

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2023	2024	2025	2026	2027
Capital Expenditures	\$418,616	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	<u>\$418,616</u>	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____
Is Item Included in Current Budget?		Yes <u>X</u>		No _____	
Does this item include the use of federal funds?		Yes _____		No <u>X</u>	
Budget Account No.:	Fund <u>3652</u> Department <u>381</u> Unit <u>M053</u> Object <u>3120</u> Program _____				

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

Beach Improvement Fund

C. Department Fiscal Review:

[Signature]

III. REVIEW COMMENTS

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

for review
Belton
9/7/22
ABD 9/7/22 *[Signature]* 9/12/22
 OFMB 9A 917 Contract Development and Control

B. Legal Sufficiency:

[Signature] 9/13/22
Assistant County Attorney

C. Other Department Review:

Department Director

TASK ORDER (CONSULTANT SERVICES AUTHORIZATION)

TASK ORDER: 1543-19 CONSULTANT: Olsen Associates, Inc.

ACCOUNT: 3652-381-M053-4630-S039-CJUP-008 CONTRACT: R2019-1543; R2021-1436

[Fiscal approval of Budget Availability: S. Heary 9/1/22]

PROJECT MANAGER: Reubin Bishop PHONE: 561-233-2519

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

PROJECT NAME: North County Comprehensive Shore Protection Project – Segment II Nourishment

LOCATION/DISTRICT #: Jupiter / District 1

TASK DESCRIPTION (use additional pages if necessary): The Consultant shall provide professional services to prepare, submit, and support State and Federal permit applications for beach nourishment along Segment II (South Jupiter), as described in the attached Olsen proposal dated August 25, 2022 (Exhibit B). OEBO Schedules 1 and 2 (Exhibit A) and the Contract History (Exhibit C) are attached hereto and made part of this Task Order (CSA). Execution of Task 8 will require a separate written Notice to Proceed from the County.

DELIVERABLES: See Olsen’s proposal dated 8/25/2022 (Exhibit B).

TASK ORDER TYPE: FIXED PRICE \$261,021.00 DUE DATE: June 30, 2024
NOT-TO-EXCEED \$157,595.00

TOTAL AMOUNT \$418,616.00

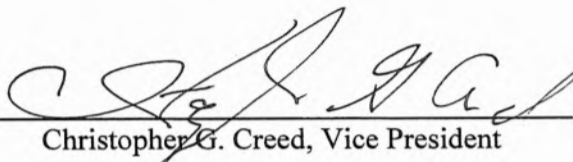
(Check where appropriate)
 for Contract and Subcontract Amounts:

	Black	Hispanic	Women	Other (specify)	White Male
M/WBE (State) <input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	
SBE-M/WBE* <input checked="" type="checkbox"/>	\$ _____	\$ _____	\$ <u>59,811.00</u>	\$ _____	
SBE <input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

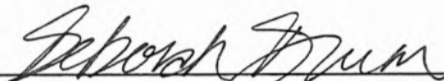
*certified as both an SBE and a State M/WBE

CUMULATIVE CONTRACT SBE-M/WBE PARTICIPATION: 42.5%

(REMAINDER OF PAGE LEFT INTENTIONALLY BLANK)

CONSULTANT REP:  DATE: 8-25-22
Christopher G. Creed, Vice President

APPROVED AS TO TERMS AND CONDITIONS:

ERM DIRECTOR:  DATE: 9-2-2022
Deborah Drum

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

ASSISTANT COUNTY ATTORNEY: _____ DATE: _____
Yelizaveta B. Herman

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

BOARD OF COUNTY COMMISSIONERS: _____ DATE: _____
Robert S. Weinroth, Mayor

Exhibit A
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OEBO SCHEDULE 1

LIST OF PROPOSED CONTRACTOR/CONSULTANT AND SUBCONTRACTOR/SUBCONSULTANT PARTICIPATION

SOLICITATION/PROJECT/BID NAME: North County Comprehensive Shore Protection Project – Segment II Nourishment
 NAME OF PRIME RESPONDENT/BIDDER: Olsen Associates, Inc.
 CONTACT PERSON: Steven C. Howard, P.E.
 SOLICITATION OPENING/SUBMITTAL DATE: _____

SOLICITATION/PROJECT/BID No.: Task Order No. 1543-19
 ADDRESS: 2618 Herschel Street, Jacksonville, FL 32204
 PHONE NO.: 904-387-6114 E-MAIL: showard@olsen-associates.com
 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)			DOLLAR AMOUNT OR PERCENTAGE OF WORK				
	Non-SBE	M/WBE	SBE	Black	Hispanic	Women	Caucasian	Other
		Minority/Women Business	Small Business					(Please Specify)
1. Olsen Associates, Inc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	\$358,805	_____
2. Coastal Eco-Group, Inc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	_____	_____	\$59,811	_____	_____
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____

(Please use additional sheets if necessary)

Total Bid Price \$ **418,616.00** Total SBE - M/WBE Participation **\$59,811.00**

- Note:**
- 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.
 - 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.
 - Modification of this form is not permitted and will be rejected upon submittal.

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: Task Order No. 1543-19
 SOLICITATION/PROJECT NAME: North County Comprehensive Shore Protection Project – Segment II Nourishment

Prime Contractor: Olsen Associates, Inc. Subcontractor: Coastal Eco-Group, Inc.

(Check box(s) that apply)
 SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 4/30/2021

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

Column 1	Column 2	Column 3
<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female	<input type="checkbox"/> African-American/Black <input type="checkbox"/> Asian American <input checked="" type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> 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.

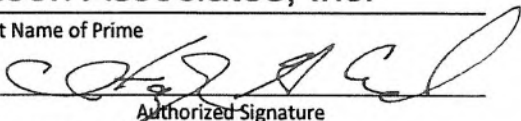
Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
	Biological Monitoring Services				\$59,811.00

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: \$59,811.00

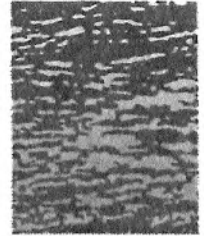
If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

NOT APPLICABLE

Name of 2nd/3rd tier Subcontractor/subconsultant _____ Price or Percentage: _____

Olsen Associates, Inc.
 Print Name of Prime
 By: 
 Authorized Signature
CHRISTOPHER G. CREED
 Print Name
VICE-PRESIDENT
 Title
 Date: 8-26-2022

Coastal Eco-Group, Inc.
 Print Name of Subcontractor/subconsultant
 By: Cheryl L. Miller
 Authorized Signature
Cheryl L. Miller
 Print Name
President
 Title
 Date: August 26, 2022



olsen
associates, inc.
Coastal Engineering

August 25, 2022

Reubin Bishop, Environmental Analyst
Palm Beach County Department of Environmental Resources Management
2300 North Jog Road, 4th Floor
West Palm Beach, FL 33411-2743

Re: Annual Coastal Engineering Contract
Task Order 1543-19 Proposal
North County Comprehensive Shore Protection Project
Segment II Nourishment; Palm Beach County, Florida

Dear Mr. Bishop,

Please find the attached scope of work and cost summary for proposed Task Order 1543-19 of our existing annual services contract with Palm Beach County. This Task Order will cover costs related to preparing, submitting, and supporting State and Federal permit applications for a beach nourishment project along Segment II of the North County Comprehensive Shore Protection Project shoreline.

This proposal includes a total estimated Task Order cost of \$418,616.00. Of this total amount, \$59,811.00 or 14.3% is allocated to a Palm Beach County SBE certified firm. Further, the total proposal amount includes Task 8 for \$89,887.00 which is authorized only following a written Notice-To-Proceed (NTP & NTE) from Palm Beach County, as well as \$67,708.00 for tasks proposed as Not-To-Exceed (NTE) amounts (sub-tasks 5, 6, and 7).

Please contact us should you have any additional questions regarding this submittal.

Sincerely yours,

Christopher G. Creed, P.E.
Vice President / Senior Engineer

Attachments

- Scope of Work
- Cost Summary Spreadsheets
- Sub-Consultant Proposal

Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

The North County Comprehensive Shore Protection Project (NCCSPP) extends between FDEP control monuments R13 and R38. The NCCSPP is divided into three reaches. From north to south, these reaches are referred to as Segment I (Jupiter/Carlin, R13 to R19), Segment II (South Jupiter, R19 to R26), and Segment III (Juno Beach, R26 to R38). The current State and Federal permits for the NCCSPP allow for traditional beach renourishment along Segments I and III. However, the permit currently authorizes only dune fill landward of the Mean High Water (MHW) shoreline along Segment II. Based on the results of a feasibility study conducted by OAI at the request of the County, construction of a beach fill project along Segment II is expected to be an economically viable solution to reducing end losses along the Segments I and III projects and protecting the critically eroded Segment II shoreline. Consultation with FDEP suggests that adding a fill along Segment II will constitute a major modification to the exiting permit. OAI (CONSULTANT) proposes the following scope of services in order to apply for a major modification to the exiting permits for the addition of a beach fill along Segment II.

1. ENGINEERING ANALYSIS AND SCHEMATIC LEVEL DESIGN

The CONSULTANT shall perform an (1) assessment of existing beach conditions, (2) engineering analyses schematic level beach renourishment design, (3) numerical modeling of proposed project performance, (4) storm vulnerability analysis, and (5) Equilibrium Toe of Fill (ETOF) analysis for the North County Comprehensive Shore Protection Project (NCCSPP), Segment II. The proposed project includes beach fill construction and maintenance along previously non-restored areas of the NCCSPP shorelines (R19 to R26) in northern Palm Beach County. The findings of the 2022 NCCSPP Feasibility Study¹ (TO 1377-01) shall serve as the basis for the analyses, schematic level design, and permitting activities described herein. The feasibility study identified the scope and scale of a project that meets the economic and shore protection needs of the COUNTY and NCCSPP project shoreline. The current task seeks to refine these findings into a preliminary engineering design suitable for project permitting.

1.1. Beach Condition Assessment. The CONSULTANT shall perform an evaluation of existing beach conditions and historical volumetric and shoreline changes along the NCCSPP shoreline (R13 to R38 and south thereof to R45) based upon relevant, existing monitoring data and beach profile survey data. This analysis shall update the beach condition assessment completed for TO 1377-01, Task 1.0, which updated TO 1190-08.

¹ Olsen (2022). "North County Comprehensive Shore Protection Project: Segment II Feasibility Study." Report prepared for Palm Beach County, Environmental Resources Management. Prepared by Olsen Associates, Inc. 2618 Herschel Street Jacksonville, FL 32204. July 2018; Rev. April 2022

Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

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The CONSULTANT shall compare existing beach conditions, as represented by the most currently available physical monitoring data to those measured since 1995 – the first nourishment of NCCSPP Segment I. The CONSULTANT shall compute and summarize both magnitude and trends in volumetric and shoreline change over time with and without the effects of beach renourishment. The analyses will specifically include an evaluation of the Mean High-Water Line (MHWL) and beach volumetric changes along the NCCSPP shoreline. The results will be considered for calibration of numerical models described herein as well as establishment of a baseline condition for the planned Segment II beach renourishment. It is assumed that the COUNTY will supply to the CONSULTANT all physical monitoring data and relevant information regarding historical nourishment dates and volumes throughout the NCCSPP.

1.2. Engineering and Schematic Level Beach Fill Design. The CONSULTANT shall incorporate the findings from the beach condition assessment (Task 1.1) and 2022 NCCSPP Feasibility Study into a schematic level beach fill design. The effort shall develop the beach fill volume and design template configuration along Segment II relative to current beach conditions. The design template shall consider a volume sufficient to account for average annual rates of background erosion along Segment II required to stabilize the baseline beach condition for the design life of the fill, approximately 8 years.

1.3. Project Performance Analysis using Numerical Modeling. The CONSULTANT shall conduct numerical alongshore transport, shoreline change, and cross-shore storm response modeling to assess the predicted physical performance of the schematic level beach fill design developed in Task 1.2. Physical performance of the proposed project will be assessed upon prediction of shoreline and upland contour positions following simulated exposure to average annual and storm conditions offshore (wave, wind, tide, etc.). The predicted profile and shorelines shall be compared with spatial benchmarks established in consultation with Palm Beach County in order to assess project performance.

1.3.1. Input offshore wave conditions. The CONSULTANT shall acquire a continuous wave hindcast time series and extremal values analysis developed at a single offshore location on the GROW-FINE East Coast hindcast. The GROW-FINE hindcast model is domain-developed and maintained by Ocean Weather. The Ocean Weather hindcast time series covers the period from January 1979 through December 2021, and represents both a temporal and technological improvement over the Wave Information Studies (WIS) hindcast which goes

Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

through 2019. The more recent hindcast time series is expected to improve the accuracy of the numerical modeling proposed herein. The CONSULTANT shall utilize these data to statistically and graphically describe the typical offshore wave climate and develop input conditions for numerical modeling analyses.

- 1.3.2. Numerical Modeling.** The purpose of the numerical modeling analyses will be to evaluate beach fill planform evolution and shoreline change response to the proposed project.

The shoreline between R-13 and R-45 (approximately 1.3 miles south of the Segment III project limit) will be included in the performance analysis. The work will include the assembly of historical shoreline positions and representative nearshore bathymetry; schematization of the Ocean Weather offshore wave data to identify representative wave parameters that contribute most to average annual sediment transport; computation of nearshore conditions for the representative offshore conditions that contribute most to alongshore sand transport, and prediction of post-construction evolution of the project shoreline.

Nearshore wave conditions shall be predicted using the schematized offshore wave conditions and a spectral wave transformation model (SWAN, STWAVE, CMS-Wave, or equivalent) in order to assess the effects of the complex nearshore bathymetry offshore of Palm Beach County to nearshore waves. The wave model will be used to transform each representative offshore wave condition over representation of the nearshore bathymetry. The resulting, predicted nearshore wave conditions shall serve as input into a separate numerical model to predict alongshore sediment transport potential along the study shoreline (GENCADE, UNIBEST-LT or equivalent). The results of the sediment transport modeling will be subsequently applied to a one-line shoreline change model (GENCADE, UNIBEST-CL+ suite, or equivalent) to simulate the evolution of the Segment II project in time.

Calibration of the sediment transport model shall consider the historical volume change rates computed in Task 1.1, herein. The shoreline change model also will be verified using historical, measured shoreline surveys selected in order to describe periods of relatively low anthropogenic shoreline influences.

The modeling shall seek to affirm the ability of the project to maintain the baseline shoreline condition developed in Task 1.1, herein, for the design life of

Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

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the project under average annual sediment transport conditions. Model initialization shall assume the Segment II project will be constructed in conjunction with projects along Segments I and III and will consider beach width, planform evolution, and the overall sand loss rate from the project area. Should the model suggest that the fill may underperform, the fill design shall be iteratively reevaluated and subsequently remodeled under this Task. This proposal includes simulation of up to two additional iterative fill scenarios.

As part of the study, the CONSULTANT shall complete three additional shoreline change simulations, as follows: (1) only the Segment II project is constructed; (2) only Segments I & II projects (R13 to R26) are constructed; and (3) only Segments II & III projects (R19 to R38) are constructed. Quantification of any significant project performance differences related to construction schedules will be noted in the final report, for planning purposes.

- 1.4. Beach and Upland Storm Vulnerability Analysis.** The CONSULTANT shall conduct a beach and upland storm vulnerability analysis on the schematic beach fill design identified through completion of Tasks 1.2 and 1.3.2. The analysis shall consider available beach and beach change information, in combination with available storm surge and wave data, to conduct an analysis of the vulnerability of the proposed Segment II project upland to storm impacts. The purpose of this analysis will be to quantify the physical benefits of the with-project increased beach widths along the Segment II shoreline to the upland ground/dunes and upland infrastructure, including Highway A1A. The analysis will utilize a cross-shore beach profile storm recession model (i.e., SBEACH or equivalent) at each of the 8 beach profiles (R-19 to R-26) along the Segment II shoreline. Project benefits will be quantified as the predicted resiliency of the project to low-frequency storm impacts as defined by potential penetration of beach erosion into the upland areas. Additionally, the performance of the project relative to without-project conditions will be evaluated. The analysis shall also include a static water level adjustment intended to function as a conservative proxy for future sea level rise. The magnitude of simulated sea level rise shall be developed through coordination with the COUNTY staff in order to maintain consistency with Palm Beach County resiliency planning strategies.
- 1.5. Equilibrium Toe-of-Fill (ETOF) Analysis.** The CONSULTANT shall estimate the Equilibrium Toe of Fill (ETOF) for the Segment II project configuration identified in Task 1.2. The purpose of this analysis will be to evaluate the likelihood and extent of project-related impacts to nearshore hardbottom areas along the Segment II shoreline

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NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

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following equilibration of the proposed project – additional tasks described herein shall quantify existing hardbottom conditions off Segment II. The predicted ETOF will be superimposed upon available nearshore hardbottom mapping data to quantify the acreage of nearshore hardbottom likely to be affected by the Segment II project.

The work shall include the determination of the acreage of potentially impacted nearshore hardbottom (using the most recently available hardbottom mapping data), and the development of plan and sectional view map(s) detailing the location of the ETOF relative to the construction template and the Segment II shoreline.

Deliverable (Task 1). The CONSULTANT shall prepare a memorandum of findings that summarizes the respective methodologies, results of the beach condition assessment, engineering and schematic level design of the planned beach fill, project performance analysis, the storm vulnerability analysis, and Equilibrium Toe of Fill analysis.

The CONSULTANT shall prepare a draft copy of the memo with attachments in PDF format for submittal to the COUNTY for review. Comments from the COUNTY review will be incorporated into the memo, as appropriate, for development of a final deliverable.

Upon completion of the final memo, the CONSULTANT shall prepare and provide to the COUNTY one (1) PDF copy of the memo with attachments. Any relevant AutoCAD files shall be included with the deliverable package. No hardcopies will be produced by the CONSULTANT.

2. BIOLOGICAL ASSESSMENT (BA)

The CONSULTANT working in concert with a qualified subconsultant will prepare a BA in accordance with US Army Corps of Engineers (USACE) requirements as outlined under Section 7(c) of the Endangered Species Act (ESA) of 1973. The document will evaluate potential impacts of the proposed project on federally-listed endangered and threatened species and designated critical habitat and describe the proposed avoidance, minimization and conservation measures proposed by the County. The BA is offered to assist the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) personnel in fulfilling their obligations under the ESA [50 CFR 402.12(c)(f)]. The BA shall contain a literature review of all existing data, monitoring reports, and published data for the project area and shorelines immediately adjacent to the proposed borrow and fill areas. The CONSULTANT through a qualified subconsultant shall also prepare the NMFS Section 7 Checklist to assist the USACE's consultation with the NMFS. The majority of the biological

**Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment**

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research and input shall be completed by Coastal Eco-Group. OAI will provide project management, non-biological technical support, quality control, and will assist in report and graphical preparation.

Deliverable. A Draft BA shall be prepared and submitted to the County in PDF format for review. The draft document shall be revised based on County's comments and made available for submittal to the USACE-Jacksonville District in PDF for review. It is anticipated that the Jacksonville District may require additional revisions to the document. The CONSULTANT will make a maximum of one (1) discrete revision to the document prior to production of the Final BA. Upon completion of revisions to the Draft BA based on comments by the County, the CONSULTANT shall prepare and submit one (1) PDF copy of the Final BA to the County. No hardcopies will be produced.

3. STATE AND FEDERAL PERMIT APPLICATIONS

The CONSULTANT shall develop and submit Joint Coastal Permit (JCP) and U.S. Army Corps of Engineers (USACE) permit applications for Segment II of the North County Comprehensive Shore Protection Project. The permit applications shall incorporate the results from existing surveys, engineering, geotechnical and environmental work conducted in support of this project along with additional analyses required to include sufficient detail to describe the scope of the proposed project and anticipated impacts from the project. This task also includes development of permit drawings of the beach fill plan and cross sections to be signed, sealed and incorporated into the Joint Coastal Permit (JCP) and U.S. Army Corps of Engineers (USACE) applications.

The applications will assume that the existing offshore borrow area and approved upland sand mines shall serve as the sand source for the project. While no new geotechnical exploration is anticipated or included herein, the application(s) will include a summary of the volume and geotechnical characteristics of the beach compatible sediments remaining in the borrow area.

It is assumed that the COUNTY shall (a) publish all required Public Notices and remit proof of publication to FDEP within the allowable timeframe; and (b) remit the required permit fee directly to FDEP.

This task does not include work related to the establishment of an Erosion Control Line (ECL) along Segment II. Establishment of an ECL should be completed by the COUNTY no more than one year prior to construction of the project.

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NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

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Deliverable. Deliverables to the COUNTY shall include one electronic copy in PDF format of both the JCP and USACE permit applications with drawings and supporting documentation and the application to BTITF for easements and consent of use of sovereign submerged lands, as needed. The CONSULTANT shall also deliver to the COUNTY electronic files of the final permit drawings in AutoCAD format.

4. APPLICATION RAI PROCESSING

Obtaining the information to answer the agencies' questions may entail additional research, numerical model studies, and/or fieldwork. CONSULTANT agrees to assist the COUNTY in responding to RAIs from the agencies using existing data as well as data and information that are developed under this Task Order. Additional data collection, new studies, new numerical modeling over and above that developed under other provisions of this Task Order will be considered additional work and additional budget and authorization will be required. Hours allocated to this task, however, anticipate and provide for the probability of completing additional engineering work surrounding the deliverables in Tasks 1 and 2 as required following regulatory agency review. The intent of this Task is to provide adequate information to the agencies for processing permits and to develop back-up data and analysis that will put the COUNTY in a position to respond to issues raised by agencies, environmental groups, and concerned citizens. Frequent coordination with the COUNTY will be required under this task item. This task specifically excludes testifying at Administrative or Court Hearings or related meetings for developing a case with attorneys.

4.1. FDEP RAI Response. Upon receipt of comments from the FDEP, CONSULTANT shall coordinate with COUNTY personnel to respond to the Agency Request for Additional Information (RAI) within the allowable time frame established by the agencies.

Deliverable. The CONSULTANT shall provide responses for up to two (2) separate RAIs from FDEP. The responses will be in the form of letters with attachments as required in electronic PDF format. Hardcopies will not be provided by the CONSULTANT.

4.2. USACE RAI Response. Upon receipt of comments from the USACE, CONSULTANT shall coordinate with COUNTY personnel to respond to the Agency Request for Additional Information (RAI) within the allowable time frame established by the agencies.

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Segment II Nourishment

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Deliverable. The CONSULTANT shall provide responses for up to two (2) separate RAIs from the USACE. The responses will be in the form of letters with attachments as required in electronic PDF format. Hardcopies will not be provided by the CONSULTANT.

This task does not include work related to analysis, design, permitting, or survey of mitigation.

5. RESPONSE TO FEDERAL AGENCY COMMENTS (NTE)

The CONSULTANT shall review and provide responses to two (2) sets of comments received from Federal Agencies regarding the permit application. Federal commenting agencies include: USFWS, NMFS and the US Environmental Protection Agency (EPA). Based on prior experience, this task item anticipates that Federal regulatory agencies other than USACE will submit requests for additional information/data/clarification/drawings/etc. which are passed through the USACE regulatory agent in addition to official RAI requests. This task allows for proper and timely responses to such requests as a Not-To-Exceed (NTE) cost. Upon receiving comments from any Federal Agency, the CONSULTANT shall discuss the issues and points raised within the comments with the COUNTY and propose an acceptable response plan. The CONSULTANT will only be required to use existing data and information as well as the responses to RAI's to formulate responses to the Federal resource agencies.

Deliverable. The CONSULTANT will prepare a response for up to (2) sets of comments from Federal regulatory/resource agencies. The responses will be in the form of a letter or email in electronic PDF format. Hardcopies will not be provided by the CONSULTANT.

6. PERMITTING RELATED MEETINGS AND CONSULTATIONS (NTE)

As required, the CONSULTANT shall plan, coordinate, and participate in meetings with the federal and state resource and regulatory agencies. The CONSULTANT shall attend either in person or via teleconference up to two (2) progress meetings in Tallahassee with FDEP staff and up to two (2) progress meetings in Jacksonville or West Palm Beach with the USACE-Regulatory Division. The choice of in person or teleconference meeting participation shall be at the discretion of the COUNTY and shall consider the nature of the topics to be discussed at each meeting and the anticipated cost-benefit to the COUNTY related to CONSULTANT travel vs. remote conferencing.

**Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment**

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Deliverable. The CONSULTANT shall provide limited preparation for progress meetings including preparation of meeting agendas and presentation materials where appropriate. Deliverables shall include meeting notes.

7. DEVELOPMENT OF SUBMITTALS REQUIRED BY PERMIT (NTE)

The CONSULTANT shall formulate and submit to the FDEP Bureau of Beaches and Coastal Systems the following items which may be required to receive a Permit and Notice-to-Proceed for construction of the North County Comprehensive Shore Protection Project:

- (a) Sediment Quality Control / Quality Assurance (QC/QA) Plan
- (b) Physical Monitoring Plan
- (c) Biological Monitoring Plan, if required by FDEP

The CONSULTANT shall use previously approved versions of these plans whenever possible.

- 7.1. Sediment Quality Control/Quality Assurance (QC/QA) Plan. It is assumed that Sediment QA/QC for the Segment II project shall be as set forth in the existing Sediment QA/QC Plan adopted by FDEP for the NCCSPP. However, this NTE task item anticipates and provides for additional work which may be required for completion of this item. Additional data collection is not included in this scope.
- 7.2. Physical Monitoring Plan. It is assumed that no additional physical monitoring for the Segment II project shall be required beyond that described in the existing monitoring plan adopted by FDEP. However, this NTE task item anticipates and provides for the possibility of minor additional work which may be required for completion of this item.
- 7.3. Biological Monitoring Plan. If required by FDEP, the CONSULTANT shall prepare a biological monitoring plan for the mitigation artificial reefs offshore of Segment II which is acceptable to the COUNTY. The Plan shall be developed by OAI and Coastal Eco-Group in coordination with the COUNTY and FDEP.

Deliverable. The CONSULTANT shall prepare and submit to the COUNTY in PDF format the noted plan(s) for review. The draft documents shall be revised based on COUNTY'S comments and made available for submittal to the FDEP for review and comment. It is anticipated that the FDEP may require additional revisions to the document(s). CONSULTANT shall make required revisions to the plan(s) based upon one (1) COUNTY review and one (1) FDEP review.

Task Order 1543-19: Scope of Work
NORTH COUNTY COMPREHENSIVE SHORE PROTECTION PROJECT
Segment II Nourishment

Exhibit B
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Upon completion of revisions to the plan(s), the CONSULTANT shall prepare and provide to the COUNTY and FDEP one (1) PDF copy of each plan. No hardcopies will be produced by the CONSULTANT.

8. ADDITIONAL SERVICES (NTP Task)

Additional Services task to provide engineering support as may be requested by the COUNTY on an as needed basis. Deliverables for additional services under this Task will be identified and agreed to at the time of requests for Additional Services from Palm Beach County staff. Tasks under this line item will be "Not to Exceed" and require the associated back-up documentation. The COUNTY shall issue a Notice-to-Proceed for any task billed to Task 8 after a proposal detailing the additional services has been submitted by the CONSULTANT and approved by the COUNTY.

North County Comprehensive Shore Protection Project
Segment II Nourishment

TASK ORDER 1543-19

TOTAL COST SUMMARY

TASK	Labor	ODC's	SUBC.	Total
Sub Task 1 - Engineering Analysis and Schematic Level Design	\$ 112,462.00	\$ 12,500.00	\$ -	\$ 124,962.00
Sub Task 2 - Biological Assessment (BA)	\$ 8,466.00	\$ -	\$ 16,008.00	\$ 24,474.00
Sub Task 3 - State and Federal Permit Applications	\$ 44,392.00	\$ -	\$ 4,624.00	\$ 49,016.00
Sub Task 4 - Application RAI Processing	\$ 55,449.00	\$ -	\$ 7,120.00	\$ 62,569.00
Sub Task 5 - Response to Federal Agency Comments (NTE)	\$ 24,672.00	\$ -	\$ 4,088.00	\$ 28,760.00
Sub Task 6 - Permitting Related Meetings and Consultations (NTE)	\$ 18,100.00	\$ -	\$ 4,580.00	\$ 22,680.00
Sub Task 7 - Development of Submittals Required by Permit (NTE)	\$ 8,324.00	\$ -	\$ 7,944.00	\$ 16,268.00
Sub Task 8 - Additional Services (NTP & NTE Task)	\$ 74,440.00	\$ -	\$ 15,447.00	\$ 89,887.00
TOTAL ALL TASKS	\$ 346,305.00	\$ 12,500.00	\$ 59,811.00	\$ 418,616.00

Scope of Services
North County Comprehensive Shore Protection Project
Segment II Nourishment
Task Order 1543-19

COST DETAILS

Sub Task 1 - Engineering Analysis and Schematic Level Design											
DIRECT LABOR										ODC	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G DESIGN	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	DIRECT COST
Principal	14	4		8		20	46	\$ 209.00	\$ 9,614.00	Oceanweather, Inc	\$12,500
Sr Engineer	14	56	92	8	104	36	310	\$ 154.00	\$ 47,740.00		
Coastal Engr III			120	10	120	28	278	\$ 111.00	\$ 30,858.00		
Coastal Engr II		8	204			8	220	\$ 99.00	\$ 21,780.00		
Coastal Engr I							0	\$ 95.00	\$ -		
ACAD Tech/Designer		10			10		20	\$ 81.00	\$ 1,620.00		
Administrative Assistant	6					4	10	\$ 85.00	\$ 850.00		
SUBTOTAL DIRECT LABOR									\$ 112,462.00	subtotal	\$12,500
Sub Task 2 - Biological Assessment (BA)											
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G DESIGN	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal						2	2	\$ 209.00	\$ 418.00	Coastal EcoGroup	\$16,008
Sr Engineer	8			8	4	8	28	\$ 154.00	\$ 4,312.00		
Coastal Engr III					16		16	\$ 111.00	\$ 1,776.00		
Coastal Engr II							0	\$ 99.00	\$ -		
Coastal Engr I							0	\$ 95.00	\$ -		
ACAD Tech/Designer					20		20	\$ 81.00	\$ 1,620.00		
Administrative Assistant	4						4	\$ 85.00	\$ 340.00		
SUBTOTAL DIRECT LABOR									\$ 8,466.00	subtotal	\$16,008
Sub Task 3 - State and Federal Permit Applications											
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G TASKS	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal	4			8		8	20	\$ 209.00	\$ 4,180.00	Coastal EcoGroup	\$4,624
Sr Engineer	16		14		50	4	84	\$ 154.00	\$ 12,936.00		
Coastal Engr III		8	8		120		136	\$ 111.00	\$ 15,096.00		
Coastal Engr II							0	\$ 99.00	\$ -		
Coastal Engr I		8	20		24		52	\$ 95.00	\$ 4,940.00		
ACAD Tech/Designer					60		60	\$ 81.00	\$ 4,860.00		
Administrative Assistant	4				24		28	\$ 85.00	\$ 2,380.00		
SUBTOTAL DIRECT LABOR									\$ 44,392.00	subtotal	\$4,624

Scope of Services
North County Comprehensive Shore Protection Project
Segment II Nourishment
Task Order 1543-19

COST DETAILS

Sub Task 4 - Application RAI Processing											
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G DESIGN	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal	4			20		8	32	\$ 209.00	\$ 6,688.00	Coastal EcoGroup	\$7,120
Sr Engineer	16	16	20	20	24	12	108	\$ 154.00	\$ 16,632.00		
Coastal Engr III			15	20	90		125	\$ 111.00	\$ 13,875.00		
Coastal Engr II		12	12				24	\$ 99.00	\$ 2,376.00		
Coastal Engr I		5	25		64		94	\$ 95.00	\$ 8,930.00		
ACAD Tech/Designer					48		48	\$ 81.00	\$ 3,888.00		
Administrative Assistant	4				32		36	\$ 85.00	\$ 3,060.00		
SUBTOTAL DIRECT LABOR										subtotal	\$7,120
Sub Task 5 - Response to Federal Agency Comments (NTE)											
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G DESIGN	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal	4			16		4	24	\$ 209.00	\$ 5,016.00	Coastal EcoGroup	\$4,088
Sr Engineer	4	10	10	16	16	16	72	\$ 154.00	\$ 11,088.00		
Coastal Engr III				8	60		68	\$ 111.00	\$ 7,548.00		
Coastal Engr II							0	\$ 99.00	\$ -		
Coastal Engr I							0	\$ 95.00	\$ -		
ACAD Tech/Designer							0	\$ 81.00	\$ -		
Administrative Assistant	4				8		12	\$ 85.00	\$ 1,020.00		
SUBTOTAL DIRECT LABOR										subtotal	\$4,088
Sub Task 6 - Permitting Related Meetings and Consultations (NTE)											
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G DESIGN	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal	8					4	12	\$ 209.00	\$ 2,508.00	Coastal EcoGroup	\$4,580
Sr Engineer	4			40	24		68	\$ 154.00	\$ 10,472.00		
Coastal Engr III				40			40	\$ 111.00	\$ 4,440.00		
Coastal Engr II							0	\$ 99.00	\$ -		
Coastal Engr I							0	\$ 95.00	\$ -		
ACAD Tech/Designer							0	\$ 81.00	\$ -		
Administrative Assistant	8						8	\$ 85.00	\$ 680.00		
SUBTOTAL DIRECT LABOR										subtotal	\$4,580
Sub Task 7 - Development of Submittals Required by Permit (NTE)											
DIRECT LABOR										OUTSIDE SVS/SUB-CONTRACTORS	
LABOR CATEGORY	ADMIN/ MGMT	ENGINEERIN G DESIGN	ANALYSIS/ MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal						4	4	\$ 209.00	\$ 836.00	Coastal EcoGroup	\$7,944
Sr Engineer	8				16	8	32	\$ 154.00	\$ 4,928.00		
Coastal Engr III				4	16		20	\$ 111.00	\$ 2,220.00		
Coastal Engr II							0	\$ 99.00	\$ -		
Coastal Engr I							0	\$ 95.00	\$ -		
ACAD Tech/Designer							0	\$ 81.00	\$ -		
Administrative Assistant	4						4	\$ 85.00	\$ 340.00		
SUBTOTAL DIRECT LABOR										subtotal	\$7,944

Scope of Services
 North County Comprehensive Shore Protection Project
 Segment II Nourishment
 Task Order 1543-19

COST DETAILS

Sub Task 8 - Additional Services (NTP & NTE Task)											
DIRECT LABOR									OUTSIDE SVS/SUB-CONTRACTORS		
LABOR CATEGORY	ADMIN/MGMT	CONTINGENCY	ANALYSIS/MODELING	LIAISON	REPORTING	QA/QC	TOTAL HOURS	RATE	COST	SERVICE	COST
Principal		60					60	\$ 209.00	\$ 12,540.00	Coastal EcoGroup	\$15,447
Sr Engineer		150					150	\$ 154.00	\$ 23,100.00		
Coastal Engr III		150					150	\$ 111.00	\$ 16,650.00		
Coastal Engr II		50					50	\$ 99.00	\$ 4,950.00		
Coastal Engr I		50					50	\$ 95.00	\$ 4,750.00		
ACAD Tech/Designer		75					75	\$ 81.00	\$ 6,075.00		
Administrative Assistant		75					75	\$ 85.00	\$ 6,375.00		
SUBTOTAL DIRECT LABOR									\$ 74,440.00	subtotal	\$15,447
TOTAL									\$ 346,305.00		\$ 72,311.00

Exhibit B
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Coastal Eco-Group, Inc.

665 SE 10th St. Suite 104
Deerfield Beach, FL 33441
(954)591.1219 Phone • (954)653-2981 Fax
www.coastaleco-group.com

August 24, 2022

Mr. Steve Howard, P.E.
Olsen Associates, Inc.
2618 Herschel St.
Jacksonville, FL 32204

RE: Proposal for Professional Services for the North County Comprehensive Shore Protection Project – Segment II

Dear Steve:

Coastal Eco-Group, Inc. (CEG) is pleased to provide the following cost proposal for ecological surveys and environmental permitting services for Segment II of the North County Comprehensive Shore Protection Project. Our tasks are numbered to correspond with your overall scope of services to Palm Beach County. Detailed task descriptions and associated deliverables are provided below. A breakdown of the costs for each task is provided in the attached spreadsheets.

Task 2 – Biological Assessment (BA)

CEG will prepare a BA in accordance with US Army Corps of Engineers (USACE) requirements as outlined under Section 7(c) of the Endangered Species Act (ESA) of 1973. The document will evaluate potential impacts of the proposed project on federally-listed endangered and threatened species and designated critical habitat and describe the proposed avoidance, minimization and conservation measures proposed by the County. The BA is offered to assist the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) personnel in fulfilling their obligations under the ESA [50 CFR 402.12(c)(f)]. The BA shall contain a literature review of all existing data, monitoring reports, and published data for the project area and shorelines immediately adjacent to the proposed borrow and fill areas. CEG shall also prepare the NMFS Section 7 Checklist to assist the USACE's consultation with the NMFS.

Deliverable. A Draft BA shall be prepared and submitted to the County in PDF format for review. The draft document shall be revised based on County's comments and made available for submittal to the USACE-Jacksonville District in PDF for review. It is anticipated that the Jacksonville District may require additional revisions to the document. CEG will make a

maximum of one (1) discrete revision to the document prior to production of the Final BA. Upon completion of revisions to the Draft BA based on comments by the County, CEG shall prepare and submit one (1) PDF copy of the Final BA to the County. No hardcopies will be produced.

Task 2 Lump Sum Total Cost (All Labor): \$16,008

Task 3 – FDEP Joint Coastal Permit (JCP) and USACE Permit Applications

CEG shall provide support to Olsen Associates Inc. in the development and submittal of a JCP application seeking authorization of the Segment II reach of the North County Shore Protection Project. The JCP application shall incorporate the results from existing surveys and environmental work conducted in support of this project and shall include sufficient detail to describe the scope of the proposed project and anticipated impacts from the project.

Deliverable. Deliverables to the County shall include electronic copies of responses to the environmental sections of the JCP permit application in Microsoft Word and PDF formats.

Task 3 Lump Sum Total Cost (All Labor): \$4,624

Task 4- Regulatory Agency Permit Processing

Task 4.1 - JCP RAI Processing/Responses

Upon receipt of comments from the FDEP, CEG will provide support in coordination with County staff to respond to the Request for Additional Information (RAI).

Deliverable. CEG will provide support for responses for up to two (2) separate RAIs from FDEP. Responses will be in the form of letters with attachments as required in electronic PDF format. Hardcopies will not be provided.

Task 4.1 Lump Sum Total Cost (All Labor): \$3,560

Task 4.2 - USACE RAI Processing/Responses

Upon receipt of comments from the USACE, CEG will provide support in coordination with County staff to respond to the Request for Additional Information (RAI).

Deliverable. CEG will provide support for responses for up to two (2) separate RAIs from the USACE. Responses will be in the form of letters with attachments as required in electronic PDF format. Hardcopies will not be provided.

Task 4.2 Lump Sum Total Cost (All Labor): \$3,560

Task 5 - Responses to Federal Commenting Agency RAIs

CEG will assist in the review and provide support in the development of responses to two (2) sets of comments received from the federal commenting agencies. Federal commenting agencies include the USFWS, NMFS and the U.S. Environmental Protection Agency (EPA). Upon

receiving comments from any Federal agency, CEG shall discuss the issues and points raised in the comments with the County and Olsen Associates Inc.

Deliverable. CEG will assist in the preparation of a response for up to two (2) sets of comments from the Federal commenting agencies. The responses will be in the form of a letter in electronic PDF format. Hardcopies will not be provided.

Task 5 Not To Exceed Total (Time and Materials): \$4,088

Task 6 – Permitting Related Meetings and Consultations

CEG will provide support regarding planning and coordination and participate in meetings with the federal and state resource and regulatory agencies. CEG will attend, either in person or via teleconference, up to two (2) progress meetings in Tallahassee with FDEP staff and up to two (2) progress meetings in Jacksonville with the USACE-Regulatory Division. The choice of in person or teleconference meeting participation shall be at the discrimination of CEG and shall consider the nature of topics to be discussed at each meeting and anticipated cost-benefit to the County related to CEG travel versus remote conferencing.

Deliverable. Where applicable, CEG shall provide limited preparation for progress meetings including preparation of meeting agendas and presentation materials. Deliverables shall include meeting notes. Electronic copies of the aforementioned deliverables shall be provided to the County.

Task 6 Not To Exceed Total (Time and Materials): \$4,580

Task 7– Development of Submittals Required by Permit- Biological Monitoring Plan (Authorization Required)

If necessary, CEG will develop a Biological Monitoring Plan which may be required to receive a permit for construction of the North County Comprehensive Shore Protection Project-Segment II. The Plan shall be submitted to FDEP for approval.

Deliverable. CEG shall prepare and submit a Biological Monitoring Plan in PDF format for review by the County. The draft document shall be revised based on County's comments and made available for submittal to the FDEP for review and comment. It is anticipated that the FDEP may require additional revisions to the documents. CEG shall make required revisions to the plan based upon one (1) County review and one (1) FDEP review. Upon completion of revisions to the plan, CEG shall prepare and provide to the County and FDEP one (1) PDF copy of the plan. No hardcopies will be produced by CEG.

Lump Sum Task 7 Total Cost (All Labor): \$7,944

Task 8- Additional Contingency Permitting Tasks (Authorization Required)

This task is to provide additional permitting support and field survey services requested by the County on an as needed basis. Deliverables for additional services under this item will be identified and agreed to at the time of a request for additional services from Palm Beach County staff. Tasks under this line item will be Not to Exceed and will require the associated back-up documentation. The County shall issue a Notice to Proceed for any task to be billed under Task 8 after a proposal detailing the additional services has been approved by the County.

Task 8 Not To Exceed Total (Time and Materials): \$15,447

The total cost to conduct the work described in this scope of services is **\$59,811** and includes all lump sum, authorization required, and not to exceed time and materials labor, equipment costs, and report preparation costs. The total cost for all not to exceed tasks is **\$24,115**, and the total cost of all lump sum tasks is **\$35,696** (of which **\$7,944** is lump sum and requires authorization from the County).

Thank you for the opportunity to provide this scope of services and cost estimate. Please let me know if you have any questions. We look forward to working with you on this project.

Sincerely,

Cheryl L. Miller

Cheryl L. Miller
President, Coastal Eco-Group Inc.



Coastal EcoGroup Inc.

NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
Biological Surveys and Environmental Permitting Support Consulting Services

	Total cost
TASK 2- BIOLOGICAL ASSESSMENT	\$16,008
TASK 3- JCP APPLICATION SUPPORT	\$4,624
TASK 4.1- RESPONSES TO FDEP RAIS	\$3,560
TASK 4.2- RESPONSES TO USACE RAIS	\$3,560
TASK 5- RESPONSES TO FEDERAL COMMENTING AGENCY RAIS (Hourly, Not To Exceed, Time and Materials)	\$4,088
TASK 6- PERMITTING RELATED MEETINGS & CONSULTATION (Hourly, Not To Exceed, Time and Materials)	\$4,580
TASK7- PERMIT REQUIRED SUBMITTALS- BIOLOGICAL MONITORING PLAN DEVELOPMENT (Authorization Required)	\$7,944
TASK 8- CONTINGENCY TASKS- PERMITTING (Authorization Required; Hourly, Not To Exceed, Time and Materials)	\$15,447
TOTAL	\$59,811
SUBTOTAL LUMP SUM TASKS	\$27,752
SUBTOTAL AUTHORIZATION REQUIRED LUMP SUM TASKS	\$7,944
SUBTOTAL NOT TO EXCEED TIME AND MATERIALS TASKS	\$24,115

Note: Task 8 includes one field day to map exposure of the mitigation reefs adjacent to the project fill area (R-22 to R-25) if required by the agencies.

Exhibit B
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TASK 2
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
BIOLOGICAL ASSESSMENT

8/25/2022

Coastal Eco-Group Sub-consultant Costs	<u>LABOR COST</u>		
TASK 2- BIOLOGICAL ASSESSMENT	Principal Scientist (Hours)	Senior Scientist (Hours)	Staff Scientist (Hours)
Draft document development	16	16	80
Final document development	8	8	40
Total =	24	24	120
Rate =	\$132.00	\$115.00	\$84.00
Cost =	\$3,168.00	\$2,760.00	\$10,080.00
TOTAL LABOR COST =	\$16,008		
TOTAL COST =	\$16,008		

**TASK 3
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
JCP APPLICATION**

8/25/2022

Coastal Eco-Group Sub-consultant Costs	<u>LABOR COST</u>		
TASK 3- JCP APPLICATION DEVELOPMENT	Principal Scientist (Hours)	Senior Scientist (Hours)	Staff Scientist (Hours)
JCP Application Support	16	16	8
Total =	16	16	8
Rate =	\$132.00	\$115.00	\$84.00
Cost =	\$2,112.00	\$1,840.00	\$672.00
TOTAL LABOR COST =	\$4,624		
TOTAL COST =	\$4,624		

Exhibit B
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TASK 4.1
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
FDEP RAI RESPONSES

8/25/2022

Coastal Eco-Group Sub-consultant Costs	<u>LABOR COST</u>	
TASK 4.1- FDEP RAI RESPONSES	Principal Scientist (Hours)	Senior Scientist (Hours)
<u>2 RAI responses- FDEP application</u>	20	8
Total =	20	8
Rate =	\$132.00	\$115.00
Cost =	\$2,640.00	\$920.00
TOTAL LABOR COST =	\$3,560	
TOTAL COST =	\$3,560	

TASK 4.2
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
USACE RAI RESPONSES

8/25/2022

Coastal Eco-Group Sub-consultant Costs	<u>LABOR COST</u>	
TASK 4.2- USACE RAI RESPONSES	Principal Scientist (Hours)	Senior Scientist (Hours)
<u>2 RAI responses- USACE and Federal agencies</u>	20	8
Total =	20	8
Rate =	\$132.00	\$115.00
Cost =	\$2,640.00	\$920.00
TOTAL LABOR COST =	\$3,560	
TOTAL COST =	\$3,560	

Exhibit B
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**TASK 5
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
FEDERAL COMMENTING AGENCY RAI RESPONSES**

8/25/2022

Coastal Eco-Group Sub-consultant Costs- Hourly, NTE, Time & Materials	<u>LABOR COST</u>	
TASK 5- RESPONSE TO FEDERAL AGENCY COMMENTS	Principal Scientist (Hours)	Senior Scientist (Hours)
<u>2 RAI responses- USACE and Federal agencies</u>	24	8
Total =	24	8
Rate =	\$132.00	\$115.00
Cost =	\$3,168.00	\$920.00
TOTAL LABOR COST =	\$4,088	
TOTAL COST =	\$4,088	

TASK 6
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
PERMIT REQUIRED MEETINGS AND CONSULTATION

8/25/2022

Coastal Eco-Group Sub-consultant Costs- Hourly, NTE, Time & Materials	<u>LABOR COST</u>		<u>DIRECT COST</u>	
	Principal Scientist (Hours)	Rental car (days)	Fuel & & Tolls (trips)	
TASK 6- MEETINGS AND CONSULTATION				
FDEP Meetings (Tallahassee)- 2 meetings	20	4	2	
USACE Meetings (WPB or Jacksonville)- 2 meetings	16			
Total =	36	4	2	
Rate =	\$115.00	\$60.00	\$100.00	
Cost =	\$4,140.00	\$240.00	\$200.00	
TOTAL LABOR COST = \$4,140				
TOTAL DIRECT COST = \$440				
TOTAL COST = \$4,580				

TASK 7
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
DEVELOPMENT OF SUBMITTALS REQUIRED BY PERMIT

8/25/2022

Coastal Eco-Group Sub-consultant Costs	<u>LABOR COST</u>		
TASK 7- BIOLOGICAL MONITORING PLAN DEVELOPMENT	Principal Scientist (Hours)	Senior Scientist (Hours)	Staff Scientist (Hours)
Draft Plan Development and GIS Maps	8	16	16
Final Plan Development and Agency Coordination	16	8	8
Total =	24	24	24
Rate =	\$132.00	\$115.00	\$84.00
Cost =	\$3,168.00	\$2,760.00	\$2,016.00
TOTAL LABOR COST =	\$7,944		
TOTAL COST =	\$7,944		

TASK 8
NORTH COUNTY SEGMENT 2 SHORE PROTECTION PROJECT
CONTINGENCY TASKS- ADDITIONAL AGENCY COORDINATION, FIELD SURVERY, AND PERMIT ITEMS

8/25/2022

Coastal Eco-Group Sub-consultant Costs- Hourly, NTE, Time & Materials		<u>LABOR COST</u>					<u>INDIRECT COSTS</u>				
		Principal Scientist (Hours)	Senior Scientist (Hours)	Staff Scientist (Hours)	Junior Scientist (Hours)	Boat Captain (Hours)	Survey Vessel (Days)	DGPS Mapping System (Days)	Field Expendables (Days)	Dive Equipment (Days)	SCUBA tanks (Hours)
TASK 8- CONTINGENCY TASKS											
Hourly, Not to Exceed, Per Task Basis		40	40	32	20	10	1	1	1	4	8
Total =		40	40	32	20	10	1	1	1	4	8
Rate =		\$132.00	\$115.00	\$84.00	\$68.00	\$68.00	\$600.00	\$50.00	\$25.00	\$25.00	\$8.00
Cost =		\$5,280.00	\$4,600.00	\$2,688.00	\$1,360.00	\$680.00	\$600.00	\$50.00	\$25.00	\$100.00	\$64.00
TOTAL LABOR COST =		\$14,608									
TOTAL DIRECT COST =		\$839									
TOTAL COST =		\$15,447									

Note: Task 8 includes one field day to map exposure of the mitigation reefs adjacent to the project fill area (R-22 to R-25).

Exhibit B
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CONTRACT HISTORY
Olsen Associates, Inc.
Continuing Contract for Coastal and Marine Engineering Services

Contract (R2019-1543) dated October 8, 2019 for a period of two years expires on October 7, 2021.
First Amendment (R2021-1436) dated October 5, 2021 extends the contract through October 7, 2022.
SBE-M/WBE Goal 40.0% (16% SBE/White Male; 6% SBE/Woman; 2% SBE/Asian; 16% State certified Woman)

Task Order summary:

TASK NUMBER	TOTAL/ SBE and/or MWBE AMOUNT	TASK DUE DATE	TASK DESCRIPTION	APPROVED BY/DATE
1543-01	10,406.00 0.00	12/31/2019	South Jupiter Dune Restoration Notice to Proceed	ERM 10/28/2019
1543-02	3,674.00 3,065.00	12/31/2019	South Jupiter Dune Restoration Easement Areas	ERM 11/26/2019
1543-03	47,004.00 0.00	9/30/2020	Jupiter/Carlin Shore Protection Project - Post Construction Physical Monitoring	ERM 2/26/2020
1543-04	244,493.00 10,480.00	8/31/2021	North County Comprehensive Shore Protection Project - Segment I (Jupiter/Carlin)	BCC 5/5/2020
1543-05	22,800.00 21,720.00	4/30/2020	Coral Cove Legal Descriptions	ERM 4/1/2020
1543-06	153,904.00 109,920.00	1/31/2021	2020 Regional Monitoring Surveys - Beach Profiles, Post-Storm Beach Profiles, and Damage Assessment Report	BCC 5/5/2020
1543-07	13,206.00 10,480.00	7/31/2020	North County Comprehensive Shore Protection Project – Segment I Design Beach Profile Survey	ERM 4/27/2020
1543-08	9,958.00 8,140.00	10/31/2020	North County Comprehensive Shore Protection Project – Offshore Borrow Area Survey	ERM 6/17/2020
1543-09	178,727.00 128,394.00	1/31/2022	2021 Regional Monitoring Surveys - Beach Profiles, Ebb Shoal Surveys, Post-Storm Beach Profiles, and Damage Assessment	BCC 5/18/2021
1543-10	44,561.00 42,321.00	12/31/2021	2021 Lake Worth Lagoon Seagrass Fixed Transect Monitoring	ERM 5/10/2021
1543-11	15,282.00 14,340.00	8/17/2021	2021 South Lake Worth Inlet Flood Shoal Survey	ERM 5/19/2021
1543-12	38,153.00 20,684.00	10/1/2021	North County Comprehensive Shore Protection Project – Segment I SARBO Coordination	ERM 7/7/2021
1543-13	58,302.00 5,830.00	1/30/2022	North County Comprehensive Shore Protection Project – Segment II Dune Restoration	CRC 8/11/2021
First Amendment			1-Year Contract Extension	BCC 10/5/2021
1543-14	5,194.00 0.00	1/31/2022	North County Comprehensive Shore Protection Project – Segment II Feasibility Study Update	ERM 11/4/2021
1543-13A	8,313.00 7,005.00	4/30/2022	North County Comprehensive Shore Protection Project – Segment II Dune Restoration	ERM 1/31/2022
1543-15	179,163.00 126,555.00	1/31/2023	2022 Regional Monitoring Surveys - Beach Profiles, Post-Storm Beach Profiles, and Damage Assessment Report	BCC 4/12/2022
1543-16	58,515.00 55,735.00	12/31/2022	2022 Lake Worth Lagoon Seagrass Fixed Transect Monitoring	CRC 3/30/2022
1543-17	29,755.00 0.00	12/31/2022	North County Comprehensive Shore Protection Project – Segment III Post Construction Physical Monitoring	ERM 4/5/2022
1543-04A	3,782.00 0.00	8/31/2022	North County Comprehensive Shore Protection Project - Segment I (Jupiter/Carlin)	ERM 4/14/2022
1543-18	61,532.00 58,536.00	2/15/2023	2022 Hardbottom Delineation	CRC 8/24/2022
1543-19	418,616.00 59,811.00		North County Comprehensive Shore Protection Project - Segment II Nourishment	BCC

Total: 1,605,340.00
SBE-M/WBE: 683,016.00
SBE-M/WBE Participation: 42.5%
Report Date & Filename: 08/25/22