NATIONAL SEA GRANT COLLEGE PROGRAM

PROGRAM CORE FUNDING: PROCEDURES FOR THE SOLICITATION, REVIEW AND APPROVAL OF PROPOSALS

Executive Summary

The National Sea Grant Office (NSGO) will allocate a portion of the annual federal budget for the National Sea Grant College Program to its 29 component state programs for core activities. This core funding is intended to support management, advisory service/technology transfer, communications, education, and research. At least one third of the total cost of these activities must come from non-federal matching funds. This document standardizes procedures that Sea Grant institutions must implement for generating, evaluating, and selecting proposals that are subject to open competition.

The procedures to be used in determining investment of the core funding encompass five primary elements -- (1) strategic planning, (2) request for proposals, (3) pre-proposal evaluation, (4) peer review, and (5) proposal evaluation and selection. The procedures require each Sea Grant Program to have an advisory process broadly involving representatives of industry, government, and the public. Each program should have a strategic plan that sets priorities, defines opportunities, and aligns state/local needs and opportunities with national needs and opportunities. Requests for pre-proposals will be widely distributed to individuals and unit heads at all institutions of higher learning and other research institutions, within that state or region, with relevant research or educational capability. Each program director will develop a system to rank or categorize pre-proposals on the basis of rationale, innovativeness, and responsiveness to the request for proposals, and provide a written statement of the outcome to each proposing individual.

Fully-developed proposals submitted in response to encouragement from the pre-proposal process will be subjected to peer review for evaluating rationale, scientific or professional merit, and investigators' qualifications. After the peer review process is completed, each program director will convene a review panel capable of interpreting peer reviews within the fields of specialty in which proposals are under consideration for the purpose of ranking proposals on the basis of overall quality and advising the institution on which should be considered for funding. The review panel will operate under procedures to avoid conflict of interest and will include the program's NSGO program officer. Prior to notifying proposers of the outcome of the proposal process, the director will inform the NSGO of the institution's intended decisions and document the corresponding rationale for the record. Once the NSGO has approved the decision-making process, the director notifies all proposers of the decisions regarding their proposals. Anonymous copies of the corresponding peer reviews and a statement of the rationale for the decision will accompany this notification. Records of the proposal and decision-making process, including peer reviews, will be maintained for audit.

Introduction

The purpose of this document is to standardize procedures for generating, evaluating, and selecting proposals for research, education, outreach, and management[1] in Sea Grant programs under their core funding. Sea Grant legislation makes clear that the process of proposal solicitation and review is to be open and competitive. Furthermore, the National Sea Grant Office (NSGO) intends to reduce the time and effort required to process proposals, yet ensure adequate peer review and the generation of research, education, and outreach of high quality.

To accomplish these objectives the NSGO has assigned to the institutional partners comprising the Sea Grant network the primary responsibility for planning, evaluation, and selection of research, education, outreach, and management projects included under core funding. (National competitions for other funding will be administered by the NSGO.) Additionally, the NSGO has established five primary elements defining the process that each Sea Grant institution must establish for selecting projects in its omnibus proposal for core funding. The basic elements are intended to ensure that planning mechanisms reflect priorities as determined by broad constituency participation, that proposal selection reflects these plans, and that the proposal selection process is fair and clearly understood by participants and potential participants. Thus, each omnibus proposal will be judged on two primary criteria -- (1) relevance to a program's strategic objectives, and (2) professional merit of the proposed projects. It is the responsibility of all Sea Grant institutions to promulgate their plans, procedures, and schedule of proposal submission to every qualifying institution in their states or regions.

Strategic Planning

Each institution is required to use an external advisory and planning process broadly involving representatives of industry, government[2], and the public. Each Sea Grant program needs a strategic plan for research, education, and outreach that is compatible with Sea Grant's Network Plan. The plans are expected to set priorities, define opportunities, and align state/local needs and opportunities with national needs and opportunities.

Request for proposals

Each Sea Grant program will develop a request for proposals (RFP) consistent with the strategic plan. The RFP must be distributed widely to individuals and unit heads at all institutions of higher learning and other research institutions, within that state or region, with relevant research or educational capability.

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[1]Management teams should include outreach leaders.

[2]In states where NOAA or other federal agencies have significant research efforts, Sea Grant programs are encouraged to include corresponding representatives in their advisory process.

Pre-proposal evaluation

The RFP must specify a format for brief pre-proposals that are required in advance of full proposals. Each director must devise a system that ranks or categorizes the pre-proposals for research and education on the basis of rationale, innovativeness, and responsiveness to the RFP and inform each proposer of the outcome. In the context of available or anticipated funding and rankings, the director encourages or discourages investigators to develop full proposals. Where appropriate, outreach perspectives should be included in selecting pre-proposals. The director must provide each proposer the rationale for his or her advice in writing so that the process from which the advice stems is clear. At the pre-proposal stage, potential opportunities to develop multi-disciplinary, inter-disciplinary, industrial, or inter-institutional coalitions and collaborations among researchers and educators may emerge. These opportunities should be explored by Sea Grant management and corresponding proposals should be encouraged where appropriate. Each program must promulgate explicit guidelines for preparation and submission of full proposals. Pre-proposals for outreach and management activities under core funding normally are not required. However, they are required for outreach if activities in this part of the core program will be formulated through a competitive process.

Proposal Evaluation and Selection

1. Peer Review Peer review is the responsibility of the Sea Grant directors. Oversight of the peer review process is the responsibility of the National Sea Grant Office. This division of responsibilities for peer review follows recommendations of the National Research Council[3].

In 1990 the National Sea Grant Office codified seven criteria for evaluating proposals - (1) rationale, (2) scientific or professional merit, (3) innovativeness, (4) professional qualifications of investigators, (5) user relationship, (6) responsiveness to Sea Grant priorities, and (7) programmatic value. Attachment A defines these criteria. A proposal's rationale (Criterion 1), scientific or professional merit (Criterion 2), innovativeness (Criterion 3), and investigators' professional qualifications (Criterion 4) are determined primarily by peer[4] review. "Briefly defined, peer review is an organized method for evaluating scientific work which is used by scientists to certify the correctness of procedures, establish the plausibility of results, and allocate

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[3]Ocean studies Board, National Research Council, 1994. A Review of NOAA National Sea Grant College Program, National Academy Press, Washington, p. 3.

[4]One that is of the same or equal standing [in a field of research] (Webster's Third new International Dictionary, Merriam-Webster, Inc., 1981). It is recognized that this is an ideal, not something that can be precisely achieved. "There is a high probability that one or several aspects of a proposal will not be appreciated by the judging 'quasi-peers'" (W.E. Stumph, 1980, 'Peer' review, *Science* 207: 822-23). "For the 'best' scientists *peer* review is unlikely" (Reference in Footnote 2, page 194).

scarce resources (such as journal space, research funds, recognition, and special honor)."[5] The statements below outline principles, responsibilities, and requirements for peer review of proposals within Sea Grant programs. They standardize the process of peer review and help ensure the highest quality projects by subjecting proposed research, education, and outreach to the national community of peers. Peer review of proposals for management is not required.

- Each proposal must receive at least three written peer reviews on a standard form (Attachment B[6]). Attachment C is an example of a letter for soliciting the kind of review that will be helpful in evaluating proposals. For outreach proposals, reviewers should include the professional outreach community as well as users of outreach services.

- Selection of peer reviewers must be guided by principles for ensuring absence of conflict of interest. Most peer reviewers should be from outside the state. A recent report of the U. S. General Accounting Office (GAO)[7] notes that in peer review as practiced in three federal agencies, junior scholars are consistently under represented among reviewers. In some programs women and minorities also are under represented. Thus, Sea Grant directors should make special efforts to ensure that these groups are appropriately represented among peer reviewers and that gender, race, and ethnic discrimination are not affecting project rankings.

- While peer review is used primarily to establish a proposal's rationale, scientific or professional merit, innovativeness, and investigators' qualifications, some peer reviewers may be able to address the other evaluation criteria (user relationships, programmatic value, and responsiveness to Sea Grant priorities).

- Letters of support from potential users of the results of proposed research also may be submitted with proposals, but they do not substitute for peer review.

- Peer review should be conducted on fully developed proposals - not preliminary proposals. If a proposal submitted to the National Sea Grant Office was changed as a result of peer review, a special section or attachment, specifying the changes, must be added to the proposal.

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[5]Chubin, D.E. and Jackett, E.J., 1990. *Peerless Science: Peer Review and U.S. Science Policy*, state University of New York Press, Albany, p.2.

[6]The NSGO will revise this form to include, in addition to an overall rating, separate ratings for rationale, scientific or professional merit, innovativeness, and investigators' qualifications.

[7]General Accounting Office, 1994. Peer Review: Reforms Needed to Ensure Fairness in Federal Agency Grant Selection (GAO/PEMD-94-1), Washington, DC

- Directors should continuously try to expand their database of peer reviewers so that researchers are solicited only infrequently for review of proposals and so that Sea Grant's peer review system does not become inbred. Most good proposals display the proposed research in the context of the latest advancements in a field of research; therefore, authors of selected papers referenced in a well-developed proposal should be ideal peer reviewers. Thus, Sea Grant directors should use a proposal's list of references as one resource for identifying peer reviewers whose expertise is closely related to the issues addressed in proposals. (The GAO report[7] identified lack of closely related expertise as one of three areas of peer review needing attention - "And although most reviewers reported expertise in the general areas of the proposals they reviewed, many were not expert on closely related questions, ...")

- The director must use a review panel(s) capable of interpreting peer reviews within the specialized fields of the proposals under consideration, for the purpose of evaluating proposals on the basis of overall quality and advising the institution on which should be considered for inclusion in the institution's omnibus proposal. These panels are expected to operate by procedures that strictly avoid conflict of interest (Attachment D.). The NSGO program officer (*ex officio)* will be included in the panels.

- Periodically the National Sea Grant Office will audit the review process as practiced by each Sea Grant program and recommend or require changes or improvements if deficiencies are identified**. The quality of a program's review process and corresponding record-keeping may affect federal funding for the program.**

2. Project Selection After considering the panel's advice, and the urgency and importance of issues addressed by proposals, program management will make decisions on the portfolio of projects to be included in the core program. Before notifying proposers of the outcome, the director must inform the NSGO program officer of the institution's intended decisions and document the corresponding rationale for the record. This documentation must be part of the omnibus proposal submitted to the NSGO for funding.

The NSGO will review this letter of intent in the context of ensuring that a fair and open process was followed to reach the decisions; this review is not intended to influence programmatic decisions on individual projects. It is anticipated that approval by the Program Officer will be routine, except in exceptional cases, and that the review process will normally be completed within five working days or less. If, after discussion with the director, there are issues related to the fairness and openness of the review process that cannot be resolved, the director of NSGO will make the final decision. Upon approval by the NSGO, the program director notifies all proposers of the decision regarding their proposals in writing. Anonymous copies of the corresponding peer reviews and a statement of the rationale for the decision must accompany this notification.

Notification and Record-keeping

Records of the proposal and decision-making process are necessary for subsequent evaluations of the process. The following lists those records that should be transmitted to the National Sea Grant Office and those records that should be maintained by the Sea Grant programs:

- Directors must provide the National Sea Grant Office the name, professional affiliation, and complete address of all peer reviewers for each project.

- Directors must provide the National Sea Grant Office a summary of the rationale for the program's selection or rejection of each proposal.

- Directors must keep records of their peer review processes so that they can be reviewed and evaluated periodically. These records, which must be maintained for six years from the time of the corresponding award, and shall be made available to the National Sea Grant Office upon request, include the following:

  a. Distribution list for the request for proposals.

  b. List of titles, principal investigators, and institutional affiliations of all preproposals and proposals received in response to request for proposals.

  c. Complete copies of all peer reviews submitted in response to a solicitation, along with corresponding signed statements certifying no conflict of interest.

  d. Complete name, field of expertise, and professional address of each peer solicited to review each proposal; dates of solicitation and response if any; source for each reviewer, for example, suggested by the proposer, author of a paper referred to in the proposal, or suggested by an advisor (specified) to the Sea Grant program.

  e. Complete name, field of expertise, and professional address of each review panelist selected to consider peer reviews and advise the director on the merit of proposals with list of proposals assigned to each panelist as lead expert.

  f. A summary of the advice rendered by the review panel on the merits of proposals under consideration.

  g. A summary of the rationale for the institution's selection or rejection of each preproposal and proposal.

Attachment A

CRITERIA APPLICABLE IN EVALUATING PROPOSALS FOR PROJECTS IN THE NATIONAL SEA GRANT COLLEGE PROGRAM

1. Rationale - the degree to which the proposed activity addresses an important issue, problem, or opportunity in development, use, or management of marine or coastal resources.

2. Scientific or Professional Merit - the degree to which the activity will advance the state of the science or discipline through use and extension of state-of-the-art methods.

3. Innovativeness - the degree to which new approaches to solving problems and exploiting opportunities in resource management or development, or in public outreach on such issues will be employed; alternatively, the degree to which the activity will focus on new types of important or potentially important resources and issues.

4. Qualifications and Past Record of Investigators - degree to which investigators are qualified by education, training, and/or experience to execute the proposed activity; record of achievement with previous funding.

5. User Relationships - degree to which users or potential 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, or will be kept apprised of progress and results.

6. Relationship to Sea Grant Priorities - degree to which the proposed activity relates to priorities in guidance provided in documents of the National Sea Grant Office or in descriptions of special focus programs.

7. Programmatic Justification - the degree to which the proposed activity will contribute, as an essential or complementary unit to other projects, to reaching the objectives of a sub-program in a state, regional, inter-institutional, or national sea grant program or the degree to which it addresses the needs of important state, regional, or national constituencies.

Attachment B

National Sea Grant College Program
Proposal Evaluation Form

Fax: 301-713-0799

PROPOSAL NO.: INSTITUTION: PLEASE RETURN BY:

PRINCIPAL INVESTIGATOR:

TITLE:

COMMENTS (CONTINUE ON ADDITIONAL SHEET(S) AS NECESSARY)

RATING: ( ) EXCELLENT ( ) VERY GOOD ( ) GOOD ( ) FAIR ( ) POOR

Verbatim but anonymous copies of reviews, ratings and associated correspondence will be sent only to the principal investigator. Subject to this policy and applicable laws, including the Freedom of Information Act (USC 552), reviewers' comments and identities will be given maximum protection from disclosure.

REVIEWER'S SIGNATURE REVIEWER'S NAME (TYPED)

OTHER SUGGESTED REVIEWERS (OPTIONAL)

Attachment B (cont.)

NATIONAL SEA GRANT COLLEGE PROGRAM
INFORMATION FOR REVIEWERS

In meeting its statutory responsibilities the National Sea Grant College Program and its component state and regional sea grant programs seek to support the most meritorious research. Peer reviews play a key role in the evaluation of research proposals. Please provide both written comments and a summary rating on this form by employing the criteria provided below.

PROPOSAL EVALUATION CRITERIA

Sea Grant uses seven criteria for evaluating research proposals - (1) rationale, (2) scientific or professional merit, (3) innovativeness, (4) professional qualifications of investigators, (5) user relationship, (6) responsiveness to sea grant priorities, and (7) programmatic value. A proposal's rationale (Criterion 1), scientific or professional merit (Criterion 2), innovativeness (Criterion 3) and the investigators' qualifications (Criterion 4) are determined primarily by peer review. Please comment on these four qualities, which are described below, and on the proposed budget and level of effort.

1. Rationale - the degree to which the proposed activity addresses an important issue, problem, or opportunity in development, use, or management of marine or coastal resources.

2. Scientific or Professional Merit - the degree to which the activity will advance the state of the science or discipline through use and extension of state-of-the-art methods.

3. Innovativeness - the degree to which new approaches to solving problems and exploiting opportunities in resource management or development, or in public outreach on such issues will be employed; alternatively, the degree to which the activity will focus on new types of important or potentially important resources and issues.

4. Qualifications and Past Record of Investigators - degree to which investigators are qualified by education, training, and/or experience to execute the proposed activity; record of achievement with previous funding.

SUMMARY RATINGS

Excellent: Probably will fall among top 10% of proposals in the area of research; highest priority for support. This category should be used only for truly outstanding proposals.
Very Good: Probably will fall among top third of proposals in the area of research; should be supported.
Good: Probably will fall among middle third of proposals in the area of research; worthy of support.
Fair: Probably will fall among lowest third of proposals in the area of research.
Poor: Proposal has serious deficiencies; should not be supported.

CONFLICT OF INTEREST

If you have an affiliation or financial connection with the institution or the person submitting this proposal that might be construed as creating a conflict of interest, please describe those affiliations or interests on a separate page and attach it to your review. Regardless of any such affiliations or interests, unless you believe you cannot be objective, we would like to have your review. If you do not attach a statement, we shall assume that you have no conflicting affiliations or interests.

CONFIDENTIALITY OF PROPOSALS AND PEER REVIEWS

Sea Grant receives proposals in confidence and is responsible for protecting the confidentiality of their contents. In addition, the identity of reviewers will be kept confidential to the maximum extent possible. For this reason please do not copy, quote, or otherwise use material from this proposal.

Attachment C

_____ Sea Grant College Program

Dr. S.G. Researcher
Department of Resource Development
University of Coastal America
Collegetown, USA

Dear Dr. Researcher:

In meeting its responsibilities, the _____ Sea Grant College Program seeks funding for the best proposals submitted to it. Peer review plays a key role in selecting proposals for projects and subprograms to be submitted to the National Sea Grant Office. The National Sea Grant Office has delegated responsibility for peer review to state and regional sea grant programs. Thus, I request your written comments on, and summary rating for, the enclosed proposal. Attached to the proposal is an evaluation form with instructions. Also enclosed is a form for a peer reviewer to certify her or his absence of conflict of interest. Please sign this form and return it with your review if you can provide this very important service.

I recognize the time and effort required to carefully review a proposal and will be very grateful for your help. Your evaluation would be most helpful if received by _____.

Sincerely,

S.G. Program
Director

Enclosures

Attachment D

NATIONAL SEA GRANT COLLEGE PROGRAM

CONFLICT-OF-INTEREST STATEMENT FOR TECHNICAL PANELISTS

1. As a technical panelist you are asked to review a research proposal or proposals for federal and/or matching funding. Your designation as a panelist requires that you be aware of potential conflicts of interest. Please read the examples of potentially biasing affiliations or relationships listed on the back of this form.

2. If your designation gives you access to information not generally available to the public, you must not use that information for your personal benefit or make it available for the personal benefit of any other individual or organization. This is to be distinguished from the entirely appropriate general benefit of learning more about Sea grant or becoming better acquainted with the state of a given discipline.

3. Sea Grant receives proposals in confidence and protects the confidentiality of their contents. For this reason, you must not copy, quote or otherwise disclose or use material from any proposal you review. The discussions of the panel are expected to remain confidential**.**

CERTIFICATION

I have read the list of affiliations and relationships on the back of this form that could prevent my participation in matters involving such individuals or institutions. To the best of my knowledge, I have no affiliation or relationships that would prevent my objectively executing the responsibilities of peer review. I also will not divulge any confidential information I may become aware of during my review.

Reviewer's Name:_____

Reviewer's Signature: _____Date:_____

Title of Proposal(s)_____
_____
_____
_____
_____

CONFLICT-OF-INTEREST STATEMENT
FOR SEA GRANT TECHNICAL PANELISTS

You may have a conflict if you have any of the following affiliations or relationships:

1. Your affiliations with applicant institution(s).

- # Current employment at the institution as professor adjunct professor, visiting professor, or similar position. (This includes other campuses of a multi-campus institution, but a waiver may be available. If you are in a multi-campus institution, let the program director who solicited your review know.)
- # Other current employment with the institution such as consulting or an advisory arrangement, or you are being considered for employment with the institution.
- # Formal or informal re-employment arrangement with the institution.
- # Ownership of the institution's securities or other evidences of debt.
- # Current membership on a visiting committee or similar body at the institution. (This is a conflict only for proposals or applications that originate from the department, school, or facility that the visiting committee or similar body advises.)
- # Any office, governing board membership, or relevant committee chairperson in the institution. (Ordinary membership in a professional society or association is not considered an office.)
- # Current enrollment as a student. (Only a conflict for proposals or applications that originate from the department or school in which one is a student.)
- # Received and retained an honorarium or award from the institution within the last 12 months.

2. Your relationships with an investigator, project director, or other person who has a personal interest in the proposal or other application.

- # Known family or marriage relationship. (Conflict only if the relationship is with a principal investigator or project director.)
- # Business or professional partnership.
- # Employment at same institution within the last 12 months.
- # Past or present association as thesis advisory or thesis student.
- # Your collaboration on a project or on a book, article, report, or paper within the last 48 months.

3. Your other affiliations or relationships.

- # Interests of the following persons are to be treated as if they were yours: any affiliation or relationship of your spouse, of your minor child, or a relative living in your immediate household or of anyone who is legally your partner that you are aware of, that would be covered by items 1 or 2 above (except for receipt by your spouse or relative or an honorarium or award.)
- # Other relationship, such as close personal friendship, that might tend to affect your judgements or be seen as doing so by a reasonable person familiar with the relationship.

CONFIDENTIALITY OF PEER REVIEWS AND REVIEWER IDENTITIES

Sea Grant policy is that reviews and reviewer identities will not be disclosed except that verbatim copies of reviews (without the name and affiliation of the reviewer) will be sent to the principal investigator. Sea Grant considers reviews and reviewer identities to be exempt from disclosure, but cannot guarantee that it will not be forced to release them under terms of the Freedom of Information Act, or other laws. It may release a listing of all reviewers used within a specified period.