

**WORK ORDER NUMBER      4**  
**PROJECT NUMBER: IRC-1823**  
**PROJECT NAME: JUNGLE TRAIL SHORELINE STABILIZATION**

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This Work Order Number 4 is entered into as of this \_\_\_\_\_ day of \_\_\_\_\_, **2019**, pursuant to that certain Continuing Contract Agreement for Environmental and Biological Support Services, dated October 10<sup>th</sup>, 2017, (referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and ENVIRONMENTAL SCIENCE ASSOCIATES, ("Consultant").

The COUNTY has selected the Consultant to perform the Environmental and Biological Support Services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The Environmental and Biological Support Services will be performed by the Consultant for a Not-To-Exceed fee of \$ 24,624.00. The Consultant will perform the Environmental and Biological Support Services within the timeframe more particularly set forth in Exhibit A, attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

**CONSULTANT:**  
**ENVIRONMENTAL SCIENCE ASSOCIATES**

**BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY**

**By:** \_\_\_\_\_

**By:** \_\_\_\_\_

**Bob Solari, Chairman**

**Title:** \_\_\_\_\_

**BCC Approved Date:** \_\_\_\_\_

**Attest: Jeffrey R. Smith, Clerk of Court and Comptroller**

**By:** \_\_\_\_\_

**Deputy Clerk**

**Approved:** \_\_\_\_\_

**Jason E. Brown, County Administrator**

**Approved as to form and legal sufficiency:** \_\_\_\_\_

**William K. DeBraal, County Attorney**



**Scope of Services**  
**Jungle Trail Shoreline Stabilization Construction Engineering & Inspection**  
**for**  
**Indian River County**  
**RFQ 2017053 – Continuing Contract Agreement for Environmental and Biological**  
**Support Services**  
**July 29, 2019**

**Background**

ESA has assisted Indian River County in successfully permitting and bidding the shoreline stabilization project along the Jungle Trail roadway. The tasks below are to be completed by ESA in continued support of Indian River County during the construction phase of the project.

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**SCOPE-OF-WORK**

**Task 1 – Attendance at Construction/Progress Meetings**

Once a contractor is selected, ESA will attend a Pre-Construction Conference to be attended by the County, Contractor and Contractor's associated sub-contractors at the request of the County's Project Manager. It is estimated that Tom Ries, ESA Principal Scientist, and Bryan Flynn, PE, ESA Coastal Engineer, will attend this meeting. It is estimated that construction will take 8 weeks, ESA's Coastal Engineer will attend eight (8) weekly progress meetings with support from ESA scientists, botanists and GIS staff as needed. Meeting minutes will be drafted (including any site photos) and submitted to the County within 24 hours of the meeting.

**Task 2 – Contractor Submittals/Survey Reviews**

ESA shall review contractor submittals including daily reports, turbidity plans/results, material submittals, visits to the borrow pit, and plant installation. ESA will review interim and as-built surveys and discuss the results with the assigned County's inspector and Project Manager for accuracy and completeness. It is estimated that this will require up to 24 hours for Bryan Flynn, PE, ESA Coastal Engineer; up to 8 hours for Tom Ries, ESA Principal Scientist, and up to 8 hours for Brad Young, ESA Senior Scientist.

**Task 3 - Construction Phase/EOR Services**

Construction Phase Services will be in a support role to County Staff during construction. Each task will be completed by ESA at the request of the County. ESA staff will provide limited construction monitoring and permit compliance. Observations will be made by Brad Young, ESA Senior Scientist (24 hours total) and Bryan Flynn, PE, ESA Coastal Engineer on (24 hours total) to ensure that construction is in compliance with the bid package; including the construction plans, contract documents, bid schedule and permit authorizations for the work. This may include turbidity control, mangrove removal, rip rap and geotextile installation, and planting oversight and inspection. Also BJ Quinton will be available for up to 12 hours of GIS/CAD design work as needed for updates to project design drawings/figures.

Following completion of construction activity, ESA will help the County compile and submit the Final Certifications with supportive documentation to the regulatory agencies for acceptance.

This scope of work will be completed on a time and materials basis, not to exceed (NTE) the amounts noted below in each task. Budget may be moved between tasks without exceeding the total budget amount with the approval of the County Project Manager.

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Budget Estimate

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|---|--------------------|
| Task 1: Attendance at Construction Progress Meetings..... | \$ 8,730.00        |
| Task 2: Contractor Submittals/Survey Reviews.....         | \$ 6,678.00        |
| <u>Task 3: Construction Phase/EOR Services.....</u>       | <u>\$ 9,216.00</u> |
| TOTAL:.....   | \$24,624.00        |

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ASSUMPTIONS:

- County will provide full-time inspector during construction, ESA staff will be available as a reference for County staff during construction.
- Task 3 services will only be executed at the request of the County Project Manager.
- Budget does not include the completion of seagrass (SAV) or as-built surveys.
- Personnel will be charged at the following rates:
  - Tom Ries – Principal Scientist - \$177/hr
  - Bryan Flynn – Coastal Engineer - \$165/hr
  - Brad Young – Sr. Scientist/Botanist - \$144/hr
  - Brendan Quinton – GIS Analyst /CAD Designer - \$100/hr
- Equipment will be charged at the following rates:
  - Trimble GeoXT – Handheld Differential GPS - \$100/day