

The Changing Face of Coastal South Carolina: Building a Resilient Future

South Carolina Sea Grant Consortium
FY20-FY21 Biennial Sea Grant Request for Proposals

Biennial Sea Grant Program
February 1, 2020 to January 31, 2022

Sea Grant Request for Proposals

Concept Letters Due at S.C. Sea Grant Consortium Office
March 18, 2019

Full Proposals Due at S.C. Sea Grant Consortium Office
June 14, 2019



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S.C. SEA GRANT CONSORTIUM FY20-FY21 REQUEST FOR PROPOSALS

OVERVIEW OF FY20-FY21 SEA GRANT REQUEST FOR PROPOSALS

The South Carolina Sea Grant Consortium (Consortium) is now soliciting proposals for consideration and possible inclusion in the Consortium's Biennial Program Plan for fiscal years 2020-2021 and 2021-2022. Included in this overview is a summary of the following topics:

- Introduction to the Consortium's Sea Grant Proposal Process
- Important Updates/Considerations for Prospective PIs
- An Overview of the Proposal Process

INTRODUCTION

The Consortium is requesting **Concept Letters** which propose innovative natural and social science research to both understand and directly address priority issues, problems, and opportunities related to the use, management and conservation of marine and coastal resources by the citizens of the state and region.

Consortium program priorities fall within the context of the NOAA NSGCP Strategic Plan and the Consortium's FY18-21 Strategic Plan (see http://www.scseagrant.org/pdf_files/SCSGC-FY18-21-Strategic-Plan-02-08-17.pdf), and focus on critical marine and coastal resource needs and opportunities for South Carolina and the region. Section I of this RFP includes a listing of the Consortium's priority research needs. PIs are strongly encouraged to submit Concept Letters that directly address one or more of these priorities. Concept letters that address other topics may be submitted; however, the burden of justifying the need for the effort proposed lies entirely with the investigator(s).

SPECIAL NOTE: In addition, the National Sea Grant College Program has announced plans to commit additional Sea Grant funding to provide up to 50% co-funding of highly ranked **aquaculture proposals** received through this FY20-FY21 Request for Proposals process. We are thus placing increased emphasis on the receipt of proposals which seek to further the development of sustainable aquaculture in the state of South Carolina.

Interdisciplinary projects involving the natural, physical, and social sciences are appropriate and strongly encouraged. Multi-institutional and regional efforts are also encouraged, as are collaborations with colleagues in business, industry, and government agencies. Formal engagement of targeted stakeholders (e.g., resource management entities, local communities, business and industry, etc.) in both the development of concept letters and proposals and in the projects, if funded, is strongly encouraged. Project results must provide environmental, economic, and/or social benefits to an identified and engaged target constituency. In addition, PIs are expected to publish their findings in peer-reviewed journals.

Consortium research, extension, and education staff are available to assist prospective submitters in suggesting potential linkages with cooperators and stakeholders in the public and private sectors (see Appendix A for Consortium staff listing).

Available Funding

The Consortium anticipates having up to \$500,000 available for new project starts in FY20.



Because our program proposal will cover two years, new one-year projects may be scheduled to begin February 1 in either 2020 or 2021, dependent on FY2020 and FY2021 federal appropriations. A separate invitation for one-year proposals for 2021 starts will not be issued.

Program Priorities and Proposal Guidelines

The Consortium's FY20-FY21 Sea Grant Omnibus RFP consists of the following sections outlined below; prospective PIs are strongly encouraged to read through all sections of the RFP before preparing materials for submission, as many sections have been modified or updated since the last RFP was issued two years ago.

<u>Section I</u> -	Program Area Priority Needs
<u>Section II</u> -	Concept Letters – Instructions for Preparation and Submission
<u>Section III</u> -	Full Proposals – Instructions for Preparation and Submission, which includes proposal content and submission requirements, formatting instructions, and forms
<u>Section IV</u> -	Concept Letter and Full Proposal Review Criteria
<u>Section V</u> -	Funded Projects – Grant Responsibilities and Reporting Requirements
<u>Appendix A</u> -	Listing of Consortium Staff Contact Persons and Institutional Liaison Officers located at the Consortium's member institutions
<u>Appendix B</u> -	Preparing the Sea Grant Project Summary Form
<u>Appendix C</u> -	NOAA Guidance for Completing Budgets and Justifications

Concept Letters

The first step in the proposal process is the preparation and submission of a Concept Letter for each project proposal being submitted; see Section II for instructions.

All Concept Letters must be submitted to the Consortium via email in both a Microsoft Word document and a PDF file.

All concept letters are due at the Consortium by COB on March 18, 2019.

Concept Letter Review

Concept letters will be reviewed and evaluated by an external advisory panel, the Consortium management team, and S.C. Sea Grant program specialists. Prospective investigators with Concept Letters will be notified by April 19, 2019 of the review and evaluation results. PIs will be encouraged or discouraged to prepare and submit Full Proposals according to guidelines provided in Section III. Any PI that submits a concept letter is allowed to submit a full proposal; however, encouraged proposal have a much higher likelihood of being selected during the full proposal process.

IMPORTANT NOTICES TO PROSPECTIVE PIs

With the increasing emphasis on project accomplishments, performance measures and metrics, and outcomes by the NOAA National Sea Grant Office, we are placing greater emphasis during the review of Sea Grant Concept Letters and subsequent Full Proposals on the following elements. Therefore, please review the following information before you submit a Concept Letter. Concept Letters which do not address take these considerations in mind will be reviewed less favorably.



Proposed Work Must Address Needs of Identified Target Audiences

Federal program requirements call for Sea Grant competitive research and outreach projects to be outcome-oriented, address societal problems/issues/opportunities, engage users from the outset, support economic gains and/or savings, and result in the application of science-based information to foster decision-making.

Therefore, the Consortium is placing a higher level of emphasis on how well prospective PIs engage targeted stakeholders and describe how the proposed project addresses documented problems, issues, and/or opportunities related to the use and management of coastal and ocean resources as identified in this document. Prospective PIs are thus expected to:

1. Identify and engage target audiences in developing their research questions,
2. Describe how results from the proposed efforts will be translated into information, tools, and documentable outcomes,
3. Outline how project results will be extended, and
4. Indicate what portion of the proposed budget/effort will be devoted to target audience engagement and information outreach efforts.

Concept Letter and Full Proposal Review Panels are populated with outreach specialists and social scientists as well as technical experts to ensure that these elements are addressed. Failure to provide this documentation will lead to a lower rating of the Concept Letter and the Full Proposal.

Prospective PIs are expected to contact the Consortium's Sea Grant Management, Extension, Education, and/or Communications staff for assistance identifying users/stakeholders and for desired participation by Consortium staff in the proposed work.

Statement of Expected Outcomes

The Consortium requires prospective PIs to explicitly list the **Expected Outcomes** to be achieved for each year of the proposed project and potential practical implications and applications of the proposed work to the economy, environment, and society. We are particularly interested in cost savings, revenue generation, jobs created, new products/tools developed, workforce development results, policy or management changes, and similar outcomes. The instructions found later in Section II for Concept Letters and Section III for Full Proposals define this requirement in more detail.

Diversity and Inclusiveness

The Consortium is committed to building inclusive research, extension, communication, and education programs that serve people with unique backgrounds, circumstances, needs, perspectives and ways of thinking. We encourage applicants from all backgrounds to apply for this competitive research opportunity. PIs are encouraged to provide details on how activities will contribute to the achievement of socially relevant outcomes. Such outcomes include, but are not limited to:

- Full participation of women, persons with disabilities, and underrepresented minorities in natural and social science, technology, engineering, and mathematics,
- Increased public scientific literacy of and public engagement with these disciplines,
- Improved well-being of individuals in society, and
- Increased partnerships between academia, industry, and others

Data Sharing Plan

All environmental 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, and 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. This 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.

To comply with this requirement, prospective Principal Investigator(s) must include a Data Sharing and Management Plan in the Full Proposal stage, explaining how data and metadata will be offered and shared. Funds may be budgeted in the Full Proposal for this task. *These plans are not required at the Concept Letter stage; however, prospective PIs should indicate their willingness in the Concept Letter to include such a plan in their Full Proposals.*

Electronic Submission of Concept Letters and Full Proposals

The Consortium requires electronic submission of both Concept Letters and Full Proposals. Concept Letters should be prepared and electronically submitted as Word and PDF documents; the Consortium will also be requesting that a complete version of the Full Proposal be submitted as a PDF file.

Funding Levels

Successful major projects through the Consortium are generally supported in the range of \$20,000 to \$80,000 per year (somewhat higher for multi-investigator, multi-institutional proposals) and provide at least the required 50% non-federal match (that is, non-federal match of at least \$1 is required for every \$2 requested from Sea Grant).

Indirect Costs on Sea Grant-funded Projects

In the spirit of cooperation among Consortium member institutions, and in order to get the maximum benefit from funds available for its programs, it is the long-standing policy of the Consortium Board of Directors not to use Sea Grant funds to pay indirect costs to its member institutions; however, indirect costs may be used to satisfy the National Sea Grant College Program's 50% matching fund requirement.

THE PROPOSAL PROCESS IN A NUTSHELL

Nearly one year is required from the conceptualization of a proposal idea to the formal award of Sea Grant funds (Table 1). This is necessary for several reasons. First, the conceptual merit of Concept Letters and the technical and scientific merit and utility of Full Proposals are rigorously reviewed by peer groups from academia, government, and stakeholders to ensure that proposed objectives are relevant, timely, achievable, and of high priority. Secondly, Concept Letters and Full Proposals are judged based on the probability of producing results that have practical applications, whether on a short-term or long-term basis, for specified target audiences. Finally, the proposal process involves not only the review of Concept Letters and Full Proposals, but also a national evaluation of the state's Sea Grant program as a whole. The year before formal awards are made involves direct and continuous interaction among prospective investigators and Consortium staff.

The Consortium's Sea Grant Program operates on a biennial cycle that reduces the burden of both proposal preparation for investigators and proposal review for the Consortium staff. However, funding of Sea Grant projects, and requisite project reporting, remains an annual



process. The start date of some approved projects submitted by investigators in response to the Consortium’s Sea Grant RFP may be deferred to the second year of a biennium.

Personal or telephone contact with Consortium management, research, extension, education, or communications staff is advantageous and indeed recommended during the Concept Letter development process (see Appendix A for a listing of Consortium staff and contact information). Projects being considered for Concept Letter development could be discussed with respect to merit and likelihood for funding support.

A **Request for Proposals (RFP)** at the beginning of each biennial cycle solicits Concept Letters outlining proposed research, education, and extension activities in priority areas identified by the Consortium. Input as to what problems and opportunities warrant investigation is provided by members of the Consortium’s Program Advisory Board, and Sea Grant extension and education program advisory committees, representatives of state and federal resource agencies, the results of Web-based constituent surveys, and the State Legislature. This input is informed through the Consortium’s Strategic Planning process, guidance from the NSGCP Strategic Plan, and consults with the NSGCP Office staff. The Consortium Executive Director and staff then develop the Request for Proposals which outlines priority needs.

Table 1. PROPOSAL PREPARATION SCHEDULE

(E-)Mail Sea Grant FY20-FY21 RFP Pre-announcement	January 18, 2019
Disseminate Consortium FY20-FY21 RFP and Guidelines	February 6, 2019
Concept Letters Due COB at Consortium Office	March 18, 2019
Review of Concept Letters	March 18-April,17, 2019
Notification of Successful Proposers and Invitation for Full Proposals	April 19, 2019
Successful Proposers Prepare Full Proposals	April 19-June 14, 2019
Full Proposals Due at Consortium Office, Signed and Endorsed	June 14, 2019
Written Reviews of Full Proposals	June 17-July 26, 2019
Technical Review Panel Evaluation of Full Proposals	Week of July 29 or Aug 5, 2019
Selection of Final Set of Proposals to be included in FY20-FY21 Sea Grant Program Plan	Aug 10-23, 2019
Notification of Successful Proposers	Aug 30, 2019
Successful Proposers Prepare Written Responses to Peer Reviews; Complete NEPA Forms	Sept 2-23, 2019
Discussion of Omnibus Program Plan between Consortium Executive Director & NSGCP Program Officer	September 2019
Consortium Prepares Final FY20-FY21 Sea Grant Omnibus Program Plan	October 2019
Consortium Submits Omnibus Program Plan to NSGCP for Processing	November 2019
Start Date for FY20 Projects	February 1, 2020

The Consortium **Request for Proposals (RFP)** is disseminated in early February. The RFP solicits **Concept Letters** as a precursor to the submission of Full Proposals. It is at the Concept Letter stage where a practical problem to be resolved and/or an opportunity to be explored must be explicitly stated and the beneficiaries of the work specifically identified and engaged. Concept Letters are due at the Consortium office March 18, 2019.



The Concept Letter submission and review process constitutes the first major step in the proposal cycle for prospective PIs. Investigators whose Concept Letters are highly rated and address Consortium priorities will be encouraged to submit **Full Proposals** for consideration, however any PI that submits a concept letter is permitted to submit a full proposal for review. Investigators will be notified about the status of their Concept Letters by April 19, 2019.

Approximately nine-ten weeks are provided for the preparation of Full Proposals; they are due at the Consortium office on June 14, 2019. All Full Proposals are subjected to a rigorous written peer review and external panel review process during August. Comments received from outside reviewers and technical review panelists are summarized by the technical review panel (TRP), which offers its recommendations for funding. This information is then reviewed and summarized by Consortium staff, which is used by the Consortium Executive Director to make final funding decisions. Review information is provided to the investigators, whether or not they are encouraged to submit Full Proposals.

Full Proposals determined to address Consortium program priorities and meet constituent needs, formally engage target stakeholders/users; have a strong technical, scientific, methodological approach; and fit within the available budget are included in the Consortium's proposed program plan. Investigators will be asked to prepare and submit a letter addressing reviewers' comments during early September. The proposals themselves cannot be revised. PIs will also be required to complete NEPA forms during this time.

During October, the Consortium staff prepares the agency's **final biennial Sea Grant Program Plan** for electronic submission to the NOAA National Sea Grant College Program (NSGCP) office through grants.gov. Final editing and word processing are completed and proposals are linked into program area components. Also, during this time, the Consortium Executive Director meets with our NSGCP Program Officer to discuss the package and provide additional information on ongoing program activities. The final program plan contains the required fiscal and administrative documentation (prepared by the Consortium) and is due in early November 2019 for processing by NSGCP, NOAA, and the U.S. Department of Commerce. This process takes from four-to-twelve weeks prior to the beginning of the Consortium's Sea Grant fiscal year and the announcement of awards in late January for project start-ups on February 1, 2020.



**S.C. SEA GRANT CONSORTIUM
FY20-FY21 REQUEST FOR PROPOSALS**

SECTION I: PROGRAM AREA PRIORITY NEEDS

THE CHANGING FACE OF SOUTH CAROLINA

South Carolina's coast is one of the state's most valuable assets, featuring 2,876 miles of tidal shoreline, 165 linear miles of beaches, over 504,000 acres of salt marsh (20% of the East Coast's total), 500,000 acres of tidal bottomlands, five major estuarine systems encompassing 68.2 square miles, 40 barrier and sea islands, and 10,000 square miles of continental shelf. The coast can be divided into three regions: (1) The "Grand Strand," an area which contains few barrier islands and riverine systems, and includes Horry and Georgetown counties, (2) The Berkeley-Charleston- Dorchester county region, which includes the Charleston peninsula and outlying barrier and sea islands, and is a region of rapid economic growth and change, and (3) The "Lowcountry," which includes Colleton, Beaufort, and Jasper counties, the majority of the state's barrier and sea islands, and vibrant tourism and retirement communities and amenities.

This complex natural network of coastal uplands, near-shore islands, riverine watersheds and waterways, beaches, and wetlands supports a wide range of ecosystem types and coastal and marine species. It also serves as the resource foundation for the needs of our ever-growing and diversifying coastal population, increasing numbers of national and international visitors, a burgeoning marine transportation and shipping complex anchored by the Port of Charleston, a multi-billion dollar and diverse recreation and tourism industry, stable commercial and recreational fishing businesses, an explosion in manufacturing industries fueled by the arrival of Boeing, Daimler, and Volvo (just in the Charleston region), and the concomitant increase in residential and commercial development.

People are increasingly drawn to the South Carolina coast and enjoy the pleasant climate and overall high quality of life while taking advantage of opportunities the state's natural and cultural resources provide. More than 28% of the state's 5.02 million residents live in the eight coastal counties¹. From 1970 to 2010, the coastal county population of South Carolina increased by 127%, third highest among the 31 coastal and Great Lakes states nationwide². At the current rate of growth, the coastal population is expected to reach 2 million people by the year 2032¹. In addition, more than 20 million tourists visit coastal South Carolina each year. Indeed, during this decade, Charleston has been identified multiple times by Condé Nast Traveler as the number one tourist destination in the United States, and in 2015, number one in the world.

Population growth, rapid development, and increasing tourism are, however, placing greater pressure on the state's natural resources and coastal infrastructure, especially at the ever-widening margins of our urbanized areas. The arrival of major manufacturing industries to the Charleston tri-county area has exacerbated the rate of growth, which may affect high quality natural resources, resilient infrastructure, and social welfare and well-being of the South Carolina coast and its people. Where we put people and how we accommodate their needs for critical infrastructure, transportation, jobs, and quality of life are questions facing South Carolina decision-makers along the coast and inland.

The southeastern United States coast is the last region of the country where the natural-resource base is relatively unharmed and unthreatened, and where anthropogenic impacts have been relatively minor. But this is rapidly changing as the state and the region have indeed been



discovered. Back in 2010, the Charleston Metro Chamber of Commerce included growth management as one of its top issues and legislative priorities. Recent and rapid patterns of growth are resulting in changes in land use and an increased demand on both land and water resources. Pollution, erosion, shoreline change, sea-level rise, nuisance flooding, resource consumption, and hastily planned developments are beginning to leave their marks.

The economy of coastal South Carolina is dramatically changing. Although it represents a decreasing portion of the state's economy, the commercial fishing industry (fish, oysters, clams, shrimp, and crabs) remains an important component of our local waterfronts, coastal economies, and ways of life. The state's commercial fisheries industry generates \$42 million annually in total economic contributions to the state economy and provides 840 jobs³; there are some 1,650 commercial saltwater and wholesale seafood dealer licenses⁴. South Carolina's shellfish aquaculture industry consists of established clam growers and new oyster farmers, a sector that doubled its number of businesses last year. Recreational fishing and boating make an even larger contribution to the state's economy. According to S.C. Department of Natural Resources, the annual impact of marine recreational fishing in the state exceeds \$590 million⁵. SCDNR sold 230,497 licenses to marine recreational fishers in the 2017 fiscal year, increasing the total number of individual saltwater licenses sold to 3,423,893 since the state began issuing them in 1992⁶. In addition, tourism is now a \$21.2 billion industry⁷, with tourism in the eight coastal counties accounting for approximately 40% of that total and supporting more than 99,000 jobs³. Three of the eight coastal counties led all of South Carolina's 46 counties in domestic travel expenditures in 2017⁸.

The Port of Charleston is one of the busiest and fastest growing container ports on the East and Gulf coasts, and in 2017 ranked eighth in the nation for dollar value of international shipments, with cargo valued at approximately \$70 billion^{9,10}. The South Carolina State Ports Authority (SPA) served 1,765 vessels and had total operating revenues of \$233 million in the 2017 fiscal year¹¹. The SPA also supports 187,206 jobs across the state, providing an economic impact of \$53 billion annually¹². The Port of Charleston is currently in the "race" with other southeastern U.S. ports to deepen its channels to accommodate the larger Panamax ships that will increasingly make up the maritime fleet. Indeed, in December 2016, the U.S. Congress authorized the Charleston Harbor deepening project to 52 feet, which will be the deepest port in the southeastern U.S. upon completion.

As in other coastal states from Texas to Maine, chronic and episodic hazards are impacting homes, businesses, critical infrastructure, culture, and natural resources throughout our coastal, estuarine, and riverine regions, and are exacerbated by the ever-increasing rate of sea-level rise. The winds, surges, and floods associated with frequent episodic hazard events, such as hurricanes, tropical storms, and nor'easters, and longer-term phenomena related to climate change, including sea-level rise and extreme tides, will continue to threaten highly developed and exposed portions of our coast. Historically, major tropical storms have struck the South Carolina coast every seven-to-eight years; over the last four years, South Carolina has been impacted by four hurricanes. Many long-range climate forecasters claim we are now entering a cycle of more severe coastal storms. More recently, severe "rain bombs" have resulted in extensive damage and some deaths in South Carolina (the October 2015 flood and then rain associated with Hurricane Matthew in October 2016); such events are occurring more frequently throughout the U.S. And the mayor of Charleston, in his 2018 State of the City address, identified flooding as his number one priority. Increased vulnerability of humans, business and industry, and our natural resources to these natural hazards makes learning to understand, prepare for, and adapt to these risks a societal imperative.




The issues and opportunities South Carolina is facing are not unique to this state. State boundaries are political boundaries; however, rivers, watersheds, and the movement of water and all that it contains and transports are not restricted to individual states. Current issues include oil and gas exploration, nearshore/offshore wind energy production, and sand and gravel mining. Of particular importance is the generation of information on the nature and extent of these resources, as well as the impacts both from and to ongoing human activity, which will require state and region-wide planning in the ocean off the southeastern U.S.

As South Carolina continues to grow in population, industry, and tourism, there is an ever-growing need to provide venues for scientific literacy along the K-Gray spectrum and facilitate opportunities in workforce development. Job opportunities, especially in South Carolina, increasingly rely on a workforce skilled in STEM (Science-Technology-Engineering-Math) disciplines. To meet this challenge, it is imperative that students (K-12), teachers, undergraduates, and graduates have robust and meaningful STEM experiences to be competitive in the job market. Scientific literacy provides a basis for sound decision-making among South Carolina's population, specifically in balancing economic prosperity with natural resource conservation, responding to natural disasters (e.g., hurricanes), and preparing for significant changes in our natural, societal, and technological future. A scientifically literate population positions our state to achieve economic prosperity, enhance stewardship of our coastal resources, and raise the quality of life for all of our citizens.

Accommodating the various needs of those who use and enjoy coastal and marine resources presents an enormous challenge. The S.C. Sea Grant Consortium is committed to optimizing the balance among the economic, social, and environmental potential of the state's coastal and marine resources through the support of integrated research, education, extension, training, and communication programs. It does so by engaging the talents and expertise found at South Carolina's leading university and research institutions to increase our knowledge about the natural, cultural, and social environments of South Carolina and the region, and employing the skills and efforts of its program and outreach staff to package and disseminate this knowledge to the many communities and constituencies we serve.

Sources:

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2. Crossett, K., et al. (2013). *National coastal population report, population trends from 1970 to 2020*. NOAA State of the Coast Report Series, U.S. Dept. of Commerce.
3. Willis, D.B., and Straka, T.J. (2016). *The Economic Contribution of Natural Resources to South Carolina's Economy*. Clemson University and S.C. Dept. of Natural Resources.
4. Hiltz, Eric (2018). Personal Communication. S.C. Dept. of Natural Resources.
5. S.C. Ocean Planning Work Group (2012). *South Carolina Ocean Report: A Foundation for Improved Management and Planning in South Carolina*.
6. S.C. Department of Natural Resources (2018). *FY 2017 Saltwater Recreational Fishing License Report*. Marine Resources Division, S.C. Dept. of Natural Resources.
7. U.S. Travel Association (2018a). *The Economic Contribution of Tourism in South Carolina: 2016 Tourism Satellite Account Results*. S.C. Dept. of Parks, Recreation, and Tourism.
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9. S.C. Ports Authority (2018a). *Top Ten U.S. Seaport Districts in Dollar Value of Goods Handled Calendar Year 2017*.
10. U.S. Census Bureau Trade Data Branch report FT920, Tables 1 and 4 "Exports" are FAS value of U.S. exports of domestic and foreign merchandise by district of export.
11. S.C. Ports Authority (2018b). *Statistics*.

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12. Von Nessen, J. (2015). *The Economic Impact of the South Carolina Ports Authority: A Statewide and Regional Analysis*. Darla Moore School of Business, University of South Carolina.

STRATEGIC AREA I. HEALTHY COASTAL ECOSYSTEMS

Goal 1: Sound scientific information is available to support ecosystem-based approaches to land use and resource management decision-making throughout the coastal environment.

Objective 1.1: Generate and deliver information on changes to ecosystem condition and health due to natural and anthropogenic forces, including sea level rise and shoreline change, and communicate this information to coastal decision-makers.

Priorities:

- Examine and document the importance of the ecological interrelationships between coastal terrestrial (riverine) ecosystems (including shallow water aquifers) and estuarine productivity, with a focus on the effects of changes in freshwater flow due to land use, drought, and sea level rise on estuarine ecosystem dynamics.
- Identify the most vulnerable and valuable habitats under changing climate and development scenarios in the coastal region of South Carolina and predict the physical, chemical, and biological impacts on these environments under such scenarios.

Objective 1.2: Generate and deliver science-based information on the effects of changes in water quality and quantity on coastal ecosystems and communities to support land, water, and living resources management decision-making.

Priority:

- Determine the economic, social, and cultural value of water quality within communities, including the importance of water used to support aesthetic values, cultural and spiritual activities, production of food, learning activities, and tourism and recreational activities.

Objective 1.3: Integrate baseline data, standards, and key indicators to support ecosystem management decision-making affecting land, water, and coastal and ocean resources.

Priorities:

- Conduct economic and social valuation research on coastal resources and ecosystem services provided by beaches, barrier islands, and sea islands now and into the future, given expected changes throughout the South Carolina coastal environment.
- Determine the effects of physical changes (e.g., in temperature, salinity, turbidity, hydrology, freshwater delivery) on South Carolina's coastal ecosystems and resources due to increased variability in coastal hydrology and projected sea level rise, and identify recommended strategies to address the effects.
- Identify significant cumulative effects, if any, on keystone marine organisms of exposure to Contaminants of Emerging Concern (e.g., antibiotics, pharmaceuticals, endocrine disruptors, nanomaterials, microplastics, personal care products) in salt



marsh-tidal creek complexes and stormwater pond systems, in collaboration with the private sector and wastewater companies.

Goal 2: Restored and enhanced function and productivity of coastal and ocean ecosystems

Objective 2.1: Support enhancement and restoration of oyster and salt marsh ecosystems.

Priorities:

- South Carolina has a long history of oyster reef restoration which can serve as a foundation for studies to determine the functional trajectory and maturity of created versus natural reefs in terms of ecosystem services and social and economic benefits. Research is needed to:
 - Determine the factors which regulate if and when restored intertidal oyster reefs reach full functional maturity. Although literature is available that defines functional maturity of restored *Spartina* populations, little exists in parallel for intertidal oysters.
 - Compare restored oyster reef systems with natural oyster reef systems, through ecological, social, and/or economic assessment techniques, in terms of services and value provided to the environment and to society.
- Study and document the effects of shoreline change due to sea level rise, coastal development, and shoreline stabilization projects on natural processes, functions, and features which regulate oyster reef formation (reformation), development, and persistence in various geographies in order to determine what factors affect oyster reef presence/absence, resilience to damage, and rate of adaptation.

STRATEGIC AREA II. SUSTAINABLE COASTAL DEVELOPMENT AND ECONOMY

Goal 1: Healthy and viable coastal communities and economies include robust working waterfronts, abundant recreation and tourism opportunities, and coastal access.

Objective 1.1: Provide information and tools to coastal communities to enhance waterfront-related economic opportunities (e.g., commercial and recreational fishing, aquaculture, water-dependent businesses, and energy and port development) without diminishing the long-term health of the coastal environment.

Priority:

- Conduct a policy analysis of waterfront ordinances and related best management practices and planning tools, and identify economic incentives and policy alternatives that could be implemented to preserve waterfront access for traditional commercial (e.g., commercial fishing, aquaculture, small maritime businesses) and recreational (e.g., beach and water access) uses in South Carolina.

Objective 1.2: Inform and assist coastal tourism and recreation businesses to foster a balance between the vitality and abundance of South Carolina's coastal and marine resources and the economic health of the tourism industry that depends on them.

Priority:

- Develop and evaluate economic development options for local communities to



consider as they seek to identify and provide natural resource-based coastal and ocean recreation and tourism opportunities which are economically, environmentally, and culturally sustainable.

Objective 1.3: Support local, state, regional, and national efforts to preserve and increase public access to South Carolina's beaches, waterfronts, and waterways.

Priority:

- Assess changes in the degree of access to coastal resources available to the public, determine public attitudes regarding the present availability of public access sites with respect to effects on coastal identity, culture, and heritage, and identify potential options to address coastal access challenges due to changing shoreline conditions influenced by sea level rise, storms, and population growth.

Goal 2: Coastal communities manage and conserve the resources needed to sustain their quality of life in light of rapid population growth, land-use change, and variations in climate and weather.

Objective 2.1: Work with federal, state, and local partners to develop and disseminate assessment tools, model plans and ordinances, best management practices, alternative development approaches, and other techniques that will enable communities to develop in environmentally-sound ways.

Priorities:

- Examine and project the effects of changing weather and climate events, and in particular, severe heavy precipitation and sea level rise, on the functionality and effectiveness of existing stormwater ponds, and the design, siting, and construction of new stormwater ponds.
- Evaluate the impacts of stormwater pond design and construction features on stormwater management function and efficiency, with recommendations for improvements, under future scenarios of changing precipitation patterns and sea level rise.
- Assess the ecological impacts of contaminant mixtures and their potential impact on human, animal, and ecosystem health in both stormwater ponds and adjacent estuarine habitats.

Objective 2.2: Communicate research and information related to the effects of land-use change, population growth, and climate and weather patterns on coastal and ocean ecosystems to coastal communities to support decision-making.

Priorities:

- Evaluate, analyze, update, and refine the extensive suite of existing visualization maps/tools which illustrate future changes in coastal population growth, land use, and land cover, including projections of environmental, economic, and demographic effects, especially in light of the re-emerging economy, rapid population growth, and rising sea levels at the local level.
- Evaluate existing stormwater quality models with efficiency and efficacy data based upon coastal hydrology and hydrodynamics and standardized protocols for



monitoring and assessing the life-cycle costs, functions, and performance of Low Impact Development (LID) management practices in South Carolina.

Goal 3: State and local decision-makers possess the knowledge about the complex inter-relationships among the social, economic, and environmental characteristics of the coastal ocean (offshore) environment of the state and southeast region, and the tools necessary to manage emerging uses and optimize economic and environmental sustainability.

Objective 3.1: Document the ecological, economic, policy, and societal implications of offshore energy development (e.g., oil, gas, and wind) on the South Carolina coastal landscape.

Priority:

- Assess existing and potential public and private sector uses of the coastal and ocean resources which exist within South Carolina’s territorial sea to document and describe current – and the potential for future – multiple use conflicts.

STRATEGIC AREA III. WEATHER AND CLIMATE RESILIENCE

Goal 1: Widespread community understanding of the risks associated with living, working, and doing business along the South Carolina coast encourages public and private decision-makers to create and adopt policies, plans, and ordinances to reduce risks, manage weather and climate events, and speed recovery.

Objective 1.1: Increase the base of scientific knowledge regarding weather and climate and the associated risks and impacts for citizens, business and industry, and decision-makers in coastal communities in South Carolina.

Priorities:

- Socio-economic and physical risk (vulnerability) analyses of changes in weather, climate, and sea level rise on the natural (e.g., beaches and salt marshes) and built (e.g., dwellings, infrastructure, public facilities) environment along South Carolina’s coastal shorelines, which examine social, economic, and environmental factors, identify challenges facing the state and local communities, and examine alternate strategies as they plan for and adapt to continued growth and development.
- Assess the potential economic impacts, implications, value, costs, and benefits of weather and climate adaptation strategies related to public and private drinking water, waste water, and storm water infrastructure as well as ecosystem services. In particular,
 - Develop cost-effective and structurally sound hazard mitigation strategies, tools, and techniques related to building design, construction methods, building code standards, and land use that can be applied by communities to reduce coastal hazard risks.
 - Conduct an integrated assessment of economic, social, and physical impacts of short-term climate variability (droughts, floods) and of long-term changes in climate, focusing on impacts of repeated and/or prolonged periods of heavy precipitation and drought and/or variations in water temperatures, pH, and salinity, on water quality and the resulting effects on the health of commercially valuable seafood species.



- Assess the cause-and-effect influences of changes in weather and climate patterns on the occurrences of acute and chronic public health impacts.

Objective 1.2: Provide science-based information to improve community capacity to prepare for, adapt to, mitigate, and recover from weather and climate hazards.

Priorities:

- Generate and assess effective communication strategies to enhance community understanding of how short-term and long-term weather and climate can impact public health, particularly in vulnerable communities.
- Identify and analyze opportunities and barriers that state and local decision-makers face in using information about climate variability in planning and/or undertaking adaptation options, including initiating adaptation planning and mainstreaming adaptation to climate variability and change into decision-making processes (e.g., local comprehensive plans, hazard mitigation plans, beachfront management plans).

Goal 2: Generate and distribute information, management tools, and technologies on beach, marsh, and dune systems that can help communities prepare for and mitigate the impacts of shoreline changes.

Objective 2.1: Evaluate the effects of hazards on beachfront, estuarine and tidal marsh shorelines, including the impacts from hardened structures.

Priorities:

- Generate scenarios of the physical impacts of structures under a variety of sea level rise rates on shoreline (oceanfront and estuarine) erosion rates, and describe the policy implications of such changes.
- Develop and test models of tide- and wind-forced nearshore currents and sediment transport, apply such models to sediment transport and erosion “hot-spots” in South Carolina, and generate information that supports the development of regional sediment budgets/management in South Carolina.
- Calculate the economic value and impact (in dollars and ecosystem services) of beaches in South Carolina.
- Determine/model the physical, social, and economic effectiveness and efficacy of beach nourishment programs as influenced by both short-term (e.g., coastal storms) and long-term (e.g., sea level rise) events, including analyses and forecasts of dredging frequency, costs, affordability, environmental sustainability, and material recovery feasibility.
- Examine and document trends related to estuarine shoreline change and identify/develop and assess alternative salt marsh bank erosion mitigation techniques (e.g., living shorelines).
- Model and develop visualizations of future inland transgression of coastal marshes under various sea level scenarios, taking into account rate of rise, existing and future land use change, infrastructure development, and estuarine shoreline armoring.



STRATEGIC AREA IV. SUSTAINABLE FISHERIES AND AQUACULTURE

SPECIAL NOTE: The National Sea Grant College Program office has announced plans to commit additional Sea Grant funding to provide up to 50% co-funding of highly ranked **aquaculture proposals** received through this FY20-FY21 Request for Proposals process. We are thus placing increased emphasis on the receipt of Concept Letters which seek to further the development of sustainable aquaculture in the state of South Carolina.

Goal 1: Sustainable fisheries and aquaculture that balance the ecological needs of the resource and socioeconomic needs of communities.

Objective 1.1: Support the identification and development of innovative management strategies and other approaches through applied research to maximize the long-term sustainability of fisheries and aquaculture enterprises in South Carolina.

Priorities:

- Collaborative research, with colleagues in North Carolina and Georgia, on potential methods/means by which black gill disease in southeast and South Carolina shrimp populations can be contained/controlled.
- Determine and project the potential impacts of climate variability on South Carolina's marine fishery resources, including changes in marsh migration routes, potential loss of critical habitat, changes in primary and secondary biological productivity, and impacts to physiological processes.
- Develop and evaluate best harvesting practices for emerging fisheries aimed at minimizing environmental impacts.

Objective 1.2: Enhance the seafood industry through translational research and technology transfer aimed at increasing sustainability, production, and profitability.

Priorities:

- Evaluate the viability of pond-based aquaculture husbandry techniques for polyploid shellfish to address biosecurity concerns, including but not limited to oyster survival, growth and maturation, and the potential for reproductive interactions between polyploid and wild diploid oysters.
- Determine the effectiveness of husbandry practices (e.g., submergence and aerial exposure of product raised in floating aquaculture gear) to address human health concerns posed by *Vibrio* spp., in the context of summer aquaculture production of polyploid shellfish.
- Evaluate the feasibility of new, native species for aquaculture production in South Carolina in partnership with the shellfish mariculture industry.
- Examine the effectiveness and success, long-term potential, and ecological effects of existing stock enhancement programs as fisheries management tools to augment wild finfish populations.



- Determine the “social carrying capacity” of fisheries and aquaculture operations in state waters, and develop an assessment technique/tool for use in determining public expectations and concerns regarding increased use of coastal waters for aquaculture.
- Generate and evaluate recommendations for modified policy and regulatory frameworks for aquaculture producers seeking to incorporate novel gear types and/or new species in their businesses.

Goal 2: A healthy domestic seafood industry that harvests, produces, processes, and markets seafood responsibly and sustainably.

Objective 2.1: Seafood businesses adopt socially and economically viable and sustainable production practices.

Priorities:

- Document and assess changes in the demographic and socio-economic dynamics of the State’s commercial and recreational fisheries, including examination of (a) shifts in the average age of fishermen, (b) changes in operational expenses and regulations, (c) how the fisheries will change relative to offshore vs. inshore fishing, increased shore-based fishing, targeting different species, etc., and (d) economic incentives and policy alternatives that could be implemented to preserve waterfront access for such uses.
- The South Carolina commercial shrimp fishery has been a fixture of the South Carolina coastal environment, economy, and culture for many decades. But changing conditions along the coast, including population growth and shoreline change, along with competition for market share and other factors, has taken its toll on the fishery. In response, the Consortium is interested in proposals to:
 - Assess the current economics of the South Carolina shrimp fishery and identify methods which can be used to assist the economic viability of the industry.
 - Examine the current micro economics of the shrimp trawler industry in South Carolina and evaluate the economic feasibility and viability of a “smaller trawler” fishery.
 - Develop an effective and efficient shrimp trap or other new commercial method for harvesting wild shrimp.

STRATEGIC AREA V. SCIENTIFIC LITERACY AND WORKFORCE DEVELOPMENT

Goal 1: Coastal and ocean K-12 education programs foster scientific literacy, stewardship, and exposure to STEM-based careers in both formal and informal settings.

Objective 1.1: Design, implement, and enhance K-12 student (formal and informal) marine education programs which focus on STEM disciplines, align with Ocean Literacy Essential Principles and South Carolina Science Standards, and emphasize community stewardship.

Priorities:

- Develop educational methodologies and identification of barriers to improve technical skills of pre-service and in-service teachers in the marine and ocean sciences.



- Develop and evaluate pilot recruitment strategies that successfully invite underrepresented and underserved (UR/US) in-service and/or pre-service teachers to participate in field-based professional development programs.

Objective 1.2: Design, implement, and enhance professional development opportunities for educators that provide content and resources for incorporating ocean sciences concepts.

Priorities:

- Conduct a needs assessment of how ocean and coastal information can be packaged for diverse audiences (for each audience consider cultural sensitivity, education-level, gender, etc.)
- Identify best practices for educators to recruit minorities into the marine and ocean sciences at the college/university level (e.g., minority mentoring programs on the internet).
- Develop novel pilot programs that incorporate training, experience, and the development of technical skills for educators to enable them to enhance careers, entrepreneurship opportunities, and advanced academic study in the marine and ocean sciences.

Goal 2: Coastal and ocean education programs foster the development of a diverse scientifically trained workforce.

Objective 2.1: Undergraduate and graduate students are trained to meet workforce needs in ocean sciences fields.

Priorities:

- Create research experiences for undergraduate students in coastal and marine fields through collaborative partnership models
- Examine and assess workforce development strategies which include technical, community, and trade schools that foster careers in STEM-related coastal fields.

Objective 2.2: Support the development of a diverse workforce.

Priority:

- Explore novel approaches to the recruitment of undergraduate and graduate students interested in STEM-related coastal and ocean employment opportunities.



**S.C. SEA GRANT CONSORTIUM
FY20-FY21 REQUEST FOR PROPOSALS**

**SECTION II: CONCEPT LETTERS –
INSTRUCTIONS for PREPARATION and SUBMISSION**

Concept Letters are due in the S.C. Sea Grant Consortium office COB on **March 18, 2019**

Structure of Concept Letters

Concept Letters should present a synopsis of the proposed effort, and should include the following elements:

Problem Statement: Describe in concise terms the problem and/or opportunity to be examined, identify the targeted stakeholders and constituencies which are involved in the issue and will be involved in the project, and specifically reference the S.C. Sea Grant Consortium program priority(ies) it addresses.

Objectives: Clearly list the overall objectives and hypotheses for the proposed project, and list specific objectives by year if proposing a two-year project. Most projects are expected to be completed within two years of implementation; however, if the project is anticipated to take more than two years to complete, PIs will have to submit a Concept Letter (and Full Proposal) for the two-year period beyond the initial biennium for review.


Methods: Concisely describe the proposed methods - reviewers should be able to make a preliminary determination about the appropriateness and innovativeness of the proposed approach for achieving the stated objectives. PIs must indicate their willingness to include a data sharing plan in their Full Proposals.

Expected Outcomes: The PI should outline planned outcomes and the timeframes (on an annual basis, for each year of the proposed effort) in which they will be achieved. Expected Outcome statements should address how the proposed project is expected to contribute to the economic, environmental, social, and educational sectors of South Carolina and the region. The following list provides some examples of the types of statements the Consortium is seeking:

- New tools/technologies to be developed
- Number of jobs to be created/saved
- Changes in community/government/industry “behavior;” e.g., passage of new ordinances, adoption of new policies, etc., that may result
- Economic value (e.g., revenues and/or savings) of expected benefits to target audiences
- Number of new curricula developed and used in schools
- Number of patent applications to be filed

In addition, PIs are strongly encouraged to support the careers of undergraduate and graduate students, and to publish project results in scholarly journals. Therefore, PIs should outline their expectations for both in this section.

Please note that all PIs will be expected to report on and document their Outcomes in their annual and final reports (See Section V).



Targeted Audiences/Outreach/Education: Identify the users, organizations, and groups which will be involved in the project and benefit from the work. Briefly identify the information products to be generated and the mechanisms that will be used to deliver resulting information to the target audiences. PIs are strongly encouraged to make contact with their target audiences prior to submission of Concept Letters to solicit their interest and seek their involvement in the proposed project. To increase the chance of Concept Letter success, *user involvement during the preparation of Concept Letters and Full Proposals, as well as throughout the project itself, is strongly encouraged.* Consortium outreach staff can be helpful in identifying key stakeholders (see [Appendix A](#) for Consortium staff listing).

Anticipated Results/Benefits: Outline the anticipated results and their potential application/implications to the Consortium's priorities and the target audiences that have been identified in [Section I](#).

Personnel, Collaborators, and Stakeholders: The Consortium strongly encourages PIs to include support for undergraduate and/or graduate students in their work, involve targeted stakeholders throughout the project, and include outreach specialists to assist with information exchange and delivery with stakeholders. PIs are encouraged to contact any one of the Consortium's program staff for their assistance; the involvement of outreach specialists from other state institutions is also welcome.

List the names and affiliations of all investigators, cooperators, senior staff, and students (if appropriate), and briefly describe their roles in the proposed effort. Also describe all stakeholder partners, user interactions, extension and/or education program staff involvement, and other details on those individuals who will contribute to the project.

Budget/Duration: Include a rough budget estimate (broken down into salaries, wages, fringe benefits, travel, equipment [value of \$5,000 or higher], supplies, and other costs) for each year of the project. Indicate the length of the proposed effort (in years; typically two years).

Preparation of Concept Letters

Please prepare your Concept Letter using the following guidelines:

1. The Concept Letter should be no longer than four (4) 8.5" x 11" pages.
2. Do not include any attachments to the Concept Letter.
3. Do not use a font smaller than 11 point.

Submission of Concept Letters

All concept letters must be submitted to the Consortium **by COB on March 18, 2019** as both a Microsoft Word file and a PDF file, attached to an e-mail sent to research@scseagrant.org.

Review of Concept Letters

Concept Letters should be succinct but sufficiently detailed so that reviewers can make an informed evaluation of the proposal's relevance to Consortium priorities, its likelihood of producing actionable outcomes, and the capabilities of the PIs. Concept Letters will be reviewed by members of the Consortium staff and an external review panel consisting of public and private marine and coastal resource and management representatives. Concept Letters will be evaluated based on the same criteria by which Full Proposals are judged. These criteria can be found in [Section IV](#).



PIs will be encouraged or discouraged to prepare and submit Full Proposals according to guidelines provided in Section III. Any PI that submits a concept letter is allowed to submit a full proposal; however, encouraged proposal have a much higher likelihood of being selected during the full proposal process.



**S.C. SEA GRANT CONSORTIUM
FY20-FY21 REQUEST FOR PROPOSALS**

**SECTION III: FULL PROPOSALS –
INSTRUCTIONS for PREPARATION and SUBMISSION**

Full Proposals are due in the S.C. Sea Grant Consortium office COB on June 14, 2019

Full Proposals should be prepared carefully with respect to style, clarity, manner of presentation, and conciseness. It is particularly important to fully indicate the nature of the problem or opportunity being examined, the Consortium priority(ies) being addressed, the relationship of the work to problems or opportunities of interest to the state and region, the nature of the results and products of the study, how the results will be of benefit (impacts) and to whom (target audiences), how targeted audiences will be involved in the project, and how the results will be delivered to those targeted audiences through specified outreach approaches. In addition, sufficient detail should be given on the methodological approach to be used in conducting the study. Each of these factors, along with the evaluation criteria listed in Section IV, will be evaluated during the peer and panel review processes.

This section is organized as follows:

- Proposal Forms and Instructions
- Instructions for Preparing Full Proposals
- Word Processing and Format Instructions
- Proposal Submission Requirements

Proposal Forms and Instructions

The following forms, in Microsoft Word, can be found and downloaded from the Consortium's website at www.scseagrant.org/funding for use in preparing a Sea Grant Full Proposal.

- Proposal Endorsement Form
- Project Summary Form
- Budget Summary Form
- Milestone Chart - Proposed Year of Funding
- Milestone Chart - Multi-Year Projects
- Vitae Form
- Data Sharing and Management Framework

Instructions for Preparing Full Proposals

The Full Proposal should be assembled according to this **outline**:

1. Proposal Endorsement (Consortium form)
2. Project Summary (Consortium form)
3. Narrative, to include the following sections:
 - a. Proposal Title
 - b. Investigator Names and Affiliations
 - c. Introduction/Background/Rationale
 - d. Objectives
 - e. Detailed Methods
 - f. Targeted Audiences/Engagement/Outreach/Education
 - g. Information Products
 - h. Expected Outcomes
 - i. Anticipated Benefits



- j. Related Work
- k. Data Management Plan
- l. References
4. Annual and Multi-year Milestone Charts (Consortium forms)
5. Vitae (Consortium form)
6. Budget (Consortium form) (as a separate Excel document)
7. Detailed Budget Justification (as a separate Word document)

In addition to the Full Proposal, the PI(s) should provide in a separate file the names and contact information (including institution, address, phone number, e-mail address) for up to five Suggested Peer Reviewers. The Consortium may request a written peer review from one or more of them.

The **PROPOSAL ENDORSEMENT** serves as the official cover sheet for the proposal. This page includes the project title, principal investigator's name and affiliation, and the TOTAL amount requested for the duration of the proposed effort. It also serves as the signature page for institutional endorsements; all Full Proposals should be reviewed by and endorsed, on the Proposal Endorsement page, by the Sponsored Programs office at your institution for accurate budget and matching funds commitment. Investigators are encouraged to submit their Full Proposals to their institution's research/business office for review and signatures at least one week before they are due at the Consortium office.

Page 2 of the proposal should be completed using the **PROJECT SUMMARY FORM**; note that some items will be completed by Consortium staff. The Project Summary Form is very important in the review process and is of great concern to various federal monitors. It is suggested that it be completed as the final step in preparing the proposal in order to concisely summarize what is presented in the text. Some reviewers get their first and only impression of the proposed project from this form. Appendix B includes detailed guidance on completing the Project Summary Form.

The body of the proposal begins with the **TITLE** at the top of the page. The title should accurately reflect the nature of the proposal project and be free of technical jargon. Choose words to which the designated users of the project can relate. The name(s) and affiliation(s) of the key project investigator(s) should follow underneath the title.

The **INTRODUCTION/BACKGROUND** section immediately follows the title on the same page; subsequent sections begin immediately afterward. A well-developed rationale for the proposed effort must be presented and should emphasize the importance of the work to the target audience(s). The problem or need should be stated succinctly and should clearly define the audience who desires the solution or will benefit from the work, and briefly describe how the audience will be engaged. If the proposed research and/or outreach effort has economic importance, state the nature of the potential economic payoff in an objective fashion. This section should also provide a summary of the current literature as it relates to the project; a demonstrated knowledge of the literature is a key component of a successful Sea Grant proposal. Finally, the Consortium priority(ies) that the proposal addresses should be identified.

The **OBJECTIVES** section should begin with a statement of the overall goal of the project. The goal should be followed by a succinct set of measurable objectives and, for quantitative research proposals, one or more testable hypotheses. For two-year project proposals, a set of concisely stated, measurable objectives for each year should be listed. Objectives clearly state



what the project hopes to accomplish, and realistically identify the proposed outcome and application of project results. For example, “increase our knowledge of ...” is not measurable language; rather “to determine the role of X in such-and-such a system” is much more appropriate, and allows for the determination of whether or not the project, in fact, has done so. A short paragraph should follow each objective to support its rationale.


Technical procedures and the development and analyses of data should be fully detailed in the **METHODS** section. Use the objectives as subheadings and describe the procedures and methods to be used to meet each. Cite relevant literature. For quantitative research proposals, delineate how the hypothesis (hypotheses) will be tested and identify the controls to be used. (*Note that the Consortium office must be notified before survey forms or questionnaires are sent to target audiences.*) Provide, in general terms, a timetable that identifies the sequence and duration by which objectives will be completed (e.g., “field studies will be completed by x and data analysis will begin...”); refer to the guidance on milestone charts below.

The Consortium will be focusing more of its evaluation on the extent to which a proposal specifically identifies and involves its **TARGET AUDIENCES** and what **OUTREACH and EDUCATION** efforts will be used to convey project results to them. Therefore, PIs must identify the users, organizations, stakeholders, and other groups who will benefit from the work, and engage them directly as much as possible in the development of the proposal and in implementation of the proposed effort. In addition, information products to be generated must be identified and *the mechanisms, including outreach personnel, who will deliver* resulting information to the target audience should be outlined. Finally, PIs should identify how much of the proposed budget will be used for engaging target audiences. Prospective PIs should make contact with their target audiences as early as possible to gauge interest and involvement in the proposed effort prior to submitting Concept Letters; staff at the Consortium can provide assistance if desired (see Appendix A for contact information).

In a brief section, the **INFORMATION PRODUCTS** to result from the proposed project should be described. These products will depend on the audiences to be reached as identified in the introduction. Journal articles and technical reports are geared to the professional community and are clearly expected to be generated by Sea Grant PIs; Sea Grant extension booklets and brochures are geared to marine and coastal resource users. If Consortium Extension, Education, or Communications staff will (or should) play a role in the proposed effort in terms of disseminating resultant information, please contact the appropriate staff member(s) to formalize their involvement in the project (See Appendix A). Note: the Consortium also requires annual and final reports on all projects; refer to Section V for more details.

The PI should identify specific **EXPECTED OUTCOME(S)** for each year of the proposed work. The PI should outline planned outcomes and the timeframes (on an annual basis, for each year of the proposed effort) in which they will be achieved. Expected Outcome statements should address how the proposed project is expected to contribute to the economic, environmental, social, and/or educational sectors of South Carolina and the region. The following list provides some examples of the types of statements the Consortium is seeking:

- New tools/technologies to be developed
- Number of jobs created/saved
- Changes in community/government/industry “behavior;” e.g., passage of new ordinances, adoption of new policies, etc.
- Economic value (e.g., revenues and/or savings) of benefits to target audiences
- Number of new curricula developed and used in schools

- 
- Number of patent applications to be filed

In addition, *PIs are strongly encouraged to support the careers of undergraduate and graduate students, and to publish project results in scholarly journals.* Therefore, PIs should outline their expectations for both in this section.

Please note that all PIs will be expected to report on and document their Outcomes in their annual and final reports. The Consortium will collectively use these statements in order to: (1) report on progress in achieving its performance targets as outlined in its FY18-21 strategic plan as required by the National Sea Grant College Program, and (2) evaluate the progress of each Sea Grant project on an annual basis based on, among other things, success in achieving outcomes.

The **ANTICIPATED BENEFITS** section should concisely state how the results of the proposed project would improve or change the current situation based upon the information and products produced. How will the target audience(s) and stakeholders benefit from the work, and to what degree? What economic benefits might result from the successful completion of the proposed work? The Consortium and NSGCP will determine whether the proposed effort is conceptually sound based on the arguments made in this section.

Relationships to other studies and programs being performed both by the PIs and others related to the proposed work should be described in a brief **RELATED WORK** section. This section should identify other ongoing and related work in the proposed area of study and state how the proposal complements and/or augments this other work.

Prospective PIs must prepare a **DATA MANAGEMENT PLAN** as part of their Full Proposal narrative. This does not count against the proposal's 15-page maximum length. The Sea Grant Data Management Policy and Framework is available [here](#) for guidance in developing the data management plan and includes a fillable template for submission with the Full Proposal. Please keep in mind the following when drafting your plan:

- The Data/Information Sharing Plan (and any subsequent revisions or updates) will be made publicly available at time of award and, thereafter, may be posted with the published data.
- Environmental data and information produced under this award and which are made public must be accompanied by the following statement: *These environmental data and related items of information have not been formally disseminated by NOAA and do not represent and should not be construed to represent any agency determination, view, or policy.*
- NOAA may at its own discretion, use information from the Data/Information Sharing Plan to produce a formal metadata record and include that metadata in a catalogue to indicate the pending availability of new data.
- Failing to share environmental data and information in accordance with the submitted Data/Information Sharing Plan may lead to disallowed costs and be considered by NOAA when making future award decisions.

REFERENCES should be listed according to the standards established in the field of study.

Annual and multi-year **MILESTONE CHARTS** must be completed to illustrate the timetable for the completion of all tasks necessary to meet the proposed objectives. This will allow the



Consortium to track progress of the project. This schedule should include a mechanism for interacting with users, such as the engagement of an advisory committee or presentations at appropriate professional meetings. Time for preparing the final report must also be included. Annual progress reports are due at the end of February for all projects continuing into the second year.

Biographical data should be provided on the **VITAE FORM** (two pages maximum) for each principal and associate investigator. Please be sure to include your phone number and email address as part of your professional address. Long resumes in lieu of this form are not acceptable as substitutes.

The **BUDGET FORM** should detail and accurately reflect the actual annual costs of carrying out the project. Although the amount requested on the title page reflects the total costs of the project, the budget form should only itemize the costs for the proposed year of effort. Therefore, **an individual budget form must be completed for each year** of proposed funding. An inadequate budget causes just as many problems as one that is inflated; please plan the budget request carefully. There are several federal provisions to be aware of - these are presented in the budget justification section below. The budgets (in Microsoft Excel) should be submitted as separate documents from the main body of the proposal.

The **BUDGET JUSTIFICATION** should justify the need for Sea Grant funds for each and all line items, and outline matching fund use. It must explain the major duties of personnel and percentages of time for all participants, including undergraduate and graduate students. All capital and permanent equipment requests must be itemized along with the cost and specific justification of need. Permanent equipment requests of more than \$5,000 should be made on a 50-50 match basis. Funding for construction and the purchase of vessels and vehicles are not eligible for Sea Grant funding. Requests for travel funds must be described via the formula used for calculation (e.g., number of miles at cost per mile for so many trips to some destination). If you are requesting travel funds for a national meeting, indicate the importance of the meeting to the proposed work. In the same regard, provide a detailed list of the types of supplies to be purchased. It is important that the funds requested truly reflect the costs of the project and be thoroughly justified. A budget justification must be completed for each budget year of proposed work, and submitted as separate documents from the main body of the proposal. See Appendix C for additional guidance.

Finally, include, **in a separate document**, the names, institutional affiliations, addresses, phone numbers, and e-mail addresses of five or more prospective peer REVIEWERS from outside the state of South Carolina you feel are highly qualified to make substantive comments on the technical and conceptual merits of the proposal. They may or may not be requested to provide reviews.

Word Processing and Format Instructions

The content of any proposal is critical to its ultimate success; however, consistency of format is important as well. Proposals initially accepted at the state level by the Consortium are packaged and submitted to NSGCP. Requiring that all proposals adhere to a common style significantly reduces the need for editing and additional word processing as the package is being assembled. The following instructions must be observed.

Length of Proposal – the text of the proposal (Introduction through Related Work) should not exceed 15 pages. Excessively long proposals will be returned.



Spacing – Lines within paragraphs should be single-spaced; double-space between paragraphs.

Margins – Top, bottom, and side margins should all be one (1) inch from the edge of page.

Typing Style – Use a word processor with Times New Roman - 11 point (minimum).

Headings – All headings (INTRODUCTION, OBJECTIVES, etc.) must be capitalized, underlined, and left-justified.

Figures and Tables – All figures and tables must fit within an 8 1/2" x 11" format and must be electronically reproducible.

Title Page of Text – Page 31 provides an example of how the first page of the proposal should be structured.

Proposal Submission Requirements (for Full Proposals)

Prior to initial submission, all Proposals MUST be reviewed by the Institutional Liaison and endorsed (on the Proposal Endorsement form) by the designated signatory authority at your institution for accurate budget and matching funds commitment. We strongly suggest that the Proposal be sent to your institution's research/business office for endorsement and signatures at least one week before it is due at the Consortium (see Appendix A for the name of your institutional liaison officer).

All Full Proposals are due at the Consortium by COB on June 14, 2019 as both a Microsoft Word file for the Full Proposal text, a Microsoft Excel file for the budget request, a Microsoft Word file for the budget justification and a PDF file which integrates all files, attached to an e-mail sent to research@scseagrant.org.

All Proposals will be reviewed by Consortium professional staff, Sea Grant program staff with expertise in the area of the proposed effort, and outside technical experts and independent business/industry/user professionals (the experts and professionals are chosen by the Executive Director) through a written peer and external panel review process. The standard professional **REVIEW FORM** provides a listing of the criteria used in the review process (see Section IV), covering both conceptual content appropriate to Sea Grant and technical merit of the plan of work. The reviews are then evaluated and proposals are either accepted or rejected. Prospective investigators whose proposals are accepted will be asked to address reviewers' comments by preparing a statement that will be attached to the original proposal; no revisions to the proposal itself will be allowed. Any subsequent revisions in the budget MUST be endorsed by the investigator's institutional signatory official.

National Environmental Policy Act (NEPA)

NEPA requires that Federal agencies consider the environmental impacts of major Federal actions significantly affecting the quality of the human or natural environment. All research projects must furnish sufficient information to assist Sea Grant in assessing the environmental consequences of supporting the projects. Applicants will be required to cooperate with Sea Grant in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. Failure to do so shall be grounds for not selecting an application. An



abbreviated **ENVIRONMENTAL COMPLIANCE (NEPA) FORM** will be required if the application is selected for funding.



Sample Format for the Title/Introduction Page

GENETIC IMPROVEMENT OF HARD CLAM, *Mercenaria mercenaria*, COMMERCIAL MARICULTURE STOCK DEVELOPMENT IN SOUTH CAROLINA

Principal Investigator: John J. Malone*
Associate Marine Scientist
SCDNR-Marine Resources Research Institute
Charleston, SC 29422

Associate Investigators: A.G. Evernham*
Associate Professor
Department of Aquaculture, Fisheries & Wildlife
Clemson University
Clemson, SC 29634

Robert T. Wilson, Jr.*
Assistant Professor
Department of Biology
College of Charleston
Charleston, SC 29424

Cooperating Investigators: R. K. Knight*
Professor, Department of Biology
State University of NY
Stony Brook, NY 11794

G. F. Newton*
Associate Professor
Biology Department
Dalhousie University
Halifax, Nova Scotia, CANADA
B3H 4R2

L. S. Adam*
Assistant Professor
Department of Biology
George Mason University
Fairfax, VA 22030

INTRODUCTION/BACKGROUND

*Fictitious names



**S.C. SEA GRANT CONSORTIUM
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**SECTION IV: CONCEPT LETTER and FULL PROPOSAL
REVIEW CRITERIA**

The following criteria and rating scales will be used to rate Concept Letters and Full Proposals:

A. Programmatic Justification – The degree to which the proposed project addresses the priorities outlined in the guidance provided by the S.C. Sea Grant Consortium in its Request for Proposals and other program information.

Excellent (15) **Very Good (12)** **Good (9)** **Fair (6)** **Poor (3)**

B. Rationale – The degree to which the proposed project addresses an important state and/or regional issue, problem, or opportunity in the development, use, and/or conservation of marine or coastal resources.

Excellent (10) **Very Good (8)** **Good (6)** **Fair (4)** **Poor (2)**

C. Clarity of Objectives – The degree to which the proposed objectives address the problem or opportunity identified in the Rationale and Programmatic Justification sections and, in the case of research proposals, the relevance of the hypotheses upon which the objectives are based.

Excellent (10) **Very Good (8)** **Good (6)** **Fair (4)** **Poor (2)**

D. Scientific/Outreach Methods – The degree to which (1) the feasibility of the proposed methods and design of the proposed project will address stated objectives, (2) the use and extension of innovative, state-of-the-art methods to be used in the proposed project will advance the scientific or outreach discipline, and (3) the data sharing plan will meet the needs of the public.

Excellent (15) **Very Good (12)** **Good (9)** **Fair (6)** **Poor (3)**

E. Expected Outcomes – The degree to which the planned outcomes are clearly defined, in terms of interim and final measurable results and products, and with a reasonable timeframe for completion and delivery. Outcomes should be identified for each year, be measurable, and have a positive impact on the systems, technology, or management practices under study (e.g., cost savings, revenue generation, jobs created, new products/tools developed, workforce development).

Excellent (10) **Very Good (8)** **Good (6)** **Fair (4)** **Poor (2)**

F. User Engagement – The degree to which targeted users of the results of the proposed activity have been brought into the planning of the activity, will be brought into the execution of the activity, and will be kept apprised of progress and results, the adequacy of the methods to be used to engage the users, and whether resources have been allotted for stakeholder engagement.

Excellent (15) **Very Good (12)** **Good (9)** **Fair (6)** **Poor (3)**

G. Dissemination of Results – The degree to which the proposed project includes specific strategies for information delivery to and product development for identified targeted users (e.g., through the scientific literature, Sea Grant Extension and Communications products, educational efforts, etc.).

Excellent (15) **Very Good (12)** **Good (9)** **Fair (6)** **Poor (3)**

H. Investigator’s Knowledge of Field – The degree to which the investigator(s) is (are) experienced, proficient, and recognized in their respective fields.

Excellent (5) **Very Good (4)** **Good (3)** **Fair (2)** **Poor (1)**

I. Adequacy of Budget – The degree to which the proposed budget will adequately support the proposed work and provide the necessary and appropriate amount and distribution of funding across budget categories.

Excellent (5) **Very Good (4)** **Good (3)** **Fair (2)** **Poor (1)**



S.C. SEA GRANT CONSORTIUM FY20-FY21 REQUEST FOR PROPOSALS

SECTION V: FUNDED PROJECTS – RESPONSIBILITIES & REPORTING

The principal investigator of a Sea Grant project is responsible for all technical reporting and, in conjunction with the institutional business office, all fiscal reporting to the Consortium. In turn, the Consortium is responsible for technical and fiscal reporting to the NOAA National Sea Grant College Program (NSGCP). Consortium professional staff frequently communicate with Sea Grant PIs to discuss project progress and needs. Questions regarding budgetary matters should be directed to the Consortium's Assistant to the Director for Administration (see [Appendix A](#)). Formal requests for budget changes and changes in project scope must be submitted to the Consortium Executive Director, through the institution's Office of Sponsored Programs (or related office).

This Section includes information on the following policies and procedures:

- Formal Award Agreements
- Changes in Project Scope, Duration, or Budget
- Disposition of Permanent Equipment
- Patent Policy
- Prior Approval of Survey Instruments and Brochures
- Reimbursement Conditions
- Fiscal Reporting
- Project Reporting
- Submission of Publications
- Citation and Acknowledgement Requirements

These and other conditions of the grant award are stipulated in the formal award announcements and agreements sent to the PI and institutions; please read through these documents carefully.


Formal Award Agreements

The Sea Grant fiscal year begins February 1 with **formal award announcements** sent to the investigators and their respective institution's business office. The announcements include two copies of the Consortium Award Agreement signed by the Consortium Executive Director. The Award Agreements must be read and endorsed by both the appropriate signatory authority and the Principal Investigator of the Sea Grant project. The institution must then forward one copy of the signed original back to the Consortium for its records, and the project can formally begin.

Changes in Project Scope, Duration, or Budget

Among the provisions of the Agreements is a set of special conditions of which the investigators should be aware. Significant changes in projects subsequent to the formal awards, whether budgetary or programmatic, require prior formal approval by the Consortium Executive Director and, in some cases, the NSGCP as well. If you are unsure, please call the Sea Grant liaison in your Sponsored Programs office (see [Appendix A](#)) or the Consortium's Assistant to the Director for Administration for clarification.

Any proposed changes affecting the following categories require prior written approval:

- 
1. Any budget changes across line items that exceed ten (10) percent of the total federal budget amount.
 2. The purchase of any item of permanent equipment (any single item costing \$5,000 or more) not specifically identified, justified, and approved in the proposal and budget.
 3. Any foreign travel not previously identified, justified, and approved in the proposal and budget.
 4. A change in the Principal Investigator.
 5. Significant changes in time devoted to a project by a PI.
 6. Any change in the scope of objectives of the approved project.

Principal Investigators must obtain such approval before making any substantive changes in project objectives, methods, budget, or schedule. Requests for changes must be submitted in writing through the institution's Sponsored Programs office to the Consortium. Recipients are not authorized to proceed with any changes until final written approval is received from the Consortium.

All formal requests for rebudgeting actions and subsequent approval must be submitted in writing. **A REQUEST FOR TRANSFER** form is available on the Consortium website for this purpose.

Requests for no-cost time extensions, along with a strong justification for such a request, must be submitted at least 30 days prior to the end of the grant year, along with a budget for all remaining funds to be expended. Such extensions may be approved when any one of the following applies:

1. Additional time beyond the established expiration date is required to ensure completion of the original approved project scope or objectives; or
2. Continuity of Sea Grant support is required while a competing application is under review; or
3. The extension is necessary to permit an orderly phase-out of a project that will not receive continued support.

Approval of no-cost time extensions by the Consortium Executive Director or NSGCP is based on an adequate reason for not meeting the project deadline. Unexpended funds are not, by themselves, justification for an extension.

In addition, all projects supported with federal funds must comply with the following:

- The recipient is subject to the provisions of the Fly America Act and must comply with the Act when scheduling transportation for travel paid for with federal funds.
- The recipient is encouraged, to the greatest extent practicable, to purchase American-made equipment and products with funding provided under a Sea Grant award.
- The Consortium must have on file a copy of each institution's approved indirect cost rate (IDC) agreement for proposals submitted for funding that include IDC costs as match (per Consortium policy).

Purchase and Disposition of Permanent Equipment

The Consortium strongly encourages joint funding support for the purchase of **Permanent Equipment**. Thus, any PI who is requesting one or more items of permanent equipment (defined as any single object costing \$5,000 or more) should seek to match such purchase with



an equal amount of funding from his/her institution.

Permanent equipment purchased under a Consortium project is and remains the property of the Consortium, but can remain with the investigator's institution pending approval from NSGO. The Consortium does reserve the right to transfer use of this equipment upon completion of the project. However, if the investigator and/or institution desires to obtain title to equipment purchased under an existing agreement, a formal written request must be made to the Consortium Executive Director at the end of the project. Final disposition of the equipment will then be determined under existing statutes.

Patent Policy

The policy and procedures set forth in the U.S. Department of Commerce regulations (37 CFR 401), "Rights to Inventions made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts, and Cooperative Agreements," published in the Federal Register on March 18, 1987, shall apply to all grants and cooperative agreements made for which the purpose is experimental, developmental, or research work. The Consortium's Assistant to the Director for Administration should also receive with the final expenditure report a completed **FINAL INVENTION STATEMENT** if anything patentable was developed during the course of the project. Three copies of the statement should be submitted within six months after conception or first actual reduction to practice during the course of work. These forms are available from your institutional research/business office.

Prior Approval of Survey Instruments and Brochures

In addition to any approval an investigator must receive per the policies of his/her home institution, prior approval of the use of all **survey instruments and brochures** to be used as part of any research effort must be received from the Consortium Executive Director. Suggestions and assistance can be provided, if requested, by the Consortium staff at that time.

Reimbursement Conditions

Final reimbursement to institutions for expenses incurred under a Sea Grant project award may not be made until the Annual/Final Project Report is received from the PI and accepted by the Consortium office. The final invoice or at least ten (10) percent of the funds of any project will be held until the Annual or Final Report (whichever applies) is received and deemed complete.

Fiscal Reporting

In addition to the official Award Agreement, fiscal documents that reflect the approved budgets are mailed to the respective institutional fiscal officers. The **FEDERAL AND MATCH EXPENDITURE REPORT** should be provided upon submission of every reimbursement request or quarterly (if no such requests have been submitted) and accurately reflect expenditures. Reports must be sent to the Consortium's Assistant to the Director for Administration by the institutional business office, with the appropriate endorsement. The table below outlines the quarterly deadlines for the receipt of these reports. All payments by the Consortium are handled on a reimbursement basis. Future funding to the institution and/or investigator may be withheld if annual or final project reports are not received on a timely basis. If any problems concerning expenditure reporting arise, call the Consortium's Assistant to the Director for Administration as soon as possible.



Deadlines - Submission of Quarterly Expenditure Reports

QUARTER	REPORTING PERIOD	REPORT DUE DATE
1	Feb 1 – Apr 31	May 31
2	May 1 – Jul 31	Aug 31
3	Aug 1 – Oct 31	Nov 30
4	Nov 1 – Jan 31	Feb 28

Final Fiscal Reports are due 60 days after the close of the project.

Project Reporting

There are two categories of **project reports** that are required by the Consortium:

1. **Annual Reports**, prepared by the principal investigator, summarizing annual progress of a project which is proposed for continuation; and
2. **Final Reports**, prepared by the principal investigator at the end of a project, providing a concise summary of results of the entire project.

The **PROJECT REPORTING FORM** (and accompanying instructions), available on the Consortium’s website, should be used by PIs for completing Annual and Final Reports. A project report “reminder” is sent to all PIs 30 days prior to the due dates of the reports, which are as follows:

- **Annual Reports** are due 30 days after the end of the current grant year **Final Project Reports** are due 60 days after the close of the project grant period

If a Principal Investigator requests and receives a no-cost time extension for his/her project, (s)he must submit an Annual Report 30 days after the original end date of that project year. A Final Report will then be required 60 days after the last day of the extension period at the end of the project.

Submission of Publications


Principal Investigators must furnish to the Consortium a PDF copy of all publications, technical reports, all thesis and dissertation abstracts, and other formal documents that are based on information generated through Sea Grant projects and intended for publication and/or public distribution. Complete electronic PDF copies of any theses or dissertations should be submitted along with the other materials.

Citation and Acknowledgement Requirements

All PIs must note and adhere to the following:

- The financial assistance award number (provided in the Award Package) will be acknowledged in writing as the basis for funding the publication.
- For journal publications and videos that are produced based in whole or in part on the work funded by the Award Agreement, the PIs should ensure that the publication (including internet sites) bears the following notation:

“This (report, video) was prepared (‘in part’ if appropriate) as a result of work



sponsored by the South Carolina Sea Grant Consortium and the State of South Carolina through National Oceanic and Atmospheric Administration's National Sea Grant College Program, U.S. Department of Commerce financial assistance award [number to be provided]. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the South Carolina Sea Grant Consortium, NOAA, U.S. Department of Commerce, or the State of South Carolina. Additionally, the South Carolina Sea Grant Consortium and NOAA may copyright any work that is subject to copyright and was developed, or for which ownership was purchased, under financial assistance number [to be provided]. The South Carolina Sea Grant Consortium and NOAA reserve a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so."

- All non-journal article publications or reports shall bear the National Oceanic and Atmospheric Administration (NOAA), S.C. Sea Grant Consortium, and State of South Carolina logos on the cover of the first page, and include the following: "A publication (or report) sponsored by the South Carolina Sea Grant Consortium and the State of South Carolina pursuant to National Oceanic and Atmospheric Administration Award [number to be provided]."

These requirements do not apply to routine reports submitted to the Consortium and which are not intended for public distribution, such as project progress reports and financial reports.



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**APPENDIX A:
CONTACT PERSONS –
CONSORTIUM STAFF and INSTITUTIONAL LIAISON OFFICERS**

Consortium Contact Persons

If you need assistance or require further information about the SCSGC Request for Proposals for FY16-18, please contact the appropriate person, listed below, via e-mail or at 843-953-2078:

Program Area Priorities

M. Richard “Rick” DeVoe – Executive Director
rick.devoe@scseagrant.org

Susannah Sheldon – Research and Fellowships Manager
susannah.sheldon@scseagrant.org

Proposal Submission and Review Information

Susannah Sheldon – Research and Fellowships Manager
susannah.sheldon@scseagrant.org

Fiscal and Budgetary Information

Ryan Bradley – Assistant Director for Administration
ryan.bradley@scseagrant.org

Communications and Information Products

Susan Ferris Hill – Communications Director
susan.ferris.hill@scseagrant.org

Sea Grant Extension Program

Susan Lovelace, Ph.D. – Assistant Director for Development and Extension
susan.lovelace@scseagrant.org

Sea Grant Marine Education Program

Elizabeth Vernon Bell – S.C. Sea Grant Marine Education Specialist
ev.bell@scseagrant.org



Consortium Liaison Officers

All Full Proposals require a formal institutional endorsement before they can be submitted to the Consortium. Your university's Consortium liaison official, listed below, can assist you with this and with other questions you may have.

Colonel Charles L. Cansler III
Vice President for Finance and Business
The Citadel
171 Moultrie Street
Charleston, SC 29409
843-953-6982
ccansler@citadel.edu

Dr. Tanju Karanfil
Vice President for Research
Clemson University
Strom Thurmond Institute
230 Kappa Street
Suite 200
Clemson, SC 29634
864-656-7701
tkaranf@clemson.edu

Ms. Stephanie Cassavaugh
Director and IRB Administrator
Coastal Carolina University
109 Chanticleer Dr. East
Conway, SC 29526
843-349-5030
scassavau@coastal.edu

Ms. Susan Anderson
Assistant VP for Research & Director
Office of Research & Grants Administration
College of Charleston
66 George Street
Charleston, SC 29424
843-953-4973
andersons@cofc.edu

R. Darren McCants
Director
Office of Research & Sponsored Programs
Medical University of South Carolina
19 Hagood Avenue, Suite 606
Charleston, SC 29425
843-792-3832
mccantsd@musc.edu

Mr. Robert Boyles
Deputy Director
SC Department of Natural Resources
Marine Resources Division
PO Box 12559
Charleston, SC 294FY21
843-953-9304
boylesr@dnr.sc.gov

Mr. Elbert R. Malone
Interim Associate Provost
Office of Sponsored Programs
South Carolina State University
PO Box 7461
300 College Street, NE
Orangeburg, SC 29117
803-536-8213
malone@scsu.edu

Mr. Thomas Coggins
Director
Sponsored Awards Management
University of South Carolina
91600 Hampton Street, Suite 414
Columbia, SC 29208
803-777-4456
tcoggins@mailbox.sc.edu



**S.C. SEA GRANT CONSORTIUM
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**APPENDIX B:
PREPARING THE SEA GRANT PROJECT SUMMARY FORM**

The project summary is intended to present a concise description of the funded activity in a form useful to a variety of readers not necessarily requiring detailed information. Project summaries are not substitutes for proposals or reports but should permit judgments as to whether such proposals or reports merit reading for a particular purpose. The summary contains the following information:

(1) **TITLE:** Project titles should be carefully constructed to give as much information as possible about the project in not more than two lines (about 16 words)—preferably less. Consider always that there will be people (perhaps influential) who will judge the content of a program from scanning a list of titles—or titles plus funding numbers.

(2) **PROJECT NUMBER:** Assigned by the Consortium. Leave blank.

(3) **GRANT NUMBER:** Assigned by NSGCP. Leave blank.

(4) **SUB PROGRAM:** Assigned by Consortium. Leave blank.

(5) **REVISION DATE:** The date on which the Project Summary form is completed.

(6) **INITIATION DATE:** The date on which Sea Grant support for the project is to be initiated (typically February 1 of the biennium year).

(7) **COMPLETION DATE:** The date on which Sea Grant support for the project is to be completed (typically January 31 at the end of the biennium).

(8) **PRINCIPAL INVESTIGATOR(S):** The name of the P.I. as, i.e., “Maris, H.O. (5.00 mm), “ indicating in parentheses the time in man-months the P.I. will devote to the project for the duration of the entire project.

(9) **DEPARTMENT AND INSTITUTION:** The academic affiliation of the P.I., i.e., Animal Science Department, Massachusetts Institute of Technology.

(10) **ASSOCIATE INVESTIGATOR:** Names and man-months of Associates whose efforts are significant to the success of the project, as Cancus, A.M. (6.00 mm).

(11) **AFFILIATION:** As for each P.I., i.e., Biology Department, Tufts University.

(12) **GRANT FUNDS TO DATE (MATCH FUNDS TO DATE):** Total federal (and match) funding awarded (committed) to the project up to the beginning of the grant year for which the proposal is prepared.

(13) **CURRENT GRANT FUNDS (CURRENT MATCH FUNDS):** The grant funds committed to the project for the current year, if applicable.



- (14) PROPOSED SEA GRANT FUNDS (PROPOSED MATCH FUNDS): The grant funds requested for the project for the proposal year, if applicable.
- (15) RELATED PROJECTS: Assigned by the Consortium. Leave blank.
- (16) SEA GRANT CLASSIFICATION NUMBER: Assigned by the Consortium. Leave blank.
- (17) KEYWORDS: Assigned by the Consortium. Leave blank.
- (18) PARENT PROJECTS: Assigned by the Consortium. Leave blank.
- (19) OBJECTIVES: This section should describe what the investigator intends to accomplish. Preferably it should be stated so that, at a later date, it can be determined whether he/she has, in fact, done it. The heading “Objective” should be interpreted as “The Objectives of this task are.” Objectives should be numbered and listed, and should begin with the word “To” followed by a verb. In keeping with Sea Grant’s mission, such appropriate verbs are, for example: test (the hypothesis), develop, provide, determine, isolate, characterize, identify, restore, implement. Less desirable but sometimes appropriate are: promote, conduct, analyze, apply, investigate, examine, and describe. Some, such as: study, consider, continue, etc. should not be used since failure to do these is not determinable.
- (20) TASKS and METHODOLOGY: This section should concisely state the methods to be used or show sub-objectives that indicate the approach to be taken, including the data sharing plan. Specific questions that an interested person would ask should be answered under objectives or methods, like which heavy metals, which pollutants, which pathogens, what species of seaweed or shellfish, what kind of a model? This information should be no longer than ten lines.
- (21) RATIONALE: This section should make a concise statement of why this is an appropriate Sea Grant project; i.e., what problem or opportunity is being addressed. The project need not promise to fully solve a problem but it should be shown that it is a logical step towards solution. Long involved background statements should be avoided. Potential users (of the information to be developed) should be identified. This information should be no longer than ten lines.
- (22) ANTICIPATED ACCOMPLISHMENTS/BENEFITS: This section should contain concise statements of progress towards the stated objectives and an accounting of benefits that flow to society from the effort. Where possible these are to be quantified. Publications resulting from the project should be reported. When the PROJECT SUMMARY is prepared for a new project, enter: “To be updated.”
- (23) DATA MANAGEMENT AND SHARING PLAN: This section should be completed per the guidance above.



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**APPENDIX C:
NOAA GUIDANCE FOR COMPLETING BUDGETS AND JUSTIFICATIONS**

Matching Funds

A 50 percent match of the federal funds (i.e., one dollar of match for every two dollars of federal money received) is required on all Sea Grant proposals unless otherwise specified. Note that it is important to specify match contributions carefully to be able to demonstrate sources and amounts. Any match contributions identified by investigators are subject to federal audit that may result in additional costs to the institution.

Match may be in the form of selected “in-kind” services or additional funds from a specified institution, agency, industry, or nonfederal program. No funds from federal entities can be used as match.

For Matching Funds, NOAA Grants Management Division (GMD) expects you to consider the following questions:

- Is a match (non-federal share) required for this program?
- If yes, does the application meet the matching requirements?
- Are the sources of match clearly identified? (i.e. cash or in-kind)
- Does the application provide adequate documentation to support in-kind contributions?
- Does the application exclude matching contributions, cash or in-kind, used for other programs?
- Does the application exclude federal funds used as match?
- Are all matching contributions necessary for accomplishing the project?
- Are all matching contributions in compliance with federal cost principles?

A. SALARIES AND WAGES


Budget

Assign personnel to the various categories according to the explanations provided which conform to NOAA/Sea Grant usage (these definitions do not necessarily conform to usage in your institution). Identify project personnel by position title as indicated on the form. Use accurate current salaries as the basis for calculating salaries and wages for each individual (do not use percentages). If funds are being requested to support a vacant position, so indicate (vac. pos.) and use a salary rate appropriate to the position. Enter months of effort as full-time equivalents, regardless of how many calendar months the individual will work on the project for both Sea Grant and matching funds. Entries must be done in separate columns as indicated on the form. Note: The number 1 audit finding is failure to keep good time and attendance records.

Budget Justification

For Salaries and Wages, NOAA Grants Management Division expects the budget justification to address the following questions:

- Is each individual identified by position?
- Are time commitments such as hours/weeks/months per year for each position?
- Are the total charges for each person listed along with an explanation of how the costs were calculated?
- Do the combined charges for all activities of any individual exceed 100% of their time including match?

- 
- Do the time commitments and charges appear reasonable?
 - Are all individuals employees of the applicant organization? (If not, explain)
 - Is a cost of living increase built into the budget?
 - Are salary increases justified for the grant period?
 - Are any salary/personnel costs unallowable (i.e., Federal Employees or legislative personnel)

B. FRINGE BENEFITS

Budget

Fringe benefits are those customarily paid by the grantee institution, following its usual practices in the payment of such benefits.

Budget Justification

For Fringe Benefits, NOAA Grants Management Division expects the budget justification to address the following questions:

- Are fringe benefits identified as a separate item?
- Are all the elements that comprise fringe benefits indicated?
- Do the fringe benefits and charges appear reasonable?
- Are the total charges for each person listed along with an explanation of how the charges were calculated?
- Are fringe benefits charged to federal and matching categories in the same proportion as salaries?
- Statement to the effect “Approved institutional rates”

C. PERMANENT EQUIPMENT

Budget Justification

For any item(s) of equipment that has a useful life of more than one year and costing \$5,000 per unit or more, a description of the item and associated costs is required. For Permanent Equipment, NOAA Grants Management Division expects the budget justification to address the following questions:

- Is each item of equipment listed?
- If over \$5,000 is there a description of how it will be used in the project?
- If over \$5,000 has a lease vs. purchase analysis been completed? Note: Often a lease versus buy analysis cannot be completed because no one leases it. In this case, the recipient should submit a statement of non-availability stating at least three sources that were contacted about leasing.
- For each item of equipment, is the number of units, cost per unit and total cost specified?
- Is each item of equipment necessary for the successful completion of the project?
- Are the charges for each item reasonable and realistic?
- Are disallowed costs excluded?
- Contingencies charges must be excluded!
- Reasonable miscellaneous can be allowed, but must be justified.

D. EXPENDABLE SUPPLIES AND EQUIPMENT

Budget Justification

Expendable supplies and equipment must be described according to major categories, e.g., chemical reagents, computer paper and supplies, glassware, lumber, etc. Fuel for boats should be budgeted here rather than under travel. Fuel for vehicles should be budgeted under E. Travel. The justification may be based on historical costs (note as such). For Expendable



Supplies and Equipment, NOAA Grants Management Division expects the budget justification to address the following questions:

- Are supplies itemized by type of material or nature of expense?
- For general office or business supplies, is the total charge listed along with the basis for the charge (i.e. historical use rates)?
- For other specific supply categories, is the number of units, cost per unit and total cost specified?
- Are the charges necessary for the successful completion of the project?
- Are the charges reasonable and realistic?
- Are disallowed costs (e.g. liquor, entertainment) excluded?
- Contingencies or miscellaneous charges must be excluded!

E. TRAVEL

Budget Justification

A detailed budget narrative is required for all travel. For Travel, NOAA Grants Management Division expects the budget justification to address the following questions:

- For foreign and domestic travel, is each trip listed along with the destination, estimated mileage, method of travel, cost per mile and duration, number of travelers, per diem rate for meals and lodging?
- If actual trip details are unknown, what is the basis for the proposed travel charges?
- Is the requested travel directly relevant to the successful completion of the project?
- Are the travel charges reasonable and realistic?
- Note: Funding for unknown foreign travel may be approved but the travel itself is not authorized until an award action request is submitted and approved.

G. OTHER COSTS


Budget Justification

For Other Costs, NOAA Grants Management Division expects the budget justification to address the following questions:

- Are items listed by type of material or nature of expense?
- For each charge, is the number of units, cost per unit and total cost specified?
- Are the charges necessary for the successful completion of the project?
- Are the same charges listed elsewhere?
- Are the charges reasonable?
- Are disallowed costs (e.g. liquor, entertainment) excluded?
- Are charges which duplicate indirect cost items excluded?

For G.6., Subaward, NOAA Grants Management Division expects the budget justification to address the following questions:

- Is each sub award listed as a separate item? (Separate budgets are required for sub awards regardless of the dollar value.)
- Are the products/services to be acquired described along with the applicability of each to the project?
- Do the costs appear reasonable and realistic?
- Are any sole source contracts contemplated?
- If yes, is a sole source justification included with the application which describes why the proposed sole source entity is the only source capable of meeting the applicant's project needs?
- Are disallowed costs excluded?
- Contingencies or miscellaneous charges must be excluded!
- Are there contracts with non-US organizations?

- 
- Do you have a CD-512 on file for each of your sub grants or subcontracts?

H. INDIRECT COSTS

Budget

Indirect Cost is the institution's negotiated Facilities and Administrative (Indirect) cost rate and its relation to those elements of the proposed grant budget to which that rate is to be applied. It is Consortium policy that Indirect Costs will not be allowed on Sea Grant funded programs; however, they can be used to meet the 50% matching fund requirement. An institution will identify the direct costs to which indirect costs can be applied. An explanation of for all indirect costs must be included in the budget justification.

Note: The recipient must use the indirect rate submitted with the application or upon award for the entire award period unless approved by the Grants Officer. Thus, if the grantee receives a new NICRA, the grantee must submit an AAR requesting to use it and be approved to use this, before it can be used.

Budget Justification

For Indirect Costs, NOAA Grants Management Division expects the budget justification to address the following questions:

- Are indirect costs included in the budget?
- Is the correct rate being used? (If a lower rate than is authorized in the indirect cost rate agreement is being proposed you must explain why your organization is deviating from the approved rate.)
- Is the rate applied to the correct base?
- Are charges which duplicate direct costs excluded? (If no, explain/revise.)
- Include a copy of the institution's most-current federally approved indirect rate agreement (IDC)