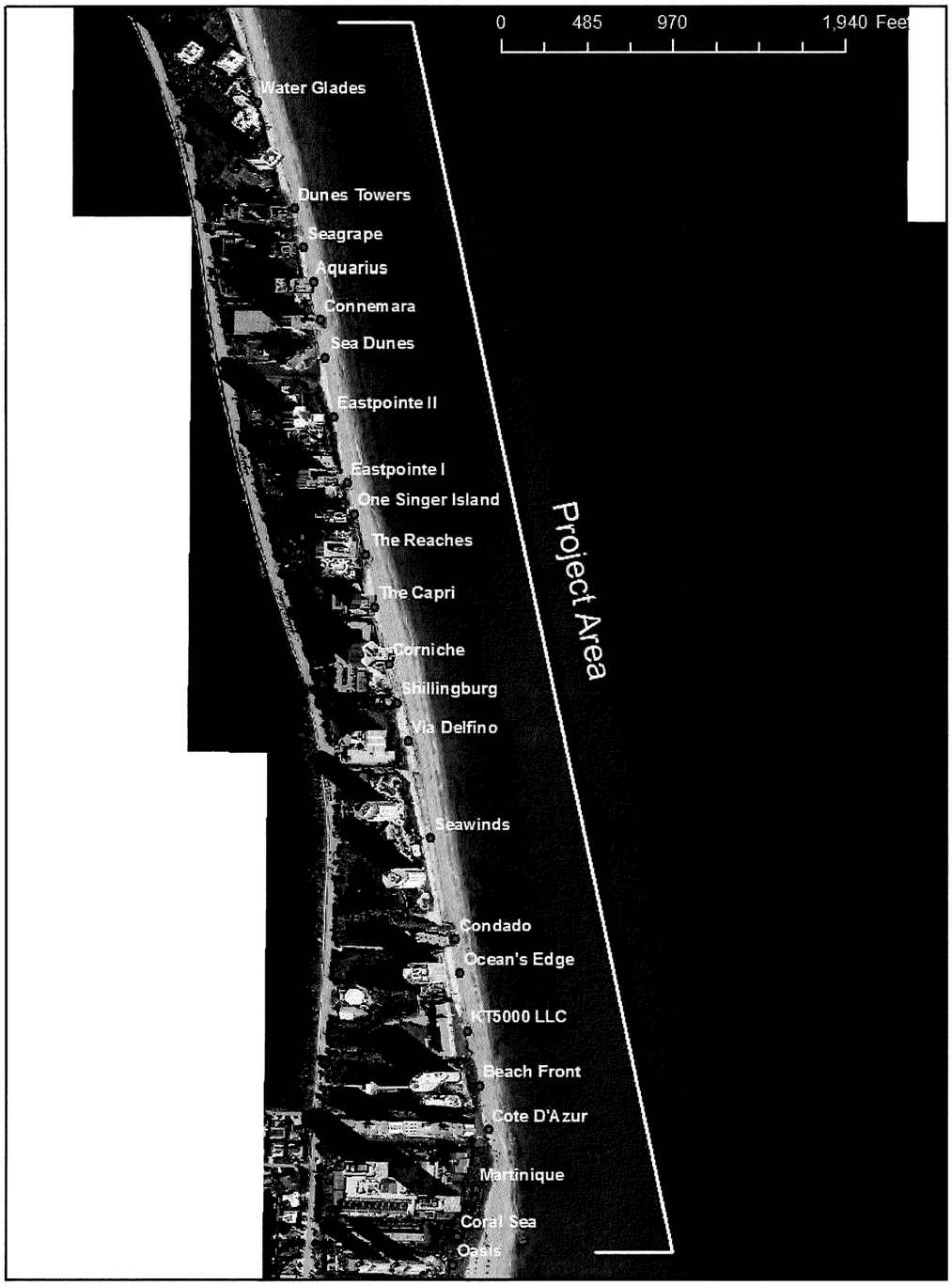
Optional Task B – Mark and Avoid Activities

If construction activities occur between November 1 and November 30, all nests documented in the project area shall be marked and left in place. Such nests will be marked and the actual location of the clutch determined. A circle with a radius of three (3) feet, centered at the clutch shall be marked by stake and survey tape or string. Only those nests that are marked for Task 3 are to be evaluated.

Frequency: Daily from September 1 through November 30.

Data Reporting: As described in Tasks 1 and 3.

Survey Map


0
485
970
1,940 Feet
Water Glades
Dunes Towers
Seagrape
Aquarius
Connemara
Sea Dunes
Eastpointe II
Eastpointe I
One Singer Island
The Reaches
The Capri
Corniche
Shillingburg
Via Delfino
Seawinds
Condado
Ocean's Edge
KT5000 LLC
Beach Front
Cote D'Azur
Martinique
Coral Sea
Oasis
Project Area

Scope of Work
2023 Ocean Ridge Sea Turtle Monitoring

Palm Beach County's Department of Environmental Resources Management (COUNTY) intends to contract with APTIM Environmental and Infrastructure Inc. (CONSULTANT), to provide sea turtle monitoring services. This work is in support of current and anticipated State and Federal permit requirements issued to Palm Beach County for the South Lake Worth Inlet Sand Transfer Plant Bypassing.

The CONSULTANT shall provide services associated with monitoring sea turtle nesting for the beach 1500 feet north of the South Lake Worth Inlet running south to 180 feet south of R-monument 153 at the historical sea turtle zone 4 southern limit (3,500 total feet; see attached survey map).

The CONSULTANT shall obtain all Florida Fish and Wildlife Conservation Commission (FWC) permits required for sea turtle monitoring, including authorization for nest relocation. All standard sea turtle permit required reports shall be submitted to FWC by the CONSULTANT. The CONSULTANT shall utilize trained and experienced staff to conduct all monitoring activities. All data shall be collected and entered into a computerized data management system, quality control and assurance conditions satisfied, and then submitted to the COUNTY as set forth in this Scope of Work. The COUNTY may, at its discretion, conduct independent surveys and observe data collection and analysis techniques for the purpose of comparing and validating compliance with FWC guidelines and this contract. Proven and unjustifiable discrepancies of more than 10% on a given day may be cause for contract termination.

All sea turtle crawl data shall be entered into the COUNTY's web-based data management system (database). In the event the COUNTY's database fails to function as designed, the CONSULTANT and the COUNTY shall determine mutually agreeable alternatives for data management and reporting. All physical beach monitoring data shall be compiled, stored, and submitted as outlined in each Task.

In order to maintain consistency in data collection techniques, the CONSULTANT shall conduct all monitoring and evaluation practices in accordance with the most current version of the FWC Marine Turtle Conservation Handbook. The CONSULTANT shall be required to follow the stated methodology unless written approval has been given for alternate methods. In the event of a conflict between the guidelines and scope of work, the scope shall prevail and the CONSULTANT shall notify the COUNTY of any conflicts. The CONSULTANT (including all monitoring staff) shall also be required to have read and understood the guidelines and to attend an early season consistency meeting with COUNTY staff. Additional training and/or clarification of monitoring criteria shall be provided as necessary at that meeting.

Task 1: Daily Nesting Surveys and Beach Monitoring

Daily surveys for sea turtle monitoring activity shall be conducted for all zones between March 1 and October 31. The locations of all crawls marked for evaluation are to be collected with a real time corrected DGPS unit with sub-meter accuracy. GPS data shall be uploaded to the database within one business day of data collection and examined for accuracy of content and position and for real-time correction. If necessary, data may be post-processed to obtain sub-meter accuracy using a base station approved by the COUNTY.

The following parameters shall be recorded for each crawl encountered on a daily survey form approved by the COUNTY:

A. Date
B. Start and end time of survey
C. Weather conditions during survey
D. Survey zone
E. Species of turtle
F. Crawl type
G. Estimated distance from the egg chamber or landward extent of the non-nesting emergence to the high water line

H. Estimated distance from the egg chamber or landward extent of the non-nesting emergence to the toe of dune
I. Number of abandoned body pits
J. Number of abandoned egg chambers
K. Any obstructions (natural or man-made) encountered by the turtle and the turtle's response to that obstruction. Interactions with beach furniture, boats, or recreational equipment shall be recorded on a FWC Obstructed Nesting Attempt form and submitted to FWC per FWC guidelines and the COUNTY with the appropriate monthly data submittal.

Additionally, each nest record must contain a designation of marked/staked (yes/no) and clutch located (yes/no). If the nest is marked, a unique nest identification number must be assigned according to the COUNTY's naming convention.

If authorized by the FWC Marine Turtle Permit, nests may be relocated for conservation purposes, in accordance with FWC guidelines. All relocated nests must be marked for evaluation, regardless of species or marking rotation. Relocated nests shall be identified by the addition of "R" after the marked nest number.

Zone boundary markers will be installed at the beginning of the season (if missing) and maintained by the CONSULTANT in the dune at historical locations within the entire survey area throughout the nesting season.

Daily coordination with sand transfer plant or construction personnel must occur indicating that the daily nesting survey has been completed in the area and either sand transfer plant or construction activities may begin.

Frequency: Daily from March 1 through October 31.

Data Reporting: The sand transfer plant clear time shall be recorded on the daily survey datasheet. Each crawl record, including all parameters mentioned above, shall be entered into the COUNTY's database within one business day of collection. If the database is malfunctioning, the CONSULTANT will immediately notify the COUNTY. Original datasheets are to be scanned and included in PDF format with monthly deliverables. A monthly summary of daily surveys will be submitted as described in Task 4 (Program Management) and will confirm survey extents and times and summarize any unusual activity on the beach. All original or post-processed GPS datafiles shall be submitted with the appropriate monthly data submittal. Any crawl location that cannot be corrected through real-time or post-processing shall be reported to the COUNTY with the appropriate monthly data submittal.

Task 2: Escarpment Mapping

Weekly visual surveys for escarpment formation shall be conducted for the entire survey area. Persistent escarpments, present for at least two weeks, which are steeper than 60° that exceed 18 inches in height for a distance of 100 feet or greater shall be mapped as a line feature with DGPS. The average height of any escarpments meeting the above criteria shall be estimated and the maximum height measured.

Frequency: Weekly from March 1 to September 30. Task to be a not-to-exceed item based on the number of weeks an escarpment is mapped.

Deliverable: A cumulative summary spreadsheet of all surveys, including date and time, environmental conditions (winds, tide, and sea state), zone, average height, and maximum height and length of the escarpments (as a Microsoft Excel file), as well as GIS line features of escarpments (as ArcMap shapefiles in NAD83, Florida East) and the original GPS datafiles shall be included with each monthly data submittal. In addition to monthly summary submittal, any scarp that persists for a period of two weeks or longer shall be reported to the COUNTY via phone or email once documented so that it may be reported to the state.

Task 3: Nest Evaluations and Monitoring

All nests located within the survey area shall be located, marked, tracked throughout the incubation period, and nest contents evaluated, if applicable. If nesting levels reach a point where over 100 nests of each species may be marked within a season, an alternative marking scheme may be proposed and approved by the COUNTY. Nests shall be marked approximately 2 feet west of the egg chamber using a 2 foot (or larger) painted wooden stake. An additional painted wooden stake shall be placed at the toe of the dune in the dune vegetation. Precise measurements (distance and bearing) shall be made to the dune stake and recorded on the datasheet. If nest poaching occurs, an alternate staking method, proposed by the CONSULTANT and approved by the COUNTY, may be implemented in high-risk poaching areas upon FWC recommendation.

The clutch location for each marked nest shall be established using the protocol in the FWC Handbook. Nests marked for evaluation shall be monitored throughout the incubation period.

The nest marking rotation for each species shall be developed in consultation with the COUNTY prior to the start of each sea turtle nesting season. The nest marking protocol shall take into account variable nesting densities and potential losses due to erosion or depredation in the project and non-project areas to ensure similar sample sizes for each treatment. Historic and predicted trends shall be used to formulate the protocol. A running count shall be maintained and the beach shall be surveyed in the same direction each day to ensure randomization of nests selected for marking. By July 15 of each nesting season, the CONSULTANT shall compare the current data to predictions and, as necessary, make adjustments to the marking protocol to ensure a sufficient number of evaluated nests.

If nesting levels reach a point where not all nests are to be marked, certain nests shall be marked for protection regardless of marking scheme. Protected Nest Designation: In addition to regular nest marking, all nests shall be marked for protection purposes that are laid in:

1. a vehicle access;
2. within 10 feet of a lifeguard tower; or,
3. within 10 feet of the average tide line in Ocean Ridge in areas where mechanical beach cleaning is permitted by DEP. Areas that will not be cleaned during the season do not need to have low nests marked. Daily coordination with the beach cleaner must occur daily to indicate that the daily nesting survey has been conducted in the area and that beach cleaning activities may begin. If any stakes are lost, they must be replaced daily (unless prevented by severe storm conditions) prior to beach cleaning activities.

To identify protected nests (unless they would have been marked as part of the marking rotation), they shall be assigned a nest ID as described in Task 1, with the addition of "P" after the marked nest number. These nests shall be checked daily for the parameters A, D, and E below, but shall not be evaluated for overwash or reproductive success. All stakes shall be removed either 72 hours post-emergence or after 70 days post-deposition, whichever occurs first. All protected nests shall be assigned a nest fate of "Protected".

Every marked nest shall be checked daily for:

A. Presence of nest stakes – if the nest stake is missing, the stake shall be reset that day using either the distance and bearing information recorded in the database or GPS coordinates, unless continued stake loss due to ongoing, extreme tidal events is likely
B. Evidence of overwash – overwash events shall be categorized as to severity using the following criteria:
    a. 1 = overwash over the egg chamber but less than 1 meter west of the egg chamber
    b. 2 = overwash extent greater than 1 meter west of the egg chamber
C. Evidence of predation – all depredation events, by a mammalian predator or nesting turtle, that involve loss of viable eggs and/or hatchlings (not just loss of hatchlings) shall be recorded using the following parameters:
    a. Predator species
    b. Number of eggs lost
    c. Incubation stage at time of depredation

i. Pre-hatchling emergence
ii. Post-hatchling emergence

All predated nests shall be assigned a fate of "Predated" on the first instance of egg loss, even if viable eggs remain intact; these nests shall not be evaluated for reproductive success. Depredation events by non-mammalian predators, such as crabs, birds, or ants, shall be recorded only in the comments section; these nests shall be evaluated for reproductive success. If hatchlings are depredated after leaving the chamber, but before entering the water, the number of depredated hatchlings and the predator, shall be recorded in the comments section; these nests shall be evaluated for reproductive success. If the CONSULTANT is participating in the FWC NPA program, adjustments can be made to allow predated nests to remain marked. The COUNTY will develop a system to allow these protocols.

D. Evidence of hatchling emergence – each marked nest, older than 45 days post-deposition, shall be checked daily for hatchling emergence. If emergence is noted, the estimated number of emerged hatchlings shall be recorded.
E. Evidence of disorientation – **all** hatchling emergences observed in the survey area (not just those from marked nests) shall be evaluated for disorientation. A disorientation report shall be completed online or via Mobile App for any amount of disoriented hatchlings. All disorientation events shall be recorded on the FWC Marine Turtle Disorientation Incident Mobile Application or submitted in the FWC online portal. COUNTY staff and FWC can view the reports via the online portal.

All appropriate information shall be recorded daily on a nest inspection datasheet (automatically generated by the database).

Each marked nest shall be evaluated for reproductive success no earlier than 72 hours post-emergence or 70 days post deposition (80 days for leatherbacks), whichever is earlier, in accordance with FWC guidelines. For each marked nest, the following parameters shall be recorded on a hatch success form approved by the COUNTY:

A. Number of hatched eggs
B. Number of unhatched eggs
C. Number of pipped live eggs
D. Number of pipped dead eggs
E. Number of live hatchlings
F. Number of dead hatchlings
G. Number of spacer eggs
H. Depth to the top of the chamber (inches)
I. Depth to the bottom of the chamber (inches)

Each marked nest shall be assigned a fate according to the following codes:

A. Hatched (H) – hatched, eggs found
B. Hatched, emergence not observed (HNO) – hatched, emergence not observed, eggs found
C. Predated (PD) – predated, any number of eggs lost
D. Protected (PR) – marked solely for protection or project purposes
E. Poached (PV) – poached, any number of eggs lost
F. Washout (WO) – eroded prior to anticipated or actual emergence, any number of eggs lost
G. Lost (L) – not evaluated due to erosion after anticipated or actual emergence or proximity to a viable nest, all marking stakes removed and GPS coordinates unavailable, etc
H. Could Not Locate (CNL) – eggs unable to be located
I. Scavenged (SCV) – predated after hatchling emergence, any number of eggs lost
J. Turtle Scattered (TS) – eggs scattered by nesting female, any number of eggs lost

For nests assigned a fate of "Lost", an explanation of the circumstances must be entered into the comments section (example: nest eroded on 9/21 from Hurricane Xavier at 74 days post-deposition). If hatchling emergence is not observed after 70 days (80 days for leatherbacks), the nest site shall be excavated to locate the clutch. A nest fate

of "Could Not Locate" may only be used after a 4'x4'x4' area has been excavated. All relocated nests must be marked and evaluated regardless of species or marking rotation.

Frequency: Daily from March 1 until the last marked nest is evaluated.

Data Reporting: Each nest inspection event and hatch success record, including the above mentioned parameters, shall be entered into the COUNTY's database within one business day of collection. Copies of nest inspection sheets and hatch success datasheets are to be scanned into PDF format and provided with the appropriate monthly data submittal.

Task 4: Program Management, Quality Assurance/Quality Control, and Reporting

All data reporting forms shall be checked for accuracy and clarity by a CONSULTANT supervisor or senior staff member and all problems resolved within one business day of data collection. Data shall be entered into the COUNTY's database and each entry verified for accuracy by at least one other person within four (4) weeks of data collection. Persons performing data entry and all verification checks shall initial and date each original datasheet. Alternative methods for data verification and quality assurance may be implemented by the CONSULTANT if approved in advance by the COUNTY.

Deliverable: A summary of the range of dates reviewed, all problems encountered associated with any task and problem resolution shall be included with each monthly data submittal. All deliverables and invoices shall be submitted on or before the 15th of each month following the month of data collection in order to receive payment. For reporting purposes, the COUNTY will be copied on or sent copies of reports submitted under Marine Turtle Permit requirements including but not limited to INBS/SNBS reports, Shoreline Protection Project Excel Spreadsheets, reproductive reports, and annual summaries in format specified by FWC and as detailed in applicable permit conditions.

Deliverables and Invoices

All deliverable reports and support data to compile the report shall be provided in electronic formats (Word, Excel, ArcGIS, PDF). Palm Beach County ERM shall be notified of spreadsheet submission via email cc to the Project Manager. All deliverables shall be complete and accurate before full payment for each task shall be authorized.

Additional Task A: Nest Relocation for Sand Transfer Plant Operation

Nests deposited in zones 2 and 3 may require relocation out of the area of influence of the sand transfer plant intake and discharge to an appropriate incubation area in the event of active construction; the relocation area shall be selected in consultation with the CONSULTANT and COUNTY prior to each nesting season and shall be re-evaluated periodically during the nesting season to ensure nests are adequately protected and/or are not unnecessarily relocated. Relocation activities must be completed prior to 9:00 AM on the date deposited. All relocated nests must be marked as described in Task 1 and evaluated as described in Task 3. Relocation and incubation areas are shown on Attachment 1. An estimated 5 nests per season may require relocation. The CONSULTANT must be able to obtain a FWC permit authorizing relocation activities.

Frequency: As required when nests are deposited within the relocation area.

Data Reporting: Observer, relocation start and end times, number of eggs, and egg chamber dimensions shall be recorded. Copies of datasheets shall be provided with the appropriate monthly data submittal. Data reporting shall occur in accordance with Tasks 1 and 3.

Additional Task B: Caging Activities

Nests deposited in the groin field (zones 3 and 4) may require screening with restraining cages to prevent hatchling interaction with the T-head groins. The egg chamber must be located for all nests deposited within the groin field (Attachment 1) as described in Task 3; if the nest marker is lost during incubation, it must be reset using sub-meter accurate DGPS coordinates and the top of the egg chamber reconfirmed, as described in Task 3, prior to cage

deployment. The minimum caging criteria based on beach and conditions shall be determined in coordination with the COUNTY prior to the first cage deployment. After 45 days of incubation, a restraining cage will be placed over the egg chamber for nests that require screening. The cage must be closed at sunset, checked once between 11:00 PM and 1:00 AM, and opened at sunrise every day. Hatchlings found in the cages shall be released immediately at a location that is not influenced by artificial lighting. The CONSULTANT shall conduct all nest and monitoring evaluations as described in Task 3. The cage shall be removed 72 hours post-emergence, during nest excavation, not upon nest emergence.

Frequency: As required when nests are deposited within the groin field.

Data Reporting: Date of cage checks, observer, cage open, check, and close times, emergence, number of hatchlings, and position of hatchlings within the cage shall be recorded. Data reporting shall occur in accordance with Tasks 1 and 3. Cost for this task shall be provided on a per night visit.

Optional Task A: Pre-construction meeting

The CONSULTANT will be required to attend a pre-construction meeting for any proposed construction which could include the sand trap dredging project and beach nourishment.

Frequency: Once prior to construction initiation.

Data Reporting: A copy of the pre-construction attendance sheet shall be provided to the COUNTY with the appropriate monthly data submittal.

Optional Task B: Late season construction monitoring for the stretch of beach extending from 1500' north of the South Lake Worth Inlet to Adams Road (~2.25 miles)

If construction activities occur between November 1 and November 30, daily sea turtle nesting surveys and nest monitoring and evaluations shall be conducted through November 30 in accordance with permit conditions and Tasks 1 and 5. Activities may include marking nests with perimeter stakes and flagging tape for protection from construction activity and relocation of nests from active construction zones as described in Additional Task A. Relocation could begin as early as August 28 (65 days prior to construction).

Frequency: Daily surveys and monitoring of nests shall occur until the last nest has been evaluated.

Data Reporting: As described in Tasks 1 and 3.

Optional Task C: Mark and avoid activities for the stretch of beach extending from 1500' north of the South Lake Worth Inlet to Adams Road (~2.25 miles)

If shoreline protection activities conducted by the COUNTY will occur during the period from March 1 to April 30 or in November, nests deposited in work areas where construction has ceased or will not occur for 65 days, shall be marked and left in situ as described in environmental permits. All nests shall be surveyed, monitored and marked as described in Task 1, with the addition of at least a 10' stake and ribbon perimeter, and evaluated and monitored as described in Task 3; The CONSULTANT shall be responsible for coordination with the construction contractor.

Frequency: As needed.

Data Reporting: Data reporting shall occur in accordance with Tasks 1 and 3.

Optional Task D: Nest relocation for the stretch of beach extending from 1500' north of the South Lake Worth Inlet to Adams Road (~2.25 miles)

Nest relocation for construction purposes shall occur under the following circumstances:

a) If shoreline protection activities will occur during the period from 1 November to 30 November, nests deposited in areas that will be directly affected by shoreline protection activities shall be relocated to a nearby area that will not be affected by shoreline protection activities, regardless of species or marking rotation. Nest relocations will occur as authorized by USFWS and FWC.

b) Late season nests deposited 65 days prior to an expected construction start date in areas that will be directly affected by shoreline protection activities shall be relocated.

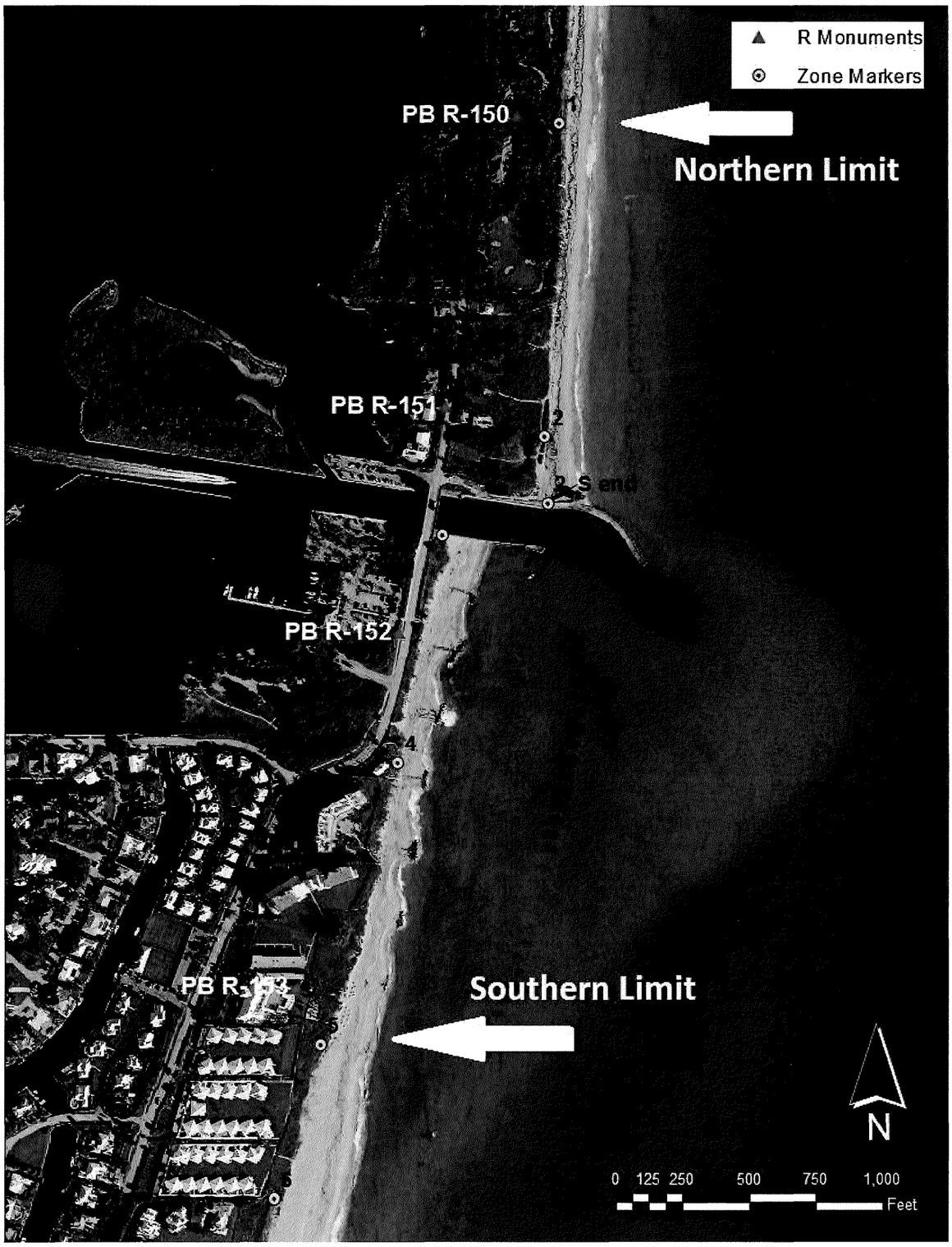
c) Any nest laid in an active construction area during activities described in Optional Tasks B and C shall be relocated.

All relocated nests shall be marked as described in Task 1, checked daily and evaluated for reproductive success as described in Task 3, regardless of species or marking rotation. The CONSULTANT shall be responsible for coordination with the construction contractor. The CONSULTANT shall be responsible for obtaining the appropriate marine turtle permit modification from the Florida Fish and Wildlife Conservation Commission to relocate nests for construction purposes.

Frequency: As needed.

Data Reporting: Data reporting shall occur in accordance with Tasks 1 and 3.

Survey Map


R Monuments
Zone Markers
PB R-150
Northern Limit
PB R-151
S end
PB R-152
PB R-153
Southern Limit
N
0 125 250 500 750 1,000
Feet

PALM BEACH COUNTY, FL

2023 SEA TURTLE MONITORING

OCEAN RIDGE AND SINGER ISLAND

ATTACHMENT 2

COST ESTIMATE

December 12, 2022

PREPARED BY:

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

ATTACHMENT 2

PALM BEACH COUNTY
2023 SEA TURTLE MONITORING

Cost Estimate

Tasks	LABOR COSTS				DIRECT COSTS
	Senior Project Manager (Hours)	Project Manager (Hours)	Bookkeeper (Hours)	Clerical (Hours)	Subconsultant (cost)
1. Ocean Ridge Sea Turtle Monitoring					
a. APTIM Review & Coordination (LS)	2	16	6	2	
b. Ocean Ridge Sea Turtle Montoring (LS)					$64,499.76 ✓
c. Ocean Ridge Additional Tasks (T&M)					$17,430.00 ✓
d. Ocean Ridge Optional Tasks (T&M)					$7,789.50 ✓
2. Singer Island Sea Turtle Monitoring					
a. APTIM Review & Coordination (LS)	2	16	6	2	
b. Singer Island Sea Turtle Montoring (LS)					$117,290.93 ✓
c. Singer Island Optional Tasks (T&M)					$3,564.00 ✓
Total =	4	32	12	4	$210,574.19
Rate =	$238.39	$157.43	$79.96	$78.47	1
Cost =	$953.56	$5,037.76	$959.52	$313.88	$210,574.19 ✓

Multiplier = 2.61, OK JC 12/12

TOTAL LABOR COST = $7,264.72 ✓
TOTAL DIRECT SUBCONTRACTOR COST = $210,574.19 ✓

TOTAL COST = $217,838.91 ✓

Exhibit C
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PALM BEACH COUNTY, FL

2023 SEA TURTLE MONITORING

OCEAN RIDGE AND SINGER ISLAND

ATTACHMENT 3

PROPOSAL FROM D.B. ECOLOGICAL SERVICES, INC.

December 12, 2022

D.B. Ecological Services, Inc.
19663 Hampton Dr
Boca Raton, FL 33434
Phone # (561) 376-5502

12/12/22

D.B. ECOLOGICAL SERVICES, INC. 2023 COST PROPOSAL FOR PALM BEACH COUNTY SEA TURTLE MONITORING SINGER ISLAND & OCEAN RIDGE

All work to be performed as indicated in the 2023 Palm Beach County Scope for the associated projects. This cost proposal is to provide services from 1 March 2023 – 31 December 2023.

Work will be performed adhering to all marine turtle regulations imposed by the US Fish & Wildlife Service and the Florida Fish & Wildlife Conservation Commission.

A cost breakdown has been provided for Ocean Ridge on the attached spreadsheet labeled Exhibit A. The tasks referenced in Exhibit A are only for tasks that necessary from 1 March 2023– 31 December 2023. The total costs established in Exhibit A for Tasks 1-4 = $64,499.76. The total proposed additional tasks = $17430.00. The total proposed optional tasks = $7789.50

A cost breakdown has been provided for Singer Island on the attached spreadsheet labeled Exhibit B. The tasks referenced in Exhibit B are only for tasks that necessary from 1 March 2023 – 31 December 2023. Any additional services will be provided under a separate Agreement. The total costs established in Exhibit B for Tasks 1-4 = $117,290.93. The total the proposed optional tasks = $3564.00.

Christine Perretta
Christine Perretta
DB Ecological Services, Inc.

Exhibit A

2023 Detailed Cost Breakdown for DB Ecological Ocean Ridge Sea Turtle Monitoring

March - December

Ocean Ridge Monitoring

Task		Cost	Unit	# Units	Unit Rate
1	Nest survey	$ 31,827.60	month	8	$ 3,978.45
2	Scarps	$ 1,814.40	month	7	$ 259.20
3	Nest eval	$ 3,522.96	month	7	$ 503.28
4	Prog Mgmt	$ 19,440.00	month	9	$ 2,160.00
4 A,B,C	Prog Mgmt	$ 7,894.80	month	8	$ 986.85
	Monitoring =	**$ 64,499.76**			

Ocean Ridge Additional Tasks (Not to Exceed)

Task		Cost	Unit	# Units	Unit Rate	Unit	# Units	Unit Rate
A	Reloc	$ 150.00	Nest	5	$ 30.00	one time		$ 150.00
B	Caging	$ 17,280.00	night	80	$ 216.00	nightly	80	$ 216.00
	Additional Tasks =	**$ 17,430.00**						

Ocean Ridge Optional Tasks (Not to Exceed)

Task		Cost	Unit	# Units	Unit Rate	Unit	# Units	Unit Rate
A	Pre-con Meeting	$ 187.50	hr	1.5	$ 125.00	one time		$ 187.50
B.1	Late season Mon (Sept/Oct)	$ 3,888.00	day	60	$ 64.80	month	2	$ 1,944.00
B.2	Late season Mon (Nov)	$ 3,564.00	day	30	$ 118.80	month	1	$ 3,564.00
C	Mark and Avoid (Included in Task B)	$ -	month	1	$ -	month	3	$ -
D	Late Season Reloc	$ 150.00	Nest	5	$ 30.00	one time		$ 150.00
	Optional Tasks =	**$ 7,789.50**						

Exhibit B

2023 Detailed Cost Breakdown for DB Ecological Singer Island Sea Turtle Monitoring

March - December

Singer Island Monitoring

Task		Cost	Unit	# Units	Unit Rate
1	Nest survey	$ 47,506.96	month	8	$ 5,938.37
2	Scarps	$ 1,728.00	month	7	$ 246.86
3	Nest eval	$ 17,161.20	month	7	$ 2,451.60
4	Prog Mgmt	$ 36,230.49	month	9	$ 4,025.61
4 A,B,C	Prog Mgmt	$ 14,664.28	month	8	$ 1,833.04
	Monitoring =	**$ 117,290.93**			

Singer Island Optional Tasks (Not to Exceed)

Task		Cost	Unit	# Units	Unit Rate	Unit	# Units	Unit Rate
A	Late season Mon	$ 3,564.00	day	30	$ 118.80	month	1	$ 3,564.00
B	Mark & Avoid (Included in Task A)	$ -	month	1	$ -	month	3	$ -
	Optional Tasks =	**$ 3,564.00**						

CONTRACT HISTORY
Aptim Environmental & Infrastructure, LLC
Continuing Contract for Coastal and Marine Engineering Services

Contract R2023-xxxx dated January 10, 2023 for a period of two years, expires on January 9, 2025.
SBE Goal 22.0% (20% SBE/Woman; 2% SBE/White Male)

Task Order summary:

CSA NUMBER	TOTAL/ SBE and/or MWBE AMOUNT	TASK DUE DATE	TASK DESCRIPTION	APPROVED BY/DATE
APTIM-01	217,838.91 210,574.19	12/31/2023	2023 Sea Turtle Monitoring - Singer Island & Ocean Ridge	BCC

Total: 217,838.91
SBE-M/WBE: 210,574.19
SBE-M/WBE Participation: 96.6%
Report Date & Filename: 12/13/22 T:\eer\engser\Consultants\Aptim Environmental & Infrastructure 2023-2025\[history_xxxx.xls]Sheet1