

**THE COOPERATIVE INSTITUTE FOR COASTAL AND ESTUARINE
ENVIRONMENTAL TECHNOLOGY (CICEET)**

FY' 2003 Request for Development Project Proposals

November 26, 2002

The NOAA/UNH Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET), located at the University of New Hampshire, is inviting applications for “proof of concept” projects. Projects submitted to this competition should be short-duration, low cost development projects. The purpose of this component of the CICEET program is to “seed” the development of an innovative technology for which there is currently little or no data to determine feasibility thereby representing a high risk for full project funding. Development projects will provide an opportunity to establish a “proof of concept” before deciding if a multi-year, more resource intensive project is feasible.

Development project proposals must be received by CICEET on or before 4 pm January 13, 2003, to be eligible for consideration. This RFP can be accessed electronically by logging on to the CICEET website (<http://ciceet.unh.edu>) and selecting the link for “funding opportunities” on the left hand menu bar, and selecting “Development Projects” from the list of funding opportunities

I. Background

The Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) was established in 1997 as a national center for the development and application of innovative environmental technologies for monitoring, management, and prevention of contamination in estuaries and coastal waters. The Institute is a unique partnership between the University of New Hampshire (UNH) and the National Oceanic and Atmospheric Administration (NOAA), and promotes collaboration among academia, government, and the private sector. The Institute is governed by a Memorandum of Understanding (MOU) between NOAA and the University of New Hampshire (UNH) and is jointly managed by UNH and NOAA Co-Directors. CICEET uses the capabilities of the UNH, private sector and academic and public research institutions throughout the U.S. and the twenty-five Reserves in the National Estuarine Research Reserve System to develop and apply new environmental technologies and techniques.

CICEET's unique role is that of developing innovative and transferable technologies and techniques directly applicable to the management of estuarine and coastal systems. The activities of CICEET complement several other programs of NOAA and other federal, state, and local agencies. Additionally, CICEET emphasizes collaboration with the private sector to commercialize key environmental technologies. CICEET places significant emphasis on getting information and technology into the hands of end users and decision makers, building the skills necessary to properly use new approaches through training, and ensuring the implementation of technologies.

II. Mission and Goals

CICEET's mission is to understand and reverse the impacts of coastal and estuarine contamination through the development and application of innovative environmental technologies and methods.

Operationally, CICEET is:

- A national center fostering collaboration between academia, government and the private sector
- Committed to interdisciplinary work.
- Problem driven and solution oriented.
- Focused on estuarine and coastal issues of national concern
- Timely and effective in providing service to users.
- Dedicated to improving the capabilities of scientists and managers
- Using the National Estuarine Research Reserve System as platforms for research and technology development

The overarching goal of CICEET is to enhance the capacity of coastal resource managers and local decision-makers to prevent and mitigate anthropogenic contamination and degradation of coastal and estuarine ecosystems through the development, application and distribution of technology and information. We achieve this goal through the development and integration of monitoring, modeling and mitigation strategies and by transferring methods, technology and information to the end users.

Specific goals are to insure that:

1. New and innovative technologies and methods are available to solve anthropogenic contamination problems and to address the need for restoration in the estuarine and coastal environment.
2. New and innovative technologies and methods are effectively applied to coastal resource management through synthesis, integration, training and tool development.
3. NERRS have enhanced capacities to understand and manage estuarine ecosystems.

III. General Guidelines and Project Requirements

This RFP solicits projects that support the mission and goals of the Cooperative Institute in developing and applying innovative environmental technologies that address anthropogenic contamination and degradation of estuarine and coastal ecosystems. Up to \$200 K is available to fund development projects under this solicitation. The purpose of this component of the CICEET program is to provide investigators with an opportunity to evaluate the prospect of novel technologies or methods by generating preliminary data in short duration (one year or less), low cost (\$5,000-\$20,000) projects. It is expected that successful Development Projects will result in a proposal to CICEET for a full-scale

project in a future competition. Development Projects must address one of the priority focus areas listed in section IV below. Proposals for Development Projects should consist of standard title page (section VI), standard budget page (section VII) and a narrative of no more than three pages of single spaced text with a minimum of #12 font size (see section V for guidelines for proposal narrative preparation). Development proposals are to be sent to CICEET at the address listed below. **The original plus five copies must be received by CICEET by 4:00 PM, Monday, January 13, 2003.** A panel that will convene in late January 2003 will review and recommend proposals for development project funding. Project funding will be available by late February 2003. A second call for Development Projects may be issued in the spring of 2003 if any funds remain.

Please send one original and five copies to:

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All inquiries shall be directed to:

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IV. FY 2003 Priority areas for Research and Development

Projects under this year's request for Development Project proposals must address one of the following coastal management issues and include one or more of the activities listed under each issue.

1) Microbial contaminants

- Develop and/or apply novel and cost-effective technologies to eliminate or reduce microbial contaminants from point and non-point sources (e.g. wastewater, urban stormwater, agricultural runoff, boats, etc.)
- Develop and/or apply novel and cost-effective technologies and methods to identify sources (including human vs. non-human) of microbial contaminants
- Develop new sensors to detect and quantify microbial contaminants in the environment

2) Toxic contaminants

- Develop and/or apply novel and cost-effective methods for reducing or eliminating toxic contaminants from wastewater and stormwater
- Develop and/or apply novel and cost-effective technologies to remediate contaminated sediments and water
- Develop new sensors to detect and quantify contaminants in the environment

3) Nutrient Enrichment and Eutrophication

- Develop and/or apply novel and cost-effective methods for reducing or eliminating nutrients from wastewater and stormwater
- Develop better waste management technologies and strategies to reduce nutrient impacts from agriculture on coastal and estuarine ecosystems
- Develop methods to evaluate the effectiveness of best management practices for reducing nutrient loading from agricultural, residential and commercial sources
- Develop and/or apply novel techniques and strategies to mitigate impacts of nutrient enrichment on estuarine and coastal habitats

4) Habitat degradation/loss and habitat restoration

- Develop innovative and cost effective technologies to restore coastal and estuarine habitat
- Develop novel applications of remote sensing and data processing technologies (e.g. satellite and airborne imagery, in-situ sensors, acoustic techniques, GIS, etc) to detect habitat change
- Develop novel applications of technologies (e.g. satellite and airborne imagery, in-situ sensors, GIS, etc) to predict the effects of land use practices on contaminant input to estuarine and coastal ecosystems

5) Synthesis, integration and transfer of environmental data and information pertinent to coastal management issues 1, 2, 3 and 4 above

- Develop innovative methods to disseminate and improve access to environmental data and information
- Develop user-friendly interfaces and easily understandable output products for predictive models
- Develop innovative strategies for providing effective management tools and training to coastal managers and local decision makers

V. Guidelines for preparation of Development Project proposals.

The Development Project proposal narrative must follow the format below and be limited to five single-spaced pages using a minimum font size of 12 pts. Please use the standard title (section VI) and budget pages (section VII). Please include a one-page CV for each investigator listed on the title page. Handwritten, facsimile, or incomplete submissions will not be considered.

1. Statement of the Problem and Justification

Identify the problem or issue to be addressed and provide justification why a new technology or method is needed and why further evaluation of the proposed technology is needed before developing a full proposal.

2. Project Objectives

Identify the project objectives and describe the product or process that will result from successful accomplishment of the project.

3. Methods

Describe the methods that will be used to meet the project objectives and the criteria to be used to determine whether the project meets scientific expectations. Be sure to emphasize the innovative aspects of the technology or method.

4. Personnel

Identify the individuals who will conduct the project. Include a one page CV for all participants listed.

5. Facilities

Describe the facilities available to the project.

6. Timeline

Provide a timeline for project start and completion.

VI. Proposal evaluation

A CICEET review committee composed of personnel from NOAA, UNH and other academic institutions will evaluate proposals. Selections will be made using the following programmatic evaluative criteria (Note: evaluative criteria are weighted as indicated).

- 1) Does the proposed project meet the intent of this solicitation? (10%)
- 2) Does the proposed project address one or more of the priority coastal management issues listed in Section IV? (20%)
- 3) Are project objectives consistent with the mission, goals and objectives of CICEET? (15%)
- 4) Is the technology or methodology to be developed novel or innovative? (15%)
- 5) Is the proposed technology/methodology transferable to other estuarine and coastal locations? (15%)
- 6) Will project results likely result in sufficient information to develop a larger project proposal (10%)
- 7) Do the investigators demonstrate the qualifications and experience to successfully carry out the project? (10%)
- 8) Is there private sector involvement or potential for commercialization? (5%)

VII. Selection Schedule

January 13, 2003: Proposals due at CICEET

January 15, 2003 to - January 22, 2003: Proposals distributed for review

February 7, 2003: Final project selection

February 28, 2003: Funds available for successful projects

VI. Title page format for Development Projects

**The Cooperative Institute for Coastal and Estuarine Environmental Technology
(CICEET)
FY'2003 Development Project Application**

Project Title:

Project Duration:

CICEET Funds Requested:

Project Coordinator: (Lead principal investigator)

Name:

Position and Institutional Affiliation:

Address:

Phone:

Fax:

e-mail:

Additional Investigator(s):
(provide names and affiliations)

Project Coordinator's

Signature: _____ Date: _____

