

## Request for Proposals: MPA Monitoring Enterprise User Needs Analysis

### SUMMARY

California's new Marine Protected Areas Monitoring Enterprise plans to develop an online information management system that combines data management with online tools, strategies, and communications functions. This RFP specifically solicits proposals for an initial User Needs Analysis to inform the system's planning and development and form the basis for subsequent assessments of functional needs and technical specifications that will complete the system's Requirements Analysis. This four- to six-month User Needs Analysis will involve extensive outreach and communication with potential users to clarify and prioritize the tasks that the system should perform to fulfill the interests, expectations, and needs of the full set of stakeholders and users. Proposals having a budget of between \$50,000 and \$90,000 will be considered. The submission deadline is May 2, 2008.

### BACKGROUND

#### California's New Marine Protected Areas Monitoring Enterprise

The California Marine Life Protection Act (MLPA) requires the state to design and manage an improved network of marine protected areas (MPAs) to, among other things, protect marine life and habitats, marine ecosystems, and marine natural heritage.<sup>1</sup> The MLPA requires the state to adaptively manage the MPA network, which in turn requires monitoring that will provide timely and useful information for evaluating the performance of the MPA network against its specified goals.

The Marine Protect Areas Monitoring Enterprise was created in 2007 under the auspices of the California Ocean Science Trust to lead development of sustainable, informative, and innovative monitoring of California's developing MPA network.<sup>2</sup> Through collaboration with state agencies and a variety of other partners, the Monitoring Enterprise will provide timely information for assessing the MPAs' condition, identifying emerging threats, supporting adaptive management, and improving understanding of marine ecosystems. The Monitoring Enterprise's primary functions are to work with the State of California, researchers, and stakeholders to : (1) lead development and implementation of MPA monitoring programs, methods, and protocols; (2) design and maintain a web-based information system that manages the monitoring data and services the information needs of diverse users; and (3) translate monitoring results into communication products for decision-makers, resource managers, stakeholders, and the public.

#### Developing an Information Management System to Support the MPA Monitoring Enterprise

The Monitoring Enterprise anticipates developing an online information management system that will combine data management with online tools, strategies, and communications functions to ensure monitoring data, findings, and other relevant information are useful and broadly accessible to decision-makers, scientists, stakeholders, educators, the public, and other interested parties. Given the breadth of MPA monitoring requirements, the system will integrate biological, physical, chemical, geospatial, and socioeconomic data – and will initially focus on new data collected specifically to evaluate MPA performance rather than on legacy data. Present plans are for the system to include a searchable online library and user-initiated data search, retrieval, assembly, and mapping tools. Depending on user needs and priorities, the system also might support video streaming or host wiki, blog, or other interactive functions.

While the information management system's primary purpose will be to organize and deliver information in support of the MLPA, two other factors will affect its architecture and implementation. First, many other

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<sup>1</sup> For more on the MLPA and development of the statewide network of marine protected areas see: <http://www.dfg.ca.gov/mlpa/> .

<sup>2</sup> See also the Monitoring Enterprise website at [http://www.calost.org/projects/monitoring\\_ent.asp](http://www.calost.org/projects/monitoring_ent.asp) .



entities are presently engaged in parallel and overlapping activities related to ocean or biodiversity monitoring and/or research programs.<sup>3</sup> Second, information developed by the Monitoring Enterprise is likely to be useful for other ocean management purposes. Therefore, where practical and desirable, the Monitoring Enterprise information management system should anticipate and support the broader set of uses, capture data from parallel programs, and gain efficiencies by building upon existing information management capabilities developed for other purposes. The functional and technical specifications components of the Requirements Analysis to follow this initial User Needs Analysis will consider the relative merits and costs of building off of existing information systems *versus* developing new system capabilities.

## **PURPOSE OF THE USER NEEDS ANALYSIS**

As a first step in developing the information management system, the Monitoring Enterprise is seeking to commission a User Needs Analysis. This four- to six-month assessment will involve extensive outreach and communication with potential users to clarify the tasks the system should perform to fulfill the priority interests, expectations, and needs of the full set of stakeholders and users. In other words, the study should inventory how users would like to be able to interact with the system software.

Examples of the kinds of question that might be addressed include: What are the communication goals?; What information products should the system deliver?; and What analytical processes and decision support tools are needed? Recommendations for prioritized system capabilities would be useful, such as: needed privacy and security requirements; the various kinds of data and information different user groups hope will be put into the system; and different user groups' expected access frequencies and volumes.

Based on the goals of the MLPA and the designation process for the MPA network, the audiences for MPA monitoring data and their uses for monitoring information are likely to include:

- **Public agencies and policy-makers** – oversight, adaptive management, and enforcement of the MPA network; research applications; public education.
- **University scientists** – research and higher education.
- **Stakeholders** – inform and educate MPA constituents; facilitate independent evaluation of MPAs by fishermen, conservationists, etc.
- **General public** – public education; use by K-12 educators and students; local community interest.

The Monitoring Enterprise will work with the selected contractor to develop additional information and to set priorities for the analysis among potential user groups.

Because the User Needs Analysis will be the first component of a full requirements analysis – and thus will lay the foundation for subsequent assessments of the system's desired functional capabilities and related technical specifications – it should not focus on developing specific technical solutions. The Monitoring Enterprise also anticipates that the User Needs Analysis will indirectly inform the development of future MPA monitoring programs and communication products.

## **REQUIRED PROPOSAL ELEMENTS**

### **a. Substantive approach**

#### **i. Coordination with the Monitoring Enterprise**

Describe how the project team plans to coordinate and work with the Monitoring Enterprise in developing and undertaking the project. For example, how will the consultant work with the Monitoring Enterprise in developing focus group agendas or interview questions?

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<sup>3</sup> Examples of parallel and overlapping activities include the Ocean Observing Systems, the PISCO data system, MARINe, and the state's BIOS data system.

- ii. Methods for soliciting information on users' needs  
Explain the techniques that will be used to reveal what tasks the information management system should perform. Possibilities include, but are not limited to, one-on-one interviews, focus groups, user case analyses, and/or the potential use of demonstrations to solicit feedback.
- iii. Content Focus  
Identify the questions and issues that will be addressed by the User Needs Analysis.
- iv. Timeline  
Lay out the project's expected timeline, including key benchmarks, structured coordination with the client, and preliminary and final products.
- v. Products and outcomes  
Specify the project's expected outcomes and products. Appropriate products might include interim findings and a final report, a set of system capabilities recommendations, and some form of graphical concept for the system's desired functionalities. Applicants are encouraged to consider, as a possible social outcome, how their outreach with user groups might be designed to build user knowledge and interest in the Monitoring Enterprise information management system. Note that the Monitoring Enterprise intends to post hard products of the User Needs Analysis publicly on its website.
- vi. Budget  
Provide a budget for the project including itemized costs for staff time, travel, and other expenses. Proposals will be considered that have a total budget of \$50,000 to \$90,000.
- vi. Submission Deadline  
Proposals submitted by May 2, 2008 will be competitively evaluated. Proposals submitted after that day will be considered at the Monitoring Enterprise's discretion.

**b. Demonstration of Consultant Capability**

- i. Organization's expertise  
Describe the consultant's expertise, and, in particular, capabilities that are a good match to the requirements of this project. The ideal consultant will have experience with all phases of developing information management systems, from initial problem definition to implementation and field testing of system architecture. They also will be experienced with data integration problems involving geo-referenced data and GIS, relational data, textual information, and user-friendly interfaces that are accessible to the public as well as expert communities. However, the consultant should be able to conduct the User Needs Analysis without biasing the results towards a specific technical solution.
- ii. Project team composition  
Identify and document the expertise and qualifications of proposed members of the project team.
- iii. Previous related projects and impacts  
List the consultant's previous projects that have involved tasks similar to the ones required for this project. In particular, identify whether the consultant has worked previously on projects of similar size, scope, and complexity. For each, very briefly describe the project and then identify the products, outcomes, and impacts resulting from the consultant's work as well as the client's lead contact person on this project.