

FY 2009 Place-based Solutions to Land Use and Climate Change Impacts Funding Opportunity

Full Proposal Guide

January 26, 2009



Cooperative Institute for
Coastal and Estuarine
Environmental Technology

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Ask Us

Feel free to call CICEET with questions about any aspect of this RFP. Clarifying the requirements of this funding opportunity before you submit will improve your proposal's chance of success.

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**The deadline for receipt of your full proposal by CICEET is
1 p.m. (1300 hours) EST, on Thursday, March 12, 2009.**

More information about this funding opportunity is available at
http://ciceet.unh.edu/funding/rfp_2009

The online version has direct links to resources that are not presented in the printed version. CICEET strongly recommends that all potential applicants consult the web pages for this RFP before preparing a full proposal.

I. Request for Full Proposals

Applicants who submit successful preliminary proposals will be invited to submit full proposals to CICEET's pilot FY 2009 Place-based Solutions to Land Use and Climate Change Impacts Funding Opportunity. Approximately \$500,000 dollars will be available to fund between two and eight projects of one to two years in duration. This Request for Proposals (RFP) is open to any National Estuarine Research Reserve System (NERRS) staff working in partnership with applicants from the United States academic, private, or public sectors. To be eligible for funding, proposals must name a NERRS staff member as the project's principal investigator or as a co-investigator. Researchers from institutions outside the U.S. may be included as additional investigators, but cannot be principal investigators.

Goals for this RFP

Proposals must address the dual impacts of land use and climate change on coastal resources and communities, as they relate to specific needs that have been identified as priorities by a NERR (or group of NERR sites) and surrounding communities. The following are the goals for this pilot RFP:

- A. Fund place-based technology development, refinement, and/or demonstration projects that can be applied to address challenges related to the dual forces of climate change and land use change;
- B. Emphasize the use of sound, collaborative practices that facilitate the transfer of research into practical application;
- C. Identify ways in which NERRS and CICEET can use the competitive research process to advance mutual goals.

Project Attributes

Projects must develop, refine, and/or demonstrate technologies that address place-based questions or problems related to the dual pressures of land use and climate change. Successful proposals will have the following Project Attributes:

- A. Technical: Develop, demonstrate, and/or refine technologies to help solve place-based coastal management challenges related to the dual forces of climate change and land use change;
- B. Collaborative: Ensure collaboration between scientists, intended users of the science, and other relevant stakeholders throughout the project;
- C. Evaluation/adaptation: Use evaluative tools to improve the project (formative evaluation) and to assess the degree to which the project achieves its anticipated outcomes (summative evaluation);

D. Knowledge Dissemination: Use appropriate, intended user-driven dissemination strategies to ensure that successful technologies and research results are communicated to other NERRS sites and the broader coastal management community.

For this RFP, "technology" is defined as the systematic use of knowledge or tools to better understand or interact with the environment. Examples include engineering designs, best management practices, ideas, instrumentation, protocols, decision support systems, models, and other information-based tools. CICEET welcomes a range of projects, from those focused on the early stages of technology development to those engaged in the demonstration of existing technology.

To promote the application of technology, this RFP emphasizes a collaborative approach to research, one that encourages researchers, intended users of technology, and relevant stakeholders to work together throughout the process of defining a problem and developing methods to address that problem. "Intended users" are defined as those most likely to use the results of the project to better manage natural resources. "Relevant stakeholders" are defined as individuals or organizations that have a direct financial, health, or professional interest in the project's outcomes, and would be instrumental in facilitating or preventing application of the technology.

Intellectual Property Protection

Since the technology dissemination pathway is often not clear at the outset of a project, applicants are encouraged to take steps to protect the intellectual property of ideas at the proposal preparation stage, if appropriate. This will allow you to talk freely about ideas and avoid the inadvertent loss of intellectual property rights. For more information:
http://ciceet.unh.edu/funding/rfp_2009/rfp_resources

II. Full Proposal Preparation

Applicants with successful preliminary proposals will be invited to submit a full proposal. CICEET has prepared the following guide to submitting full proposals to this funding opportunity. Please follow the instructions below; full proposals that do not address every narrative requirement in the proper order will be deemed non-compliant and will not undergo further review. Each proposal must include the following components:

- A. Title Page
- B. Abstract
- C. Narrative
- D. Literature Cited
- E. Qualifications
- E. Budget Forms

A. Title Page

CICEET requires all title pages to be in a standard format. The title page template is available online at http://ciceet.unh.edu/funding/rfp_2009/rfp_forms

B. Abstract

On a separate page, provide a one- to two-paragraph abstract summarizing the salient points of your proposal, including a short description of the problem, a brief project overview, anticipated outcome(s), and methods to reach those outcomes.

C. Narrative

Narratives are not to exceed 18 single spaced pages with one-inch margins. They must be formatted in "Times" 12-point font and use CICEET's headings for each section. Narratives must include the following sections in the following order:

1. Problem Statement
2. Project Overview
3. Project Outcome(s)
4. Methods
5. Roles and Responsibilities
6. Transferability
7. NERRS Involvement
8. Timeline
9. Budget Justification

1. Problem Statement

Describe the specific regional or local coastal management problem that your project seeks to address. Describe how this problem is related to the dual forces of changing land use patterns and climate change. Include the location and any relevant natural science (biological, physical, etc.) and social (economic, political, regulatory, etc.) contextual information. Describe existing methods to address the specified coastal management problem. Describe technical and non-technical barriers that prevent existing methods from being applied successfully and explain why improvements are needed (use citations when possible) to overcome these barriers.

Provide citations to support that the problem and barriers to existing methods have been articulated by the coastal management community (reference any papers, workshop proceedings, needs assessments, etc.). Describe how the problem statement or barriers identified in these citations were refined or confirmed with intended users. If refinement and confirmation has not been done, make note of it in this section and provide details on how this will be accomplished in the collaborative section of the methods narrative.

2. Project Overview

Provide a brief overview of the proposed project activities that will contribute to a solution for the problem stated above. Identify whether your proposal is focused on technology development, refinement, and/or demonstration.

3. Project Outcome(s)

Describe the outcome(s) your project is designed to achieve within the one- or two-year project period. Discuss how achieving the short term outcome(s) associated with this project will contribute to a longer term solution to the local land use/climate change problem you have defined. Describe how your project takes into account barriers that prevent existing methods from being successful. Please be focused and realistic about what you plan to accomplish within the one- or two-year scope of your project.

4. Methods

Describe the methods you will use to achieve your project outcome(s). These methods must be organized into the four Project Attribute categories defined below. Justify methods with references to previous experience, citations of previous research results, etc. Given this RFP's emphasis on the collaborative research approach, proposals must explain how intended user and relevant stakeholder input will be incorporated into the described methods. CICEET acknowledges that methods outlined in your proposal may change as a result of the collaborative process. As a result, applicants are encouraged to discuss their approach with intended users and relevant stakeholders as soon as possible, and have a plan for incorporating intended user input into the refinement of this approach. CICEET has provided resources to support the development of methodology for the collaborative process online at http://ciceet.unh.edu/funding/rfp_2009/rfp_resources. The information provided at this link will be used by the technical panel to review the collaborative methods.

A. Technical Methods: Provide a detailed description of technical methods to develop, demonstrate, and/or refine technologies. In your description, include your research design (hypotheses and experimental design), and methods for data management (QA/QC) and analysis/interpretation.

B. Collaborative Methods: Identify and justify an initial list of the types of organizations/individuals you anticipate acting as intended users and relevant stakeholders for your project. Discuss and justify the model you will use to ensure collaboration between investigators, intended users, and relevant stakeholders in 1) problem definition, 2) research design, 3) research implementation, 4) results interpretation, and 5) dissemination of results to intended users and relevant stakeholders.

Your process should allow for a specified team member to use established criteria to assess whether neutral facilitation is required. Describe the structure and frequency of interaction between the aforementioned groups, and how disagreements between participants will be handled.

C. Evaluation/Adaptation Methods: Describe the formative evaluation methods you will use to set targets, monitor progress toward those targets, and make appropriate mid-course corrections to advance your project toward anticipated outcome(s). Describe your summative evaluation plan for determining if you have met your outcomes at the end of the project, including how this information will be tracked and recorded and how the results will be analyzed and reported.

D. Knowledge Dissemination Methods: Describe your plan to disseminate the results of technology demonstration, development, or refinement to the NERRS, intended users, relevant stakeholders, and the broader coastal management community. Dissemination methods should be developed in consultation with intended users at the outset of the project. Include how you will communicate lessons learned from your collaborative process and project assessment and evaluation results to the NERRS, intended users, and relevant stakeholders.

5. Roles and Responsibilities

In this section, describe investigators roles and responsibilities. An investigator may fill more than one role if he or she has demonstrated the necessary experience and it is justified in this narrative. However, the collaborative lead and technical lead cannot be the same person. Any investigator may serve as the Principal Investigator (PI).

Mandatory Investigators:

Identify and justify who will fill the following mandatory investigator roles, and briefly describe their key responsibilities during the project period and the applicable skills and experience that qualify them for the role.

Technical Lead: This person will oversee and coordinate technical aspects of the project. The technical lead cannot be the collaborative lead.

Collaborative Lead: This person will ensure that the perspectives of all investigators, intended users, and relevant stakeholders are represented in the collaborative process and that interactions are handled appropriately. This person will determine when and if interactions between investigators and intended users would benefit from the participation of a neutral facilitator. The collaborative lead cannot also be the technical lead.

Evaluation/adaptation Lead: This person will lead the process to set clear targets, track progress toward those targets, and make any mid-course corrections that are needed as the project progresses. This person is also responsible for developing and implementing a summative evaluation plan and capturing key lessons learned from the project.

Knowledge Dissemination Lead: This person will ensure that intended users and relevant stakeholders have access to any information generated by this project, and that their perspectives on appropriate format and delivery of information are included in the development of dissemination strategies. This person is also a lead on collecting relevant results, evaluation findings, and lessons learned for transferring to other NERRS and coastal managers.

Additional Investigators:

If applicable, identify and justify any additional investigators or subcontractors whose skills are required to achieve your project outcome(s). Please note: Your project will require the participation of intended users and relevant stakeholders as part of your collaborative process. Only mention them in this section if they will be named as investigators, with their time accounted for.

6. Transferability

Describe how the technology or knowledge outcomes of your work could be useful to other NERRS sites and/or the broader coastal community. Discuss the extent to which the problem statement and proposed outcome(s) are applicable beyond your location and situation, and indicate the potential transferability of the results of the research. Include any anticipated changes that might need to be made to apply the technology in another NERR site or coastal community. For this RFP, "transferability" is defined as the degree to which a technology can be applied in more than one place, in more than one situation, or at more than one point in time.

7. NERRS Involvement

Explain why the NERR site(s) you have chosen will be a good platform for conducting this project. Briefly describe the specific site where the project will take place, and if relevant, how the national system will be used to advance the project. Examples include, but are not limited to, the use of existing data or previous research to develop or demonstrate the technology; taking advantage of the range of staff expertise to assist with different aspects of the project; working with multiple Reserves in a region; and using the NERRS network to disseminate results.

8. Timeline

Provide a timeline to achieve your project's anticipated outcome(s), using the timeline form available online at http://ciceet.unh.edu/funding/rfp_2009/rfp_forms.html

This timeline should identify discrete products or activities that signify progress toward anticipated outcome(s). It should reflect the amount of time you will spend on technical, collaborative, evaluative, and knowledge dissemination methods and include sufficient time for data analysis and synthesis, as well as writing semi-annual and final progress reports for the project.

9. Budget Justification

Provide a detailed budget justification that explains each item. Use the budget form available online at ciceet.unh.edu/funding/rfp_2009/rfp_forms.html

Proposals must provide a detailed budget justification for all items in the budget, e.g., salary, equipment, supplies, and travel. Investigators from institutions other than that of the PI must be listed as subcontracts on the budget form and their activities explained in the budget justification. Activities for which you must account include grant administration, technology development and application, data management and analysis, collaborative process activities, adaptive management activities, transfer, communication, and evaluation.

Please note: The following sections—"D," "E," & "F"—are not included in the 18-page narrative limit.

C. Literature Cited

Please include a complete list of all cited work in the proposal.

D. Qualifications

Please include a two-page *curriculum vitae* or résumé for each project team member.

E. Budget Forms

You must submit one budget form for each year of your project, as well as a cumulative form. Please include detailed budgets for subcontractors on a separate budget form. Budget forms are available online at http://ciceet.unh.edu/funding/rfp_2009/rfp_forms.html

III. Full Proposal Submission

The deadline for receipt of your proposal by CICEET is 1 p.m. (1300 hours), EST, on Thursday March 12, 2009. Your initial submission MUST be an electronic PDF file, not a hard copy. Proposals sent in any other file format will NOT be accepted. Proposals will not be accepted after the deadline.

Please send your proposal as a single PDF email attachment to submissions@ciceet.unh.edu

You must also send one signed, hard copy of your proposal. The postmark must not be later Thursday, March 12, 2009. Please mail this to CICEET's Program Coordinator:

Cindy Tufts
Gregg Hall, Room 130
35 Colovos Road
Durham, NH 03824

IV. Full Proposal Evaluation

CICEET will conduct an initial compliance review of all proposals. Proposals deemed "non-compliant" will be eliminated from the competition, and CICEET will notify the applicants as quickly as possible. Proposals will be deemed "non compliant" for failure to do one or more of the following:

- Follow the narrative structure as outlined;
- Submit all required information for each narrative section, *curriculum vitae*, budget forms, timeline, etc.
- Follow directions with regard to formatting and submission procedures.

Each compliant full proposal will be peer-reviewed by at least three experts in the field of the proposed project. CICEET includes a rebuttal process to allow applicants to respond to issues raised by peer reviewers. Applicants will have access to blinded copies of peer reviews and will likely be given five working days for rebuttal. At present, the rebuttals are scheduled to occur between May 4th and May 14th, 2009.

Following peer review and rebuttal, a panel comprised of a multidisciplinary group of intended users, collaborative research experts, and scientists in appropriate disciplines will review full proposals, peer reviews, and applicant rebuttals and make funding recommendations. Applicants will be notified of the outcome of this process by late June 2009.

Please note: projects recommended for funding are subject to National Environmental Policy Act (NEPA) review regarding the environmental impacts of the proposed research. Funding is contingent upon compliance with NEPA guidelines. Learn more about NEPA at <http://www.epa.gov/compliance/nepa/>.

The panel will evaluate proposals using the following criteria:

1. Problem statement

To what extent is the described problem related to the dual forces of land use and climate change? How well does the proposal make the case that the problem has been articulated by the coastal management community? Does the proposal adequately identify previous and current attempts to address this problem and the technical and non-technical barriers that hinder or prevent effective application of technologies? Has the problem statement been confirmed and/or refined with intended users and relevant stakeholders?

2. Project Outcome(s)

To what extent would achieving the anticipated outcomes help solve the identified problem? How well does the proposal make the case that the project outcomes will take into account technical and nontechnical barriers defined in the problem statement? Are the outcomes focused and realistic given the one- or two-year scope of the project?

3. Methods

To what extent does the proposal include viable, specific, and justified methods for each Project Attribute to achieve the anticipated outcome(s)? How well does the proposal explain how intended user and relevant stakeholder input will be incorporated into described methods? If the problem statement has not been confirmed with intended users and relevant stakeholders does the proposal adequately describe methods to do so?

Technical: To what extent will the methods outlined meet the anticipated outcome(s) related to developing, demonstrating and/or refining technology?

Collaborative: To what extent does the list of potential intended users and relevant stakeholders reflect an understanding of the defined problem? To what extent does the proposal describe appropriate methods for collaboration related to 1) problem definition, 2) research design, 3) research implementation, 4) results interpretation, and 5) dissemination of results to intended users and relevant stakeholders? How well does the proposal describe and justify the collaborative model investigators plan to use?

Evaluation/Adaptation: To what extent does the proposal describe an appropriate plan for formative evaluation, i.e., setting targets and making course corrections? To what extent does the proposal describe an appropriate plan for summative evaluation of the overall project?

Knowledge Dissemination: To what extent does the proposal describe an appropriate, intended user driven plan for knowledge dissemination to intended users and relevant stakeholders beyond the project team?

4. Roles, Responsibilities, and Qualifications

To what extent does each mandatory investigator possess the skills, experience, and qualifications to fill his or her role? If other investigators or contractors were listed, are they adequately qualified to perform the tasks described? Are there other skill sets that should be added to increase the likelihood of meeting project outcome(s)?

5. Transferability

To what extent do the proposed methods and anticipated outcomes have relevance to other NERRS sites or other regions beyond that defined by the proposal? Does the proposal adequately identify modifications that would need to be made to effectively transfer the technology to other sites or regions?

6. NERRS Involvement

To what extent does the proposal make the case that the team of investigators will utilize the distinctive resources and capacity of the NERR System and/or the NERR site(s) where the project will be conducted?

7. Timeline

How realistic is the timeline in terms of completing proposed products and activities within the time frame and scope of the project?

8. Budget Justification

Is the budget appropriate for the work proposed?

V. RFP calendar

Full proposals (by invitation only) due: March 12, 2009
Applicant rebuttal to peer reviews due: May 14, 2009
Notification of funding decisions: June 23, 2009
Funded project start date: Aug 1, 2009

VI. About CICEET

The Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) develops and applies technologies to detect, prevent, and reverse the impacts of coastal pollution and habitat degradation nationwide. CICEET is a partnership of the National Oceanic and Atmospheric Administration (NOAA) and the University of New Hampshire (UNH).

As a needs-based organization, CICEET works with coastal resource managers around the country to identify their priority environmental challenges. This analysis forms the basis of competitive funding opportunities that call for projects to develop, demonstrate, and implement technology-based solutions that coastal managers can apply to address these issues. These funding opportunities are designed to ensure a high level of collaboration between intended users of a technology-based solution and the research project team. You can learn more about CICEET's projects on Project Explorer, a searchable online database: <http://ciceet.unh.edu>.

Since the creation of CICEET in 1997, the National Estuarine Research Reserve System (NERRS) has been an essential partner. As place-based programs, NERRS sites have strong relationships with local communities. At the same time, they are part of a national network through which scientists, educators, and managers in different locations can collaborate strategically to advance common goals. This combination makes Reserves ideal places to develop, refine, test, demonstrate, and disseminate technology that can be applied to improve resource management within the NERRS and the broader coastal management community.

VII. Glossary of Terms

Access: The ability, right, or permission to locate or use a technology.

Application: The use of technology to detect, prevent, or reverse the impacts of pollution and/or habitat degradation on coastal ecosystems and communities.

Collaborative Process: Research that involves interaction between scientists, intended users and stakeholders within a formal and structured process at every stage of the research endeavor including: problem definition, research design, data analysis, connecting data to management implications, and dissemination of results.

Decision Maker: Individuals or organizations that are responsible for selecting a course of action that directly impacts coastal natural resources.

Development (Urban and Agricultural): Human induced landscape alteration resulting in changes to natural systems and subsequent changes in the condition of local water, soil, air, and biota.

Dissemination: The process of sharing technology to ensure that it is accessible to a wider range of coastal managers and technology innovators who can use it to address local problems, or to develop new tools. Dissemination practices include,

but are not limited to, workshops, trainings, the distribution of outreach publications and multi media products, peer-reviewed publications, and presentations at conferences.

Effectiveness: The degree to which an activity, technology, process or person has achieved outcomes.

Evaluation: The systematic collection of information about activities, characteristics, and outcomes of projects to make judgments about the project, improve effectiveness, or inform decisions about future programming.

Formative Evaluation: The process by which investigators strengthen or improve the project while it is happening—they help form it by examining the delivery of the program or technology, the quality of its implementation, and the assessment of the organizational context, personnel, procedures, inputs, and so on. Formative evaluations allow a project to make course corrections based on information that is collected during the work period.

Intended Users: Those people targeted by a research project as the people most likely to use the results of the project to better manage natural resources.

Partners: Organizations or individuals who commit to share responsibility for achieving an agreed upon goal and attendant outcomes. All members must dedicate resources to meeting the goal and the partnership should result in outputs such as documents, workshops, funding opportunities, demonstration projects, etc.

Stages of Research: The intellectual phases of a research project, including defining the research question, designing and conducting research, demonstrating or verifying research, communicating results of research to intended users, and/or linking research to policy.

Summative Evaluation: The process by which investigators examine the effects or outcomes of some object at the end of the project—they summarize it by describing what happens subsequent to the project; assessing whether the project can be said to have caused the outcome; determining the overall impact of the causal factor beyond only the immediate target outcomes; and sometimes estimating the relative costs.

Technology: A systematic use of knowledge or tools to better understand or interact with our environment. Engineering designs, best management practices, ideas, instrumentation, protocols, decision support systems, models, and other information-based tools.

Technology Development: The process of identifying a problem and then designing, testing, demonstrating or implementing a technical solution.