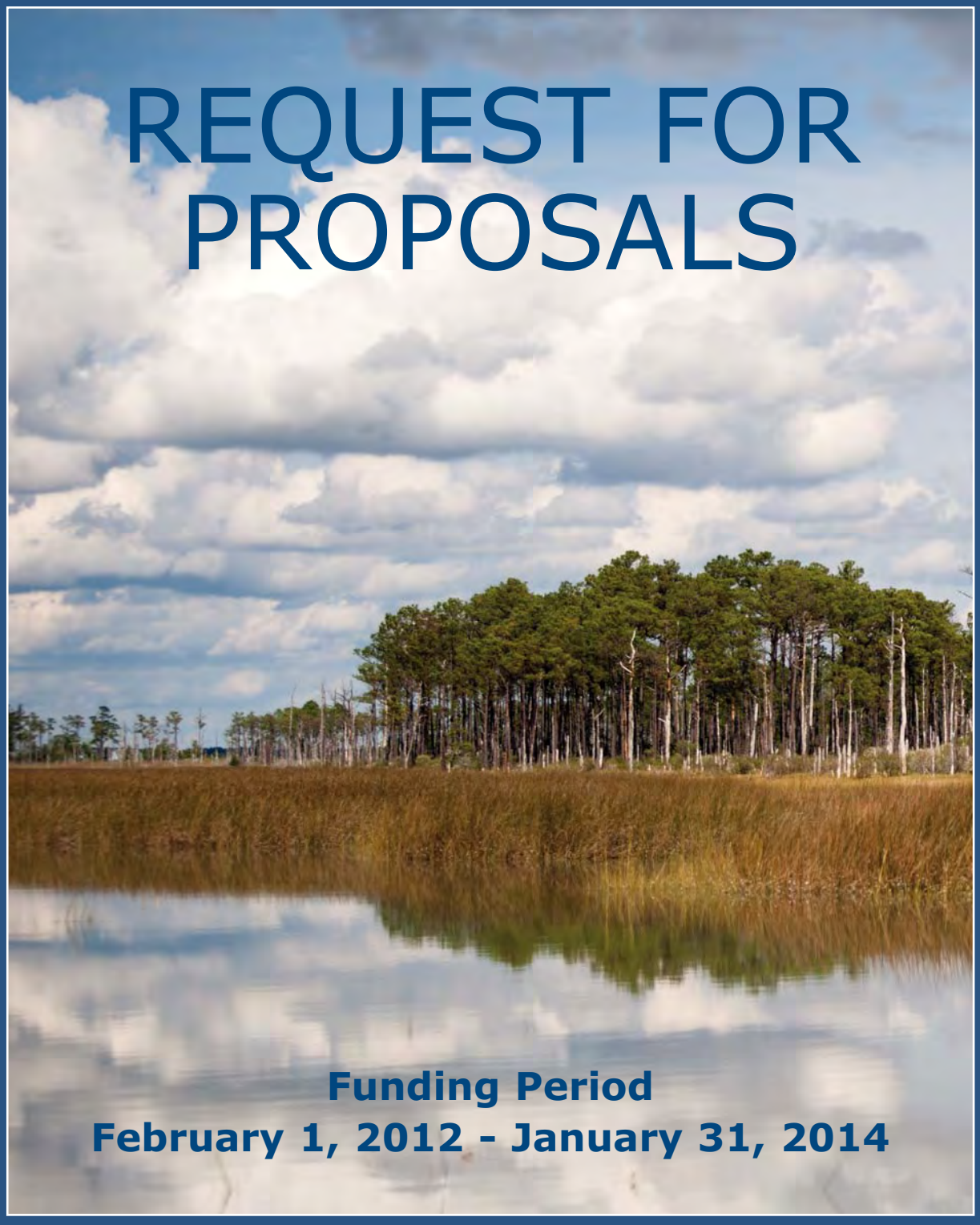
Sea Grant
Maryland

MARYLAND SEA GRANT COLLEGE



REQUEST FOR PROPOSALS

Funding Period
February 1, 2012 - January 31, 2014

Request for Proposals

MARYLAND SEA GRANT COLLEGE PROGRAM

Two – Year Funding Period:
February 1, 2012 - January 31, 2014

Preproposals due February 8, 2011
Full Proposals due approximately early July 2011

RESEARCH PROGRAM SUMMARY

The Maryland Sea Grant College (MDSG) seeks proposals for its next funding cycle, February 1, 2012 – January 31, 2014. Research projects within Maryland's coasts and watersheds are focused in three areas: 1) ecosystem resilience; 2) natural resources sustainability, and; 3) coastal communities and economic resilience. Additional funding opportunities exist for regional research that addresses specific joint priorities for Maryland, Virginia and Delaware Sea Grant. This Request for Proposals (RFP) contains a listing of relevant research questions, a description of regional Sea Grant research opportunities and information about the format and timetable for submitting preproposals and proposals. Maryland Sea Grant support is offered on an open, competitive basis. Principal Investigators (PIs) must be affiliated with an academic institution or research laboratory in Maryland or the District of Columbia. Co-Principal Investigators (Co-PIs) on projects can be from institutions outside of Maryland. Single investigators and multiple investigator research teams from different institutions are encouraged to apply; both small-scale pilot studies and large interdisciplinary research projects will be considered. Maryland Sea Grant encourages participation from the broad science and social science research community within Maryland and the District of Columbia and welcomes participation by investigators new to the Maryland Sea Grant RFP process.

This RFP is for Maryland Sea Grant's biennial research funding cycle with funding anticipated to start February 1, 2012.

Maryland Sea Grant solicits proposals of two–year duration. Contingent upon available funds, Maryland Sea Grant expects $500,000-$600,000 to be available for research support. Historically, Maryland Sea Grant awards average approximately $70,000 for each year. PIs should focus on outcomes that can be achieved in a 24-month period. Maryland Sea Grant is particularly interested in proposals that have a clear **connection to the needs of management and policy** and include a clear **outreach plan** for disseminating that information to targeted audiences.

Preliminary proposals (preproposals) and full proposals will be subject to mail and panel reviews. In general, 30 percent of investigators submitting a preproposal will be encouraged to submit a full proposal (though all investigators are invited to do so) and about 30 percent of full proposals are funded. Approximately half of the funded projects may receive a Maryland Sea Grant Research Fellowship to support one student for each

selected project for two years. Successful full proposals are forwarded to the National Sea Grant Office (NSGO) for final funding approval. Inclusion of a proposal in the Maryland Sea Grant proposal package to the NSGO does not guarantee final approval or funding.

Principal Investigators Please Note the Following

- Funding of all proposals is contingent upon Maryland Sea Grant's federal allocation from NOAA in the FY2012 federal budget. Modification in the number of and funding for individual proposals may be made based upon the final program budget.
- PIs must provide a strong rationale for how their proposed research will affect policy and/or management decisions and how that information will be communicated outside of academia.
- All PIs are strongly encouraged to become familiar with the "Grants.Gov" form 424 (R&R) with particular attention to the part concerning animal testing compliance. This form will be required for full proposal submission to "Grants.Gov."
- PIs should be mindful of the deadlines outlined here.

Mandatory Early Registration with Maryland Sea Grant

To submit a preproposal you must contact Maryland Sea Grant (research@mdsg.umd.edu; 301-405-7500) to obtain an account to use our online preproposal submission process. This must be done well in advance of the date for preproposal submission to ensure you have time to complete the entire application package. More details are available in the "Preproposal Preparation Instructions" section below.

All applications for funding through Maryland Sea Grant are initiated with the submission of a preproposal due no later than **February 8, 2011**.

Maryland Sea Grant encourages Principal Investigators (PIs) to read this document carefully and direct questions concerning the RFP to the Maryland Sea Grant Office (301-405-7500 or email research@mdsg.umd.edu) early in the preproposal development process.

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INTRODUCTION

Federal and state concerns for the management of Maryland's coast, the Chesapeake Bay, and its watersheds have sharpened over the past year. The 2009 Presidential Executive Order for Chesapeake Bay and the new federal Ocean Policy Task Force are focusing attention on critical needs in this region. Of special interest are issues related to climate change adaptation in coastal communities, marine spatial planning, ecosystem-based fisheries management and regional cooperation, communication and collaboration. Scientific and policy discussions concerning these issues emphasize the need for strong research input to help realize the potential for a restored and sustainable coastal ecosystem. These debates center on the need to return Chesapeake Bay and its tributaries to a status that supports ecosystem function, as well as, resource uses and human communities — from rural to suburban and urban.

In this RFP Maryland Sea Grant seeks responsive research that can provide scientific information, socioeconomics and policy guidance for fisheries management, climate change adaptation and ecosystem restoration in coastal systems and communities in Maryland. Using laboratory studies, field investigations, and/or models and socioeconomic tools, projects should improve understanding of coastal ecosystem function and help predict ecosystem or, human and/or environmental community response to natural change or management action. PIs should focus on outcomes that can be achieved in a 24-month period.

We are particularly interested in proposals that are novel or exploratory, have a clear connection to management and policy, and include a well-defined plan for disseminating information to targeted audiences.

RESEARCH FOCI

This solicitation invites proposals that address issues outlined below and are specifically relevant to linking Maryland Sea Grant's Strategic Plan's (http://www.mdsg.umd.edu/programs/about/strategic/) goals and strategies and should demonstrate this connection in the proposal. These goals and strategies link directly with the goals of the NOAA's National Sea Grant Program (http://www.seagrant.noaa.gov/focus/index.html) and are consistent with goals of the *Chesapeake Action Plan* (http://cap.chesapeakebay.net/strategicframework.htm) as outlined in the EPA's *"Report to Congress: Strengthening the Management, Coordination, and Accountability of the Chesapeake Bay Program"* (http://cap.chesapeakebay.net/rtc.htm).

RESTORED AND SUSTAINABLE COASTS AND WATERSHEDS

Sound policy decisions for Maryland's coast and the Chesapeake Bay watershed demand comprehensive scientific information to address the challenges of climate change, threatened fisheries resources and unsustainable coastal uses. Effective coastal restoration and sustainable management require a broad understanding of many complex issues including coastal ecosystem function, watershed processes, social consequences and economic opportunities in coastal communities (rural or urban). Projects must demonstrate a direct link between the areas of emphasis (one or more) highlighted in this RFP, the approaches proposed by the research (technologies and tools), the projected outcomes and an integrated outreach plan. We encourage projects that are crosscutting and integrative in scope.

Maryland Sea Grant is soliciting research proposals in support of restored and sustainable coasts and watersheds in three focus areas:

- Resilient Ecosystem Processes and Responses
- Sustainable Natural Resources of Coastal Maryland
- Viable Coastal Communities and Economies

Focus Area: Resilient Ecosystem Processes and Responses

Research Emphasis: Understand and predict large-scale ecosystem responses and trajectories

Achieving a sustainable Chesapeake Bay and its watershed will require science-based decisions that consider how conservation and restoration efforts can be most effective. There is a growing body of evidence that suggests the Bay has become resilient in its now degraded state. Achieving a future state that is more desirable will depend on identifying potential thresholds in the system — places or systems where targeted restoration efforts could be enhanced or could help to jumpstart the Bay's recovery through natural processes. Maryland Sea Grant seeks research that can help identify potential thresholds in the ecosystem with emphasis on the following areas:

- Understanding of the properties of resilience in the Chesapeake watershed.

- Multi-disciplinary research to aid in identifying "thresholds for recovery" to help managers understand the predicted trajectory of response to restoration efforts.
- Rigorous statistical analyses of existing data sets, including time series on ecological properties, water quality, and human activities such as waste loading and fisheries harvest. Such studies should focus on how the Bay has responded over time to specific management actions in the past or has responded to natural forcing.

Focus Area: Sustainable Natural Resources of Coastal Maryland

A. Research Emphasis: Advance ecosystem-based fisheries management

Research to support the implementation of ecosystem-based fisheries management of critical natural resources is integral to building a comprehensive approach to conservation, restoration and sustainable use of Maryland's coastal resources. Efforts to foster the development of ecosystem-based fisheries management in Chesapeake Bay are now focused on five fisheries (blue crab, striped bass, menhaden, alosines and oysters). MDSG is interested in research, particularly small-scale projects that yield focused products to inform management decisions and advance integrative approaches. Specifically, we invite research that addresses one or more of the following:

- Understanding important ecosystem issues for individual species and critical interactions between them with emphasis on projects that can lead to development of new tools for management.
- Advancing the development of quantitative ecosystem reference points with respect to (1) stock dynamics, (2) habitat, (3) food webs and (4) socioeconomic factors for the five target species.
- Development, refinement and use of models that can help build a better understanding of future scenarios for Bay fisheries and aid in defining goals for the future.

B. Research Emphasis: Coastal and Marine Spatial Planning

Recent changes in Maryland's aquaculture legislation and increasing awareness of the need to understand how to accommodate multiple uses of our coasts raises interesting natural and social science questions on resource use. Maryland Sea Grant invites research that addresses:

- Understanding human dimension elements in spatial planning and implications for shellfish and other natural resource uses in Chesapeake Bay.

Focus Area: Viable Coastal Communities and Economies

A. Research Emphasis: Develop an understanding of immediate and long-term effects of climate change and its associated hazards to coastal communities

Changes in climate are likely to affect many aspects of the Atlantic coast, Chesapeake Bay and its watershed. Research areas should consider temporal and spatial changes in ecological systems as they respond to changing conditions, such as changes in wetlands, acidification, species shifts, changes in coastal/marine food webs, or land-use changes. In addition, there is general agreement that there will be a broad range of responses to climate change that will likely impact linked ecosystems and human communities in the region. Assisting the management community in their response to climate change will

require integrated approaches that draw from both the natural and social sciences and that consider climate change's economic and societal effects.
Maryland Sea Grant seeks research in the following areas:

- Understanding wetland dynamics across different spatial scales — including tidal marsh migration, elevation mapping, habitat changes and sediment dynamics.
- Improved prediction of inundation, coastal erosion and increased intensity of weather events.
- Research into past, present and future land use practices in the watershed.
- Responses to climate change (e.g., changes in nutrient loading, changes in ecosystem, changes in species function, other responses?).
- Research in support of marine spatial planning for vulnerable habitats and multiple uses in coastal zone and watersheds.

B. Research Emphasis: Develop an understanding of socioeconomic implications of environmental change and efforts to restore the Bay.

Restoration of large systems like the Chesapeake Bay will require not only an improved understanding of ecosystem processes but also the application of that understanding at the level of human communities. Defining sustainable relationships between ecosystems and human systems can prove especially challenging where growing population and increased development are altering traditional communities and landscapes. PIs are encouraged to consider research that focuses on understanding critical decision points in community and land use planning that affect coastal and watershed ecosystems and consider the socioeconomic consequences of responding to climate change.
MDSG invites PIs to consider research efforts in the following areas:

- Research to support the development of spatial and geographic tools and risk assessment models to help community leaders make informed choices about issues related to coastal sustainability.
- Research to understand how large-scale policies, regulations and other socio-cultural factors shape land use patterns and affect the relationship between livable communities and healthy aquatic ecosystems and watersheds.
- Building decision-making tools for managers/communities to help evaluate possible scenarios of landscape change and adaptation –– as well as potential uncertainty, risk, and the range of economic and social consequences of these decisions.
- Research into the capacity needed for decision-making by communities to adequately adapt to different scenarios of sea-level rise and increased storm intensities.

C. Research Emphasis: Understanding community and ecological adaption of Total Maximum Daily Loads (TMDL) and Watershed Implementation Plans (WIPs).

Many communities in Chesapeake Bay are facing new compliance requirements to adopt TMDL standards and develop WIPs. Maryland Sea Grant is interested in supporting natural and social science research to evaluate the success of efforts to implement TMDLs and WIPs. We seek research to understand ecological and societal responses to these new regulations, such as, understanding the efficacy of prevention measures rather than remediation or behavioral studies of community responses/adaptation to meeting these new regulations. MDSG is **not** focused on efforts directed to developing

new remediation technologies or supporting monitoring. MDSG invites PIs to consider research areas that address areas such as:

- Understanding and developing indicators to evaluate and measure ecological or social change as TMDLs are adopted.
- Understanding how the TMDL approach affects ecosystem function.
- Economic models that evaluate responses to meeting TMDL requirements.

REGIONAL SEA GRANT RESEARCH

The Delaware, Maryland and Virginia Sea Grant Programs are jointly interested in coordinated research efforts that bring together researchers in all three states to address specific issues of regional priority that transcend state Sea Grant boundaries. Research teams are requested to contact their respective Sea Grant Program directors to discuss ideas and regional connections prior to submitting a preproposal. Because funding is limited, we anticipate being able to fund only one regional effort for the 2012-2014 biennium.

Regional Research Priorities

The Delaware, Maryland and Virginia Sea Grant Programs are interested in regional proposals that address the following issues:

- Offshore Energy Development. The programs encourage proposals that catalyze investigations into alternative and traditional energy exploitation in the mid-Atlantic offshore environment, which may include: marine spatial planning, resource economics, and public perceptions.

- Land Use Decisions and Water Quality Impacts. The programs encourage proposals that investigate how local to regional land use patterns and the decisions that led to them result in changes in nutrient, sediment or contaminant loads to the Coastal Bays and the affects (positive or negative) of those changes.

- Socioeconomic Processes and Impacts. The programs encourage proposals that examine human use and behavior patterns and processes that underlie the changing demographics and economies of the Coastal Bays with a particular emphasis on how these shifts impact ecosystem services and coastal dependent businesses.

Process and Review

To participate in a regional research proposal, PI(s) from one or more of the participating states in the mid-Atlantic region (DE, MD, VA) should coordinate their research around one of the above targeted topic areas and submit preproposals to their respective state SG programs. Applicants pursuing regional priorities are encouraged to include the following in their proposals:

- Multidisciplinary approaches/research teams
- PIs from two or more of the participating mid-Atlantic states: DE, MD, VA
- Clear mechanisms for regional interaction and coordination.

Separate preproposals conforming to local guidelines should be submitted by PIs from each state and routed following the procedures of the home institution and the relevant Sea Grant program. Preproposals from the collaborating scientists in the other states must also be included in the package submitted. The state SG programs relevant to each regional proposal will coordinate the review of the preproposals and provide feedback to the research team(s) prior to encouraging a full proposal. Any investigator conforming to the requirements above may submit a full proposal.

OVERVIEW OF MARYLAND SEA GRANT

Information about additional funding opportunities is available on the Maryland Sea Grant web site (http://www.mdsg.umd.edu) and directly from our office in College Park. To learn more about Maryland Sea Grant's mission and previously funded research, visit http://ww.mdsg.umd.edu. For more details on the NOAA Sea Grant's National Strategic Plan and Implementation 2009 – 2013 visit http://www.seagrant.noaa.gov/aboutsg/planning.html. The overall goals of the National Sea Grant College Program should be taken into consideration in the design of projects.

SCHEDULE AND DELIVERABLES

PRELIMINARY AND FULL PROPOSAL TIMETABLE

Action Date

December 21, 2010 — Request for Proposals issued
February 8, 2011 — Preproposals due
Early May, 2011 (approximate) — Preproposals reviewed, PIs notified
Early July 2011 (approximate) — Full proposals due
Mid September 2011 (approximate) — Final proposal selection, PIs notified
Mid October, 2011 (approximate) — Omnibus proposal to NOAA
February 1, 2012 – January 31, 2014 — Funding cycle

DELIVERABLES

You must submit one electronic version of the complete preproposal online at http://www.mdsg.umd.edu/programs/research/funding/rfp/submit (pdf format only). **The deadline is February 8, 2011 at 5:00 pm EST. Preproposals not received by the deadline will not be accepted.** If you do not have online access, please contact the Maryland Sea Grant Office. If you cannot submit online, you must submit an original preproposal and two copies to the Maryland Sea Grant Office by 5:00 pm, February 8, 2011. If you submit online, an identical signed original and one hard copy must be received at the Maryland Sea Grant Office by February 11, 2011. Researchers are reminded to conform to the submission policies of their host institutions particularly with regard to obtaining institutional endorsements and requirements for original signed signature pages.

PROJECT DURATION

Proposed projects should be for a 24-month duration. Maryland Sea Grant and NOAA require mandatory yearly progress reports to evaluate the project. All PIs must submit a final report covering the entire funding period at the completion of the project. Grant money will be withheld pending completion of reports as outlined in the project terms and conditions.

PREPROPOSAL PREPARATION INSTRUCTIONS

PIs must follow the instructions about preproposal format as explained in this document or risk preproposal rejection.

PIs are required to use the Maryland Sea Grant online project summary form, budget form and budget justification form. To do so you must request an account from research@mdsg.umd.edu or call 301-405-7500 and speak with either

Fredrika Moser or Jenna Clark. Please provide us with your full name, as it will appear in your preproposal, for your account log in name. Please register for your account well before the preproposal submission date. The URL for accessing the online proposal worksheets is http://www.mdsg.umd.edu/programs/research/worksheets.

Each preproposal must include, in this sequence, the following:

- Signature cover sheet;
- Project summary form (90-2);
- NOAA budget form 90-4 (note: Sea Grant Research Fellow and Matching Funds) and budget justification;
- Body of the preproposal (major headings), 4 page double-spaced limit:
    - Problem statement;
    - Objectives;
    - Methods;
    - Anticipated benefits;
    - Outreach plan;
    - Facilities and equipment;
    - Personnel description;
- References;
- Summary of accomplishments of previously funded Sea Grant projects;
- Curriculum vitae, with updated publication list; and
- List of current and pending support.

FORMATTING

Use Helvetica (or Arial if Helvetica is not available) font type, size 11-point or greater. **Use double spacing,** left justified only, and one carriage return between paragraphs. All margins should be 1 inch. The body of the preproposal should be typed continuously (that is, do not start a new page for each new section). The end matter, including the *Summary of Accomplishments of Previously Funded Sea Grant Projects, References, Curricula Vitae,* and *List of Current or Pending Research Support* should each start on new pages and are not included in the 4 page double-spaced limit required for the body of the preproposal. The first page of the body of the preproposal should be numbered 1 and numbering should continue through the *Curricula Vitae* section. Please save the completed preproposal as a pdf to upload to our online preproposals submission system. Please print the required original and one hard copy of the preproposals on a laser printer.

EXPLANATION OF PREPROPOSAL COMPONENTS

Preproposals should present a succinct but sufficiently detailed synopsis of the project in order to evaluate its relevance and the PIs'. Preproposals are not letters of intent and will be evaluated rigorously in a highly competitive process. Preproposals should include a description of:

- Problem (question(s) to be addressed)
- Rationale for the research
- Methodologies and tools to be used in the effort
- Benefits likely to be derived from the anticipated results

Download preproposal form templates for the signature cover sheet and read the instructions for the preproposal outreach plan from http://www.mdsg.umd.edu/programs/research/forms.

SIGNATURE COVER SHEET

Principal Investigators are responsible for routing the preproposal through their campus' research administration and for obtaining all required institutional endorsements prior to submitting. A signature template is available from http://www.mdsg.umd.edu/programs/research/forms.

PROJECT SUMMARY FORM (90-2)

The project summary form is located online at the Maryland Sea Grant Proposal Worksheets (http://www.mdsg.umd.edu/programs/research/worksheets). You must contact Maryland Sea Grant to set up your account to use this online system. Once you have your account, log in to the system and it will take you to the "Beginning Page" for completing online the project summary form, budgets and budget justification.

On the "Beginning Page" check if **ICode**, which corresponds to the grantee institution, and **Affiliation Code**, which is associated with each PI, Co-PI, and Associate Investigator are correct. Both codes are available at http://www.mdsg.umd.edu/programs/research/icodes/. Code changes may be requested through Maryland Sea Grant.

Proposal Title: Select "New" in the drop down box then continue with the "go on" button to **Project Summary (90-2)**. On that form enter your title in the box provided.

Subsequently, when you log in to the system your title will be stored in the drop down box with "New" on the "Beginning Page" and *you must select your proposal title to access the forms you are working on or have completed*. DO NOT REPEATEDLY SELECT "New" WHEN YOU LOG IN AFTER YOUR ACCOUNT IS SET UP.

Project Status is either "New" or "Continuing." **Co-PIs** full names are entered. A co-PI must include any person requiring a budget sheet. One to three **Sea Grant Strategic Plan Classification Codes** (http://www.mdsg.umd.edu/programs/research/sgclasscodes/) for the preproposal topic may be used. **Key Words** should not exceed five.

Be sure to summarize project objectives, methodologies and rationale clearly and concisely. Please limit the information under each heading to one short paragraph.

Objectives

This should summarize the objectives stated in the body of the proposal.

Methodology

Highlight methods necessary for conducting the research, such as standard models or techniques to be followed, specialized equipment needed, new or

previously designed techniques resulting from other Sea Grant projects or related research.

Rationale

This must include statements describing the particular issue addressed by this project and how the project results will further the understanding of the issue and its relevance to problems in Maryland's coastal and estuarine systems.
Save your work and proceed to the "Beginning" page to complete additional worksheets.

NOAA BUDGET FORM 90-4 AND BUDGET JUSTIFICATION

After completing the Project Summary (90-2) form you can access the Budget and Budget Justification forms on the "Beginning Page." **Explanation** and **show** and **hide** are links to information on completing and expanding the budget form. **Budget Justification** text is required for each cost entered in the budget form. Further details are on the form.

Matching Funds

A 50 percent match (e.g., a $100K budget must have a match of $50K) is sought on all Sea Grant proposals. Please contact the Maryland Sea Grant office if any questions arise about the eligibility of matching funds.

Note that it is important to specify match contributions carefully 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 agencies can be used as match.

Sea Grant Research Fellow

Under a **separately funded program**, Maryland Sea Grant offers, through a competitive process, two-years of support for graduate students working on Sea Grant funded projects through this fellowship program. Students awarded a Maryland Sea Grant Research Fellowship are fully supported to work on a Sea Grant-funded research project as part of their work towards a graduate degree. Fellowships provide a stipend, tuition remission, and other benefits. Fellows are required to participate in several Maryland Sea Grant sponsored activities designed to help develop an understanding of the link between science and outreach. These activities will not deflect from the primary research focus of the fellowship; rather, they are designed to enhance it in a meaningful way. Funds for these students are limited, and not every Sea Grant supported project can be awarded a Fellow. PIs also have the option of including student support as a line item in their budgets and must include all associated costs incurred. **If you would like to request a Sea Grant Research Fellow, please check the box at the end of the electronic NOAA Form 90-4.** Do not include the cost of a fellow in the estimated budget for your project.

BODY OF THE PREPROPOSAL

The body of the preproposal (excluding references) is limited to **four pages of double-spaced text**. Write your preproposal using the headings in the sequence listed previously in this document and following the formatting instructions above.

Problem Statement

Indicate the specific problem addressed by the proposed effort and provide sufficient background information to allow a preliminary assessment of the relationship of the problem to the research questions posed in this RFP.

Objectives

State the objectives of the research effort, as they would appear in a full proposal. Research hypotheses should be clearly stated.

Methods

You need not explain methods in detail. However, readers should be able to make a preliminary determination of the appropriateness of the proposed approach, including statistical analyses, for achieving the stated objectives.

Anticipated Benefits

Briefly explain the anticipated results and potential implications of those results in relation to Sea Grant program objectives.

Outreach Plan

Instructions for the preproposal outreach plan can be found at: http://www.mdsg.umd.edu/programs/research/forms. The outreach plan paragraph should explicitly describe how the proposed research will **link to policy and/or management decisions** and how the results of the study will be **translated** for end-users outside of direct scientific peers. For example, there should be a clear connection between the proposed research and possible policy or management outcomes in such areas as: (1) restoring specific ecosystem elements, (2) coastal and marine spatial planning, (3) ecosystem-based fisheries management decisions, and (4) coastal community responses to climate change and natural hazards. In addition, the outreach plan paragraph should outline how the PI intends to inform and advise interested parties outside of academia on the benefits of the proposed research to specific policy and management actions.

Investigators are strongly encouraged to contact the Maryland Sea Grant office to discuss potential outreach approach and audiences (including industry, policy-makers, the broad researcher community and the public). Discussions with Sea Grant Extension Program faculty are encouraged in the early stages of preproposal development. A list of Sea Grant Extension personnel can be found at: http://www.mdsg.umd.edu/programs/about/staff/. A more detailed outreach plan and form are required for the full proposal.

Facilities and Equipment

List any facilities or equipment currently available and/or necessary for conducting the project. Give a justification for any equipment requested.

Personnel Description

List names of PI(s), senior technical staff, and students (if appropriate) and briefly outline their roles in the project.

REFERENCES

List references on a separate page. Reference pages are not included in the four-page maximum for the project description.

SUMMARY OF ACCOMPLISHMENTS OF PREVIOUSLY FUNDED SEA GRANT PROJECTS

Principal investigators who have been funded by Maryland Sea Grant since 2006 are requested to submit a one-page summary of the accomplishments of their previous Maryland Sea Grant funded research. Information on research findings and publications, outreach efforts and students supported as part of the research, should be highlighted in the one page summary. **The summary will not be considered as part of the preproposal page limit.**

CURRICULUM VITAE

Provide a **2-page** (maximum) curriculum vita for each of the professional personnel. Include all applicable sections (Education, Experience, Research Interests, Professional Activities) and recent (post 2005) publications.

LIST OF CURRENT AND PENDING SUPPORT

This list specifies projects in which PIs are currently involved that are funded by Maryland Sea Grant and other agencies, or are under consideration for such funding. Please provide a brief explanation of any overlap between this proposal and any of those mentioned here.

PREPROPOSAL AND PROPOSAL SUBMISSION PROCESS

To submit a preproposal or full proposal through our online system (http://www.mdsg.umd.edu/programs/research/funding/rfp/submit) you must do the following:

- Make a pdf of your completed online project summary, budget and budget justification forms.
- Make a pdf of all the other required proposal materials.
- Combine all pdfs into one final pdf of all required proposal materials.
- Log onto the proposal online submission system at the link above.
- Complete the required fields. **Note: The title for your preproposal will also be the title for submitting a full proposal**.
- Upload the proposal pdf using the browse button.
- Press the submit button.

PREPROPOSAL AND PROPOSAL REVIEW PROCESS

Maryland Sea Grant will select projects for inclusion in the 2012 Maryland Sea Grant College funding request based on the following criteria:

- Scientific and technical merit of the proposed study based on external mail reviews
- Consensus of Maryland Sea Grant's Academic Advisory Committee

- Relevance as articulated in this RFP as well as the goals and strategies of Maryland Sea Grant's strategic plan (http://www.mdsg.umd.edu/programs/about/strategic/)
- Review by Maryland Sea Grant Extension agents and specialists
- Planning and potential for significant outreach activities over the course of the project. A separate outreach panel evaluates all preproposals
- Potential for successful completion of the work within the proposed budget and timeframe
- Principal investigator's expertise and publication record
- Use of collaborative or multidisciplinary teams where appropriate
- Leveraging of Sea Grant resources through coordination and collaboration with other programs and funding sources
- Other factors important to funding decisions include the appropriateness of Sea Grant support relative to support from other sources and the funding level anticipated from the National Sea Grant College Program

After the review process is completed, Maryland Sea Grant will contact all PIs who have submitted preproposals. Those PIs whose preproposals pass the initial review will be encouraged to submit full proposals

After full proposals are received, they will be sent out for external mail review. In addition, an external review panel will be convened consisting of researchers with expertise in those disciplines represented by proposals under consideration. Based on its own review and the external written reviews, this panel will recommend a set of proposals for Sea Grant support in 2012. Depending on funding constraints and reviewers' comments, Maryland Sea Grant may ask PIs to revise their budgets and scope of work.

In the interest of developing the best possible program, Maryland Sea Grant may ask a researcher to consider various modifications of a proposed study or to consider ways in which one effort might better complement other proposed efforts. Collaborations, either within or among campuses or institutional programs, are encouraged. Investigators will be expected to discuss the implications of the anticipated results of their research with the Maryland coastal and marine community. Therefore, researchers should consider potential outcomes of their research beyond the scientific benefits.

The leveraging of funds is also encouraged through the development of joint initiatives with federal, state and local partners as well as the private sector and coordination with other funding sources.

NOTE ON THE FULL PROPOSAL FORMATTING

Investigators interested in submitting a full proposal will have electronic access to "Guidelines for Preparing the Full Proposal," which contains information on content, format, and necessary forms for full proposals. In the early spring the Guidelines will be available for you to download from our web site at: http://www.mdsg.umd.edu/programs/research/funding/rfp/guidelines. These guidelines will provide instructions for complying with federal government requirements.

CONTACTS FOR ADDITIONAL INFORMATION

If you would like further information about this request for proposals, please contact either Fredrika Moser (moser@mdsg.umd.edu or research@mdsg.umd.edu) or Jonathan Kramer (kramer@mdsg.umd.edu) at the Maryland Sea Grant Office. The mailing address is:

Maryland Sea Grant College
University System of Maryland
4321 Hartwick Road, Suite 300
College Park, Maryland 20740
Phone: 301-405-7500 (301-405-6373 for Fredrika Moser)
Fax: 301-314-5780

If you would like to learn more about Maryland Sea Grant, you are invited to visit our website at http://www.mdsg.umd.edu.

Information about projects previously funded by Maryland Sea Grant can be found at the following website: http://www.research.mdsg.umd.edu/.

A list of Maryland Sea Grant Extension agents and specialists can be found at the following website: http://www.mdsg.umd.edu/programs/about/staff.