

U.S. Coastal Research Program

CALL FOR RESEARCH PROPOSALS

Academic Proposal Request **(update)**



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. As identified by its' National Plan,¹ the USCRP addresses societal needs along the coast through a coordinated effort backed by researchers from Federal agencies, academia, industry, and non-governmental organizations.

In 2019, the USCRP is providing approximately \$5M in competitive awards for academic proposals addressing the topics described below. 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.

Two types of awards are available:

- (1) Academic Research: 2-3-year awards addressing strategic needs;² and
- (2) Student Challenges: 1-2 year awards targeting short-term, focused, student driven initiatives.

In January 2019, the US Coastal Research Program will advertise **12** Requests for Statements of Interest (rSOI) through the Cooperative Ecosystems Study Unit (CESU) National Network (<http://www.cesu.psu.edu>). There will be one rSOI advertised for each research topic described below, and will detail the approximate total funding available in that topical area.

If interested in a particular topical area, academic researchers will submit two-page statements of interest (SOI)* to the point of contact (POC) identified in the rSOI. SOIs will be reviewed and ranked by the USCRP team. Top SOIs will then submit full proposals for review, selection, and awarding following the general schedule below. For questions about submitting, please contact Julie Rosati Julie.D.Rosati@usace.army.mil or Mary Cialone, Mary.A.Cialone@usace.army.mil.

Schedule

Updated

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| 1 Nov 2018: | Call for USCRP 2019 Academic Proposals |
| 19 Dec 2018: | Informational webinar on proposal process, hosted by USCRP – webinar info to follow |
| 25 Jan – 7 Feb 2019: | 12 rSOIs advertised |
| Feb 2019: | 2-page Statements of Interest* submitted by researchers to the POC identified in the rSOI |
| Feb-Mar 2019: | Top selected candidates will be notified to submit full proposals (tentative) |
| Mar-Jun 2019: | Full proposals due |
| Summer 2019: | Proposals awarded |

¹ U.S. Coastal Research Program (2016): “U.S. Nearshore Community Integrated Research Implementation Plan – The National Plan.” Available at http://asbpa.org/wpv2/wp-content/uploads/2016/03/Nearshore_National_Plan_complete.pdf.

² Proposed funding amounts can vary by year depending on the work planned for that year of the project.

*Information required in the 2-page SOI:

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.).



Requirements

Eligible applicants include institutions of higher education. Proposals that have the following characteristics will receive higher ranking in the evaluation process: research supporting a U.S. graduate student; collaborating with other practitioners or institutions on the proposal; co-authoring findings with practitioner(s) in American Shore and Beach Preservation Association (ASBPA) Shore & Beach Journal; presenting findings of research at ASBPA's Conference as the work concludes; and using open-source community models if numerical models are utilized. Additionally, preference will be given to budgets reflecting strategic prioritization of funding per each year of the proposed project.

To submit Statements of Interest, please follow the instructions for your regional CESU as set out in the Request for Statements of Interest which will be posted online at <http://www.cesu.psu.edu/>.

The USCRP will notify the mailing list once requests for SOIs are posted in January 2019 (DELAYED).

If you have questions, please consult the FAQs page, <https://uscoastalresearch.org/2019-awards-info>.

Research Topics: Proposals addressing the following topics are of primary interest; proposed are also invited addressing the USCRP's research themes: (1) Long-term processes, (2) Extreme Events, (3) Human & Ecosystem Health.

- (1) **Identify and Communicate Coastal Impacts.** Proposals will describe and quantify the risk communities face from coastal impacts and how best to communicate those risks to a broader audience. The intent of communication is to compel communities to consider actions that reduce risk.
- (2) **Coastal Structure Design and Rehabilitation incorporating Stochastic Risk and Uncertainty.** Proposed research will utilize stochastic methods in designing and rehabilitating coastal structures that incorporate risk and uncertainty in coastal forcing and structural stability.
- (3) **Understanding the Crossroads of Human and Ecosystem Health.** Proposals will seek to address the linkages between humans and ecosystems during storms or seasonal events such as red tides. Research will provide feedback on physical coastal processes and the corresponding human health impacts.
- (4) **Evaluating the Distribution and Geotechnical Properties of Outer Continental Shelf (OCS) Sand Resources and Coupled Environmental Responses to Dredging.** Proposals may seek to examine the geologic framework of the OCS to establish the distribution and character of beach quality sands; evaluate sediment dynamics on the OCS as a result of normal, storm conditions, or dredging

disturbances; evaluate the long-term impact of beach nourishment projects on the ecosystem, including bird and sea turtle populations and nesting behavior; and related topics.

- (5) **Nearshore Sediment Transport and Sediment Budgets over Decadal Scales.** Research proposals will seek to quantify the connection and the longer term processes of nearshore shoal migration and sediment sources to the nearshore and associated necessary feedback mechanisms. Proposals will focus on identifying and understanding the impacts to the geology, the nearshore, and the ecosystem, and consider present-day processes and how sea level change may evolve the nearshore sediment budget.
- (6) **Long-term Implications of Coastal Restoration.** Proposals will examine the long term implications of engineered (grey and green infrastructure) solutions along open-ocean, bay, and Great Lake shorelines.
- (7) **Development of a USCRP Coastal Data Portal.** Proposals will develop a common platform for linking and overlaying existing spatial and temporal coastal data. Proposals may explore how nationally available datasets from federal agencies can be used in conjunction with state and local datasets.
- (8) **Quantifying and Communicating Numerical Model Uncertainty.** Proposals will quantify uncertainty associated with numerical modeling and predictions over time periods of storms, seasons, years, to decades. Proposals will identify and define improvements to modeling and predictions so that members of the nearshore community can better understand the results and their applicable impacts.
- (9) **Develop Community Resilience Guidance for Recovery & Mitigation and Adaptation.** Proposals 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 decision-making processes.
- (10) **Applied Storm & Recovery Studies as part of the DURING Nearshore Event Experiment (DUNEX).** Proposals will conduct experiments and collaborate with other researchers to evaluate short and/or long-term storm impacts during the DUNEX experiment planned for Fall-Winter 2020, with a pilot study planned for Fall 2019. Funding may be utilized to participate in the experiment and/or to analyze data that was collected during the experiment.
- (11) **Coastal Adaptation Pathways for Barrier Island Communities.** This research will develop approaches for a community-informed, scientifically-based alternatives for adaptation for barrier island communities at risk from hurricane damage and future sea level change.
- (12) **Quantitative Model for Optimizing Coastal Community Systems Performance.** Research will develop a quantitative systems model that incorporates community perspectives, data, and future environmental and coastal infrastructure conditions so that potential future alternatives can be tested and optimized for coastal communities. The systems model should facilitate community input and examination of alternatives, given anticipated changes in community values and priorities, physical infrastructure, and coastal forcing over years to multiple decades.

For more information on the USCRP, please visit <https://uscoastalresearch.org/2019-awards-info>.