

Massachusetts Ocean Partnership

**Request for Responses
For
Spatial Modeling and Decision Support
For**

Integrated Multi-use Ocean Management in Massachusetts

October 17, 2008

Introduction

The University of Massachusetts of Boston as fiscal sponsor for the Massachusetts Ocean Partnership (“MOP”) is seeking responses from individuals, organizations, or businesses (herein referred to as “Subrecipient(s)”) qualified in spatially explicit ecological economic modeling to aid MOP in its support to the Commonwealth of Massachusetts in ocean management planning and to support implementation of MOP’s Five Year Strategic Plan. In both the immediate and longer-terms, dynamic, spatially explicit decision support models are needed to develop performance standards, clarify trade-offs, and consider the likely ecological and economic consequences of alternative resource management decisions. The anticipated deliverables will include initial working iterations of an integrated ecological economic model that forecasts valued yield and cost-benefit analysis for key ecosystem services under alternative policy scenarios that can inform ocean management planning in the near-term and be further developed for greater utility over time. Potential deliverables may also include the development and application of models or tools that characterize ecosystem processes and functions. These could be utilized to fill data and modeling gaps that hinder resource management decision-making, or as modules or sub-models in a larger integrated model.

Background

MOP is a recently established public-private partnership created to advance integrated multi-use ocean management in support of sustainable marine industries and ecosystem stewardship leading to resilient and productive ocean ecosystems in MA waters. Initiated in 2006 with support from the Gordon and Betty Moore Foundation, MOP partners – including government decision makers, marine-dependent industry, scientists, and conservation and education organizations – developed a Five Year Strategic Plan to foster collaborative problem solving on ocean management issues and develop information, tools and processes to improve the integration of science with ocean management. The partnership is now implementing the Strategic Plan, including its science program, with funding through 2010. For more information, please visit our website at www.massoceanpartnership.org.

The Partnership’s vision for an effective integrated ocean management plan that supports sustainable marine industries *and* ecosystem stewardship is one that:

- integrates management across sectors, resources and agencies;
- builds on ecosystem-based management principles by taking into account interactions among ecological and socioeconomic/human use considerations and the effects of those on ecosystem goods and services in a spatially explicit manner;
- evaluates ecological and economic trade-offs across sectors;
- reflects input from an intensive public process in order to gain the support of major affected groups and organizations; and
- establishes a process for monitoring and adapting the plan to respond to changing conditions.

The Massachusetts “Oceans Act”, signed into law May 2008, directs the state to develop an integrated ocean management plan no later than December 31, 2009. The Executive Office of Energy and Environmental Affairs (“EEA”) is charged with the responsibility and authority to develop the plan. Massachusetts is poised to become the first state in the nation to implement statewide integrated ocean management through considered balancing of a full range of uses – including offshore renewable energy development, fishing, maritime shipping, recreation, conservation and many others.

Description of Work

MOP seeks responses for development and/or application of spatially explicit models and decision support tools for use in ocean management and planning in Massachusetts in the short term (Spring 2009) and over the longer term. Responses must describe how the approach can be relevant for application in Massachusetts, including how it can be immediately useful and/or can be further developed and applied over the longer term. Detailed scopes of work and budgets will be negotiated with the selected Subrecipient(s). However, we provide the following general descriptions of work to guide response development.

Spatially explicit integrated ecological economic decision support models

MOP is supporting the development and application of spatially explicit ecological economic models that characterize the interactions among ecosystem components, including human uses and management, and model the impacts or benefits of various ocean management scenarios to key ecosystem services in order to develop performance standards, clarify trade-offs, assess cumulative impacts, and ultimately to determine the ecological and economic consequences of potential ocean management decisions. These models are expected to be iterative, incorporating new data, component models, stakeholder input, and planning /management scenarios as they develop.

Development and application of ecosystem models

MOP is also supporting the development and/or application of models and tools that characterize ecosystem structures, processes and functions and could be utilized to provide decision support for specific ocean management issues and/or to fill current gaps in scientific understanding. These models should fill a specific area of need in Massachusetts ocean management and be potentially incorporated as a component in the larger integrated ecological economic models that are being developed under this program. These models may also conduct analyses that utilize data from and feed data back into the Massachusetts Ocean Resource Information System (MORIS) for use in resource management, research and other endeavors. These tools may consider or characterize specific ocean management issues (such as fisheries management or permitting for new uses), key ecosystem drivers (such as climate change or invasive species), physical oceanography and circulation, and/or others identified by the respondent.

MOP is currently collaborating with the Commonwealth of Massachusetts and several consultants to: enhance the Massachusetts Ocean Resource Information System (MORIS) through the integration of coastal ocean data and improvements to functionality; and to develop planning framework options to inform the Commonwealth's ocean management plan. Subrecipient(s) selected in response to this RFR will be expected to work closely with these and other MOP consultants and MOP working groups to ensure these modeling efforts are integrated with and applicable to ocean management planning.

Qualifications, Skills and Expertise

MOP seeks potential Subrecipient(s) with the range of skills and proven experience necessary to develop and apply decision support models to forecast ecological, economic, and social impacts of alternative coastal ocean policies and management scenarios. The Subrecipient(s) must be able to work in a flexible, fast-paced and changing environment. The Subrecipient's skill set should include the following expertise:

- A proven track record in dynamic modeling and the creation of decision-support models that identify key trade-offs and are transparent to a wide array of user groups

- Detailed, spatially explicit knowledge of the benthic, wildlife, fisheries, and human ecology of Massachusetts coastal waters. Knowledge of adjacent federal waters, including Stellwagen Bank and Nantucket Sound, near shore waters, and coastal land use are a plus
- Technical expertise on land-water coupling and marine impacts of watershed management scenarios
- Technical expertise in and hardware/software support for GIS and dynamic spatial analysis
- Exemplary ability to effectively communicate modeling and decision support methodologies and their application to resource management to a broad range of stakeholders
- Familiarity with historical and current ocean management issues in the broader Gulf of Maine / northeastern region

Terms

The Subrecipient(s) will report directly to the MOP Science Program Manager. The Subrecipient(s) will also interface and coordinate with EEA, the Massachusetts Office of Coastal Zone Management (CZM), the Massachusetts Office of Geographic and Environmental Information (MassGIS), MOP partners, and MOP's other subrecipients. The Subrecipient(s) will provide services based on a scope of work and fee that are negotiated at the time of selection and the contract will be administered through the University of Massachusetts Boston ("UMB") as fiscal sponsor of MOP.

Response Requirements

Responses should be submitted as a single PDF directed to Nicholas Napoli, MOP Science Program Manager at nnapoli@massoceanpartnership.org for electronic receipt no later than 5pm on Friday November 14, 2008. A copy of the full submission should be cc'd to: Robbin Peach, UMB Co-principal Investigator at robbin.peach@umb.edu.

Respondents should also submit one hard copy each, to: Nicholas Napoli, Science Program Manager, MA Ocean Partnership, University of MA/Boston, Healey 10th Fl. 100 Morrissey Blvd., Boston, MA 02125 and to: Robbin Peach, University of MA/Boston, McCormack Graduate School of Policy Studies, 100 Morrissey Blvd., Boston, MA 02125.

Candidate projects may be of varying duration from several months to two years. Responses can include funding requests for the entire or partial budget of the project. MOP reserves the right to enter into as many or few contracts of varying value through this solicitation. MOP may also issue additional RFRs in this program area based on the responses to this request and new developments in the evolving situation in Massachusetts.

The response should include the following:

1. A cover letter
2. An abstract or short summary of the proposed project, including its potential application to integrated ocean management in MA in the short and long term and how the approach has been utilized or applied elsewhere
3. A general scope of work describing the proposed approach to developing and/or applying the model and, if applicable, how the model will be developed over time to accommodate new data and information to remain relevant to ocean management in MA
4. A description of the potential Subrecipient's qualifications, including resumes for key personnel, summaries of successfully completed relevant projects, associated deliverables

- and references, and a description of each member's role in those projects
5. A description of the team's structure with an organizational chart identifying the Project Manager, each team member's role, and their availability for this project through 2009
 6. The overall budget for the project, including the funding request from MOP. Budget guidelines for the request from MOP are outlined below.
 7. A statement of other dedicated funding for this specific project and pending funding requests from other organizations.

Budget

All contracts with MOP's fiscal sponsor – McCormack Graduate School of Policy Studies/University of Massachusetts Boston (MGS/UMB) must meet the following budget requirements:

- A. Benefits: Fringe benefits for domestic employees are limited to 35% of gross salary, but should not be in excess of the organization's actual benefit rate. Responses that include benefits for foreign employees may submit benefit rates which comply with local law.
- B. Indirect cost (overhead): Indirect rates ranging from 0% to 12.5% of total direct costs are allowable, except where the applicant resides at UMB.

As such, MOP will request all proposed project budgets be reported using the following categories:

1. Salary, including fringe (capped at 35% of gross salary)
2. Other Direct Costs
3. Indirect Cost

The following chart provides further guidance for reporting the proposed project budget. The chart may be used as a guide to inform development of budget spreadsheets.

Salary/Fringe by Task (Fringe = XX%)	Personnel A		Personnel B		Subtotal Salary by Task	
	Hours	Cost	Hours	Cost	Hours	Cost
Task 1		\$		\$		\$
Task 2		\$		\$		\$
Task 3		\$		\$		\$
Task 4		\$		\$		\$
Task 5		\$		\$		\$
Subtotal Salary by Personnel		\$		\$		\$
Other Direct Costs (Itemized)						\$
Indirect Cost (maximum 12.5% of Salary plus Other Direct Costs)						\$
Grand Total						\$

Response Review

A MOP Selection Committee will evaluate responses based on the project's respective relevance to integrated ocean management planning and implementation in Massachusetts, potential for achieving the anticipated deliverable or fulfilling a modeling/decision support need, qualifications and proven experience of key personnel, and cost effectiveness.

The MOP Selection Committee may elect to:

- Recommend to the MOP Governing Board and UMB to award a subrecipient agreement for the full or partial request (through a scope and budget negotiation with the Project Manager);
- Request additional information, a more detailed scope of work, or an interview;
- Decline to award a contract; or
- Defer responses for future consideration as new developments in ocean management and planning emerge.

Contact:

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