



**THE KARL HAVENS MEMORIAL
SOUTH ATLANTIC REGIONAL RESEARCH COMPETITION**

REQUEST FOR PROPOSALS

**Effects of Coastal Flooding on Access to Infrastructure and the Resulting
Economic Effects in Coastal Communities**

Deadline: October 25, 2019
(5:00 PM Eastern Time)

Proposals packages must be submitted to Georgia Sea Grant using its web-based proposal management system, eSeaGrant (eseagrant.uga.edu) by 5:00 pm ET on October 25, 2019.

Sponsored by the Sea Grant programs of Florida, Georgia, South Carolina and North Carolina, and the NOAA Office for Coastal Management.

SOUTH ATLANTIC REGIONAL RESEARCH COMPETITION

This is a call for research proposals that address a priority of Sea Grant and of the NOAA Office for Coastal Management (OCM) in the South Atlantic Region. This priority is *quantifying the impacts of coastal flooding on access to public and private infrastructure and quantifying how blocked access during flooding affects the economy of coastal communities.*

It is well-established that during high tide events, after heavy inland and coastal storms, and during storm surges certain vulnerable roads, causeways and bridge access locations are flooded. Sometimes this flooding inundates sewage handling systems and water treatment plants leading to closure of affected roads for human health-related issues.

This request for proposals seeks rigorous research projects that quantify the impacts of flooding on access to infrastructure and the associated economic costs and which are developed and implemented in collaboration with end-users (see below). This request also seeks proposed solutions that could be considered by decision-makers to reduce risk and increase resilience in the face of flooding events. The research must include coastal locations from Florida to North Carolina that have been major hot spots for flooding based on historical data as well as places considered likely to have exacerbated flooding in the future with additional sea level rise and other climate and weather-related impacts. The presumption is that those data are readily available and that getting them into GIS as a framework for quantifying the effects on access will not require new field surveys or assessments.

The successful project will establish clear linkages between coastal flooding events and the disruption they cause to the lives of people living in the coastal zone. For example, to what extent does flooding prevent people from transporting children to schools, from being able to access hospitals, pharmacies, grocery stores or even their homes? To what extent does flooding of roads, bridges and ferry access points impact the ability of emergency response vehicles to reach the scenes of accidents or other events? To what extent does flooding disrupt commerce by interfering with delivery of supplies to businesses? And importantly, what are the collective economic impacts of reduced access for coastal communities, and what are some possible solutions to mitigate those impacts?

A successful proposal will be collaborative in nature and will include one principal investigator (PI) each from Florida, Georgia, South Carolina and North Carolina. PIs will work in partnership with one or more end-users who will help shape the research problem and use the results of the work to guide specific actions to increase access in the coastal zone when it is impacted by flooding events. The end-user(s) might be state departments of transportation, local communities, or some other logical entity, and it may be that in each state, the most appropriate end-user will differ because of difference in jurisdiction over roads, causeways, and other access routes. The end-user(s) must be active partners in the project. They must be involved from the onset of creating a proposal, implementing the proposal tasks along with the research team, and in the execution of actions based on the research results.

Projects must also be hypothesis-based. Mapping and monitoring only proposals are not eligible. A single regional research project will be funded annually for a period of two years in an amount not to exceed \$400,000. Each year of federal dollars will not exceed \$200,000. Further, for this project, the two-year total for each state PI is limited to a maximum of \$100,000. The exception is that the one PI who assumes the role of project lead may include an additional \$25,000 in their budget for costs to serve as the lead project manager, to ensure that a high level of interaction and integration occurs between the PIs and with the Sea Grant and NOAA programs to have a cohesive research project with effective translation of results into application. **Prospective researchers must contact their state Sea Grant program to discuss their proposed research idea and budget.** The project manager will be required to develop a concise (20-25 page) summary report that is written in language that is relevant for city, county and state planners, and that contains conclusions that can guide actions based on the

research results.

For this regional competition, a match of one non-federal dollars is required for every four federal dollars requested (state: federal; 1:4). Match must be in the form of something that can clearly be documented. The preferred form of match is a percentage of investigators' time or in-kind services of an agency or organization that can be specifically identified and cost estimated. Volunteer hours are not allowed as match, because they cannot be reliably quantified.

To qualify for merit review process, proposals must be submitted to Georgia Sea Grant by eseagrant.uga.edu on or before 5:00 pm Eastern on October 25, 2019.

Post-Award Requirements

1. Each PI will be required submit an annual progress report to their respective state Sea Grant program, following the guidelines stipulated by that program, and a report to the lead PI.
2. The lead PI will be required to complete and submit annually to Georgia Sea Grant a Department of Congress Research Performance Progress Report (RPPR, OMB Form 0690-0032).
3. The lead PI will be required to provide a twice-yearly video-conference briefing on the progress of the project to the regional Sea Grant Directors and the NOAA OCM staff.
4. The research team will be required to provide a final video-conference briefing to the Sea Grant / NOAA OCM team, and submit a 20-25 page summary document of the major findings and recommendations from the project. This must occur in the final six months of the funding period.
5. To ensure that findings are broadly disseminated, the lead PI will be required to share their research findings at a meeting of the NOAA South Atlantic and Caribbean Regional Team in the final quarter of the project, and each state PI must give a presentation of research results and recommendations at a NOAA National Estuarine Research Reserve site on the Atlantic coast of their state during that same quarter. In addition, the research team will be required to collaborate with Sea Grant extension to develop education and outreach products.

Specific Attributes of the Full Proposal

This is a solicitation for full proposals for a two-year coastal community resilience research grant.

- This is an open competition for teams of investigators working at academic institutions in Florida, Georgia, South Carolina and North Carolina.
- Investigators must assemble teams that span the four states.
- Investigators from each state must contact their state Sea Grant program director to discuss ways in which they intend to collaborate with their Sea Grant program.
- Researchers should contact their state Sea Grant Extension Program, their Coastal Zone Management Program and their Atlantic coast National Estuarine Research Reserve for input during development of the project, and to determine if those programs desire to participate in outreach and education activities that could support the project. This interaction should be clearly documented in the proposal.
- One investigator must be the lead PI/project manager and identify as such in the proposal.
- Proposals must be competitive in scientific or professional merit and in end-user engagement from start to finish, including hypotheses and explicit outreach plan as requirements.

- The maximum award is \$400,000 for two years, with no more than \$200,000 in each individual budget year, and we are limiting the funding to each state PI to a maximum of \$100,000 for the duration of the project (up to \$50,000 per year per PI). The lead PI may budget \$25,000 of additional funds to support collaboration among the research PIs, with those funds subject to overhead by the University of Florida on pass-through federal funds.
- A 25% match is required – i.e., \$25,000 match for each \$100,000 of federal funds requested.
- Proposals will receive written reviews by three qualified experts in relevant fields of expertise using the Merit Review Criteria specified below.
- A panel comprised of the Directors of the South Atlantic Sea Grant programs and experts from the NOAA OCM will review the scores and comments received by each proposal, and make funding decision based on Merit Review Criteria outlined below.
- A single regional project will be funded, assuming that there is a proposal that meets Sea Grant and OCM's standards of excellence and our expectations about the anticipated outcomes and level of end-user engagement.
- Proposals require detailed budgets from all investigators, as well as budget justifications. Details are provided below.
- The lead PI should submit a single proposal for review and include the individual state budgets as sub-awards. The proposal must also include scope of work by each co-PI.
- The maximum length of the proposal narrative is 12-pages in 11 point, Times New Roman font. This maximum page limit includes the proposal narrative and embedded tables and figures. A list of literature citations does not count towards the 12-page limit. The page limit also does not include: the budget, budget justification, biographical sketches, or data sharing plan.
- Proposals must be submitted by Georgia Sea Grant's web-based system, eseagrant.uga.edu by 5:00 PM Eastern on October 25, 2019. Proposals that are not submitted with all required components by that deadline will not be considered. Do not wait until the last day to submit; there are no exceptions to the deadline.

For Additional Information

At any time during the development of the full proposal, researchers may contact the following people for information.

Florida: Sherry L. Larkin, slarkin@ufl.edu or Charles Sidman, csidman@ufl.edu

Georgia: Mark Risse, mrisse@uga.edu or Mona Behl, mbehl@uga.edu

North Carolina: Susan White, snwhite3@ncsu.edu or John Fear, jmfear@ncsu.edu

South Carolina: Rick DeVoe, Rick.Devoe@scseagrant.org

NOAA OCM: Bill O'Beirne, bill.obeirne@noaa.gov and Heidi Stiller, heidi.stiller@noaa.gov

Proposal Selection and Funding Cycle

Sea Grant projects are funded for two years. Thus, projects proposed should be for the period from February 1, 2020 to January 31, 2022. Key dates, starting with full proposal submission:

August 15, 2019	Call for proposals is issued.
August 27, 2019	Informational webinar (connecting information forthcoming)
October 25, 2019	Full proposals are due by 5:00 PM ET.
November, 2019	Peer reviews are conducted.
December, 2019	Panel meets to review full proposals.
January, 2020	Funding decision is communicated.
February 1, 2020	Project Start Date.
January 31, 2022	Project End Date.

Merit Review Criteria

Criteria that will be considered in reviewing and scoring full proposals include:

- A. **Technical Merit** -- the degree to which the proposed project makes use of rigorous natural and social science methods to quantify how flooding affects access to infrastructure in coastal communities of the South Atlantic region, and how that in turn affects coastal community economies (25%).
- B. **Users, Participants and Co-Sponsors** -- the degree to which end-users of the results of the regional project are brought into the development of the proposal and will be engaged in project execution. This will be determined in large part by letters submitted with the proposal package from end-users, where they must describe how they are involved in the project (25%).
- C. **Expected Results, Applications and Benefits** -- the degree to which the completed project is expected to result in information that can increase the knowledge of end-users about how coastal flooding affects access and community economies, in ways that could result in changes to plans and actions (40%).
- D. **Project Management Plan** -- the approach proposed to conduct an integrated project that will produce regionally relevant results in a coordinated manner. This should be written by the lead PI, who also is requesting \$25,000 of additional funds per year in support of these activities (10%).

NOAA Data Sharing Requirement

All NOAA funded research projects, data and information collected and/or created under NOAA grants and cooperative agreements must be made visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner, except where limited by law, regulation, policy or by security requirements.

The requirement has two parts: (1) environmental data generated by a research project must be made available after a reasonable period of exclusive use, and (2) the grant proposal must describe the plan to make the data available.

All applicants are required to complete a one-page Data Management Plan (DMP) in their full proposal (see Appendix A for more details). Funds may be allocated for data management activities. The DMP is not part of the 12-page project description. Even if no data will be produced, a DMP is required that states: "No data are expected to be produced from this project." Data Management Plans are not required at the pre-proposal stage.

The lead PI is responsible for the DMP of the entire project. The lead PI may assign different roles and responsibilities to co-PIs with respect to the management of data. The lead PI is also responsible to provide a contingency plan for management of data in case of departure of key personnel from the project. The lead PI is also responsible for reporting in the Annual and Final Reports on the data management, preservation and access for the whole project. Please note that DMPs will be considered during the merit review process.

Summary Report

It is expected that the research project will lead to the production of peer-reviewed journal articles. Additionally, we require that the team develop a summary document of 20-25 pages that is written for an educated lay audience. This can be an online work product including a zine or other suitable tool for effectively communicating the relevance of the work, the approaches taken and the major results and their value in the context of better understanding how coastal flooding affects public access.

Project Duration

Our intention is that the regional project will be complete in 48 months from the date when funding is made available. If unexpected circumstances occur, a no-cost extension may be provided for the number of months (up

to 12) that the project was set back by a clearly justified situation of a specified duration. No second extension will be provided under any circumstances.

Submitting Full Proposal

The PI who is serving as the regional project lead must submit a **single proposal**, on behalf of the co-PIs, to Georgia Sea Grant. It must include the project narrative, the individual PI budgets and budget justifications, bio-sketches and signed cover pages from each university. Letters from end-users indicating describing their role in developing and implementing the project are a critical component of the application package.

Questions about the proposal and decision of the merit review process will be communicated to the lead PI. Once a final regional proposal is selected the individual investigators will submit the narrative and their portion of the budget to their own state Sea Grant program for submission to NOAA. PI whose proposal is selected for funding will be required to work with Georgia Sea Grant to submit an Abbreviated Environmental Compliance Questionnaire.

Appendix A

Sea Grant Data Management Plan Form

Title of the Proposal (required answer):

Name of the lead PI (required answer): Sea Grant requires that the lead PI serve as the data steward.

Contact Information (required answer):

Dataset Description(s) (required answer): What data will the dataset(s) contain? This includes descriptive details on data types, inclusion of metadata, data format(s), collection times / date ranges, etc. What name(s), if any, will be designated to the dataset(s)?

Do you agree to release all data no later than 2 years after the end-date of the project? (required answer):

Issues (required answer): Are there any legal, access, retention, etc. issues anticipated for the dataset? If yes, please explain.

Data Size: What will be the estimated size of the dataset? Please report estimated number of MB, GB, TB, etc., collected.

Data Format: What format will the dataset utilize? (i.e., Excel file, model code, audio/video recording, etc.)

Ownership (required answer): Who will own the dataset, if not the lead PI?

Post-Processing: What post-processing, QA/QC will this dataset undergo? Who will be responsible for performing this post-processing and QA/QC to prepare the dataset for its deposition into a repository?

Preservation Plan (required answer): What data repositories will be used to host the dataset? If none, how will the data be preserved?

Products: Will any information or data products be developed from this dataset? How will the related costs be supported? Which organization(s) will be producing these products?

Other Comments: Are there any additional comments related to the data that will results from your Sea Grant-funded study?