

SECTION 3 SCOPE OF SERVICES

3.1

GENERAL INFORMATION AND BACKGROUND

The City of Delray Beach, Florida (City) is soliciting proposals from qualified firms interested in providing Marine Turtle Conservation Program Services.

The City of Delray Beach (City) has one of the most successful beach maintenance and preservation programs in the United States. Since 1973, the beach has been successfully maintained through five (5) periodic beach renourishments and four (4) storm repair projects. The City's 2.8-mile-long beach area begins just north of the Highland Beach/Delray Beach boundary to just south of the Ocean Ridge/Delray Beach City limit.

The City holds a Joint Coastal Permit (JCP), Permit No. 0303553-001-JC, with the Florida Department of Environmental Protection (FDEP) and the United States Army Corps of Engineers (USACE) for sand nourishment of the beach with offshore borrow areas. The JCP has conditions specific to the beach nourishment / construction activities, marine turtle and manatee protection, monitoring and reporting. The JCP marine turtle protection conditions include annual surveying for marine turtle nesting activity and egg relocations (as necessary) during the nesting season from March 1 to October 31.

The City has maintained a Marine Turtle Conservation program since 1984 and is environmentally sensitive to the endangered sea turtles' species and understands the value that this information provides to the Florida Fish and Wildlife Commission (FWC) and other environmental agencies. Additionally, the City of Delray Beach cleans the beaches with mechanical equipment (beach tilling) and, as such, marine turtle nesting surveys and nest marking and monitoring are required for the protection of the species. The sea turtles that nest on Florida Beaches are either endangered or threatened and are protected under the Federal Endangered Species Act of 1973 and Florida's Marine Turtle Protection Act (379.2431, Florida Statutes).

The FWC qualifies and issues marine turtle permits under authority granted to the state through a Cooperative Agreement with the U.S. Fish and Wildlife Service (USFWS). The turtle conservation program requires reporting on hatching and reproduction success rates and also involves inventory and excavation of nests on Delray Beach's beach.

3.2 **SCOPE OF SERVICES:**

The successful Proposer (hereinafter in this Scope referred to as Consultant) will provide the City with Marine Turtle Nesting Season Services as follows:

The Consultant selected through this solicitation will need to meet the qualifications and submit an application to FWC for conducting marine turtle monitoring along the City's 2.8 miles (4.5 kilometers) of municipal beach extending from Florida Department of Environmental Protection (FDEP) DNR Monument R-175 near George Bush Boulevard south beyond Atlantic Dunes Park to FDEP DNR Monument R-190. The Consultant's costs submitted on the bid form shall include all permitting, mobilization and travel, daily marine turtle nesting surveys, marking all nests on the beach, monthly lighting surveys, standardized field

data collection and all equipment and tools necessary to perform these services, performing data analysis, and preparation of professional scientific monitoring reports. Additional deliverables will include copies of video and/or still photographic data collected during daily nest surveys and monthly lighting surveys, and resource maps with Global Positioning System (GPS) targets clearly showing the positions of field observations. The Consultant must comply with all marine turtle permit requirements in the City's FDEP JCP permit included as an exhibit to this solicitation.

Daily Monitoring

Task includes pre-construction daily sea turtle monitoring on the City's 2.8 miles of beach between R-175 and R-190 during the sea turtle nesting season (March 1 to October 31). This monitoring will comply with all Florida Fish and Wildlife Conservation Commission (FWC) sea turtle monitoring requirements and applicable conditions set forth in Florida Department of Environmental Protection (FDEP) Joint Coastal Permit (JCP) No. 0303553-001-JC.

Consultant will perform daily morning sea turtle nesting surveys throughout sea turtle nesting season, beginning March 1 through October 31; on occasion, nesting may begin earlier and/or end later. Surveys will commence within 30 minutes of sunrise. Monitoring will be performed either on foot or using ATVs. The City will provide one parking space within Anchor Park (340 S Ocean Blvd, Delray Beach, FL) for storage of monitoring equipment. All emergences (turtle crawls) apparent from the previous night will be interpreted to determine which species of turtle came ashore and whether it nested. Crawls will be denoted as being above or below the previous high tide line. The approximate geographic location of each crawl will be determined by GPS (sub-meter accuracy).

Any obstacles encountered by turtles during their crawls will be documented by Consultant during daily monitoring. Additionally, any evidence of hatchling misorientation or disorientation from either marked or unmarked nests will be documented using FWC's electronic Marine Turtle Hatchling Disorientation Incident Report Form. Based on track evaluations, an estimate of the number of hatchlings disoriented will be recorded and light sources potentially responsible for the disorientation identified. Information concerning each incident will be forwarded by email to the City so appropriate remedial action may be taken.

The Consultant will assist with sea turtle stranding response. Sick, injured, or dead animals are examined, and if alive, transported to state-approved care facilities. A standard Sea Turtle Stranding and Salvage data form will be completed and submitted for each stranded animal encountered. This information will be transmitted to FWC in accordance with established guidelines. All sea turtle monitoring and related activities will be performed under a FWC Marine Turtle Permit that the Consultant will be required to obtain upon execution of the contract for this solicitation. All persons engaged in monitoring for the Consultant shall be listed in the Consultants permit.

Nest Marking

To ensure sea turtle nests are not impacted, Consultant will be responsible for clearly marking all nests with stakes and flagging tape. The Consultant will be responsible for notifying (via telephone or text) the City's beach raking vendor prior to performing any beach raking. All nests will be marked for determination of nest fate and reproductive success. Based on the previous nesting data from this specific stretch of beach, loggerhead sea turtle nests make up the majority of nests laid, with fewer green turtle and

leatherback nesting. For the purposes of this proposal, Consultant can assume 450 nests per season will need to be marked and fated.

Nests will be monitored throughout their incubation period to determine nest fate (e.g., hatched, washed out, depredated, vandalized, etc.). After an appropriate incubation period, and in accordance with the FWC handbook, nests will be excavated to determine reproductive success. Two measures of reproductive success will be calculated: hatching success (the percentage of eggs in the nest that hatch) and emerging success (the percentage of eggs in the nest that produce hatchlings which successfully escape from the nest).

Reporting

Monthly summary reports: Consultant will prepare and submit these reports providing tabulations of the daily monitoring activities and data collected. They will be submitted within two weeks after the last day of the month following monitoring (e.g., the March report will be due no later than April 14) and shall include current nesting totals for the season.

A year-end report: Consultant will prepare and submit this report to summarize the monitoring methods, sea turtle emergences by species, nest fates of all marked nests, reproductive success of evaluated nests, and an assessment of sea turtle nesting and reproductive success. This report will be submitted no later than 90 days following completion of monitoring activities. Once the report has been received, EAI will schedule an end of season meeting to discuss the results of the nesting season.

Permit-related reports: Consultant will prepare and submit these reports following the completion of monitoring and relocation activities. The Statewide Nesting Beach Survey (SNBS) and Nest Productivity Assessment reports are required of all marine turtle permit holders by FWC.

Lighting Surveys

Monthly surveys (performed on a mutually agreed upon schedule) of beachfront lighting conditions will be performed between March 1 and October 31. The location, number, and type of lights visible from the beach and not in compliance with the City's lighting regulations will be documented and reported. Photos (long exposure, without flash) will also be taken of all lights visible from the beach. A sub-meter GPS will be used to record coordinates from which observations are made. Reports, including recommendations for correcting problem lights, will be provided within 30 days of each survey. Following the first lighting evaluation, a full report including photographs and GPS locations of lights, along with a unique site evaluation form for each facility/property evaluated will be furnished. Subsequent reports will summarize any new lights observed and any lights that came into compliance since the previous survey.

Nest Relocations

The City is scheduled to perform a Beach Renourishment event in Winter 2025/2026 (outside of sea turtle nesting season, between November 1 and February 28) and anticipates completion by March 1, however; if beach construction should conflict with turtle nesting season some nests may require relocation from the Project Area. If construction occurs in November 2025, Consultant will relocate nests from the Project Area beginning 65 days prior to the start of construction. Consultant will continue performing surveys until November 30th, 2025. If construction runs into the 2026 nesting season starting

March 1, Consultant will relocate nests from the Project Area. All nests will be relocated before 9 am and will be moved to an adjacent beach location with conditions appropriate for sea turtle nest incubation and hatching (no known erosion or lighting problems. This item is to be estimated per nest for an estimated 10 nests; actual need for this task and quantities are dependent on construction timing). No additional renourishments are planned at this time; however, this may change based on storm-related impacts in the coming years. If a storm repair project is scheduled for future years where this contract is active, pricing for this task will be requested at that time.

Escarpment Monitoring

Following completion of construction, Consultant will conduct weekly surveys to document the formation of scarps greater than 18 inches over a distance of 100 feet or more and potentially interfering with sea turtle nesting/hatching throughout the nesting and hatching season. Consultant will notify the City of any scarps that meet these conditions and may potentially interfere with sea turtle nesting. FDEP/FWC may require that those areas be leveled, or the beach profile be reconfigured to minimize subsequent scarp information. If scarp leveling is required, EAI will perform any additional sea turtle monitoring as recommended by the agencies. Consultant will prepare an annual summary of escarpment surveys and actions taken (if leveling is required) and submit to City in the final report.

Public Outreach

In an effort to promote public awareness and involvement in the sea turtle program, the Consultant will coordinate public outreach events to engage interested public participants. Public Outreach events may include nighttime turtle nesting walk events, daytime nest excavation events, or other public outreach /education events. The passive part of nighttime or daytime events may occur in the form of a lecture on sea turtle ecology, lighting, monitoring and the importance of the beaches and marine turtles in Delray. This may be followed by an active event, such as a turtle walk in an attempt to witness a nesting sea turtle or a daytime nest excavation.

Shorebird Monitoring

Shorebird monitoring will be conducted as required in permits issued by USACE and/or FDEP for each beach nourishment event or relevant Biological Opinions.

Per current FDEP Permit Specific Conditions, immediately following completion of a beach nourishment event, weekly surveys to identify shorebird/seabird nesting activity will be conducted through September 1, if no shorebird nesting activity is observed. The surveys will be conducted on foot or by ATV at dawn and will cover all potential beach bird nesting habitats within the project area. EAI will report all breeding activity to the Florida Shorebird Database within one week of data collection. Shorebird monitoring activities will comply with all protocols outlined on the Florida Shorebird Database website.

Breeding season dates for this project area are April 15 through September 1. If construction activities take place entirely outside the breeding season, shorebird surveys are not required.

END OF SECTION 3