



NC Water Resources Research Institute & NC Sea Grant  
North Carolina State University | Centennial Campus

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## Graduate Student Research Funding Opportunity

Jointly sponsored by

North Carolina Water Resources Research Institute and  
North Carolina Sea Grant

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SUBMISSION DEADLINE

5:00 P.M. Nov. 12, 2018

FOR QUESTIONS, PLEASE CONTACT:

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*Both WRRRI and NCSG are multi-campus programs of the University of North Carolina system*

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## I. OVERVIEW

This Request for Proposals (RFP) is for research projects in the areas of coastal and freshwater resources as prioritized by NC Water Resources Research Institute (WRRI) and NC Sea Grant (NCSG) with input from their Advisory Committees, which comprise stakeholders from a range of sectors and professions working on freshwater and coastal resources throughout North Carolina.

WRRI and NCSG are providing competitive funding for graduate student research. We intend to fund up to five student proposals at \$10,000 per proposal, pending federal appropriation of funds and quality of proposals.

WRRI is part of a national system of 54 institutes authorized by the Water Resources Research Act (WRRRA) of 1984 and represents a federal/state partnership between the US Geological Survey (USGS) and state land-grant universities. WRRI is hosted by North Carolina State University but is a multi-campus program within the University of North Carolina (UNC) system. WRRI's work addresses a suite of topics related to freshwater resources.

NCSG, also headquartered at NC State University and a UNC system multi-campus program, is one of 33 programs within the National Sea Grant College Program and represents a federal/state partnership between the National Oceanic and Atmospheric Administration (NOAA) and the state. Sea Grant's work addresses a suite of topics related to coastal resources.

Proposals must include language that describes the significance and relevance of the project to North Carolina and the interests of **both** NC WRRI ([wrri.ncsu.edu/mission](http://wrri.ncsu.edu/mission)) and NCSG ([ncseagrant.ncsu.edu/about-us/our-vision](http://ncseagrant.ncsu.edu/about-us/our-vision)).

## II. APPLICANT ELIGIBILITY

Only enrolled graduate students in good academic standing attending an accredited college or university (public or private) in North Carolina may apply. Students must have a faculty sponsor who will serve as the official awardee for the project. WRRI and NCSG are not able to contract directly with students. Post-doctoral fellows are not eligible for funding under this RFP. Undergraduate students may not apply directly for funding, but undergraduate participation in the proposed project is encouraged.

Only one proposal per student is allowed. There is no limit to the number of students for whom a faculty member may serve as the sponsoring applicant.

### III. APPLICANT DIVERSITY

Recognizing that people of color have historically been underserved and under-targeted with research opportunities, and that students and faculty of color are underrepresented in the sciences, we strongly encourage submissions by and/or collaborative partnerships with one or more of the following:

- African American, Hispanic and Native American students and African American, Hispanic and Native American sponsoring faculty
- Historically Black Colleges and Universities (HBCUs)
- Minority Serving Institutions (MSIs)

### IV. PROPOSAL ELIGIBILITY

Proposed research must take place in the state of North Carolina. Furthermore, recognizing that some communities and geographical areas are underserved and often stand to gain significantly from meaningful applied research, we strongly encourage research projects that engage underserved communities, rural communities, communities of color, or low- or fixed-income communities.

Proposals may address research questions and methods in the fields of social science, education, communications, natural science, engineering, economics or policy, or a combination of these disciplines (as applied to the focus areas below). We encourage proposals that include meaningful public engagement, public participation or collaboration with members of the communities where the research is to take place.

Proposals must address a specific research question or address clear, need-based objectives (e.g. in the case of informational transfer projects) rather than simply characterize a community or situation.

Projects not eligible for funding under this call include those focused on monitoring-only activities, projects focused only on ocean waters, and projects on health effects involving humansubjects. Research that addresses the link between environmental and human health as related to the focus areas below is acceptable (which may require IRB approval from the applicant's campus).

### V. PROJECT FUNDING AND DURATION

Projects should start between Mar. 1, 2019 and May 1, 2019 and must conclude by Feb. 20, 2020. **Due to the timing of our five-year federal cycle, projects funded through this competition are not guaranteed access to extensions. Work should be planned accordingly.** Budgets are limited to \$10,000 in grant funds. Indirect costs may not be charged. Matching funds, including in-kind contributions, are not required but are encouraged. Work with your faculty sponsor and university office of sponsored research (or similar) for assistance with project budgets and allowable expenses.

## **VI. RESEARCH FOCUS AREAS**

Proposals must address one or a combination of the three focus areas below, address the interests of both NC WRRRI and NCSG, and are encouraged to address the communities of concern identified above under the Proposal Eligibility section.

### FOCUS AREA 1: Emerging Regulated and Unregulated Contaminants of Concern

What gaps and opportunities exist related to improving availability, management and analysis of new and existing data and other information to address research questions and communication needs related to emerging contaminants and their impacts on affected communities?

What challenges, risks or lingering effects do communities face regarding impacts of emerging contaminants to surface water, groundwater, drinking water and wastewater (including water infrastructure and treatment); access to clean water; ecosystem services; environmental impacts; and economic and/or occupational impacts?

What challenges exist regarding access to resources (e.g. funding, community assistance, information) to help communities understand risk and responsibility associated with emerging contaminants, then respond to impacts? How can these challenges be addressed?

Are there innovative approaches (such as regulations, funding mechanisms or data-management/data-sharing practices) or technical solutions (such as treatment options, technologies, devices or physical practices) to address the questions above?

### FOCUS AREA 2: Aquaculture Development and Issues Related to Water Resources

Background: Aquaculture (production of finfish, shellfish and crustaceans) is a growing industry in North Carolina and has great potential to provide economic benefits to rural and underserved communities. In order to be sustainable, the aquaculture industry requires access to clean water and appropriate processes to handle effluent.

How can aquaculture be best developed to provide economic opportunities in rural and underserved communities?

What new and innovative processes can be brought to bear to assist this industry in reducing water needs and better managing effluent?

What measures can be developed to reduce the impact of point and non-point runoff pollution on aquaculture operations?

What are potential positive impacts of aquaculture and how can they best be measured?

What impact will a changing climate have on current aquaculture practices?

### FOCUS AREA 3: Community Development and Stormwater/Watershed Management

How can communities be meaningfully engaged in natural resource management through watershed planning, restoration, protection, retrofitting, redevelopment and green infrastructure?

What are opportunities to increase participation and impact of community members in environmental protection activities and decision-making?

How can local governments, nonprofits, academic communities, businesses and faith-based organizations build partnerships and relationships among each other and with local community leaders and members to enhance trust and communication to identify and achieve common goals for community and watershed vitality?

How can stormwater management or implementation of green infrastructure practices at the local and/or private level improve ownership and participation in watershed-level initiatives?

## **VII. SUBMISSION PROCESS & DUE DATE**

- The deadline for submissions is **5:00 p.m., Monday, Nov. 12, 2018**.
- In fairness to other applicants, late submissions will not be accepted.
- Proposals must be submitted to WRRR by email to **Debra Lynch** at **debra\_lynch@ncsu.edu**.
- Please note formatting requirements below.
- All elements of the proposal must be combined into a single PDF document.
- The document file name should be formatted as "StudentLastName-Proposal-2018.pdf"
- You will receive an email confirmation of receipt of your proposal within two business days of submission. If, after two days, you have not received confirmation, call 919-515-9102.
- Notification of finalists will be made by Dec. 14, 2018.

## **VIII. PROPOSAL FORMAT**

In fairness to all applicants, if we receive a proposal that does not adhere to the following format guidelines, especially font size, margins and section page limits, we will unfortunately have to disqualify that proposal from the competition. Please double-check the formatting of your proposal carefully before submitting.

Proposals must adhere to the following format:

- One-inch margins all around
- Times New Roman 12-point font
- Strict page limits as listed below
- Page numbers, starting with the cover page as Page 1

Proposals must contain all of, and only, the following seven elements:

1. Cover page
2. Project proposal
3. Budget
4. References cited
5. Letter of support from sponsoring faculty member
6. CVs
7. Data Management Plan

1. Cover Page (limited to 1 page)

Cover pages must include the following elements:

- Proposal title
- Proposed start and end date. Projects should start between Mar. 1, 2019 and May 1, 2019 and must conclude by Feb. 20, 2020. **Due to the timing of our five-year federal cycle, projects funded through this competition are not guaranteed access to extensions. Work should be planned accordingly.**
- Budget request (total amount only, no breakdown, keeping in mind the \$10K/yr. limit)
- Name, academic rank or title, university and department/school, mailing address, phone number, and email address for the faculty sponsor (Principal Investigator, (PI))
- Name, degree being pursued, university and department/school, mailing address, phone number, and email address for the student researcher
- Name, academic rank or title, university and department/school, and email address for other faculty co-PIs or co-student-researchers
- University signatures if appropriate
- One to five keywords for the proposed project
- Statement that “The proposed project would OR would not [pick one] involve funds going to a USGS collaborator.” (This is only for WRRRI administrative purposes and is not a factor in identifying the successful proposals.)

2. Project Proposal (limited to 4 pages)

The body of the proposal should have the following sections:

- Description: Describe your project and the RFP focus area it addresses. State specifically what you plan to accomplish in the proposed project in terms of goals, objectives, hypotheses to test, research questions to answer, or needs to be met through communication and information transfer.
- Methods, Tasks and Timeline: Describe your technical approaches, engagement/partnership approaches, and/or communication approaches; clearly define your tasks including information dissemination; provide a timeline to complete the tasks; list project milestones. Be specific and provide detail for reviewers to assess the feasibility and appropriateness of your approaches.

- Significance to North Carolina and Funding Programs: Describe the significance and relevance of the project to North Carolina and the interests of NC WRRRI and NCSG.
  - Other Sponsored Support: For the overall project, identify other funding and/or leveraged resources if applicable.
3. Budget and Budget Explanation (limited to 2 pages)  
Provide a detailed budget for your project and an explanation/justification of expenses. Funds may be used for any purpose related to the project. University overhead charges are not permitted. Examples of allowable expenses include, but are not limited to, salaries and wages; tuition and stipends; fringe benefits; supplies; travel; contracted services; communications and publications; and other project-relevant charges. Include description of any matching funds or in-kind contributions, if applicable.
  4. References Cited (as needed, does not count toward page limit of body of proposal)  
Use a standard bibliographic format to list the references cited in your proposal.
  5. Letters of Support (no page limit)  
Students must include a letter of support from the main faculty PI serving as the official applicant. Other letters, particularly those that speak to the applicability of the proposed project results, are optional but strongly encouraged. Letters may be included from partnering organizations, agencies, community leadership, advisors, other faculty, etc.
  6. Curricula Vitae (limited to 2 pages per CV)  
CVs are required for the student researcher, lead faculty PI and co-PIs. CVs for undergraduate participants are not required. Faculty CVs must be in standard National Science Foundation (NSF) format (see the section on “biographical sketches” at [https://www.nsf.gov/pubs/policydocs/pappg18\\_1/pappg\\_2.jsp#IIC2f](https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_2.jsp#IIC2f)). Student CVs may be in the NSF format or other appropriate format if sections of the NSF format do not apply to them. Student CVs are still limited to 2 pages regardless of which format is used.
  7. Data Management Plan (limited to 2 pages)  
Both USGS (WRRRI’s federal lead funding agency) and NOAA (NC Sea Grant’s federal lead funding agency) require federally funded projects to comply with data and publication sharing directive for grants and contracts. As such, each applicant must develop and submit a data management plan (DMP) with their proposal submission. The DMP must be 2 pages or less but does not count toward the page limit above for the body of your proposal.

Please review the guidance document available at [go.ncsu.edu/noaa-dmp](http://go.ncsu.edu/noaa-dmp) or on the WRRRI [research funding page](#) to assist you in preparing your plan. Plans will be included as part of the proposal evaluation process. Plans should include: descriptions of the types of environmental data and information expected to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; methods for providing data access; approximate total volume of data to be collected; and prior experience in making such data accessible.

If your project is not expected to develop any environmental data, then your DMP may simply include the declaration: "This proposal is not expected to generate environmental data. Therefore, a Data Management Plan is not required."

FOR QUESTIONS, PLEASE CONTACT:

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