REQUEST FOR STATEMENTS OF INTEREST
SOUTH-FLORIDA CARIBBEAN CESU
NUMBER W912HZ-16-SOI-0029
PROJECT TO BE INITIATED IN 2016

Project Title: Evaluating Cross-shore Sediment Grain Size Distribution, Sediment Transport, and Morphological Evolution of Nearshore Placement Sites

Responses to this Request for Statements of Interest will be used to identify potential investigators for studies to be sponsored by the U.S. Army of Engineer (USACE) Engineer Research and Development Center (ERDC) Coastal and Hydraulics Laboratory (CHL). The intent is to provide research, evaluation, and authorship services in evaluating cross-shore grain size distribution and evaluating sediment transport on and around nearshore placement sites of dredged sediment. The estimated level of funding for FY16 is approximately $65,000. Additional funds, yet to be budgeted for 1 additional year at $60,000 may be available for follow on research and documenting results for a potential total of $125,000 over 2 years.

Background:

The USACE is in the process of evaluating morphological and sedimentological evolution of nearshore berm placements. Because they are generally less costly than beach nourishment and have fewer restrictions on environmental and grain size compatibility regulations, nearshore berm placements are becoming an increasingly utilized form of beneficial use of dredged sediment. It is important to have a better understanding of what happens to the sediment once placed in the nearshore. To that end, tools have been made through research programs at the ERDC to predict whether sediment will move and generally in what direction once placed in the nearshore. However, there is a need to validate and improve these tools, therefore, data from ongoing nearshore berm projects are desired. Specifically, data that illustrate morphological and sedimentological characteristics of the nearshore berm through time are required. Additionally, data regarding cross-shore grain size distribution of sediments will aid in the understanding of sediment transport characteristics by grain size.

Public Benefit:

These data and technical results will provide a better understanding of what happens to dredged sediment once it is placed in the nearshore. It will potentially improve methods and design of the placement to receive the most benefits for the adjacent beaches and nearshore. Increased knowledge on nearshore berm placements will help to answer key regulatory questions and may reduce cost of future dredging and placement projects. These data will also be used as guidance for coastal property owners, local and state resource agencies and academia. Additionally, the data collected will be published on an USACE supported website to provide easy access for the public.

Brief Description of Anticipated Work:

***Objective 1*:** Provide and evaluate data regarding the cross-shore grain size distribution of sediments in and around a nearshore berm.

Objective 2: Provide and evaluate data illustrating the morphologic evolution of the nearshore berm.

Objective 3: Provide insight into sediment transport pathways around the nearshore berm.

Objective 4: The researcher will take the lead role in preparing a summary report for findings, conclusions, and recommendations from the research and investigations.

Period of Performance:
Field work to conduct the surveys and sediment sampling for the first year of the CESU will be conducted immediately upon contract award for 12 months following (approximately August 1, 2016-August 1, 2017). There may be an option to follow on that research for 12 months following the initial year.

Deliverables:
1) Data from each survey and sediment sampling period
2) Summary technical report for first year of data collection
3) Draft journal paper(s)

Base Period Tasks:
All objectives will be addressed in the base period. ERDC and the candidates will develop a draft summary technical report describing the work effort for internal peer review before the end of the base period.

Option Year Tasks:
In out years, the studies may be continued to provide more data and information for the three objectives. ERDC and the candidates will develop a draft of the journal article or articles for internal peer review before the end of FY17.

Vendor Requirements:

Vendor must be a non-federal partner of the South-Florida Caribbean CESU Unit willing to accept the currently approved indirect cost rate of 17.5%.

Government Participation:

The university researcher(s) will work in close coordination with the ERDC technical lead who will provide technical assistance where appropriate in the selection of parameters, tools and methods for the study. The ERDC will review reports and offer technical advice and opinion on the research and investigation findings as well as other proposed topics. The ERDC will also facilitate and participate in coordination efforts and meetings either in person or by webinar. The USACE will participate in the preparation of technical reports and peer-reviewed journal papers to insure wide dissemination of these findings.

Materials Requested for Statement of Interest/Qualifications:
Please provide the following via e-mail attachment to:
Stacy.D.Thurman@usace.army.mil
(Maximum length: 2 pages, single-spaced 12 pt. font).
1. Name, Organization and Contact Information
2. Brief Statement of Qualifications (including):
    a. Biographical Sketch,
    b. Relevant past projects and clients with brief descriptions of these projects,
    c. Staff, faculty or students available to work on this project and their areas of expertise,
    d. Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

Note: A proposed budget is NOT requested at this time.

Review of Statements Received: Based on a review of the Statements of Interest received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the investigator's specific experience and capabilities in areas related to the study requirements. Additionally, the evaluation method and selection criteria for research and development awards must be: (1) The technical merits of the proposed research and development; and (2) Potential relationship of the proposed research and development to the Department of Defense missions.

Please send responses or direct questions to:
Stacy Thurman
U.S. Army Engineer Research and Development Center (ERDC)
ERDC Contracting Office (ECO)
3909 Halls Ferry Road
Vicksburg, MS 39180
Stacy.D.Thurman@usace.army.mil

Timeline for Review of Statements of Interest: Review of Statements of Interest will begin after the SOI has been posted on the CESU website for 10 Business days.