

**Answers to Questions  
from U.S. Commission on Ocean Policy  
April 17, 2002**

Question 1:

Your testimony describes ocean zoning as one way of managing conflicting marine uses. How is it similar to land-based zoning, and how is it different?

Answer 1:

Marine zoning is similar to land-based zoning in most ways. Both types of zoning are predicated on the recognition that some activities are not logically compatible, and therefore it would be better for humans and the resources at stake if such activities were separated. For example, on land, zoning is used to separate contradictory land uses, so that an industrial factory is not built next to an elementary school. In the ocean, zoning may be used to restrict commercial trawling from heavily used diving reefs. Other applications of marine zoning may be to separate water-based activities such as water skiing or jet skiing from sensitive wildlife habitats and the less intrusive enjoyment of these habitats (e.g., kayaking or flats fishing from boats poled along a seagrass flat). In addition, zoning is widely used in terrestrial protected areas (e.g. National Parks) to achieve conservation goals, many of which are similar to MPA goals (e.g., protection of critical habitats and recovery of depleted species).

Since the use of comprehensive marine zoning is a fairly new concept to the United States, its' application or consideration by resource managers sometimes leads to concerns by the general public. It is important to be honest that the process to implement a network of marine zones is sometimes controversial. We must have realistic expectations and timelines for action when considering the implementation of new marine zones. However, a lesson learned in the Florida Keys is that as the public becomes more familiar with the use of marine zoning, they turn into proponents of the concept because of the way user conflicts with the resources and one another are handled. It is also important to point out that other management tools must accompany a marine zoning plan. Education and outreach, research and monitoring, as well as effective enforcement are critical programs that must accompany a marine zoning initiative.

Another difference between land-based and marine zoning is that land-based zoning usually affects property owned by private citizens or the public, whereas marine zoning most often affects areas that are deemed as "commons", with shared public access. -Additionally, since most marine areas are public resources, the use of marine zoning in these instances would not result in private property rights issues or "takings" issues.

Differences between land-based and marine zoning largely stem from the uncommon use of zoning by the United States in ocean habitats. Land-based zoning is commonly used for purposes unrelated to conservation objectives. Because of its widespread usage on land regardless of purpose, people are accustomed to using it in that context. The same cannot be said for the oceans. However, this approach has been used for years in other countries to meet specific marine management goals (e.g. Great Barrier Reef Marine Park Authority, Cayman Islands, Bermuda, New Zealand, Philippines, and Kenya).

Question 2:

A. As manager of a large national marine sanctuary, you know better than most what it takes to implement a sanctuary plan. What are some of the important lessons you have learned in the development and implementation of the Florida Keys management plan?

Answer 2 (A):

Lessons learned from FKNMS management and approaches with which the FKNMS has had success:

- Develop a management plan through an integrated process that includes all local, state, and federal authorities and jurisdictions. Such a comprehensive approach has helped build a collaborative and cooperative approach to management since all of the agencies were partners in developing the plan.

This leads to a more seamless form of management instead of agencies focusing solely on their own authority and jurisdiction.

- Engage the public in the development and implementation of the comprehensive management plan. Use a diverse Advisory Committee, consisting of a wide-range of stakeholders, to be a conduit to the waterfront community. Apply a bottoms-up process that engages leaders in the community. This proactive approach ensures that a local point of view is being included in the planning process and demonstrates to the community the importance the agency places on public input.
- Utilize many approaches to education and outreach in order to reach a broad and diverse audience. Education is an essential tool in marine protected area management and it must be focused on a broad range of audiences, from school-aged children to community decision makers.
- Use current scientific findings in educational messages and communicate clear, unequivocal, scientific honesty.
- Make a strong commitment to research and monitoring within the marine protected area to track trends and ascertain causes of resource decline and sources of impact.
- Employ an approach to resource protection that uses both Sanctuary-wide focus (water quality, habitat protection) and site-specific tactics (zoning to protect key species or habitats).
- Utilize an ecosystem or holistic approach to management, where the entire watershed is considered (e.g. South Florida Ecosystem Restoration project).
- Continually focus on solutions to resource impacts at the global, regional, and local scales.
- Leverage resources through partnerships with other agencies and NGOs.
- Develop cooperative relationships and agreements with other agencies that may share jurisdiction.

FKNMS challenges and practical aspects of MPA management:

- Establishment of the Sanctuary through a “top down” process led to local community resistance at first.
- Diverse users, an ever-changing audience, very high use, no single point of entry, and multi-cultural/lingual audiences present considerable education and outreach challenges.
- Diverse natural resources exist within the Sanctuary that are subject to many threats, and problems are largely very complex with no obvious single solution.
- Responding to the Sanctuary’s mandate for multiple use of the MPA is a constant challenge that any manager needs to be prepared to tackle.

B. Are these lessons applicable to fisheries management and/or coastal zone management?

Answer: Yes, most of these lessons are applicable to fisheries management and coastal zone management.

Question 3:

How do you coordinate the various entities engaged in “mapping” MPA boundaries and resource information?

Answer 3:

First, it is important to use natural and social sciences in an ecosystem approach to draft MPA boundaries. Water circulation patterns, currents, benthic habitats, larval distribution and special biological or ecological features such as spawning sites should be used in the early stages of boundary selection.

Next, to coordinate the various entities engaged in mapping MPA boundaries and resource information, it is important to begin by building on existing efforts and programs that are underway when the MPA is established. MPA managers can encourage or preferably provide financial compensation such that additional sites, stations, or efforts within the new MPA can be plugged into ongoing programs. Coordination may occur through the development of comprehensive regional management and science plans for the MPA that provide oversight and structure based on MPA goals and management objectives. MPA managers should remain or become involved at an ecosystem level by contributing to other regional projects and programs.

Question 4:

Is there a disconnect between MPA and Sanctuary management? How do you fix this?

Answer 4:

No, there is not a disconnect between MPA and Sanctuary management. The greatest disconnect is in the confusion between the term MPA (marine protected area) and the term marine reserves. Sanctuaries are MPAs and may or may not have more protective marine reserves within their boundaries. National Marine Sanctuaries are areas where multiple-uses are allowed, including commercial and recreational fishing. Sanctuaries are but one type of MPA, with others falling under the authority of other local, state, territorial, tribal or federal jurisdictions.

The Executive Order (E.O.) that established the MPA program is not in conflict with the National Marine Sanctuary Program. In general, the goals of the E.O. to enhance management of marine and coastal environments through training and technical assistance, enhancing public understanding of MPAs as a tool for resource management, and providing target research, assessments, and policy analyses, analyzing the effectiveness of the nation's existing network of MPAs, are consistent with the NMSP goals. There is no one-size-fits-all answer to marine resource management and a coordinated interagency network of MPAs can enhance NOAA's ability to effectively manage and conserve marine resources through existing programs such as the NMSP.

Question 5:

How would you draw agency management jurisdiction for MPAs, parks, sanctuaries, etc. (i.e. should jurisdiction be within a single or multiple agencies and offices)?

Answer 5:

While having MPAs under a single authority or jurisdiction would have some advantages, it may be difficult to get local and state jurisdictions to turn their MPAs over to a federal authority and the same would be true when attempting to incorporate federal MPAs into local or state jurisdictions. The largest MPAs in U.S. coastal waters are the National Marine Sanctuaries, which in some instances overlap state territorial waters.

In general, agency management jurisdiction for MPAs should be based on the resources being protected and the specific goals and objectives for the given MPA. This also provides for the continued utilization of the many types of MPAs, including those that may have very focused purposes (e.g. the protection of fishery spawning grounds). Single agency management may be easiest and quickest to implement but MPAs designed this way may encompass less biologically, geographically, socially, or culturally diverse areas. Multi-agency MPA management will likely take more time to implement and requires constant work through partnerships, but overall these MPAs may achieve broader resource protection and enjoy greater public support. Multi-agency management also facilitates the sharing of limited resources to achieve differing management goals (e.g., FKNMS' Tortugas Ecological Reserve and the National Park Service/Dry Tortugas National Park's Research Natural Area).

Question 6:

What recommendations would you make regarding marine protected areas if you were a member of the Commission?

Answer 6:

First, I would recommend that we have a clear understanding of the goals and objectives of MPAs. Then, a regional and biogeographic approach could be applied to identifying regional networks of MPAs of local, state, and federal jurisdictions. Next, I would rank the MPAs within the region according to their level of effectiveness and comprehensiveness. This information could then be used to identify gaps in protection.

Another recommendation would be to explore the use of marine zoning as a management tool in MPAs of local, state and federal jurisdiction.

Finally, I would recommend that the lessons learned described above be considered when assessing existing MPAs and considering new areas for designation. In addition, I would recommend that MPA planners:

- Clearly define goals and objectives for the MPA that are articulated and agreed upon using diverse stakeholder input;
- Set realistic management objectives based on the resources available;
- Prepare for taking a long-term approach to MPA management and resource conservation (e.g., no “quick fixes” exist);
- Garner local community support for the MPA as well as support from high levels in the agency;
- Consider a full range of management alternatives (e.g., “MPA” does not equate to “no take reserves”) and employ multiple techniques, as needed, based on the MPA’s stated goals and objectives.