

# Marine Spatial Planning: A Call for Action

President Obama's Interagency Ocean Policy Task Force continues its leadership and commitment to advancing a healthy ocean, Great Lakes, and coasts with the timely release of its *Interim Framework on Coastal and Marine Spatial Planning* on December 14, 2009. This report was developed in response to the June 12 Presidential memorandum that called for the Task Force to recommend a comprehensive, integrated, and ecosystem-based framework for effective coastal and marine spatial planning that addresses conservation, economic activity, user conflict, and sustainability of ocean, Great Lakes, and coastal resources. This document sets goals and objectives, identifies science requirements, and outlines the plan for implementation, monitoring, and evaluation of marine spatial planning.

Why should the ocean sciences research community care about such policy development and implementation efforts? It confirms the societal relevance and imperative for research and education in the ocean sciences. The need for a national ocean policy and its related implementation through marine spatial planning is driven by our nation's increasing demands on the ocean, Great Lakes, and coasts. The growing numbers of significant and often competing uses of these resources include commercial, recreational, conservation, scientific, and national security activities. According to the Intergovernmental Oceanographic Commission, marine spatial planning (MSP) is a practical way to create and establish a more rational organization of the use of marine space and the interactions of its uses. MSP will allocate the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process (Ehler and Douvère, 2009).

Because MSP requires a fundamental understanding of physical, biogeochemical, and ecological patterns and processes along with their associated human dimensions, observations and data assimilation for these characteristics, and models to forecast conditions and impacts, ocean science research is at the very foundation of marine spatial

planning. Static snapshots will not adequately capture marine ecological spatial and temporal variations. Instead, long-term research and monitoring efforts will be required to support a future-oriented, adaptive, science-based management tool. It is critical for the ocean sciences community to participate in this ongoing dialogue. The controversial jurisdictional issues and governance ramifications of MSP are so complex and convoluted that they could overwhelm the obvious requirement to start the process with quality data collection, analyses, and syntheses. It is impossible to construct a solid framework—policy or otherwise—without a firm foundation; thus, investment will be required to ensure that policymakers start with an accurate picture of a three-dimensional, opaque, fluid system with biological, chemical, geological, and physical characteristics that fluctuate both temporally and spatially. To date, the investment in ocean sciences and oceanographic instrumentation and platforms has been minimal. More ocean science research will be needed, especially that science devoted to understanding regional differences. For example, a loosely stitched together patchwork of coastal observing systems will not be adequate to generate an understanding of ecosystem dynamics sufficient to drive major national policy decisions with regional implications.

This issue of *Oceanography* focuses on one of the ocean's unique features—seamounts. Seamounts are important and interesting oceanic structures that could be impacted by MSP, as they are high-production areas that support commercially important fisheries and coral mining. They are also hubs of biodiversity that may serve as centers of speciation, ultimately influencing the dispersal of coastal species. Seamounts are fragile ecosystems and any management must be based on quality scientific information.

Natural resource management is extraordinarily difficult—and that difficulty is magnified severalfold when the natural resource is in continual flux. The totality and rate of changes in marine and coastal environments present us with formidable challenges—to our vision, to our imagination, to our creativity,

to our ingenuity, and to the persistence required to overcome obstacles and setbacks.

The ocean science community must be proactive and foster a dynamic and creative interaction with decision makers in both the public and private sectors as we move toward the creation of a cohesive national ocean policy and its companion implementation strategy designed to sustain our ocean, Great Lakes, and coasts. To that end, I suggest that The Oceanography Society create a carefully crafted strategy and framework that defines the ocean science research and education needed to enhance our understanding of the ocean, Great Lakes, and coastal resources about to be subjected to a new level of governance and oversight. And then I suggest that the ocean science community pledge itself to implement that ocean science research and education framework through the execution of our own timely action plan. Policy-driven decisions need to be based on the best available science and implemented by environmentally literate citizens. Ocean science community involvement is both critical and essential to the success of President Obama's initiatives to create effective national ocean policy and marine spatial planning.



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## REFERENCE

Ehler, C., and F. Douvère. 2009. *Marine Spatial Planning: A Step-by-Step Approach Toward Ecosystem-Based Management*. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6. UNESCO Paris, 99 pp. Available online at: [http://www.unesco-ioc-marinesp.be/msp\\_guide](http://www.unesco-ioc-marinesp.be/msp_guide) (accessed January 15, 2010).

# Breaking Waves

## CALL FOR MANUSCRIPTS

*Breaking Waves* provides an outlet for short papers describing novel approaches to multidisciplinary problems in oceanography. These provocative papers will present findings that are synthetic by design, and have the potential to move the field of oceanography forward or in new directions.

Papers should be written in a style that is both concise and accessible to a broad readership. While these papers should be thought-provoking for the professional oceanographer, they should also be written in a manner that is engaging for the educated non-professional. As in other sections of *Oceanography*, we encourage the use of color photographs and figures to help illustrate a paper's main points and add to its aesthetic appeal. Consistent with our effort to publish papers on rapidly advancing topics in oceanography, all submissions to the *Breaking Waves* section will be given a special fast-track in the peer-review and publishing process. Our goal will be to publish papers no more than two issues (i.e., six months) after their submission.

The Associate Editor overseeing the development of *Breaking Waves* is Charles H. Greene (chg2@cornell.edu), Department of Earth and Atmospheric Sciences, Cornell University. Authors should submit a brief email message to the Associate Editor outlining their ideas for papers prior to actual manuscript preparation. This step will ensure that authors receive appropriate feedback prior to investing their time and energy in preparing manuscripts that may be unsuitable for publication in this forum. Correspondence with the Associate Editor and submission of manuscripts should be done electronically whenever possible. File formats for text, figures, and photographs must be consistent with existing style guidelines for *Oceanography*.

## UPCOMING EVENTS

### **Goldschmidt 2010: Earth, Energy, and the Environment**

Theme 11: Oceans and Atmospheres  
13–18 June 2010, Knoxville, Tennessee, USA  
<http://www.goldschmidt2010.org/themes>

### **Ocean Optics XX Conference**

25 September–1 October 2010, Anchorage, Alaska, USA  
<http://oceanopticsconference.org>