REQUEST FOR STATEMENTS OF INTEREST
NUMBER W912HZ-19-SOI-0013
PROJECT TO BE INITIATED IN 2019

Project Title: USCRP Research Topic 9: Develop Community Resilience Guidance for Recovery & Mitigation and Adaptation

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 Engineer (USACE) Research and Development Center (ERDC) Coastal and Hydraulics Laboratory (CHL). The intent of this request is to seek researchers interested in performing applied research to determine how nearshore communities can develop guidance to utilize best practices for recovery, long-term adaptive management and risk mitigation to recover faster from coastal impacts and adapt more readily to future events. Products from this effort will provide decision-support Guidance for Recovery & Mitigation and Adaptation for use by coastal communities to improve short- and long-term adaptation, and consider tipping points in the decision-making processes. The goal is to compel communities to consider actions to develop community resilient guidance for recovery, mitigation and adaption. Estimated award amounts for individual proposals of $50,000 to $250,000 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 implications of Community Resilience Guidance for Recovery & Mitigation and Adaptation 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. 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 Benefit:
These results will benefit the public through development of Guidance for Recovery & Mitigation and Adaptation and best practices for nearshore and beach sediment management, with consideration of the local and regional setting and engineering actions in the coastal communities. Outcomes will be utilized by federal agencies to understand the most important processes and human actions that influence long-term community resilience and guidance with a focus on developing guidelines to help these entities with the essentials for providing

consistency with Community Resilience Guidance for Recovery & Mitigation and Adaptation objectives.

Brief Description of Anticipated Work:
This research is envisioned as a 2-year study that will span up to three calendar years.

Researchers will examine how nearshore communities can utilize best practices for recovery, long-term adaptive management and risk mitigation to recover faster from coastal impacts and adapt more readily to future events. Products will provide decision-support guidance for use by coastal communities to improve short-and long-term adaptation, and consider tipping points in the decision making process.

Objective 1: In order to achieve the main objective of this study of developing community resilience guidance for recovery, mitigation and adaption, the researcher should first summarize the state-of-knowledge of processes that influence long-term (years to decades to century) community resilience guidance for recovery, mitigation, and adaptation. The objective is to provide decision-support guidance and thereby flood protection for families and businesses, enhance the natural processes that build and ensure that coastal communities continue to be successful recreational and areas of commerce and industry. Products from this objective will include: a Shore & Beach article that documents the state-of-knowledge; and a Community Fact Sheet that succinctly synthesizes these findings (2-4 pages).

Objective 2: Based on knowledge summarized in Objective 1, develop a method to evaluate the uncertainty associated with long-term Community Resilience Guidance for Recovery, Mitigation, and Adaptation projects that incorporates variability in short- and long-term alignments of USACE Civil Works Missions to increase Community Resilience Guidance for Recovery & Mitigation and Adaptation and Resiliency." Additionally, the objective is to provides the context needed to evaluate other activities in the coastal zone, including: transportation, navigation, and port projects; oil and gas development; ground water management and land use planning. Document methodology and example applications in a Shore & Beach article.

Objective 3: The researcher will develop a Community Guidebook for Evaluating Response to long-term community Resilience Guidance for Recovery & Mitigation and Adaptation. This provides coastal communities an opportunity to evaluate their long-term (years to decades to century) Community Resilience Guidance for Recovery & Mitigation and Adaptation. The guidance document may recommend use of existing data sets that quantify vulnerability and associated uncertainty based on formulation of a long-term Community Resilience Guidance for Recovery & Mitigation and Adaptation and anthropogenic activities. A product from this objective could be a decision-support guidance document for Recovery & Mitigation and Adaptation.

Annual products from this work will include Community Fact Sheets (2-4 pages each) that summarize advancements each year; and Annual contribution to the USCRP Quarterly Bulletin

(1/2- 1 page for each article). Shore & Beach articles that are co-authored with a practitioner are anticipated at the end of Objectives 1 and 2, and 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 and associated products 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 USACE technical lead who will provide technical assistance as appropriate in determining parameters, tools and methods for the study. The USACE will review reports and offer technical advice and opinion on the research/investigation findings. The USACE will also facilitate and participate in coordination efforts and meetings either in person or by webinar. The USACE 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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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.