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New York Sea Grant's Biennial Research Call for 2012-2013

INVITING PRE-PROPOSALS FOR RESEARCH Specifically Addressing NYSG's Strategic Plan for 2010-2013

Pre-Proposal Deadline 4:30 PM Tuesday February 22, 2011

Anticipated Funds: approximately \$1 million per year for 2 years,
to support about 7-10 projects

The main goal of New York Sea Grant's research program is to provide valid scientific information that will serve as the basis for furthering the sustainable development, use, protection, conservation, and management of our coastal resources. The research must clearly be driven by identified needs and must provide enhanced opportunities for NYSG to 'make a difference' and have an impact on addressing important coastal issues.

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I. BACKGROUND

New York Sea Grant (NYSG) is part of the national Sea Grant network formed by NOAA's National Sea Grant College Program. In New York, it is a cooperative program of the State University of New York (SUNY) and Cornell University, with its main administrative offices

located at Stony Brook University. In a time of accelerating economic, environmental, and scientific developments, NYSG's mission is to serve as an important partner in helping New York's diverse coastal communities to respond to rapid economic and environmental changes. You are invited to peruse NYSG's Strategic and Implementation Plans for 2010-2013 at <http://www.seagrant.sunysb.edu/article.asp?ArticleID=425> .

II. NYSG RESEARCH AND TOPICS FOR THIS CALL

Sea Grant projects tackle well-defined coastal, Great Lakes, or marine issues that society will be or is currently struggling with. While research projects supported through New York Sea Grant must address problems or opportunities important to New York State, their results should also be of significance and generalizable towards addressing regional or national needs. The ability of NYSG to present its results as relevant to National Sea Grant priorities within NOAA has become very important.

NYSG supports hypothesis-based research related to marine, Hudson estuary, and Great Lakes topics and issues. Projects must be oriented toward answering "why" or "how," not just describing "what is." Developmental work on new models or techniques also qualifies as Sea Grant research. State-of-knowledge synthesis efforts may also be proposed. The project must show an understanding of what constitutes necessary and sufficient information for responsible decision-making or for applied use, and will be expected to generate such. A project must have sufficient intellectual content (theoretical basis, hypothesis testing) to make it appropriate for university research.

The need, significance, products, usability, target audience (beyond other academics), and expected impact for and of the research must be clearly anticipated and described. ***These will be key factors in the review process.***

Because the Sea Grant mission includes extension of research and other results to stakeholders, discussions with NYSG extension staff (see list in Section VI) may help hone the focus of research projects towards particularly useful information. ***Researchers are strongly encouraged to contact NYSG staff with their ideas to make sure they are addressing the most critical questions and to improve their understanding of what information and products may be most useful to coastal stakeholders.*** The organization or people whose task it will be to make related decisions, or who will be able to make specific use of the project's results, must be identified. Contact with them before, during, and after the project by the researchers and/or via NYSG staff is expected.

NYSG encourages multi-disciplinary and multi-investigator research. NYSG is also interested in helping to foster new research talent, and encourages submissions from young investigators and others who have not previously received NYSG funding. The development of future scientists and decision-makers through student education is also important to NYSG, and investigators are encouraged to involve graduate and/or undergraduate students in the conduct of their projects.

Efforts inappropriate for Sea Grant funding include those directed solely toward monitoring or surveys. Expansion of understanding merely for its own sake is also considered inappropriate for Sea Grant.

In this Call for Pre-proposals, NYSG invites projects that will advance the subset of Goals from *New York Sea Grant's Strategic Plan for 2010-2013* that are presented below. Note that research in many disciplines (e.g., biology, chemistry, geology, physical oceanography, engineering, and the social sciences) will be appropriate to address them.

For all Focus Areas, be sure your pre-proposal addresses the *Strategy* in the context of contributing the *Goal* and achieving the *Short & Mid-term Outcomes*.

****3** Focus Area A: Healthy New York Coastal Ecosystems**

Goal iii: Restored and well-managed habitat

Strategy: 1. Support research and research syntheses in habitat management and restoration to develop new techniques, assess sustainability, and determine the effectiveness of current approaches.

Short & Mid-term Outcomes: 2. New information will be available to improve and better guide habitat restoration and management approaches.

Specific priority opportunities, problems, or research questions:

- a) Develop a strategy to evaluate the success of habitat restoration projects.
- b) Assess the impact global warming and sea level rise will have on eelgrass and wetlands restoration efforts.
- c) Determine the factors involved in the sustainability of restoration projects, i.e., assess why particular projects are chosen and successful, and how this can help decisionmakers plan future projects.
- d) Determine how we can best detect, understand, and work with the new or novel ecosystems that may develop as a result of changing climate conditions.
- e) Determine how the public benefits from restoration of different ecosystem types (eelgrass, tidal marshes, etc.) in terms of economic and social aspects.
- f) Other issues that address Strategy 1 in the context of contributing to Focus Area A, Goal iii and achieving the specified Short & Mid-Term Outcomes.

****4** Focus Area A: Healthy New York Coastal Ecosystems**

Goal iii: Restored and well-managed habitat

Strategy: 2. Support research on and the application of ecosystem-based management methods to best respond to current and future uses and needs.

Short & Mid-term Outcomes: 2. New information will be available to improve and better guide habitat restoration and management approaches.

Specific priority opportunities, problems, or research questions:

- a) Develop linkages between natural science, social science, available data, regulatory/legal frameworks, and the practical needs of managers and stakeholders to evaluate tradeoffs implicit in ecosystem-based management (EBM).

- b) Determine how new or novel ecosystems that develop in response to changing climate conditions should be factored into restoration plans.
- c) Other issues that address Strategy 2 in the context of contributing to Focus Area A, Goal iii *and* achieving the specified Short & Mid-Term Outcomes.

****5** Focus Area B: Sustainable NY Coastal Development**

Goal i: Robust coastal business development

Strategy: 1. Support research on improved understanding and implementation of sustainable and cost effective environmental best management practices (BMPs), especially as they relate to the design and operation of marinas and other waterfront businesses.

Short & Mid-term Outcomes: 1. New information will be developed and made available about BMPs, including techniques and their cost-effectiveness and environmental benefits, for waterfront and other coastal businesses.

Specific priority opportunities, problems, or research questions:

- a) Understanding the processes involved in the performance and effectiveness of structural and non-structural stormwater control measures (SCMs, this could include wet ponds, wetlands, riparian buffers among others) so their use in reducing pollutant loadings (e.g., especially those for which Total Maximum Daily Loads have been developed) can be better modeled or simulated, e.g., particularly as related to relevant hydrologic and water quality processes within SCMs across different climates and soil conditions (seasonal differences, the time between storms, and other factors).
- b) Determine how to clearly define and communicate the concept of a BMP, such as reduction of stormwater pollutants, so that it can be effectively communicated to targeted audiences (e.g., land owners, land managers, and public officials).
- c) Quantify the impacts of marine recreational facilities and activities on marine habitats and resources as compared to the impacts of other natural and anthropogenic factors.
- d) Perform quantitative analysis of cost/benefits of proposed existing and proposed regulations and BMPs of waterfront facilities.
- e) Determine the effectiveness of existing BMPs to reduce stormwater pathogens.
- f) Design and evaluate new BMPs to reduce stormwater pathogens.
- g) Other issues that address Strategy 1 in the context of contributing to Focus Area B, Goal i *and* achieving the specified Short & Mid-Term Outcomes.

****6** Focus Area B: Sustainable NY Coastal Development**

Goal iii: Effective coastal spatial planning and utilization of coastal waters for commerce and conservation.

Strategy: 1. Support research to develop tools for State and local communities to use in planning for diverse but compatible uses of submerged lands.

Short & Mid-term Outcomes: 1. Tools and new information will be developed and made available to help resolve controversies that may arise in marine spatial planning efforts.

Specific priority opportunities, problems, or research questions:

- a) Develop criteria and bases to define, determine, interpret, and map critical habitat areas for decision-making uses (e.g., relative to restoration and conservation efforts, or relative

to potential impacts from commercial operations such as aquaculture or offshore energy, etc.).

- b) Develop a holistic, functional approach to characterizing marine or Great Lakes sites with respect to habitat value and sensitivity.
- c) Determine how to combine different physical (depth, current speed, sediment grain size), chemical (water and sediment quality), and biological (benthic species diversity, presence of transient finfish species) data sets to capture significant differences in marine space. Such differences can be used to discriminate sites on their suitability for specific activities (e.g., shellfish culture).
- d) Determine the significant impacts, judged to be positive, benign, or negative, of a typical shellfish farm operation on water column and benthic habitats, and their associated resources. Assess the relative cumulative impacts of incremental growth, i.e., increase in number, type, and intensity of shellfish farm operations. Determine the types of monitoring data should be collected in order to answer these questions.
- e) Predict natural and human impacts of, and tradeoffs related to, offshore power-generating wind farms along the NY shores of Lakes Ontario and Erie.
- f) Predict natural and human impacts of, and tradeoffs relating to, energy operations potentially sited in New York's marine waters.
- g) Develop tools to explicitly quantify ecological and/or economic tradeoffs related to alternative use of submerged and coastal habitats. Economic evaluations should consider both market and non-market benefits and costs.
- h) Evaluate the potential natural and human implications of a changing climate for coastal and marine spatial planning.
- i) Other issues that address Strategy 1 in the context of contributing to Focus Area B, Goal iii *and* achieving the specified Short & Mid-Term Outcomes.

****8** Focus Area C: Safe and Sustainable New York Seafood Supply**

Goal ii: Safe, high quality, seafood products from profitable New York seafood businesses

Strategy: 1. Assist businesses, decision makers and other interested parties to use information on current issues, policies, regulations, or other conditions that could affect the productivity and profitability of their individual seafood business or the seafood industry in New York. Support additional research in these areas as needed.

Short & Mid-term Outcomes: 2. New information will be developed and made available to help maintain and enhance the productivity, profitability, and product quality of seafood businesses.

Specific priority opportunities, problems, or research questions:

- a) Fisheries management plans typically focus on rebuilding strategies for fish stocks. A strategy for allowing fishermen to increase harvest to take advantage of restored stocks is usually not part of the plan. Often, the uncertainty inherent in stock assessment is cited as a reason to take a precautionary approach to increase harvest. Research is needed to determine what improvements are needed in stock assessment techniques and methodology in order to reduce the uncertainty in the results. Determine the refinements in the modeling and data inputs needed for less uncertainty.

- b) Evaluate consumer demand for NY seafood products as influenced by targeted perceptions or misperceptions of safety, long-term health effects, presence of contaminants, sustainability, and related factors.
- c) Other issues that address Strategy 1 in the context of contributing to Focus Area C, Goal ii *and* achieving the specified Short & Mid-Term Outcomes.

****9** Focus Area D. Hazard Resilience in NY Coastal Communities**

Goal i: Improved response to coastal hazards

Strategy: 1. Support research to better predict and respond to coastal hazards and their potential impacts in the New York coastal zone. These hazards include hurricanes and nor'easters, and their associated storm surges, flooding, and erosion.

Short & Mid-term Outcomes: 2. Models, methods, and new information will be available to help New Yorkers plan for and respond to potential and actual hazard-related events and situations.

Specific priority opportunities, problems, or research questions:

- a) Quantify sediment budgets/interactions, including residence times, pathways and exchange rates, for barrier island systems and back bay lagoons and potential responses to increases in the rate of sea level rise (SLR).
- b) Develop criteria for the design and use of “living shorelines” as a means of erosion and flood management in low to moderate energy environments, and/or with the prospect of climate change.
- c) Quantitatively evaluate the potential impacts of shore protection strategies on marine and Great Lakes habitats and resources.
- d) Quantify the role of sea level rise in driving historical shoreline change and evaluate the potential implications associated with an increased rate of relative SLR.
- e) Develop a better understanding of the processes controlling shoreline morphology on sheltered low energy coasts and associated timescales and evaluate the potential implications associated with an increased rate of relative SLR.
- f) Develop and refine methodologies to quantify the economic importance of beaches and coastal habitats and identify the key features contributing to these impacts.
- g) Determine, model, and predict the impact Lake Ontario water levels have on shoreline damage to both human and natural environments, and how this varies with season and storms.
- h) Other issues that address Strategy 1 in the context of contributing to Focus Area D, Goal i *and* achieving the specified Short & Mid-Term Outcomes.

III. GENERAL INFORMATION ABOUT PRE-PROPOSAL SUBMISSION

A. Who is Eligible to Submit:

Sea Grant is a national college program, so faculty at academic institutions are by far the main recipients of NYSG’s research funds. Nevertheless, proposals from other groups may be accepted and approved for funding, too. Eligible groups are listed below in order of preference for funding under this Call:

1. Researchers at universities and colleges.

2. Researchers at other not-for-profit research institutions.
3. Researchers who are personnel of state or local agencies, or of not-for-profit organizations.
4. Researchers at for-profit institutions or companies (with limits).

Important Notes: All proposals submitted under this Biennial Research Call for 2012-2013 must be **led** by an eligible researcher with his or her primary professional base in New York State. Federal employees may participate in projects as collaborators, but they may not be included in the budget. Federal employees and institutions are not eligible for compensation or budget items of any sort, and their contributions cannot be considered a source of cost-sharing.

B. Duration of Proposed Work:

In this Call, the funding will cover two years, running from 2/1/2012 through 1/31/2014. While NYSG is accepting proposals for up to two years of work, only one year of support is awarded at a time. Continued support for the second year of a project will be contingent on demonstrated progress. Proposals for one-year projects are welcome.

C. Budget Size (total of indirect plus direct costs):

The total budget request (direct + indirect costs) for a project may not exceed \$150,000 per year. Note that the budget estimates in pre-proposal submissions are expected to be realistic. A substantial increase in the final budget request will be viewed negatively and likely will result in either rejection of the project or budget cuts without changes in the scope of work.

D. Cost-Share Requirement:

Sea Grant requires that non-federal cost-share (a.k.a. matching funds) support in the amount of at least 50 percent of the Sea Grant funds requested be provided under this Call. For example, if \$100K is requested from Sea Grant, the proposal's budget page must demonstrate an additional \$50K of non-federal cost-share. Additional cost-share (i.e., more than 50%) is strongly encouraged and will be viewed favorably.

E. Limit on Salary Requests:

Principal and associate investigators with appointments providing nine (9) or more months of support annually are generally not allowed to receive more than two (2) months' total salary from NYSG per year. Other eligible principal and associate investigators will generally be allowed to receive only up to six (6) months' salary from NYSG per year. These limits may be relaxed under exceptional circumstances, with prior approval from NYSG. Under all circumstances, the amount of salary support requested or provided as cost-share must be warranted by the effort needed to conduct the project.

F. Regional or Multi-state Proposals:

All Sea Grant programs are now on the same funding cycle and would like to coordinate and work together regarding submissions that have Principal Investigators from multiple states and that can be funded cooperatively by multiple Sea Grant programs. If you are interested in submitting a regional or multi-state proposal, you must contact NYSG's assistant director, Cornelia Schlenk, and your co-PIs must contact their state Sea Grant director(s) prior to

submission. It is critical that submitters be familiar with, and comply with, the due dates and processes as specified by their state's Sea Grant program.

In addition, a special regional Call has been released by the Northeast Sea Grant programs entitled "*Northeast Sea Grant College Consortium Call for Preliminary Regional Proposals, 2012-2014 Omnibus Funding Cycle, Human Dimensions of Coastal and Marine Ecosystems.*" See <http://www.seagrant.uconn.edu/documents/regionalRFP.pdf> for details and specific submission instructions. Those submissions are *not* considered to be part of NYSG's Biennial Call for 2012-2013.

G. Duplicate Submissions:

New York Sea Grant should be immediately informed by the Principal Investigator if a proposal submitted under this NYSG Call will be also be considered under other Calls, e.g., as released by the National Sea Grant College Program, another state Sea Grant program, or any other funding agency or source. In addition, please note that it is New York Sea Grant's policy to consider only submissions specifically in response to, and within the due dates for, this Call. Proposals will not be considered unless they were in this Call's pool from the start as a pre-proposal.

H. One Submission per Researcher:

Any individual may be involved with ***only one*** pre-proposal submission whether as a principal investigator, co-principal, associate investigator, collaborator, etc. NYSG has been encouraged to further diversify the researchers it supports, and hopes this Call will attract many different faculty, including those from academic institutions not often awarded NYSG funds.

I. What and When to Submit:

The completed PC-readable Pre-proposal Submission Form (see Section VII) ***must be received by the deadline of 4:30 pm EST on Tuesday, February 22, 2011*** at NYSG's electronic submission web site: www.NYSGProposal.org Navigate to "New York Sea Grant's Biennial Research Call for 2012-2013" and follow all directions for electronic submission. At the pre-proposal stage, signatures of principal investigators or campus officials are not required.

Do ***not*** include information or materials supplemental to the Pre-proposal Submission Form (e.g., full budget, appendices, letters of support, etc.). Such materials will be discarded without review.

Important notes about pre-proposal submission:

Submissions that do not include the required information will lose rating points (see Section VII for Instructions).

- Double-check your Pre-proposal Submission Form file before uploading it at the submission web site to make sure it is PC-readable and that it is your final version. *It must be in the form of a single pdf file.* You will receive an auto-receipt from the web site confirming your submission, but this is not an indication that your file is readable.
- We recommend submission via a PC at your university office, with a current version of Internet Explorer or Firefox web browser installed.
- If you have trouble with submission through www.NYSGProposal.org, call NYSG (631-632-6906) to explain the problem. We will try to help, but cannot guarantee that we can

solve your problem. In any case, unless the web site (housed on the Stony Brook University server) becomes inoperable, it is *your* responsibility to use equipment that will allow you to meet the deadline.

- All submissions will be checked in the order they were posted and any that contain a virus or that are unreadable cannot be accepted. The lead investigator will be notified about this by email. However, for submissions that are posted on February 22, NYSG cannot guarantee that this check and notification will take place before the 4:30 PM deadline.
- Any submission after the deadline of 4:30 PM on February 22, 2011, cannot be accepted and its lead investigator will be notified. Please be sure to watch the time! Even if you are on the website before the deadline, if your file is not submitted by 4:30 PM, it will be too late to be accepted.

NYSG will not make exceptions to these conditions, so ***early submission is very strongly advised***. The official time stamp on the submission is provided by Stony Brook University's server.

IV. THE REVIEW PROCESS

All pre-proposals submitted to NYSG in response to the Biennial Research Call for 2012-2013 will be screened by NYSG's program management team, extension specialists, Program Advisory Council, and Science Panel of academic researchers. The following criteria will be evaluated:

- Explanation of relationship to Section II Priorities and the significance of the specific problem, need, or opportunity the proposal will address (0 to +5)
- Expected products and anticipated impact(s) from the results (0 to +5)
- Likelihood that the approach will be successful (0 to +2)
- Information missing from any of the sections, 1 through 9 (0 to -1, per section)
- Other programmatic considerations

Only authors of the most highly-rated pre-proposals will be invited to submit full proposals. In this cycle, NYSG will invite about twice as many as it expects to be able to fund. During full proposal development, investigators will be expected to facilitate coordination with, or input from, industry, agency, or private groups as appropriate. NYSG staff will attempt to be of assistance in this process.

Full proposals will be subject to mail peer review and a special Technical Review Panel. Additionally, NYSG's program management team will utilize input from NYSG's staff and Program Advisory Council. The specific projects NYSG includes in its omnibus proposal to the National Sea Grant College Program will be selected primarily on the basis of the following criteria: responsiveness to the NYSG conditions and priorities outlined in this Call; significance of the specific problem or opportunity; scientific or technical merit of the workplan, including also the professional qualifications of investigators and appropriateness of the budget request and match; expected products and anticipated impact(s) from the results; and other programmatic value. Performance and accomplishments with previous NYSG funding will be considered also,

if applicable. The National Sea Grant Program Office oversees NYSG's review processes and does not conduct a separate evaluation of individual proposals.

V. 2011 CALL TIMELINE

January 4, 2011	Call for pre-proposals released
February 22, 4:30 pm	Deadline for pre-proposals (must use NYSG submission web site)
April 11	NYSG invites selected PIs to write full proposals
June 6, 4:30 pm	Deadline for full proposals with all authorized signatures (must use NYSG submission web site)
July 28	PIs receive masked peer reviews for response
August 4	Deadline for PI responses to reviews
August 24	NYSG notifies successful investigators
September 14	Deadline for revisions, final budgets and Word/Excel versions of successful proposals
February 1, 2012	Anticipated funding begins for new projects
February 1, 2013	Anticipated funding continues for 2-year projects with satisfactory progress

VI. NEW YORK SEA GRANT STAFF

Research Administration (at Stony Brook University)

James Ammerman, Director (631-632-6905, jammerman@notes.cc.sunysb.edu)

Cornelia Schlenk, Assistant Director (631-632-6906, cschlenk@notes.cc.sunysb.edu)

Mary Kethman, Fiscal Officer (631-632-6908, mkethman@notes.cc.sunysb.edu)

Lane Smith, Research Program Coordinator (631-632-9780, lsmith@notes.cc.sunysb.edu)

Extension Specialists (locations throughout New York State)

Antoinette Clemetson (631-727-3910 at the Cornell University Research & Extension Center in Riverhead, aoc5@cornell.edu) – marine recreational fisheries; lobsters; marine fisheries diseases.

Helen Domske (716-645-3610 at SUNY Buffalo, hmd4@cornell.edu) – coastal education; avian botulism; Great Lakes ecosystems.

Ken Gall (631-632-8730 at Stony Brook University, klg9@cornell.edu) – seafood safety; seafood processing; seafood utilization; seafood education.

Larissa Graham (631-632-8730 at Stony Brook University, lbg85@cornell.edu) – natural resources of Long Island Sound.

Nordica Holochuck (845-340-3983 at Cornell Cooperative Extension of Ulster County in Kingston, nch8@cornell.edu) – stewardship; coastal recreation; habitat issues; Hudson River issues.

Eileen Keenan (631-444-0422 at NYS Dept. of Environmental Conservation offices in Stony Brook, ek72@cornell.edu) – water quality; non-point source pollution.

Robert Kent (631-727-3910 at Cornell University Research & Extension Center in Riverhead, *rjk13@cornell.edu*) – coastal communities; habitat restoration. (*retiring 1/31/2011*)

James MacDonald (718-482-4940 at NYS Dept. of Environmental Conservation offices in Long Island City, *jam365@cornell.edu*) – youth education; recreational fishing.

David MacNeill (315-312-3042 at SUNY College Oswego, *dbm4@cornell.edu*) – sportfishery development; fisheries biology, management and conservation; aquaculture.

Mary Penney (315-312-3042 at SUNY College Oswego, *mp357@cornell.edu*) – Great Lakes dune and river steward coordinator.

Jay Tanski (631-632-8730 at Stony Brook University, *jjt3@cornell.edu*) – marine facilities; coastal processes and erosion control.

David White (315-312-3042 at SUNY College Oswego, *dgw9@cornell.edu*) – coastal recreational facility design, management, and operation; coastal recreation participation, uses, and impacts.

Communications Staff (at Stony Brook University)

Barbara Branca (631-632-9124, *bbranca@notes.cc.sunysb.edu*) – communications manager.

Paul Focazio (631-632-9124, *pfocazio@notes.cc.sunysb.edu*) – writer, web developer.

VII. PRE-PROPOSAL SUBMISSION FORM INSTRUCTIONS

Be sure to use the format and provide the information as described below. **Every Section (1-9) and all of the information specified within it is required.** Submissions that do not include all of this information will lose rating points. Use all-around margins of at least 1" and a font size no less than #12 Times New Roman.

Pre-proposal Submission to the NYSG Biennial Research Call for 2012-2013

Date: _____

1. LAST NAMES OF PRINCIPAL INVESTIGATORS: (e.g., Smith / Doe / Jones)

2. BRIEF PROJECT TITLE:

3. INVESTIGATOR(S): List **all** principal (PI), co-principal (co-I), and associate (AI) investigators, including name, mailing address, telephone, and email for each. ***Also*** indicate eligibility category (#) from the Call's Section III.A for each. The primary professional base of the lead investigator must in New York State. Students and NYSG staff cannot have PI, co-I, or AI status.

4. TYPE OF PROJECT:

a) **a. Addressing Goal(s) and Objective(s):** Indicate by number and letter the Area and Specific Priority from Section II of this Call that will be addressed by this submission (e.g., **5f**, for *Design and evaluate new BMPs to reduce stormwater pathogens.*)

b. Regional or multi-program submission? Indicate yes or no, whether the pre-proposal is part of a regional or multi-program submission being considered by other state Sea Grant programs. If yes, indicate which programs. Note: pre-proposals in response to the special Northeast regional Call described in section III.F should *not* be submitted under this NYSG Biennial Call.

5. BUDGET: Totals of direct plus indirect costs.

A. Estimated Request for Federal Funds from New York Sea Grant

Year One \$ _____ Year Two \$ _____ Total Request \$ _____

B. Estimated Non-Federal Cost-Share to be Provided to New York Sea Grant

Year One \$ _____ Year Two \$ _____ Total Match \$ _____

C. Expected Source(s) of Cost-Share:

Year One:

Year Two:

6. BRIEF DESCRIPTION OF PROJECT: Starting on a *new* page, **use no more than two pages** with the following a-e headings to describe your proposed project. Use all-around margins of at least 1” and a font size no less than #12. Anything beyond two pages (or estimated to be beyond, if margins or font are incorrect) will be discarded prior to review.

- a) **STATEMENT OF THE ISSUE:** Explain the significance of the problem or opportunity you wish to address in the context of the Focus Area, Goal, and Example of this Call’s Section II.
- b) **OBJECTIVES:** List the overall objectives of your proposed study, with a statement of the hypothesis(es) to be tested. Or, if this is model or technique development or a synthesis effort, clearly state the intent.
- c) **APPROACH:** Very briefly describe the general approach to be used in accomplishing the objectives.
- d) **EXPECTED PRODUCTS AND ANTICIPATED IMPACT(S):** Explain what products (models, methods, and scientific information) are expected to result from this project, who will use them, and what their anticipated impact(s) will be within New York and elsewhere. This is one of the most important sections of your submission!

7. LITERATURE CITED: Present the full citations for any work referenced under Section 6, where they may be labeled as (1), (2,3), etc. The space required for Section 7 is not counted under the 2-page maximum for Section 6. If no references are used in Section 6, state “none”.

8. CVs: Provide a Curriculum Vita for each listed investigator (Principal Investigator, Co-Principal Investigator, Associate Investigator) with 2 page maximum per person, using the format required by NSF. Contact NYSG if you need instructions.

9. FOR NYSG INTERNAL USE ONLY: Starting on a *new* page, provide the following:

Possible Peer Reviewers: List the names and affiliations of four out-of-state individuals of national standing and pertinent expertise who could provide informed peer reviews of your submission. Do ***not*** include individuals with whom you have worked or collaborated within the last 4 years or who would be considered to have a professional or personal conflict of interest. We may or may not use these individuals, so do not contact them yourself.

The information for Section 9 is for internal NYSG use only and will not be utilized as part of the pre-proposal review. However, like Sections 1 through 8, omitting this section will cause your submission to lose rating points.