REQUEST FOR PROPOSALS - RESEARCH COMPETITION 2018-2020
Funding Period: Feb. 1, 2018 – Jan. 31, 2020

This solicitation contains specific deadlines and formatting, content, and submission instructions, that must be adhered to for each preliminary (pre) and full proposal submitted. Failure to do so is grounds for rejection without review.

Preliminary Proposals: Due January 30, 2017 at 5:00 pm EST
Full Proposals: Due June 5, 2017 at 5:00 pm EDT
For PDF version of this document, click here.

INTRODUCTION

New Jersey Sea Grant Consortium (NJSGC) brings together the region's colleges, universities and other entities with expertise in marine, coastal and estuarine science and interest in New Jersey's marine, coastal and estuarine affairs. Collectively, the group works to advance knowledge and wise-utilization of New Jersey's marine, coastal and estuarine resources and make a positive impact on marine and coastal policy for the region. The organization fulfills its mission to promote well-informed, sustainable use of New Jersey's coastal and marine resources through its research, education, and extension programs.

NJSGC is also the administrator of one of 33 state Sea Grant Programs within the National Sea Grant College Program (NSGCP). This network is supported by the National Oceanic and Atmospheric Administration (NOAA) and is dedicated to wise utilization and well- informed management of the nation's coastal and Great Lakes resources.

NJSGC's Strategic Plan aligns with the NSGCP's Strategic Plan. For this request for proposals (RFP), NJSGC's research priorities are divided across the four focus areas common to both strategic plans. Those focus areas are:

Healthy Coastal Ecosystems

Sustainable Fisheries and Aquaculture

Resilient Communities and Economies

Environmental Literacy and Workforce Development

In the interest of a balanced research portfolio please note that, in consultation with NJSGC's director of research and members of a technical review panel, NJSGC's executive director may, distribute fundable projects across these four focus areas at his/her discretion.

RESEARCH PRIORITIES

NJSGC will review any proposal dealing with marine-related issues pertinent to the state and region, but relevance to at least one of NJSGC's four focus areas and the research priorities listed below will be a key consideration for funding. To reflect the science and policy needs of New Jersey's coast, estuaries, and watersheds, the priorities listed below were determined by a broad set of stakeholders including NJSGC's Sea Grant advisory committee, stakeholder board, board of trustees, members and numerous other interested partners. These priorities also support the goals and outcomes of NJSGC's and NSGCP's strategic plans.

Healthy Coastal Ecosystems

- Develop and evaluate restoration technologies that integrate biota (e.g., shellfish or marsh vegetation) into structural shoreline treatments (including hybrid designs and living shorelines) for effectiveness and success, impacts on policy, species diversity, ecological services and/or coastal storms or sea level rise.
- Investigate and evaluate the current and future effects of climate change (e.g., temperature, ocean acidification, and sea level rise) on coastal, estuarine, and marine organisms (including life history, and morphological and physiological responses), their ecology, or their ecosystem, particularly critical habitats for fisheries.
- Develop and assess tools and techniques of newly-developed stormwater BMP's that communities can use to reduce stormwater impacts to bays, back-bays, coastal lakes and lagoonal systems in regards to nitrogen reduction, water quality, chemical contaminants, stormwater retention, algal blooms, and/or green infrastructure.
- Evaluate or model the impacts of beach replenishment projects (e.g., enhanced vegetation, sea walls, hybrid structures, sand replenishment, or different management strategies) on organisms, beach and surfzone habitats, or the recreational fishing community.
- Develop and evaluate tools and techniques for climate adaptation or sea level rise (including retreat or adaptation) of environmental infrastructure (human built and natural) that address mitigation, restoration, and response planning for natural systems.

Sustainable Fisheries and Aquaculture

- Develop and evaluate production methods for offshore (subtidal, deepwater) aquaculture of shellfish species in New Jersey estuaries (e.g., Delaware Bay).
- Evaluate the current and future impacts of climate change (e.g., temperature increase, sea level rise, and ocean acidification {including estuarine and coastal}, habitat loss, or pollution) on wild or aquaculture finfish/shellfish or the commercial/recreational fishing and marine aquaculture industries in New Jersey.
- Quantify the economic impacts of management decisions (e.g., regulatory closures, shortened seasons, size restrictions, and reduced bag limits) and regulatory processes on the fishing or aquaculture industry (e.g., management decisions in regards to the recreational versus commercial fisheries). Studies may focus on management related to target species (e.g., recreation regulations for a fishery), on management of species potentially impacted by fisheries or aquaculture, or on other management actions that could impact local species (e.g., stormwater discharge events).
- Develop and evaluate innovative technologies in support of commercial and recreational fishing, and aquaculture in New Jersey, including stock enhancement, increased fecundity and growth, or

tools that allow for parallel solutions in similar coastal environments in New Jersey and globally.
- Evaluate data gaps, or other key uncertainties in finfish and shellfish stock assessment (e.g., population age structure, distribution, sex ratio, and mortality, etc) that can lead to improved strategies for managing fisheries in the face of uncertainty.

Resilient Communities and Economies

- Develop and evaluate integrative restoration, adaptation, resiliency, vulnerability or communication tools, techniques or models that address economic or land use impacts, adaptation, mitigation, response planning, or risk-preparedness behavior for human systems in relation to climate change impacts on New Jersey coastal communities and businesses.
- Identify and assess strategies for community infrastructure decisions in regards to retreat/adaptation methods for coastal habitats in response to coastal hazards or sea level rise in order to increase resiliency of both, especially for severe repetitive losses in New Jersey.
- Develop and evaluate green technologies and/or pollution prevention techniques and evaluate the socioeconomic impacts of implementation on coastal communities, watersheds, or ecosystem services, in particular in regards to combined sewer overflow and stormwater requirements.
- Assess social factors (including economic motivations, infrastructure choices, and land-use policies) that contribute to the overall resilience of a coastal community and develop tools to integrate consideration of such factors into overall community resilience planning.
- Develop and assess models leading to community resilience and/or economic resilience through engineered systems (e.g., 'green infrastructure', 'hard infrastructure', or novel mobility and shelter technologies); through market or governance interventions, or; through assessment of tradeoffs and synergies between ecological, socio-economic, and engineered approaches.

Environmental Literacy and Workforce Development

- Develop and evaluate programs for training a workforce capable of conducting research that spans natural science, social science, engineering and planning aspects of coastal resilience/adaptation, and engaging stakeholders in this research.
- Develop and assess curricula (and methods of distribution) for engaging students in New Jersey public schools on the current and future impacts of climate change.
- Develop appropriate education and communication tools that will improve learning on climate change and ocean acidification to a variety of stakeholders.
- Enhance professional development opportunities through new methods for educators to assist them in becoming more effective in teaching climate science.
- Identify the existing knowledge systems in diverse communities for accessing information about the ocean and coastal environment; determine the measures required to ensure appropriate and effective participation of diverse populations in ocean and coastal education and research, and develop methods so that diverse populations and their knowledge systems will be more empowered and engaged in ocean research, monitoring, and management in order to build capacity that is more reflective of our nation's diversity.
- Examine and assess methods or programs that support awareness in school-aged children of ocean, marine and coastal-related careers and higher education (academic) opportunities; develop best practices and outreach tools for awareness of career or educational opportunities, and; assess how well ocean/climate/marine science degree programs are known at the pre-college level.

AWARD INFORMATION

It is the intent of this RFP to award up to eight (8) two- (2) year grants with a maximum of $140,000 each including indirect costs. Please note that NJSGC requires a minimum 2 to 1non-federal match for each proposal ($1 in non-federal matching funds for every $2 requested of federal Sea Grant funds). The duration and funding period for these projects is February 1, 2018 to January 31, 2020. Funding is contingent on allocations to NJSGC from NOAA/NSGCP from FY 2018 and FY 2019 federal budgets.

ELIGIBILITY INFORMATION

Principal Investigators (PIs) must be affiliated with a New Jersey university, two- (2) or four- (4) year college or university, a research laboratory, or a non-profit, research/science-based institution including museums. In addition, Co-Principal Investigators (Co-PIs) may be affiliated with the aforementioned types of institutions outside of the state of New Jersey. We encourage multi-institution, multi-disciplinary, and multi-investigator applications. Individuals from state and federal agencies, as well as for-profit and foreign organizations, are prohibited from requesting direct support. Their contributions, however, may be eligible as matching or in-kind support for the project. NJSGC also welcomes proposals for cooperative projects involving eligible research institutions and the private sector.

IMPORTANT NOTES FOR PROPOSERS

Funding of selected projects is contingent upon federal allocations to NJSGC and the NSGCP (from NOAA).

Deadlines are firm. Late proposals will not be accepted.

You are encouraged to contact NJSGC's director of research to discuss ideas and ask pertinent questions including questions about the application and review process.

A proposal may be removed from further consideration at any point in the process if an investigator has overdue obligations to NJSGC under a previous research contract.

A pre-proposal is required to submit a full proposal.

PRELIMINARY (PRE) PROPOSAL SCHEDULE

- Pre-proposals due: January 30, 2017 by 5:00 pm EST
- Pre-proposals reviewed, all PI's notified of status: April 17, 2017

PRELIMINARY (PRE) PROPOSAL GUIDELINES

Each pre-proposal must use standard formatting (single-spaced, 8.5 x 11 pages, 1" margins, font size for text at 12 pt, Times New Roman). Pre-proposals should present a succinct but sufficiently detailed synopsis of the project so that reviewers can evaluate its relevance to NJSGC's research priorities and strategic plan as well as its technical feasibility and the PIs' qualifications. Pre-proposals undergo an extensive review with a subgroup encouraged for submission as full proposals. **Pre-proposals not encouraged may still be submitted as full proposals at the PI's discretion; however, PI's must have submitted a pre-proposal to submit a full proposal.**

WHAT TO INCLUDE

Please include each of the following elements in the order listed below:

Pre-Proposal Cover Page: Complete and include NJSGC's pre-proposal cover page. Please note institutional signatures are not required. Only the PI's signature is necessary at the pre-proposal stage.

Abstract Page: On a separate page, include a title (16 words or less) and an abstract that briefly summarizes the proposed project objectives, methodologies, and rationale, clearly and concisely. Emphasize the importance, relevance, application, and value to Sea Grant constituents (expected benefits). Limit the abstract to 300 words.

Project Narrative: Not to exceed two (2) pages. Project narrative includes:

- Proposal Title
- Statement of Problem
- Project Goals and Objectives
- Research Plan
- Summary of the relevance of the project to New Jersey and NJSGC's research priorities. Include a rationale that stresses the importance of the project, who the actual or potential users are, and how they are involved or will benefit (e.g., environment, social or economic) from the project.
- List of other state, federal or private organizations that will be involved in your project. Briefly describe their level of participation including any funding to be contributed.

Description of Extension Goals, Student Support and Data Management: Not to exceed one (1) page. Include:

- Statement of Extension Goals: Because NJSGC supports scientific excellence integrated into relevant coastal issues with socio-economic impacts, potential applications of research results through the inclusion of NJSGC's Extension Program or other means of outreach are important considerations in funding. You are encouraged to meet with and jointly prepare this section of your proposal with NJSGC extension personnel. Please note all funded PIs will have an NJSGC extension agent assigned to them if they did not identify one in their proposal. The agent will act as a liaison to ensure the integration of outreach into the research. Collaboration with industry and/or state and regional agencies is also strongly encouraged.
- Statement of Student Support: Workforce development through the inclusion of graduate or undergraduate students is a required component for funding. Describe the extent of graduate or undergraduate student support and involvement in proposed research.
- Data Management: Briefly describe your data management plan. NOAA regulations require said plan to make data available to the public within two years of award completion. For the pre-proposal phase, include lead PI statement attesting to NOAA regulations (lead PI must be the data steward). Describe content of dataset, as well as general format of dataset; post-processing of data (QA/QC), where data will be resposited, and anticipated release date of dataset. See complete description under the Full Proposal Submission section of this RFP.

Curriculum Vitae: Not to exceed two (2) pages per investigator.

Budget Page: Complete and submit NJSGC budget form 90-4. Note that non-federal matching funds are required. Applicants must include a non-federal contribution of at least $1 for every $2 of federal support requested. Potential sources of matching non-federal support include:

- Salaries, wages and benefits of those working on the project.
- Expendable supplies equipment and ship time.

- Indirect costs or in-kind services provided.
- Contributions, such as private, local or state contracts, and special project funds.

At the pre-proposal stage, prepare and include only one (1) budget form for both years combined. Please note that at the full-proposal stage, total budget must be distributed equally over the two years.

Budget Justification: On a separate page, provide a line-by-line explanation of each category of funding requested on your budget page. Include the breakdown of calculations used to arrive at the amount in each line of your budget.

HOW TO SUBMIT

You must submit one (1) electronic version (single PDF format only) of the complete pre-proposal package to Ms. Diana Burich, Sea Grant Program Associate, dburich@njseagrant.org, by January 30, 2017 at or before 5:00 pm EST. Following your submission, you will receive an email confirmation from Ms. Burich for your records. Please contact Ms. Burich if you do not receive a confirmation by 7:00 pm EST on January 30, 2017.

PRE-PROPOSAL EVALUATION AND NOTIFICATION

Pre-proposals will be reviewed and rated with equal weight by the Technical Review Panel (TRP), a committee of scientists from the region but outside of New Jersey, and NJSGC's Stakeholder Advisory Board (SAB), comprised of stakeholders from New Jersey. Based on panel evaluations, investigators may be asked to modify objectives, work plans or budgets for full proposals.

The criteria for the TRP will be:

- Scientific Merit and Innovativeness (30 pts)
- Responsiveness to NJSGC Research Priorities (30 pts)
- Extension Goals (15 pts)
- Student Involvement (10 pts)
- Professional Qualifications of the Investigators (5 pts)
- Data management plan (5 pts)
- Budget (5 pts)

The criteria for the SAB will be to assess:

- Responsiveness to NJSGC Research Priorities (40 pts)
- Degree and mechanism for practical application of Extension Goals (30 pts)
- Expected Benefits (20 pts)
- Student Involvement (10 pts)

FULL PROPOSAL SCHEDULE

Notification of status of pre-proposal: April 17, 2017
Full proposals due: June 5, 2017 by 5:00 pm EDT
Final selection, all PI's notified: By or before September 29, 2017
Funded projects begin: February 1, 2018 (contingent on receipt of federal funding)

FULL PROPOSAL GUIDELINES

Each full proposal must include the items listed in the order as specified below using standard formatting (single-spaced, 8.5 x 11 pages, 1" margins, font size at 12 pt, Times New Roman).

WHAT TO INCLUDE

Please include each of the following elements in the order listed below:

Full Proposal Cover Page: Complete and include NJSGC's full proposal cover page. Please note this form must be signed by Principal Investigator (PI) and Authorized Representative.

Proposal Summary Page: Complete and include NJSGC's proposal summary page (Form 90-2).

Project Narrative: The project narrative contains the description and graphical components of the proposal. The project title and the name, position, and affiliation of the PI and each Co-PI should be presented at the top of the first page of text. Your proposal should use the following headings in the order listed. These headings reflect NOAA requirements. **A 12-page limit** applies to the narrative and includes any tables and figures. Failure to adhere to these guidelines is grounds for return without review. Project narrative must include:

- Proposal Title (generally same as pre-proposal title and 16 words or less)
- Statement of Problem
- Project Goals and Objectives
- Detailed description of the relevance of the project to New Jersey and NJSGC research priorities. Include a rationale that stresses the importance of the project, who the actual or potential users are, and how they are involved or will benefit (e.g., environmental, social or economic) from the project.
- Research Plan
- List other state, federal, or private organizations that will be involved in your project and describe their level of participation including funding to be contributed.
- Outreach/Extension Plan Student Involvement Plan
- Data Management Plan (DMP) -- see below

NOAA DATA SHARING DIRECTIVE POLICY

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 (typically no later than two years after the data are collected or created), except where limited by law, regulation, policy or by security requirements. The requirement has two basic parts: (1) environmental data generated by a grant project must be made available after a reasonable period of exclusive use, and (2) the grant application must describe the plan to make the data available (PIs are expected to execute the plan).

If project produces environmental data, it must conform to NOAA's Data Sharing Directive for Grants, Cooperative Agreements, and Contracts. For detailed guidance, view the current version of the policy, including a definition of environmental data (which can include socioeconomic and model data) and any updates and additional implementation resources.

Proposals submitted in response to this Announcement must include a DMP describing how these requirements will be satisfied. To comply with this requirement, the PI must explain how the data and metadata will be provided. Funds may be budgeted in the project proposal for data management. If the proposed research will not generate environmental data, then a DMP will need to be stated as such: "This project will not generate any environmental data."

Describe in detail your data sharing management plan using the provided template.

- Milestone Chart (not included in the 12-page limit)
- Literature Cited (not included in the 12-page limit)
- Letter(s) of Support (not included in the 12-page limit)
- Information about each Investigator including (not included in the 12-page limit):
    - Curriculum Vitae – Not to exceed two (2) pages per Investigator.
    - Current and pending federal grant supports from all sources (complete and include NJSGC Current and Pending Support Form).
    - A list of all peer-reviewed articles (published and in-press only) with NJSGC publication numbers that have resulted from your Sea Grant-funded research, if any, in the past five years.
    - Titles of student dissertations and/or theses supported by NJSGC-funded research in the past five years, if any.

Budget Page: Submitted on Sea Grant budget form 90-4. Matching funds are required for this program. Applicants must include a non-federal contribution of at least $1 for every $2 of federal support requested. Potential matching non-federal support includes:

- Salaries, wages, and benefits of those working on the project.
- Expendable supplies equipment and ship time.
- Indirect costs or in-kind services provided.
- Contributions such as private, local, or state contracts and special project funds.

Subcontractors must provide their own budget and budget justification. Budget must include form 90-4 for each year and combined.

NOTE: Total budget amount must be distributed equally over the two years.

Budget Justification: On a separate page, provide a line-by-line explanation of each category of funding requested on your budget page for each year. Include the breakdown of calculations used to arrive at the amount in each line of your budget.

National Environmental Policy Act (NEPA) Questionnaire: Complete and include NOAA's NEPA questionnaire and submit as a separate PDF.

HOW TO SUBMIT

You must submit one (1) electronic version (single PDF format only) of the complete full proposal package to Ms. Diana Burich, Sea Grant Program Associate, dburich@njseagrant.org, by June 5, 2017 at or before 5:00 pm EDT. Following your submission, you will receive an email confirmation from Ms. Burich for your records. Please contact Ms. Burich if you do not receive a confirmation by 7:00 pm EDT on June 5, 2017.

FULL PROPOSAL EVALUATION AND NOTIFICATION

Full Proposals will be rated by the aforementioned Technical Review Panel (TRP).

The rating criteria for the TRP will be:

- Scientific Merit and Innovativeness (40 pts)
- Responsiveness to NJSGC Research Priorities and Expected Benefits (15 pts)
- Extension Goals (15 pts)
- Student Involvement (10 pts)
- Data management plan (10 pts)
- Professional Qualifications of the Investigators (5 pts)
- Budget (5 pts)

The TRP meets in September for extensive discussion and to make final recommendations. The TRP will evaluate the full proposals from TRP ratings, three external peer reviews, and supplemental comments from the SAB. The research director selects proposals to be included in the New Jersey Sea Grant College Program Omnibus Proposal, with advice from NJSGC's executive director and NSGCP program officer, as well as with due consideration to the TRP's recommendations together with relevance of the proposed work to the strategic goals.

The Omnibus is submitted in late fall to the NSGCP for review and acceptance.

Funding authorization is generally finalized within 60 days, and PIs are then informed of the result.

PROJECT DURATION

Proposed projects must be for twenty-four (24) month duration. Funds are awarded on an annual basis. A yearly progress report is required for evaluation of the project and to assess whether sufficient progress has been made to warrant continued funding. All PIs must submit annual progress reports and a final report at the completion of the project. Reports are submitted electronically to Ms. Lisa Aromando at laromando@njseagrant.org. PIs of successful proposals will be required, when relevant, to submit documentation of approval for any IRB or IACUC compliance.

CONTACTS

For general submission questions: Ms. Diana Burich, Sea Grant Program Associate, 732-872-1300, x 16, dburich@njseagrant.org .

For questions on collaborations, research priorities, evaluation criteria, extension, and data management: Dr. Peter Rowe, Director of Research and Extension, 732-872-1300, x 31, prowe@njseagrant.org .

For questions on budget: Mr. Augustine Anfuso, Fiscal Officer, 732-872-1300, x 26, anfuso@njseagrant.org.

For a PDF version of this RFP, click here