

**Request for Statements of Interest
Funding Opportunity Announcement**

Federal Awarding Agency:

U.S. Army Corps of Engineers,
Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180-6199

Funding Opportunity No: W81EWF-20-SOI-0031

CFDA No: 12.630

Statutory Authority: 10 USC 2358

Program Title: Developing Composite Time Series Restoration Trajectories in Salt Marsh Habitat in East Coast Sites

Announcement Type: Initial announcement

Issue Date: 4 June 2020

Statement of Interest/Qualifications Due Date: July 3, 2020, 1PM CDT.

Full Application Package Due Date, if Invited: July 31, 2020, 1PM CDT.

Estimated Award Ceiling: \$48,500.00

Estimated Total Program Funding (optional): \$128.5K (base of \$48.5K and 2 optional years at \$40K each)

Expected Number of Awards: 1.

Section I: Funding Opportunity Description

Background:

Salt marshes are critical components of coastal systems, providing both habitat and flood reduction values. Plant communities in coastal marshes prevent coastal erosion, and support a diverse assemblage of macro-invertebrates, creating essential fish habitat for many important fish species. Several recent marsh restoration projects have relied on Beneficial Use (BU) of dredged material to improve marsh habitat, and reduce coastal erosion.

Interest in using sediment to restore or enhance salt marshes is growing nationwide from public and private landowners and managers at all levels of government as well as within non-governmental organizations. However, quantification of the success of BU marsh restoration projects remains sparse. Exploring the development of restored BU marshes through assessment of novel metrics and development of restoration trajectories will help to provide early indications of successful restoration or the need for adaptive management.

Brief Description of Anticipated Work:

This research project focuses on quantifying the development of restored marsh habitat in order to understand marsh restoration trajectories. The goal of the project is to quantitatively compare marsh habitat restoration at locations in the East Coast of the U.S. (e.g., MD, NJ, DE, NY), to similar sites across time by analyzing common and novel metrics such as, but not limited to, soils characteristics and plant, macroinvertebrate, microbial, and bird communities. Common and novel metrics (specific metrics of interest to be determined and may include remote sensing metrics to accommodate reduced field seasons due to COVID-19), will be measured to develop regional composite time series trajectories (CTST) by using comparisons of multiple restoration efforts of different ages that are linked within the same system in a series of ongoing marsh restoration projects throughout the east coast region. These will be compared with retrospective single site trajectory (RSST) analysis from east coast sites with long term data.

The purpose of the work is to establish reasonable, region-specific expectations for restorations utilizing BU, and identify potential early-indicator metrics to help determine when a site is not on an expected restoration recovery trajectory. The Government will be involved with the research by providing technical guidance on the research, assisting with the experimental design, and collaborating on the journal articles. The Government is not expecting the periods of performances to overlap.

Objectives:

The objectives of the project for year 1 are as follows:

1. Develop technical team and identify local sites.
2. For each local site, evaluate predetermined metrics at 1) control area, 2) recent BU marsh restoration area, and 3) established BU marsh restoration area.
3. Generate a peer-reviewed journal article or public report in conjunction with ERDC researchers on regional Composite Time Series Trajectories.
4. Develop and present a public seminar based on study findings.

The objectives for Optional Year 2 are as follows:

1. Continue to incorporate additional sites, or develop restoration trajectories from sites with long term data using the Regional Single Site Trajectory approach.
2. Analyze data and begin integrative analysis of regional restoration trajectory patterns.
3. Generate a peer-reviewed journal article or public report in conjunction with ERDC researchers on RSST and comparative analyses.
4. Develop and present a public seminar based on study findings.

The objectives for Optional Year 3 are as follows:

1. Continue to develop restoration trajectories from sites with long term data using the Regional Single Site Trajectory approach.
2. Continue to analyze data and begin integrative analysis of regional restoration trajectory patterns.
3. Generate a peer-reviewed journal article or public report in conjunction with ERDC researchers on RSST and comparative analyses.
4. Develop and present a public seminar based on study findings.

Successful applicants should have expert knowledge of: 1) restoration of disturbed habitats through with an emphasis on tidal and salt marshes; 2) field monitoring techniques, including but not limited to sediment and microbial community sampling methods; 3) ecology of marsh plants, macro-invertebrate and tidal bird communities.

Areas of expertise that may be required in combination to perform this study include:

- 1) Marine botany: identification and collection of coastal marsh plants that dominate the tidal marshes of the East coast of the U.S.
- 2) Marine invertebrate ecology: identification and collection of macro invertebrates that dominate the tidal marshes of the East coast of the U.S.
- 3) Marine bird ecology: identification and quantification of tidal bird species that dominate the tidal marshes of the East coast of the U.S.
- 4) Salt Marsh restoration: restoration techniques, understanding of soils, monitoring methods, related field and data collection.

Applicants will be required to submit quarterly status reports and a final report within 4 months of completion of the study. ERDC and the candidates will develop a draft of the journal article or articles for internal peer review during cooperative agreement's period of performance.

Public Benefit:

Coastal wetlands are important to the public because they provide flood protection, habitat for wildlife and plants, and nutrient cycling. Coastal wetlands comprise less than 10 percent of the continental United States land area. However, 39 percent of the United States population lives in these areas, and those numbers are expected to continue to increase. Coastal wetlands, such as salt marshes and dunes, represent the first line of defense to protect lives and property. These ecosystems buffer inland areas from storm surges by absorbing the storm energy and preventing the intrusion of salt water into upland ecosystems. Without these coastal wetlands, inland habitat and property will be destroyed, and there will be increased erosion of the coast line. Coastal wetlands also provide nursery habitat for commercial and recreation fisheries as well as oyster habitat, and they filter sediments and containments from the watershed. Landowners are all interested in the enhancement and restoration of these ecosystems in order to protect and improve the quality of lives and property associated with the populations living in these coastal areas. Understanding how to evaluate restoration trajectories and adaptively manage restoration sites so

that restored wetlands provide the functions outlined above is critical to public welfare and property in coastal communities. This applied research will enhance our knowledge of marsh restoration and adaptive management of restored marsh sites. The findings of this cooperative agreement will be made publically available through the release of public reports or peer-reviewed journal articles as well as a public seminar describing results.

Section II: Award Information

Responses to this Request for Statements of Interest will be used to identify potential investigators for studies to be sponsored by the Engineer Research and Development Center to provide field data collection and synthesis for East Coast sites. The estimated level of funding for FY20 is approximately \$48.5K. Additional funds of \$40k/year for 2 additional years may be available, providing the potential funding of \$128.5K over 3 years to the successful Recipient/Awardee.

Government Involvement:

The ERDC will work cooperatively with the investigator to identify issues related to experimental design and model development, and marsh restoration issues facing USACE. ERDC scientists will aid the investigator in identifying model validation data sources associated with USACE projects if required. ERDC scientists will share any relevant data collected on existing sediment enrichment projects, and will participate in the preparation of peer-reviewed journal papers to insure wide dissemination of these findings.

Section III: Eligibility Information

1. Eligible Applicants – This opportunity is restricted to non-federal partners of the Chesapeake Watershed Cooperative Ecosystems Studies Unit (CESU).
2. Cost Sharing – This action will be 100% funded by USACE.

Section IV: Application and Submission Information – Two Phase Process

Phase I: Submission of a Statement of Interest/Qualifications.

1. Materials Requested for Statement of Interest/Qualifications:
 - a. Please provide the following via e-mail attachment to:
Chelsea.M.Whitten@usace.army.mil
(Maximum length: 2 pages, single-spaced 12 pt. font).
1. Name, Organization and Contact Information
2. Brief Statement of Qualifications (including):
 - Biographical Sketch,
 - Relevant past projects and clients with brief descriptions of these projects,
 - Staff, faculty or students available to work on this project and their areas of expertise,
 - 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.

The administrative point of contact is Chelsea Whitten, 601-634-4679;
Chelsea.M.Whitten@usace.army.mil

2. Statement of Interest/Qualifications shall be submitted NO LATER THAN 3 July 2020, 1PM CDT.

Based on a review of the Statements of Interest received, an investigator or investigators will be invited to move to Phase II which is 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.

3. Phase II: Submission of a complete application package to include a full technical proposal including budget, if invited.

The complete funding opportunity announcement, application forms, and instructions are available for download at [Grants.gov](https://www.grants.gov).

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4. Content and Form of Application Submission

All mandatory forms and any applicable optional forms must be completed in accordance with the instructions on the forms and the additional instructions below.

- a. SF 424 R&R - Application for Federal Assistance
- b. Full Technical Proposal – Discussion of the nature and scope of the research and technical approach. Additional information on prior work in this area, descriptions of available equipment, data and facilities, and resumes of personnel who will be participating in this effort should also be included.
- c. Cost Proposal/Budget – Clear, concise, and accurate cost proposals reflect the offeror's financial plan for accomplishing the effort contained in the technical proposal. As part of its cost proposal, the offeror shall submit cost element breakdowns in sufficient detail so that a reasonableness determination can be made. The SF 424 Research & Related Budget Form can be used as a guide. The cost breakdown should include the following, if applicable:
 1. Direct Labor: Direct labor should be detailed by level of effort (i.e. numbers of hours, etc.) of each labor category and the applicable labor rate. The source of labor rates shall be identified and verified. If rates are estimated, please provide the historical based used and clearly identify all escalation applied to derive the proposed rates.
 2. Fringe Benefit Rates: The source of fringe benefit rate shall be

identified and verified.

3. Travel: Travel costs must include a purpose and breakdown per trip to include destination, number of travelers, and duration.
4. Materials/Equipment: List all material/equipment items by type and kind with associated costs and advise if the costs are based on vendor quotes and/or engineering estimates; provide copies of vendor quotes and/or catalog pricing data.
5. Subrecipient costs: Submit all subrecipient proposals and analyses. Provide the method of selection used to determine the subrecipient.
6. Tuition: Provide details and verification for any tuition amounts proposed.
7. Indirect Costs: Currently the negotiated indirect rate for awards through the CESU is 17.5%.
8. Any other proposed costs: The source should be identified and verified.

Application package shall be submitted NO LATER THAN 31 July 2020, 1PM CDT.

9. Submission Instructions

Applications may be submitted by e-mail, or Grants.gov. Choose ONE of the following submission methods:

a. E-mail:

Format all documents to print on Letter (8 ½ x 11”) paper. E-mail proposal to Chelsea.M.Whitten@usace.army.mil

b. Grants.gov: <https://www.grants.gov/>:

Applicants are not required to submit proposals through Grants.gov. However, if applications are submitted via the internet, applicants are responsible for ensuring that their Grants.gov proposal submission is received in its entirety.

All applicants choosing to use Grants.gov to submit proposals must be registered and have an account with Grants.gov. It may take up to three weeks to complete Grants.gov registration. For more information on registration, go to <https://www.grants.gov/web/grants/applicants.html>.

Section V: Application Review Information

1. **Peer or Scientific Review Criteria:** In accordance with DoDGARS 22.315(c), an impartial peer review will be conducted. Subject to funding availability, all proposals will be reviewed using the criteria listed below (technical and cost/price). All proposals will be evaluated under the following two criteria which are of descending importance.

a. **Technical (items i. and ii. are of equal importance):**

- i. Technical merits of proposed R&D.
- ii. Potential relationship of proposed R&D to DoD missions.

b. **Cost/Price:** Overall realism of the proposed costs will be evaluated.

2. Review and Selection Process

a. **Categories:** Based on the Peer or Scientific Review, proposals will be categorized as Selectable or Not Selectable (see definitions below). The selection of the source for award will be based on the Peer or Scientific Review, as well as importance to agency programs and funding availability.

i. **Selectable:** Proposals are recommended for acceptance if sufficient funding is available.

ii. **Not Selectable:** Even if sufficient funding existed, the proposal should not be funded.

Note: The Government reserves the right to award some, all, or none of proposals. When the Government elects to award only a part of a proposal, the selected part may be categorized as Selectable, though the proposal as a whole may not merit such a categorization.

b. No other criteria will be used.

c. Prior to award of a potentially successful offer, the Grants Officer will make a determination regarding price reasonableness.

Section VI: Award Administration Information

1. Award Notices

Written notice of award will be given in conjunction with issuance of a cooperative agreement signed by a Grants Officer. The cooperative agreement will contain the effective date of the agreement, the period of performance, funding information, and all terms and conditions. The recipient is required to sign and return the document before work under the agreement commences. **Work described in this announcement SHALL NOT begin without prior authorization from a Grants Officer.**

2. Administrative Requirements

The cooperative agreement issued as a result of this announcement is subject to the administrative requirements in 2 CFR Subtitle A; 2 CFR Subtitle B, Ch. XI, Part 1103; and 32 CFR Subchapter C, except Parts 32 and 33.

3. Reporting

See 2 CFR Sections 200.327 for financial reporting requirements, 200.328 for performance reporting requirements, and 200.329 for real property reporting requirements.

Section VII: Agency Contact

Chelsea Whitten, Grants Officer

US Army Corps of Engineers, Engineer Research and Development Center

3909 Halls Ferry Road

Vicksburg, MS 39180-6199

Chelsea.M.Whitten@usace.army.mil

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