

**Maine Sea Grant College Program
Guidelines for Preliminary Proposals
2010-2011 Competition**

***Important Note:** These guidelines apply to Maine Sea Grant College Program's regular competition for federal funds and to the competition for funds from Maine's Oil Spill Advisory Committee (OSAC) and the Department of Environmental Protection.*

Deadlines

- Preliminary project proposals must be received in the Maine Sea Grant College Program office (York Complex, University of Maine) by no later than 4:30 p.m., Monday, March 2, 2009.
- Full proposals must be received in the Maine Sea Grant Office (York Complex, University of Maine) by no later than 4:30 p.m., Monday, June 1, 2009.

Proposals received after these deadlines will be returned to the applicant.

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A. Overview of 2010-2011 Competition

Applicants should carefully read the following guidelines.

- Maine Sea Grant will accept **one- or two-year proposals** for the 2010-2011 competition. (Note: there will not be a request for proposals in 2010.)

- Basic research, or proposals that involve the use of model systems, are acceptable, but the applicant must make a credible case as to how the information would ultimately benefit stakeholders.
- In 2009, Maine Sea Grant will manage two integrated research competitions for funding in 2010-2011: the regular Sea Grant research competition, and a competition funded by the Maine Department of Environmental Protection to support the mission of the Oil Spill Advisory Committee (OSAC). Research priorities for the two competitions are outlined below (sections B and C).
- Preliminary proposals for both competitions will be evaluated by an in-state, ad-hoc panel of stakeholders on the basis of proposal relevance and potential benefit to Maine's citizens, coastal communities, ecosystems, and marine industries. Pre-proposals submitted to the OSAC competition and recommendations of the ad-hoc panel will be forwarded to OSAC for approval. The evaluation of full proposals will be based primarily on scientific merit.
- All research proposals must include an explicit extension and communications (outreach) component to convey research results to appropriate groups of stakeholders. The overall goal of outreach is to effect change by having individuals, groups, or institutions use scientifically based information when making decisions. Outreach is activity that extends Sea Grant sponsored and other relevant coastal and marine information to user groups. Presenting results at a scientific meeting, academic seminar, or publishing in peer-reviewed journals are NOT considered outreach.
- Full proposals will only be accepted from investigators who submit preliminary proposals and have those preliminary proposals recommended by the panel.

B. Background and Priorities – Sea Grant

Operating under the guidelines of, and in partnership with, the National Sea Grant Office of the National Oceanic and Atmospheric Administration, the mission of the Maine Sea Grant College Program is to play a leadership role in marine science and education and to promote their use for the development, management, and stewardship of marine and coastal resources.

Maine Sea Grant invites preliminary project proposals for consideration for funding starting in February 2010. Proposals may be for one or two years of funding. The amount of research funding available will depend upon the federal Sea Grant appropriation and the requirements of the non-research components of our program. Assuming no changes in any of these, we estimate that about \$300,000 will be available to support research projects in each of grant years 2010 and 2011. Average awards from Maine Sea Grant for the past three years have been about \$65,000 per year (exclusive of match) and most have been two-year projects. Although the University of Maine administers Maine Sea Grant, the research competition is open to all faculty and staff at any public or private research or higher education institution.

Recognizing that some issues are best addressed at the regional scale, the Sea Grant Programs in the Northeast (New York, Connecticut, Rhode Island, MIT, Woods Hole, Vermont, New Hampshire, and Maine) have set aside funds (approximately \$250,000) for research proposals that have regional relevance with principal investigators from multiple states and that can be funded cooperatively by multiple Sea Grant programs. Investigators interested in submitting a regional research proposal MUST contact the Maine Sea Grant Director to ensure that the process is well understood. The guidance for submission of regional research projects can be found at the following link [NE Regional Research Submission Guidelines](#).

Maine Sea Grant invites proposals that contribute to the understanding of four cross-cutting issues: **community-based natural resource management, the future of coastal communities, sustainable seafood, and stewardship through citizen science**. Maine Sea Grant strives to have a balanced portfolio of research projects in the natural and social sciences addressing those issues. The goal is to provide information useful to decision-makers and citizens affected by those decisions. Priorities for scientific research (including social science) during this biennium, from the current Strategic and Implementation Plans, are outlined in Section I of this guidance document (page 10).

Maine Sea Grant seeks to foster the highest quality marine research, so only the most creative and rigorously conceived proposals will receive consideration. All proposals must contribute to the improved understanding, utilization, sustainability, conservation, or management of coastal and marine resources. Each research project must include an outreach component designed to extend the research findings to the potential information users. **Applicants are urged to see Section I (Towards a strategic research portfolio for Maine Sea Grant) of this guidance for a list of specific examples of researchable questions that Maine Sea Grant is interested in considering.**

Please note, the first step is a review of preliminary proposals by an in-state ad-hoc review panel of stakeholders, with the primary criteria being relevance to the state of Maine and region and the potential for impact.

Applicants for Sea Grant funding should follow the guidelines outlined in section D.

C. Background and Priorities - OSAC/DEP

The mission of the Oil Spill Advisory Committee (OSAC) is to monitor the opportunities and constraints of scientific, engineering, and technical advances in spill response and prevention techniques in order to make recommendations to the Department of Environmental Protection (DEP). Proposals for OSAC/DEP funding may be for one or two years of funding beginning in February 2010. Continued support after the first year is contingent upon satisfactory progress. Our expectation is that at least \$100,000 will be available to support research projects in each of grant years 2010 and 2011.

The Oil Spill Advisory Committee has identified the following research priorities for the 2010-2011 competition. However, creative and rigorously conceived proposals in areas not mentioned may be considered provided that they contribute to the mission of OSAC. Although the competition is run by Maine Sea Grant, projects are not restricted to the marine environment.

OSAC proposals must address how and on what time scale the project would lead to operational tools, techniques, policies, or procedures that can be adopted by industry or agencies in the safe prevention or mitigation of oil spills.

- Develop rapid, safe techniques to improve the effectiveness of personnel involved in removal or recovery of petroleum products from disabled vessels, tank trucks, or other sources.
- Develop means to improve the effectiveness and/or efficiency of on-water containment and recovery of spilled oil.
- Improve understanding of spill impacts and ecosystem recovery. Special emphasis is placed on evaluation of the potential impact of spilled oil on ecologically or commercially important marine or coastal life. Develop means to reduce spill impacts and improve ecosystem recovery.
- Prevent oil spills through understanding and avoiding human behaviors that cause accidents. Special emphasis is placed on preventing medium- and major-sized spills.

Applicants for OSAC/DEP funding should follow the guidelines outlined below (section D).

D. Preliminary Proposal Development and Review

These guidelines and timetables apply to both Sea Grant and OSAC/DEP competitions. Applicants should specify to which competition they are responding.

The proposal evaluation process has several steps:

1) Short preliminary proposals are evaluated by an in-state panel of stakeholders. The objective is to identify proposals that either (a) offer the best prospect of having a significant impact on our ability to manage or utilize marine resources and to sustain healthy marine and coastal ecosystems, as well as coastal economies and communities (Sea Grant), or (b) contribute to our understanding of the prevention, cleanup, and impact of oil spills in the marine and coastal environment (OSAC/DEP). The pre-proposal stage also offers the opportunity to give applicants advice on how their proposal might be improved. The pre-proposal review is primarily focused on the relevance and potential of the project, rather than scientific merit, although obvious flaws will be identified. Review criteria include:

- Does the proposal deal with an important issue for Maine and the Gulf of Maine?
- What stakeholders will benefit from the research, and how will they benefit?
- Are the impacts credible and do they justify the investment?
- How does the proposal relate to ongoing research efforts and Sea Grant's programmatic balance (in the case of Sea Grant proposals)?
- Is the extension and communications strategy well conceived and appropriate?

The pre-proposal panel's evaluations are advisory, and final decisions on inviting full proposals will be made by the Maine Sea Grant Management Team or OSAC/DEP, as appropriate.

2) Peer mail reviews of full proposals are obtained from out-of-state U.S. and international experts in the proposed area of research. Each proposal receives 4-6 reviews. Applicants suggest potential reviewers, and identify potential conflicts of interest. In general, about half of the reviewers are those suggested by the applicant, although this is not guaranteed. Applicants are provided anonymous copies of the peer reviews.

3) An opportunity is provided for the applicant to write rebuttals to the reviewers' comments.

4) A technical review panel of out-of-state experts evaluates the proposals, the peer reviews, and the applicant's rebuttals to provide a summary of the scientific merit and prospects for success.

5) Recommendations for funding are made by the Maine Sea Grant Management Team based on the evaluations of both the pre- and full-proposal review panels. For example, a proposal considered a high priority by the pre-proposal panel (based on need and/or potential impact) would be funded in preference to a lower priority proposal of similar scientific merit.

Conversely, a proposal of outstanding scientific merit would be funded in preference to a weak scientific proposal that was ranked higher by the pre-proposal review panel. Final project selection also takes into account programmatic considerations, such as the overall balance of projects and disciplines, and the encouraging of new investigators and institutions to become involved in Sea Grant or OSAC/DEP research.

6) Final decisions for Sea Grant-funded proposals are subject to approval by the program monitor from the National Sea Grant Office who attends the full proposal review panel. Final decisions for DEP-funded proposals will be made by the Oil Spill Advisory Committee and DEP. Some projects may be funded jointly by Sea Grant and DEP.

E. Preliminary Proposal Guidelines

Remember that project review and selection is a two-step process. Preliminary proposals are evaluated primarily on the basis of their relevance to Maine and the Northeast region and potential benefits to Maine and regional stakeholders. Full proposals are evaluated on the basis of scientific merit and qualifications of the applicant.

Sixteen complete paper copies and one electronic copy of preliminary proposals, plus electronic copies of the proposal cover sheet (NOAA form 90-2), the budget page (NOAA form 90-4), and the budget justification must be submitted to the Maine Sea Grant office by the deadline (section G). (Note: color graphics should be copied in color, as grayscale copies lose detail.)

Preliminary Proposals must adhere to the following guidelines:

1) **Proposal Cover Sheet and Summary** ([NOAA form 90-2](#)), 1-page maximum. This form is available in Word format at the [Maine Sea Grant Web site](#) or by contacting Maine Sea Grant by phone (207-581-1435) or email (wardwell@maine.edu).

2) **Proposal Narrative** (3-page limit with 12-point text)

a. **Justification and Expected Impacts:** Describe the question or problem that you propose to address and explain how it relates to the priorities of Sea Grant or OSAC/DEP. It is particularly important to explicitly address the anticipated impacts of the research by explaining how the information obtained will be used by a clearly identified group of stakeholders.

b. **Scientific Approach:** Describe the major goals and objectives of the research, including the questions or hypotheses that will be addressed or tested. Outline the conceptual approaches and methodologies that will be used, and provide a general timetable for the project.

c. **Available resources:** Briefly summarize the qualifications of the investigator(s) and the institutional capabilities that will be brought to bear on the proposed project.

d. **Outreach:** Describe the strategies that will be used to communicate the research results to stakeholders. The overall goal of outreach is to effect change by having individuals, groups, or institutions use scientifically based information when making decisions. Outreach is activity that extends Sea Grant-sponsored and other relevant coastal and marine information to user groups. Presenting results at a scientific meeting, academic seminar, or publishing in peer-reviewed journals are NOT considered outreach. Applicants are encouraged to discuss outreach goals and strategies with the Sea Grant director, associate director for outreach, communications coordinator, or a member of the Marine Extension Team. If Marine Extension Team members or other Sea Grant staff will participate in the project, you must have their explicit permission to be included in the proposal, and their roles must be specified. Do not assume their participation.

3) **Literature Cited**

4) **Budget** ([NOAA form 90-4](#)). This form is available in Excel format at the [Maine Sea Grant Web site](#) or by contacting Maine Sea Grant by phone (207-581-1435) or e-mail at wardwell@maine.edu. Prepare a budget for each year of the proposal and an overall summary. **All proposals must include a 50% match (i.e., one dollar of match for every two dollars requested).** The budget should include all direct (including fringe benefits) and indirect costs of the research. Applicants should contact the sponsored research department of their home institution to obtain the current rates for fringe benefits and indirect costs. Applicants should budget for journal page charges and the cost of reprints.

Because graduate education is a priority for Maine Sea Grant, applicants are encouraged to include support for graduate students in their projects. Minimum graduate student research assistant stipends are \$15,000 for twelve months, plus tuition, fees, and at least half of the health insurance costs for the student. If graduate student support is included, our expectation is that the

research project would form all or part of the graduate student's thesis, and that the student will be supported full-time. Requests for partial graduate student support (e.g., for a 6-month stipend) must explain the nature of the student's involvement in the project and indicate how the student will be supported for the remainder of the year.

Applicants must budget for the cost of outreach aspects of their project, such as printing costs.

Proposers outside the University of Maine must include University of Maine indirect costs (49.0%) on the first \$25,000 of their budget.

5) **Budget Justification** (1-page limit). Justify the major elements of the budget.

6) **Results of Prior Sea Grant or OSAC/DEP Support** All principal investigators who have received Sea Grant or OSAC/DEP support are required to provide a summary (limited to 2 pages) for each project funded in the past five years. The report should contain the following elements:

- Project title
- Principal investigator(s)
- Period and amount of award
- Summary of major results and conclusions (250-word limit)
- List of all publications that resulted from the grant, distinguishing between peer-reviewed and other literature.
- List of students, post-docs, and other professionals supported with degree titles and dates (if appropriate).
- List of significant outreach accomplishments or impacts on industry or other stakeholders.

7) **Resumé of Principal Investigator(s)** (2-page limit for each investigator). Indicate institutional affiliation and key professional details. List up to five (5) publications most relevant to the proposal, together with an additional five (5) recent publications.

8) **Current and Pending Support** (1-page limit for each investigator). For each PI, list (on a separate page) all pending, current, and recent (3 years) outside support. Include project title, amount, source, and period of funding, and the extent of the PI's involvement in each project.

F. Contacts for further information

Prospective applicants are encouraged to contact the following Sea Grant staff to discuss project ideas, proposal development, and budgets (telephone 207-581-1435).

Fiscal Officer: Lynn Wardwell - wardwell@maine.edu

Director: Paul Anderson - panderson@maine.edu

Associate Director for Outreach: Susan White - susan.white@maine.edu

Communications Coordinator: Catherine Schmitt – Catherine.Schmitt@umit.maine.edu

5784 York Complex, Suite 66

G. Timetable for Sea Grant and OSAC Proposals

January 5, 2009. Release 2010-2011 request for preliminary proposals.

Monday, March 2. Preliminary proposals due in Sea Grant office by 4:30 p.m.

March 30 (approximate). Stakeholder advisory panel reviews preliminary proposals and makes recommendations to Maine Sea Grant Management Team.

April 10. Applicants receive recommendations regarding development of full proposals.

Friday, May 15. List of suggested reviewers due in Sea Grant office by 4:30 p.m.

Monday, June 1. Full proposals due in Sea Grant office by 4:30 p.m.

June 8-12. Mail proposals to scientific reviewers.

July 31. Reviews due in Sea Grant office; blind copies provided to applicants.

Friday, August 14. Rebuttal letters due in Sea Grant office by 4:30 p.m.

September 14-18 (approximate). Technical advisory panel reviews proposals and makes recommendations to Management Team, which makes final decisions on which projects will be included in the 2010 proposal to the National Sea Grant office.

September 25. Selected projects and rationale submitted to the National Sea Grant office for approval.

By October 2. Applicants informed of decisions.

October. Production of proposal to National Sea Grant office.

November 1. Final proposal mailed to the National Sea Grant office.

February 1, 2010. Anticipated 2010-2011 awards begin.

H. Checklist for Preliminary Proposals

Note for University of Maine investigators: The Proposal Approval Routing System (PARS) process is not required for preliminary proposals

- 90-2 Project Summary Form
- Proposal Narrative – 3-page limit
- Literature Cited
- 90-4 Budget Form for each year of project
- 90-4 Form with Summary Budget
- Budget Justification – 1-page limit
- Results of Prior Sea Grant or OSAC/DEP Support – 2-page limit per project
- Resumé(s) – 2-page limit per investigator
- Current and Pending Support – 1-page limit per investigator

I. Towards a strategic research portfolio for Maine Sea Grant

Maine Sea Grant College Program Strategic Plan 2006-2010: Setting the Course: from Discovery to Action (MSG)

Crosscutting Issues:

- Community-based Natural Resource Management
- Planning for the Future of Coastal Communities
- Sustainable Seafood
- Stewardship Through Citizen Science

NOAA National Sea Grant College Program Strategic Plan 2009-2013: Meeting the Challenge (NSGCP)

National Focus Areas:

- Healthy coastal ecosystems
- Sustainable coastal development
- Safe and sustainable seafood supply
- Hazard resilience in coastal communities

Specific examples of research questions that Maine Sea Grant is interested in funding:

Healthy Coastal Ecosystems (NSGCP) and Community-Based Natural Resource Management (MSG)

What ecosystem processes govern habitat degradation and restoration?

- Study linkages between estuaries and nearshore waters to identify their role in the health of fisheries and coastal ecosystems.
- Conduct studies of food web ecology of coastal habitats (marsh, eelgrass, macroalgae, soft sediments) to inform ecosystem-based approaches to fisheries management.
- Determine effects of habitat restoration, such as dam removal.
- Determine impacts of ocean-related energy projects, e.g. impacts of pumping water from the bottom and then dumping it back for thermal projects.

What are the nearshore circulation patterns in individual bays?

- Track the movement of harmful organisms and/or materials so managers can anticipate potential harm to public health and local economies.
- Investigate sand circulation patterns and net loss or deposits of sand.

What are the local and regional ecological responses to global climate change and how can these responses guide management?

- Differentiate current climate change impacts on salt marsh submersion versus long-term, cyclic, ecosystem change.
- Inventory sites in Maine that provide evidence of current or ancient sea level change.

Sustainable Coastal Development (NSGCP) and Planning for the Future of Coastal Communities (MSG)

What are the changes and trends in public access to the coast?

- Expand to all Maine municipalities the current inventory of coastal access points (public and private holdings currently used by the public for both commercial and recreational purposes).
- Determine the fair market value paid to willing sellers for intertidal recreational access easements in Maine and assess the potential of Maine coastal property owners holding key access points who would be willing sellers of these easements. Determine the capacity of the Maine state government to pay willing sellers for these easements.
- Design metrics or benchmarks to define success in preserving working waterfront?

How sustainable are current community planning and development efforts?

- Identify a model of Low Impact Development (LID) tailored to building on coastal or estuarine waterfront lots.
- Identify the barriers to successful municipal engagement with citizens and a wide cross-section of the public in community planning efforts.
- Quantify the value of public participation in community planning efforts. Compare results between municipalities that met their statutory requirement for public hearing vs. those designing and implementing comprehensive public participation processes. What was the outcome of the planning process in each case and the related economic and social impact of the two approaches?

Safe and Sustainable Seafood Supply (NSGCP) and Sustainable Seafood (MSG)

What is the future of fisheries and aquaculture in Maine?

- Analyze the strengths, weaknesses, opportunities, and threats for commercial fishermen of all types to be involved in shellfish aquaculture.
- Evaluate movement of, and predation on, sea scallops of various sizes in natural and reseeded beds in nearshore waters (to make local reseeded efforts more effective).
- Analyze technical or management changes that help harvesters/producers cope with high energy costs.
- Determine whether public acceptance/support of aquaculture in Maine has changed since 1995. How and why do different regions of the state differ in their perception of aquaculture (function of income, traditional uses, etc.)?

How will climate change impact marine species and how can these impacts guide management?

- Study ocean acidification and effects on commercial species (lobster, clams) in GOM.

- Follow-up on Island Institute lobster-climate change report (science to test fishermen's observations).
- Quantify benefits of local seafood/carbon footprint of the seafood industry: compare Maine versus imported seafood sales and consumption patterns.

What is the relationship between water quality and seafood harvests?

- Determine how many days are required for a shellfish growing area to return to acceptable levels of bacteria following rainfall-related closures.
- Investigate how mercury transport in estuarine food webs affects commercial species.

Hazard Resilience in Coastal Communities (NSGCP)

What areas and sectors of Maine are vulnerable to coastal hazards?

- Produce sea-level rise inundation maps for the entire coastal region of Maine.
- Inventory salt marsh and coastal wetland vulnerability to sea-level rise, and evaluate relative risk (are they blocked from migrating due to roads, development, etc?) Include evaluation of infrastructure such as dams and tidal restrictions/culverts.

How can coastal managers adapt and prepare for coastal hazards?

- Compare the effectiveness (in reducing property loss and improving public safety) of Maine's sand dune rules to states where climate change is not a factor in development rules.
- Identify key hazard mitigation strategies for selected coastal stakeholders, then identify the barriers to their use, and strategies for their promotion among these target audiences.
- Test and demonstrate "soft alternatives" to erosion mitigation. Produce a series of soft best management practices (BMPs) tailored specifically for Maine's sand and bluff environments.
- Inventory and compare coastal communities where hazard mitigation plans were in place and have been thoroughly tested by a significant natural coastal hazard. Which communities fared the best and why?