

**REQUEST FOR STATEMENTS OF INTEREST
NUMBER W912HZ-19-SOI-0020
PROJECT TO BE INITIATED IN 2019**

Project Title: USCRP Research Topic 7: USCRP Data Portal and Analytics

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 of this request is to provide researchers the opportunity to develop a USCRP coastal data portal, which provides a common platform for linking and overlaying existing spatial and temporal data for use by the coastal community as well as a common platform for processing newly-collected data for field data collected as part of the USCRP. Researchers will then develop and adopt methodologies to utilize existing data together with USCRP data to conduct data analytics documenting benefits and impacts of USCRP research to coastal communities. Data analytics may be utilized to characterize such things as existing and future coastal community hazards and vulnerability and assess the present and future state of coastal ecosystem vulnerability. The proposers may explore methods for combining nationally-available datasets from federal agencies with state and local information in researching data analytic methodologies. Estimated award amounts for individual proposals of \$50,000 to \$300,000 may be accepted. Multiple awards may be funded. Possibly no awards will be made if the submitted proposals do not meet the objectives outlined in this RSOI.

Background:

The U.S. Coastal Research Program (USCRP) is a partnership of the coastal research community to coordinate Federal activities, strengthen academic programs, and build a strong workforce. Three primary research needs identified by the USCRP's nearshore coastal community are to improve understanding of: 1) long-term coastal evolution due to natural and anthropogenic processes; 2) extreme events, including flooding, erosion, and the subsequent recovery; and 3) the physical, biological and chemical processes impacting human and ecosystem health. As identified by the USCRPs plan, the USCRP addresses societal needs along the coast through a coordinated effort backed by researchers from Federal agencies, academia, industry, and non-governmental organizations. Awards will be made with the intent of assisting academic institutions in funding coastal and nearshore processes graduate students to address critical research needs within the coastal community, advancing the state of knowledge, and building the future U.S. workforce.

Public Purpose and Benefit:

These results will benefit the public through the development of a common, shared data source for coastal data, and provide data analytic methods that can be utilized by coastal communities to make decisions about regions with greatest vulnerability and need for future investments.

Brief Description of Anticipated Work:

Objective 1: Develop a USCRP data portal to be used by the coastal community to share data pertinent to coastal research and project design. Include other data available to document and analyze coastal system vulnerability, community infrastructure and economic needs, ecosystem characterization (habitat type, coverage, etc.) and vulnerabilities, and future hazards.

Objective 2: Process any data collected as part of the USCRP and port the data to the USCRP data portal. Combine with nationally-available datasets from federal agencies with state and local information. Document data sets, methodologies and metadata.

Objective 3: Expand data analytics and portal to provide a common platform for linking and overlaying existing spatial and temporal data for use by the coastal community. Research methodologies to conduct data analytics documenting benefits and impacts of USCRP research. Data analytics may be utilized to characterize existing and future coastal community hazards and vulnerability and assess the present and future state of coastal ecosystem vulnerability. Document data analytics and recommend best methods for community decision-support.

Annual products from this work will include Community Fact Sheets (2-4 pages each) that summarize advancements each year; and an annual contribution to the USCRP Quarterly Bulletin (1/2- 1 page for each article). Journal articles that are co-authored with a practitioner are anticipated at the conclusion of the study. If numerical models are utilized in the study, open-source modeling systems are preferred so that all coastal researchers can benefit from advancements.

Base Period Tasks:

Objectives 1-3 will be addressed in the base period work effort and summarized in the summary report for this period.

Government Participation:

The university researcher(s) will work in close coordination with the USCRP Virtual Program Office (VPO) who will provide technical assistance prior to any USCRP-funded field experiments and logistical assistance during the events. The USCRP VPO will also facilitate and participate in coordination efforts and meetings either in person or by webinar prior to the events and in person during the events. The USCRP VPO will assist researchers to access topographic and bathymetric data, as well as wave, water level, and current information. The USCRP VPO will ultimately incorporate the research and documentation by the researcher(s) into a technical report.

Materials Requested for Statement of Interest/Qualifications:

Please provide the following via e-mail attachment to: Robyn.D.Wells@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 (SOI) received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the specific experience and capabilities of the investigator(s) 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:

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ERDC Contracting Office (ECO)
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Timeline for Review of Statements of Interest: Review of Statements of Interest will begin after the SOI has been posted to all units on the CESU website for 10 working days.