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1 November 2006

Conrad C. Lautenbacher, Jr.
Vice Admiral, U.S. Navy (Ret.)
Under Secretary of Commerce for Oceans and Atmosphere
Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230

Kameran Onley
Assistant Deputy Secretary
Office of the Deputy Secretary
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

re: white paper by Marine Protected Areas Federal Advisory Committee

Dear Under Secretary Lautenbacher and Assistant Deputy Secretary Onley:

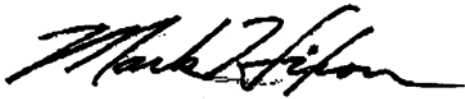
As Chair of and on behalf of the Marine Protected Areas Federal Advisory Committee, I am pleased to submit the enclosed white paper, "Marine Protected Areas: A Fundamental Tool for Ecosystem-Based Management," for your consideration. This paper was developed by the Committee in response to the Committee's charge from the Departments of Commerce and the Interior delivered at our April 2006 meeting. It was unanimously adopted at our October 2006 meeting, and represents the consensus of 30 members with diverse experiences and perspectives.

The Committee recognizes that ecosystem-based management and marine protected areas are both place-based and necessarily involve the spatial protection of marine resources. Despite the commonalities between these two important concepts, they are often discussed in the absence of each other. As a result, the critical contribution that MPAs can make to ecosystem-based management may go unrecognized and opportunities may be missed to enhance the coordination of natural and social science needs common to both concepts.

We request that you share this white paper with managers within your agencies responsible for coastal and marine ecosystem-based management. We also request that the paper be included as an appendix to the “Framework for the Development of the National System of Marine Protected Areas” when the final version is published in 2007.

We look forward to your response, and to continuing our work with the Departments of Commerce and the Interior to help develop the national system of MPAs. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Hixon". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark Hixon
Helen Thompson Professor of Marine Conservation Biology and
Chair, Marine Protected Areas Federal Advisory Committee

attachment

**MARINE PROTECTED AREAS
FEDERAL ADVISORY COMMITTEE
October 2006**

**MARINE PROTECTED AREAS:
FUNDAMENTAL TOOLS FOR ECOSYSTEM-BASED MANAGEMENT**

Marine Protected Areas (MPA)s and Ecosystem-Based Management (EBM) are both place-based and necessarily involve the spatial protection of marine resources. MPAs have been, are, and will continue to be fundamental tools for an ecosystem-based approach to the management of marine resources.

EBM is recognized as a robust approach to spatial management of the marine environment. MPAs are powerful spatial tools that can contribute to the protection of marine natural and cultural resources. The relationship between these concepts requires clarification because each is discussed both in the absence of the other—as if these concepts are unrelated—as well as in terms of the other—as if they are inexorably linked. This document represents the consensus of the Marine Protected Areas Federal Advisory Committee regarding the relationship between EBM and MPAs, a foundational issue in the development of strategies to manage marine resources.

Place Matters. The U.S. Commission on Ocean Policy (USCOP) and the Pew Oceans Commission, as well as a large proportion of the marine science community (e.g., the Communication Partnership for Science and the Sea [COMPASS] “Scientific Consensus Statement on Marine Ecosystem-Based Management,” signed by over 200 scientists), believe that management of marine resources in the U.S. Exclusive Economic Zone, including state and territorial waters, would be most effective if implemented explicitly from an ecosystem perspective. NOAA's Ecosystem Goal Team has succinctly defined an "ecosystem" as "a geographically specified system of organisms, including humans, their environment, and the processes that control their dynamics." The Team envisions an ecosystem approach that includes identification of "sub-ecoregions and trans-boundary issues that cross ecosystems and political boundaries, including international boundaries." The Team also proposes a variety of programs, including coral-reef conservation and protection of both habitats and species. Clearly, the common theme emerging from the evolving focus on ecosystem approaches to management is that "place matters." Thus, these programs are fundamentally place-based and involve the spatially explicit protection of marine resources and habitats.

Administration Policy. The President's response to USCOP, the "U.S. Ocean Action Plan," states that "the Administration will continue to work towards an ecosystem based approach." The Plan includes a variety of explicitly place-based protection measures, such as:

- promoting coral-reef and deep-coral conservation, including the newly designated Northwestern Hawaiian Islands Marine National Monument to be managed by NOAA and the Department of the Interior;

- managing traditional and alternative energy development on the outer continental shelf; and
- preserving the places that represent the nation's maritime heritage.

What is EBM? The definition of EBM is also explicitly place-based. Although multiple definitions of EBM exist, for the purposes of this document EBM is defined as follows:

"Ecosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors. Specifically, ecosystem-based management:

- emphasizes the protection of ecosystem structure, functioning, and key processes;
- is place-based in focusing on a specific ecosystem and the range of activities affecting it;
- explicitly accounts for the interconnectedness within systems, recognizing the importance of interactions between many target species or key services and other non-target species;
- acknowledges interconnectedness among systems, such as between air, land and sea; and
- integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependences." (COMPASS Scientific Consensus Statement on Marine Ecosystem-based Management)

MPAs and Ecosystem Approaches to Management. By any definition and from any perspective, an ecosystem-based approach to marine management involves, at a variety of scales, spatially explicit protection of marine resources. This approach is entirely consistent with the definition of MPAs. NOAA's MPA Center defines an MPA as "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." The MPA Federal Advisory Committee, representing a broad range of sectors and perspectives, has clarified the meanings of key terms and phrases in this definition in its June 2005 report. Importantly, MPAs are not necessarily fully-protected or "no-take" marine reserves--the range of protection varies widely in accordance with different goals.

NOAA's MPA Center recognizes three general goals of MPAs:

- **"Natural Heritage** -- established and managed principally to sustain the protected area's natural biological communities, habitats, ecosystems and processes, and the ecological services, uses and values they provide to this and future generations.
- **Cultural Heritage** -- established and managed principally to protect, understand and interpret submerged cultural resources that reflect the nation's maritime history and traditional cultural connections to the sea.

- **Sustainable Production** -- established and managed principally to support the continued sustainable extraction of renewable living resources (e.g., fish, shellfish, plants, birds, or mammals) within or outside the MPA by protecting important habitat and spawning, mating or nursery grounds; or providing harvest refugia for by-catch species.”

MPAs, therefore, are ecologically and/or socially significant places in the ocean in which society has decided to manage ecosystem-wide processes, including human activities, to achieve the goals specific to that place. MPAs designed to achieve these natural-heritage, cultural-heritage, and sustainable-production goals can contribute to ecosystem approaches to management, depending on the extent to which they meet the criteria listed in explicit definitions of EBM. Additionally, many existing examples of EBM incorporate MPAs as important tools for the protection of threatened and endangered marine species and habitats (e.g., Biosphere Reserves and the Chesapeake Bay Program) and the management of marine fisheries (e.g., protecting Essential Fish Habitat, moderating bottom-gear impacts, and rebuilding overfished stocks).

Conclusions. Like other tools, MPAs face the challenge of becoming more fully integrated under the broader approach of EBM, especially in the context of linking issues involving natural science (population and community ecology of marine organisms) with issues involving social science (socioeconomic and other human components of ecosystems and natural-resource management). Our challenge, as a nation, is to further refine the scientific, social and policy foundations for how we use MPAs, a place-based management tool, in developing ecosystem approaches to ocean conservation and management.

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