

Exhibit 1 - *Scope of Work*
Sector 4 Dune Restoration Project

Introduction: This Work Order provides for services for Preliminary and Final design, Permitting, and to support bidding for a dune restoration project within Sector 4 (Project). The “Indian River County Beach Preservation Plan Update” (BPP, adopted June 2020) defines the limits of Sector 4 from Florida Department of Environmental Protection (FDEP) Reference Monument R-55 (about ¾ mile south of the northern limit of John’s Island) to R-72 (near Surf Lane at the north limits of the County’s Tracking Station Beachfront Park). The County’s Sector 5 project nourished the beach and dune within the City of Vero Beach and included the Sector 4 segment from R-70 to R-72; this small segment is not included in the proposed Sector 4 Project. The 2020 BPP identifies that the beach and dune within Sector 4 experienced (a) accretion prior to 2005, and (b) shoreline retreat at an average of 1.7 ft/yr from 2013 to 2019. To offset the more recent erosion, various upland private property owners have performed dune restoration projects following significant hurricane events. The dune system within Sector 4 and elsewhere within Indian River County were most recently damaged by Hurricane’s Ian and Nicole in 2022. Under prior authorization, Coastal Tech (a) developed a conceptual design for Sector 4 dune restoration, and (b) attended pre-application meetings with U.S. Army Corps of Engineers (USACE) and FDEP staff. The Conceptual Design Report for the Sector 4 Dune Restoration Project limits sand placement in the dune intended to avoid (a) impacts to nearshore hardbottom, and (b) typically associated FDEP and USACE requirements for nearshore hardbottom monitoring - typical for beach restoration projects proposed in close proximity to nearshore hardbottom. The work is proposed to be performed by Coastal Technology Corporation (Coastal Tech) with support by CSA Ocean Sciences Inc. (CSA) and Ecological Associates, Inc. (EAI).

Task 1 – Design: The Conceptual Design Report (“summary letter report”) – prepared under separate authorization - will serve as the basis for the Preliminary and Final Design of the Project.

Task 1a – Preliminary Design: Coastal Tech will expand the Conceptual Design Report to develop a Design Document – as identified during the FDEP and USACE pre-application meetings - to include:

- characterization of Sector 4 native beach sands based upon (a) testing performed within Sectors 3 and 5, and (b) data as may be available from FDEP and the Florida Geological Survey;
- a Sediment QC/QA Plan - per FDEP standards;
- a Physical Monitoring Plan – per FDEP standards;
- Preliminary Design Drawings – in the form of 8.5” x 11” Permit Sketches – for the proposed Project including representative cross-sections and a plan view clearly depicting the beach access locations and staging areas;
- the proposed construction schedule;
- an brief assessment of the following alternatives: No Action, Dune Restoration, and Beach & Dune Restoration – citing a brief description of each alternative, the pros/cons associated with each alternative, and why dune restoration is (a) the most appropriate alternative that best avoids and then minimizes the impacts to protected species/resources, and (b) best meets the goals and objectives of the County.

Coastal Tech will:

- prepare draft Technical Specifications.
- provide the draft Design Document and Technical Specifications to the County for review and acceptance.

Task 1b – Final Design: Coastal Tech will prepare final design drawings – in the form of 24” x 36” drawings for the proposed Project – consistent with the USACE and FDEP permits for the Project obtained under Task 2. The drawings shall be prepared after permit issuance or otherwise as requested by the County. Final design drawings shall include Technical Specifications suitable for construction purposes.

Task 2 – Permitting

Task 2a – Permit Applications: In general, Coastal Tech will prepare and submit permit application forms to allow multiple nourishments over a 15 year period – expected to include: (a) an FDEP Joint Coastal Permit, and (b) USACE application “ENG FORM 4345” for a USACE Standard Permit. The applications shall include the following information:

- a) response to each application item;
- b) permit sketches (preliminary design drawings) prepared under Task 1a;
- c) Pre-Application conference reports developed under prior authorization;
- d) recent aerial with limits of the Project fill area superimposed;
- e) the Design Document prepared under Task 1a;
- f) a draft Sediment QC/QA Plan; and
- g) a draft Physical Monitoring Plan.

Coastal Tech will review the draft permit applications with the County and incorporate revisions as appropriate, prior to submitting the applications to FDEP and USACE. The County will provide all application fees, publishing fees, and any additional surveys, investigations, testing, or reports as may be required by the agencies. The County will execute the applications designating Coastal Tech as the County’s agent.

Task 2b – Permit Processing: Coastal Tech will make informal contact with FDEP and USACE staff to address staff questions regarding the application and Project. Coastal Tech will compile, clarify, and provide existing information as may be requested by FDEP and USACE staff. Coastal Tech will represent the Project before regulatory staff toward obtainment of permits and to negotiate acceptable permit conditions, as (a) may be required by the USACE and FDEP, and (b) as acceptable to the County. Coastal Tech with the assistance of EAI, and CSA via sub-contract with Coastal Tech, will respond to any reasonable staff requests for additional information (RAI) as related to sea turtles and hardbottom. It is expected that the FDEP and USACE may each issue up to two RAIs.

Task 3 – Bidding Phase Services: Coastal Tech will assist the County with solicitation of bids to provide for construction of the Project via use of upland sand sources

Task 3a – Bidding Phase: Coastal Tech will assist the County with preparation of Bid Documents and solicitation of bids and award of a construction contract for the Project. Coastal Tech will revise the Drawings and Technical Specifications - prepared under prior authorization - to (a) reflect the any revisions requested by the County, and (b) address the bid dates identified by the County. Coastal Tech will assist the County with review and

compilation of "front-end" bid documents developed by the County - to check for consistency with the Drawings and Technical Specifications.

Prior to receipt of bids, during the bidding phase, Coastal Tech will:

- 1) address questions from prospective bidders as directed by the County,
- 2) attend a pre-bid meeting to clarify the proposed construction and address questions posed by prospective bidders, and
- 3) draft addendum to the Bid Documents – as requested by the County.

Task 3b – Evaluation of Bids & Contract Award: Upon receipt of bids, the County will verify that each bid entails a valid bid, including the County’s insurance/bond requirements for the work. For the valid bids identified by the County, Coastal Tech will:

- 1) assess and review the bids to prepare a summary-draft-ranking of the bids,
- 2) meet with the County to review the results and confirm the recommended ranking of bids, and
- 3) make a recommendation to the County for Construction Contract award and assist the County with negotiation of a Construction Contract.

General: The table below summarizes the proposed fees and expected schedule for the work. Task 1, 2, and 3 services will be provided at the cited flat fee.

Notice To Proceed			Task Description	Subtask Total	Task Total
Start	Finish	Days			
October 3, 2023					
3-Oct-23	31-Oct-23	28	1 - Design		\$37,320
3-Oct-23	17-Oct-23	14	1b - Preliminary Design	\$22,020	
17-Oct-23	31-Oct-23	14	1c - Final Design	\$15,300	
17-Oct-23	30-Jan-24	105	2 - Permitting		\$30,150
17-Oct-23	1-Nov-23	15	2b - Permit Applications	\$9,160	
1-Nov-23	30-Jan-24	90	2c - Permit Processing	\$20,990	
17-Oct-23	30-Nov-23	44	3 - Bidding Phase		\$12,160
17-Oct-23	16-Nov-23	30	3a - Bidding Phase	\$6,520	
16-Nov-23	30-Nov-23	14	3b - Evaluation of Bids & Contract Award	\$5,640	
Total Costs:					\$79,630