



(091222)

**New York Sea Grant's
Core Research Call for 2011**

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

Courtesy Deadline Wednesday March 3, 2010
Final Deadline 4:00 pm EST Friday March 5, 2010

Anticipated Funding*: approximately \$1 million to be spent over 2 years,
to support about 5-7 projects

(*due to a scheduling shift by the National Sea Grant Office, this is only about one-half of NYSG's usual Calls)

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.

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 expect to generate such. A project must have sufficient intellectual content (theoretical basis, hypothesis testing) to make it appropriate for university research.

The need, significance, 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* presented below. Even though only three Goals are included, research in many disciplines (e.g., biology, chemistry, geology, physical oceanography, engineering, and the social sciences) may be appropriate to address them.

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

►►► Subject Area B: Sustainable NY Coastal Development ◀◀◀
Goal i: Robust coastal business development

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

Short & Mid-term Outcomes: 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.

Examples of particular interest:

- 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) How to clearly define and communicate the concept of sustainability of a fishery resource, as a BMP, so that it can be effectively communicated to the public.
- c) Developing BMP methods, procedures, or approaches to help energy intensive businesses (e.g., seafood businesses who must use a good deal of refrigeration), reduce their energy consumption and/or carbon footprint.
- d) Develop BMP methods, procedures, or approaches to prevent or minimize the impact of pests, pathogens, and diseases that may be transmitted or introduced via coastal facilities or businesses.
- e) Develop information and tools that will help refine and potentially expand dredging windows related to winter flounder while protecting the resource.
- f) 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.

- g) Perform quantitative analysis of cost/benefits of proposed existing and proposed regulations and BMPs of waterfront facilities.
- h) Determine the costs/benefits, and the factors affecting them, of routine maintenance dredging of recreational navigation channels which provide access to Lake Ontario or other areas.
- i) Other issues that address the Strategy in the context of contributing to Subject Area B, Goal i *and* achieving the Short & Mid-term Outcomes.

▶▶▶ Subject Area B: Sustainable NY Coastal Development ◀◀◀
 Goal iii: Effective coastal spatial planning and utilization of coastal waters
 for commerce and conservation

Strategy: 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: Tools and new information will be developed and made available to help resolve controversies that may arise in marine spatial planning efforts.

Examples of particular interest:

- 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) Predict impacts of offshore power-generating wind farms along the NY shores of Lakes Ontario and Erie.
- c) Predict impacts of energy operations potentially sited in New York's marine waters.
- d) Other issues that address the Strategy in the context of contributing to Subject Area B, Goal iii *and* achieving the Short & Mid-term Outcomes.

▶▶▶ Subject Area D. Hazard Resilience in NY Coastal Communities ◀◀◀
 Goal i: Improved response to coastal hazards

Strategy: 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: 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.

Examples of particular interest:

- 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 use and design of "living shorelines" as a means of erosion and flood management in low to moderate energy environments.
- c) Quantitatively evaluate the potential impacts of shore protection strategies on marine 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 the Strategy in the context of contributing to Subject Area D, Goal i *and* achieving the 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 Core Research Call for 2011 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 2/1/2011 through 1/31/2013. 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. One year projects also are welcome.

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

The total budget request (direct + indirect costs) for a project may not exceed \$110,000 per year. Note that smaller budgets are desirable. 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 \$50K is requested from Sea Grant, the proposal's budget page should demonstrate an additional \$25K of non-federal cost-share. Investigators are strongly encouraged to contribute this level of cost-share because the NYSG Director has the authority to reject any pre-proposal or full proposal that does not do so.

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:

Sea Grant programs need 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.

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. Number of Submissions per Researcher:

Any one individual may be involved with up to two pre-proposal submissions as a principal investigator, co-PI, or associate investigator. Under the Call for 2011, projects ultimately selected for funding will have no overlapping investigators (principal, co-principal, or associate).

I. What and When to Submit:

The completed PC-readable Pre-proposal Submission Form (see Section VII) ***must be received by the final deadline of 4:00 pm EST on Friday, March 5, 2010*** at NYSG's electronic submission web site: www.NYSGProposal.org Navigate to "New York Sea Grant's Core Research Call for 2011" and follow all directions for electronic submission. At this 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.
- For submissions made on or before the Courtesy Deadline of 3/3/2010, NYSG staff will email you separately and before the Final Deadline to confirm that your file is virus-free and can be opened and read. This courtesy check will *not* be available for submissions (or re-submissions) made after 3/3/2010.

- The lead investigator of a file submitted to the web site after the Courtesy Deadline (3/3/2010), that contains a virus, or that is unreadable will be notified on March 8th that his/her submission cannot be accepted.
- 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 Final Deadline.
- Any submission after the Final Deadline of 4:00 PM on March 5 cannot be accepted and its lead investigator will be notified on March 8th.

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 Core Research Call for 2011 will be screened by NYSG's program management team, extension specialists, and Program Advisory Council, as well as by a Pre-proposal 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 8 (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. The number of research projects will be less than usual this year, only about 5-7, because their budgets will be covered entirely by the 2011 allocation. NYSG will be returning to its regular Biennial Call cycle for 2012-2013. 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 15, 2010	Call for pre-proposals released
March 3	Courtesy Deadline
March 5, 4:00 pm	Final Deadline for pre-proposals (must use NYSG submission web site)
April 21	NYSG invites selected PIs to write full proposals
June 17, 4:00 pm	Deadline for full proposals with all authorized signatures (must use NYSG submission web site)
August 5	PIs receive masked peer reviews for response
August 12	Deadline for PI responses to reviews
August 30	NYSG notifies successful investigators
September 13	Deadline for revisions, final budgets and Word/Excel versions of successful proposals
February 1, 2011	Anticipated funding begins for new projects
February 1, 2012	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, ljl85@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.

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.

Chuck O'Neill (585-395-2638 at SUNY College Brockport, *cro4@cornell.edu*) – aquatic nuisance species; coastal resource planning and management; shoreline erosion and lake levels; coastal structures and construction practices.

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 (1-8) 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 Core Research Call for 2011

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. Addressing Goal(s) and Objective(s): Indicate by number and letter the Area, Goal, and Example from Section II of this Call that will be addressed by this submission.

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.

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 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.

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

- a) **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.
- b) **CVs:** Provide a Curriculum Vita for each listed investigator (PI, Co-Is, AIs), 2 page maximum per person.

The information for Section 8 is for internal NYSG use only and will not be utilized as part of the pre-proposal review. However, like Sections 1 through 7, omitting this section or any part of it will cause your submission to lose rating points.