

Updated Framework for the National System of Marine Protected Areas of the United States of America



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Table of Contents

Executive Summary	3
I. Introduction	5
A. Background	5
B. Process for Developing the Framework.....	7
C. Benefits of an Effective National System	7
II. About MPAs and MPA Networks	9
A. Definition of MPA and its Key Terms	9
B. MPA Networks	10
III. What is the National System of MPAs?	12
A. National System Purpose	12
B. National System Goals and Conservation Objectives	12
C. Building the National System from Existing and New Sites	14
IV. Nominating MPAs to the National System	14
V. Strengthening the National System of MPAs and MPA Programs	14
A. Improving MPA Stewardship, Science, and Effectiveness	16
B. Fostering Regional MPA Networks and Collaboration.....	17
C. National Coordination.....	18
D. International Coordination	18
E. Federal Agency Responsibilities to Avoid Harm	19
VI. Expanding the National System of MPAs	21
A. Identifying Conservation Gaps.....	22
B. National System Design Principles.....	22
VII. Tracking, Reporting and Evaluation	23
A. Marineprotectedareas.noaa.gov Website	23
B. Evaluating National System Effectiveness	24
VIII. Role of the MPA Center	25
A. Strengthening the National System of MPAs and MPA Programs.....	25
B. Expanding the National System of MPAs.....	25

Appendix A. Glossary of Key Terms.....26

Appendix B. Acronyms and Abbreviations Used30

Appendix C. Eligibility Criteria for the National System of MPAs31

Appendix D. Nomination Process for Existing Marine Protected Areas.....34

Appendix E. The Official List of National System MPAs36

Appendix F. Administrative and National Policy Requirements.....38

Appendix G. Federal, State and Tribal MPA Programs in the U.S.....39

Appendix H. MPA Federal Advisory Committee.....42

Appendix I. Executive Order 1315843

Appendix J. Executive Summary of External Review of MPA Center (2012)47

Executive Summary

In the United States and around the world, marine protected areas (MPAs) are increasingly recognized as an important management tool for managing or buffering impacts threatening the health of our oceans, including coastal and offshore development, overfishing and a changing climate. When used effectively and as a part of a broader ecosystem-based approach to management, MPAs can help to restore and maintain healthy marine and Great Lakes environments by contributing to the overall protection of critical marine habitats and resources. In this way, effective MPAs also can offer social and economic opportunities for current and future generations, such as tourism, biotechnology, fishing, education, and scientific research.

MPAs are designated and managed at all levels of government by a variety of agencies including parks, fisheries, wildlife, natural resource and historic resource departments, among others. In the U.S., more than 1,700 MPAs have been established by more than 100 legal authorities, each with its own legal purpose. These MPAs have been established to achieve a wide range of conservation objectives, ranging from conservation of biodiversity hotspots, to preservation of sunken historic vessels, to protection of spawning aggregations important to commercial and recreational fisheries. Similarly, the level of protection provided by these MPAs ranges from fully protected or no-take marine reserves to sites allowing multiple uses, including fishing, recreational, and industrial uses.

Recognizing the significant role that U.S. MPAs play in conserving marine resources and the need for additional MPA coordination and capacity building, Presidential Executive Order 13158 of May 26, 2000 (Order) called for the development of a National System of Marine Protected Areas (national system) (see Appendix J). The Order clearly called for a national system extending beyond federal sites, requiring collaboration with coastal states and territories, tribes, Regional Fishery Management Councils, and other entities. The Order further specified that the national system be scientifically based, comprehensive, and represent the nation's diverse marine ecosystems and natural and cultural resources.

To provide a blueprint for building the National System of MPAs,¹ the Order called for the development of a framework for a National System of MPAs and directed the establishment of a National MPA Center (MPA Center) within the National Oceanic and Atmospheric Administration (NOAA) to lead the system's development and implementation. The *Framework for the National System of MPAs of the United States of America* (Framework) was originally developed between 2005 and 2008, with extensive input from federal and state MPA agencies, the public, and the MPA Federal Advisory Committee (MPA FAC). This updated Framework reflects the experience of the National System based on its implementation since November 2008, as well as additional recommendations from the MPA FAC.

The Framework outlines the following key components of the national system:

- A definition of the term "MPA";

¹ The purpose of this document is to provide a framework for developing and implementing a National System of MPAs; it is not a blueprint for the establishment of individual MPAs.

- National system goals and conservation objectives;
- Capacity building to strengthen the management effectiveness of U.S. MPA programs;
- Processes for fostering regional MPA networks and collaboration;
- Mechanisms for national and international collaboration;
- Guidance regarding federal agency responsibilities to avoid harm to resources protected by the National System of MPAs;
- Principles and processes for expanding MPA networks and establishing new MPAs; and
- Approaches for monitoring, evaluating, and reporting on national system progress and priorities.

In addition, detailed Appendices provide:

- MPA eligibility criteria and other key definitions;
- A nomination process for existing MPAs to be included in the national system that provides opportunities for public input; and
- Other supporting documents.

The Framework recognizes that U.S. MPA programs can achieve more efficient and effective conservation of the nation's important natural and cultural resources by working together, and that many solutions require collaboration across programs with their own individual mandates, levels of government, and even international boundaries. It envisions a national system made up of existing MPAs that work together to link and strengthen connections between the nation's federal, state, tribal and local MPA programs. This Framework describes the broad set of actions needed to implement this vision.

Based on the initial implementation of this Framework from 2009-2013, NOAA and the Department of the Interior recognize that constrained resources necessitate setting priorities. Looking ahead, the National Marine Protected Areas Center's highest priorities will be those that most directly and immediately address the goals of the Executive Order – connecting sites and programs into regional and national networks; building the capacity of MPA sites and programs; and strengthening the national coordination among federal MPA agencies and with ocean stakeholders. Through these collaborative efforts among U.S. MPA programs and stakeholders, the national system can achieve the Order's goal of enhancing the comprehensive conservation of the nation's natural and cultural marine heritage and the ecologically and economically sustainable use of the marine environment for present and future generations.

I. Introduction

A. Background

With the world's largest Exclusive Economic Zone (Figure 1), the coastal, marine, and Great Lakes waters of the **United States**² support an incredible diversity and wealth of life. These waters also play host to untold special places that represent our rich cultural heritage and connections to the sea. In the same way, multiple human uses, livelihoods, and other activities take place in the marine and coastal environment, benefitting from and relying upon the sustained health of our nation's vast natural and cultural heritage.

As human populations grow and use of marine resources increases, so do the pressures and stresses exerted on these intricately balanced ecosystems. Ensuring the long-term health of these ecosystems and the sustained benefits on which humans depend requires comprehensive management approaches. In the United States and many other countries around the world, marine protected areas (MPAs) are increasingly recognized and used as important tools for the conservation and sustainable use of marine resources and as an important component of a comprehensive management approach.

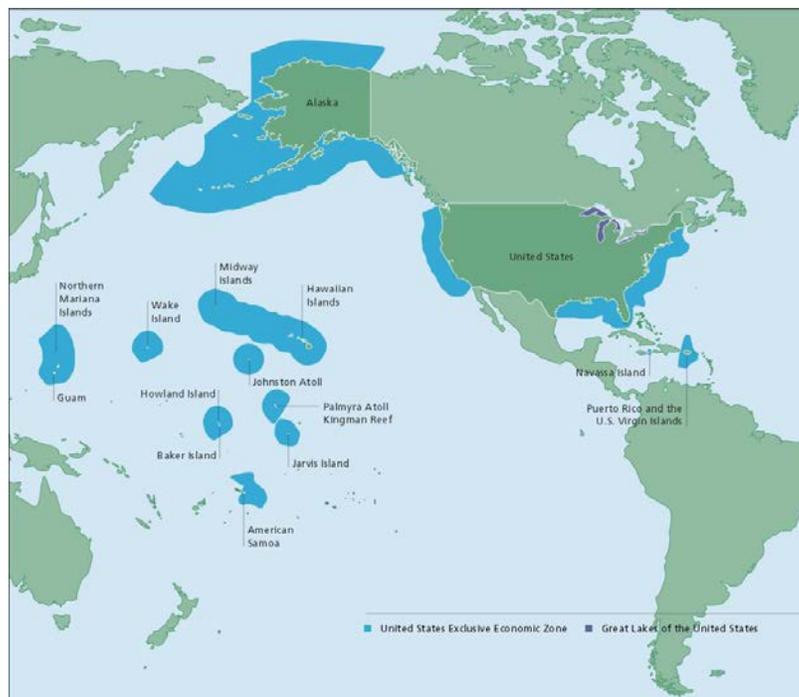


Figure 1. U.S. Exclusive Economic Zone

The Order specifies that this is to be a *national* and not a *federal* system and requires consultation with all **states** (this includes U.S. states, territories, and commonwealths) that contain portions of the marine and Great Lakes environment; **tribes**; Regional Fishery Management Councils (FMCs); and other entities, as appropriate, including the Marine Protected Areas Federal Advisory Committee (MPA FAC) established by the Department of Commerce under the Order. The Order further specifies that the national system be scientifically based and comprehensive, and that it represent the diverse marine **ecosystems** of the United States and the nation's **natural** and **cultural resources**.

² Important terms are in bold the first time they are used and defined in the Glossary found in Section VI of this document.

³ The Department of Defense, the Department of State, the United States Agency for International Development, the Department of Transportation, the Environmental Protection Agency, the Department of Homeland Security, the National Science Foundation, and other pertinent federal agencies.

To guide the development of the national system, the Order calls for a framework for a National System of MPAs and establishes the National MPA Center (MPA Center) within DOC's National Oceanic and Atmospheric Administration (NOAA) to develop the system and coordinate its subsequent implementation. This *Framework for the National System of Marine Protected Areas of the United States of America* (Framework) outlines collaborative processes for building this system of existing MPA sites, networks, and systems established and managed by federal, state, tribal, or **local governments** and for collectively working together at the **regional** and national levels to achieve common objectives for conserving the nation's important natural and cultural resources.

For the purposes of the national system, the term "**marine protected area**" (MPA) is defined by the Order 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 term MPA, as defined and used in this document, is not synonymous with or limited to "no-take reserves" or "marine reserves." The term MPA as used here encompasses an array of levels of protection and conservation purposes, from areas that allow multiple-use activities to areas that restrict take and/or access. The Framework recognizes that existing MPAs require different levels of protection to achieve their management goals, and that these diverse objectives offer different values to the national system that can help meet its goals and objectives to conserve **natural heritage** and **cultural heritage** and achieving **sustainable production** of resources found in the coastal and marine environments.

While MPAs are an important tool for marine conservation, other types of management approaches are also employed to address marine conservation objectives while allowing other appropriate uses and activities in the marine environment to take place in an economically and environmentally sustainable manner. Like all tools, MPAs should be carefully designed and implemented to meet specific conservation goals. The implementation of the national system must be both coordinated and integrated within the larger, evolving ecosystem-based approach to managing marine resources.

Neither the national system nor the Order establish any new legal authorities to designate, manage, or change MPAs, nor do they alter any existing federal, state, local, or tribal MPA laws or programs. Each MPA or program that participates in the national system will continue to be independently managed by its respective entity or entities, as will any new sites that may be established by those authorities. The national system is intended to support, not interfere with, agencies' independent exercises of their own existing authorities. The national system is therefore envisioned as a "system of sites and systems" to achieve conservation and management objectives that could not be accomplished by individual MPAs or MPA programs working independently.

Furthermore, the *requirements* outlined in the Order, which provide the legal authority for establishing the national system, apply only to the actions of federal agencies. The Order does not direct the actions of states or tribes, or alter any existing state, local, or tribal authorities or treaties regarding the establishment or management of MPAs or marine resources under their jurisdiction. Finally, nothing in this document is to be construed as altering existing authorities regarding the establishment of federal MPAs in areas of the marine environment subject to the jurisdiction and control of states, tribes, or local governments.

While the Order's requirements apply only to federal agencies, the full and ongoing participation of state, tribal, and local governments is critical to an effective national system. MPAs are designated and managed at all levels of government by a variety of agencies including parks, fisheries, wildlife, and natural resource and historic resource departments, among others. U.S. MPAs have been established by over 100 legal authorities, with some federal and state agencies managing more than one MPA program, each with its own legal purpose. Given the importance of the marine resources they manage and their wealth of experience in doing so, building and implementing the national

system in partnership with state, tribal, and local governments is a major emphasis of the Framework. A full description of the range of existing U.S. MPA programs, federal MPA initiatives and tribal and international efforts can be found in Appendix B of this document. In light of this breadth of existing U.S. MPA responsibilities, the Order recognizes the need and calls for a national, rather than federal, system of MPAs with a geographic scope that spans the U.S. waters of the Pacific Ocean; Atlantic Ocean, including the Gulf of Mexico and Caribbean Sea; Arctic Ocean; and the Great Lakes.

By establishing an effective structure for working together, the national system will help to increase the efficient protection of important marine resources; contribute to the nation's overall social and economic health; support government agency cooperation and integration; and improve the public's access to scientific information and decision making about the nation's marine resources. It affords all system members the protections of Section 5 of the Executive Order, which requires federal agencies to avoid harm to the natural and cultural resources protected by MPAs within the national system, to the extent permitted by law and to the maximum extent practicable. The collaborative efforts of the national system are also intended to benefit the participating federal, state, tribal, and local government partners through the identification of shared priorities for improving MPA effectiveness and the development of partnerships to provide assistance in meeting those needs. Finally, the national system provides a foundation for cooperation with other countries to conserve resources of common concern.

B. Process for Developing the Framework

This Framework was first developed in 2008, after an extensive, multi-year process to engage the MPA FAC, states, tribes, federal agencies, FMC representatives, and non-governmental stakeholders to ensure that the national system represents the nation's interests in the conservation and sustainable use of its natural and cultural marine resources. In developing this revision, the MPA Center engaged these stakeholders and partners in direct discussions and through a public notice and comment period to obtain their continued input.

This updated Framework reflects the MPA Center's experience implementing the National System in its first few years, as well as additional recommendations from the MPA Federal Advisory Committee. The MPA Center continues to work with and solicit input from federal, state, tribal, and local government partners, FMCs, stakeholder groups, and the general public about how the national system can most effectively connect and support the nation's MPA programs.

C. Benefits of an Effective National System

The national system has the potential to provide numerous benefits above and beyond those benefits realized by individual MPA sites and programs. These benefits stem from the added value of the national system in linking and strengthening MPAs and MPA programs, including fostering regional MPA networks and professional networks of MPA managers and staff. This networking and capacity building will lead to more effective and efficient management of marine resources, including the social and economic values they provide. The benefits associated with the national system are linked to the level of investment in it, and should increase over time.

Benefits to MPAs and MPA Programs

- *Enhancing Stewardship* - The national system helps protect MPAs against the harmful effects of human activities by fostering regional MPA networks and enhancing public awareness, site management capacity, and the public's recognition of these MPAs as important conservation areas.

- *Building Partnerships* - The national system provides opportunities for MPAs to work together more effectively. The system is also building partnerships between member MPAs and related ocean management initiatives, such as ocean observing systems, ocean mapping, navigational charting, and others.
- *Increasing Understanding of and Support for Marine Conservation* – Being part of the national system can enhance the stature of member sites within their managing entities and their local communities, building support for investment in MPA programs. It also provides national and international recognition, like that provided by international protected area networks such as World Heritage and Ramsar Wetlands. Coordinated outreach expands the impacts of individual program outreach efforts, bringing increased recognition and visibility to MPAs, particularly those that protect important resources but are remote or little known. For example, the MPA Center works with state MPA programs to highlight their accomplishments in publications and on the Center’s website and through social media, providing broader, national level exposure to these efforts.
- *Promoting Cultural Heritage* - Participation in the national system elevates the recognition of and appreciation for the cultural heritage value of MPA sites such as shipwrecks, archaeological sites and areas of cultural significance to tribal and indigenous people, an often overlooked focus of marine conservation.
- *Federal Action to Protect MPA Resources* - Executive Order 13158 calls for federal agencies to “avoid harm” to the natural and cultural resources protected by National System MPAs. Federal agencies are required to identify their activities that affect the natural and cultural resources protected by individual national system MPAs, and (to the extent permitted by law and the maximum extent practicable) avoid harm to those resources. This will be accomplished through existing resource management or review authorities.

Benefits to the Nation

- *Connecting Marine and Coastal Protected Areas for Healthier Marine Resources* - The national system provides an opportunity to identify and establish ecologically connected networks of MPAs and associated coastal protected areas. An ecological network of MPAs is a set of MPAs within a region that links key habitats for important marine species to grow and reproduce throughout their life cycles. These ecological networks are a key tool for reducing the vulnerability of marine species and their habitats to the impacts of climate change.
- *Supporting Efforts to Identify Gaps in Current Protection of Ocean Resources* - The national system supports MPA program and community efforts to identify and highlight gaps in the protection of important places in the ocean. These gap analyses will help inform future planning efforts to create and/or modify MPAs to address national and regional conservation objectives and protect representative examples of the nation’s marine ecosystems, habitats and cultural resources.
- *Providing New Educational Opportunities* - The national system enhances opportunities for natural and cultural heritage education, including onsite education and interpretation, as well as classroom and web-based resources. National system members can help educate students and visitors about the nation’s diverse marine and coastal ecosystems and cultural resources, and the importance of connectivity and adaptive management. The system also provides a mechanism to share educational materials about resources or management approaches among MPAs.

- *Enhancing Research Opportunities* - The national system provides scientists and managers with more opportunities to collaborate across MPA programs to understand the dynamics of marine ecosystems and human interactions with them under different management regimes.
- *Improving International Coordination* - The national system helps connect regional, state and territorial MPA efforts with relevant international initiatives to address issues of common concern. For example, the National Marine Protected Areas Center connects national system MPAs with counterparts in other countries through engagement in the International MPA Congress, the World Parks Congress, and regional MPA networks such as the North American MPA Network and the Caribbean MPA Network.

Benefits to Ocean Stakeholders

- *Sustaining Fisheries* - One goal of the national system is supporting sustainable production of fisheries and other marine resources. The national system provides a means to participate in fisheries management activities by regional fisheries management councils, inter-state fisheries commissions, states and tribes with other conservation efforts at the regional scale. This contributes to species recovery, spillover and seeding effects, habitat protection, conservation of old-growth age structure and genetic diversity, as well as providing improved information about access opportunities.
- *Better Information for Diverse Ocean Uses and MPA Management* - To support the national system, the MPA Center has established a national MPA Inventory, providing comprehensive information on MPAs managed by all federal, state and territorial agencies. This information supports state and regional efforts to plan for diverse ocean uses, including new or enhanced MPAs and provides information to visitors on allowed uses (see <http://marineprotectedareas.noaa.gov/dataanalysis/mpainventory/>)
- *Promoting Stakeholder Involvement in Management and Establishment of MPAs* - The national system promotes principles for MPA management and planning that include reliance on the best available science and information, transparent stakeholder engagement and adaptive management.

II. About MPAs and MPA Networks

A. Definition of MPA and its Key Terms

The Order defines an “MPA” as “[a]ny **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.” This inclusive definition is different from the definition used by the World Conservation Union (IUCN) and adopted by many countries, which excludes areas managed for fisheries management (what the U.S. defines as sustainable production MPAs). For the purposes of reporting on progress toward international MPA targets, the U.S. reports on Natural Heritage and Cultural Heritage MPAs in order to be consistent with IUCN usage.

Table 1 provides definitions of key terms within this definition, including “area,” “marine environment,” “reserved,” “lasting,” and “protection.” These definitions were guided by recommendations from stakeholders, including the MPA FAC, the analysis of existing place-based conservation efforts, and comments processes on the Draft and Revised Draft Frameworks.

B. MPA Networks

A MPA network is defined as a collection of individual MPAs or reserves operating cooperatively and synergistically, at various spatial scales, and with a range of protection levels that are designed to meet objectives that a single reserve cannot achieve.⁴ With regard to natural resources, MPAs span a range of habitats including the open ocean, coastal areas, intertidal zones and the Great Lakes. Networks of MPAs can connect these diverse habitats, providing protection to species that use different habitats at different life stages. Scientists and managers have called for the establishment of MPA networks to connect important habitats and populations ecologically, replenish and sustain marine life, maintain ecosystem processes and improve resilience by spreading risk in case of localized disasters. With regard to cultural heritage resources, MPA networks can provide greater protection for particularly important underwater cultural heritage resources within heritage landscapes, places connected by historical events, periods of history, and regions that have supported indigenous and traditional use and habitation through time.

Most U.S. MPAs were established before the more recent focus on MPA networks and there therefore not designed to be ecologically connected. However, in the global context, about 80% of the world’s MPAs are proximate to at least one other area, with the majority of these (85%) connected to at least 10 other sites. While only 18% of these “connected” sites are currently part of any established network or system,⁵ this geographic proximity, as well as the common management issues many MPAs face, provide a strong foundation for building and strengthening U.S. MPA networks. These efforts will be supported by ongoing research on the movements of adults, juveniles and larvae that will help inform management decisions about MPA networks.

Table 1. Definitions of Key Terms for the Purposes of the National System

Key Term	Definition
Area	Must have legally defined geographical boundaries, and may be of any size, except that the site must be a subset of the U.S. federal, state, local, or tribal marine environment in which it is located. Application of this criterion would exclude, for example, generic broad-based resource management authorities without specific locations and areas whose boundaries change over time based on species presence. The area must be one over which the U.S. has jurisdiction, consistent with international law.
Marine environment	Must be: (a) ocean or coastal waters (note: coastal waters may include intertidal areas, bays or estuaries); (b) an area of the Great Lakes or their connecting waters; (c) an area of submerged lands under ocean or coastal waters or the Great Lakes or their connecting waters; or (d) a combination of the above. The term “intertidal” is understood to mean the shore zone between the mean low water and mean high water marks. An MPA may be a marine component part of a larger site that includes uplands; however, the terrestrial portion is not considered an MPA. For mapping purposes, an MPA may show an associated terrestrial protected area.

⁴ Adapted from IUCN World Commission on Protected Areas (IUCN-WCPA) 2008. Establishing Marine Protected Area Networks – Making it Happen. Washington, D.C.: IUCN-WCPA, National Oceanic and Atmospheric Administration and The Nature Conservancy. http://cmsdata.iucn.org/downloads/mpanetworksmakingithappen_en.pdf

⁵ Wood, L.J., L. Fish, J. Laughren and D. Pauley. 2008. Assessing progress towards global marine protection targets: Shortfalls in information and action. *Oryx* 42:340-351.

	<p>For purposes of the national system, NOAA and DOI intend to use the following definition for the term “estuary”: “Part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage, and extending upstream to where ocean-derived salts measure less than 0.5 parts per thousand during the period of average annual low flow.” Application of this criterion would exclude, for example, strictly freshwater sites outside the Great Lakes region that contain marine species at certain seasons or life history stages unless that site is a component of a larger, multiunit MPA.</p> <p>Upon request, the agencies will work with individual federal, state, and tribal MPAs and programs to examine unique conditions that may affect applicability of the term “estuary” or “coastal waters” for sites that have national or regional significance or representativeness.</p> <p>Estuarine-like sites on tributaries of the Great Lakes will be considered for inclusion if they are located within the eight-digit U.S. Geological Survey cataloging unit adjacent to a Great Lake or its connecting waters.</p>
Reserved	<p>Must be established by and currently subject to federal, state, local, or tribal law or regulation. Application of this criterion would exclude, for example, privately created or maintained marine sites.</p>
Lasting	<p>For natural heritage and cultural heritage MPAs, the site’s authority must clearly state its intent to provide permanent protection. This definition recognizes that subsequent to establishment, MPA designation and level of protection may change for various reasons, including natural disasters that may destroy or alter resources or changes in societal values. Should any of these changes occur, the status of the MPA relative to the national system could be re-evaluated.</p> <p>Sites and/or protections that must have a specific legislative or other administrative action to be decommissioned shall be considered to have been established with the intent to provide permanent protection. This would include, for example, sites that have a requirement for periodic renewal contingent on evaluation of effectiveness, with no specified expiration date.</p> <p>For sustainable production MPAs, the site must be established with the intent at the time of designation to provide, at a minimum, the duration of protection necessary to achieve the mandated long-term sustainable production objectives for which the site was established.</p> <p>For all MPAs, the site must provide the same level and type of protection at a fixed location and fixed and regular period of any duration during a year.</p>
Protection	<p>Must have existing laws or regulations that are designed and applied to afford the site with increased protection for part or all of the natural and submerged cultural resources therein for the purpose of maintaining or enhancing the lasting conservation of these resources, beyond any general protections that apply outside the site.</p> <p>Application of this criterion would exclude restricted areas that are established for purposes other than conservation. The term would not include, for example, areas closed for navigational safety, areas closed to safeguard modern human-made structures (e.g., submarine cable no-</p>

	anchor zones), polluted shellfish-bed closure areas, areas closed primarily to avoid fishing gear conflicts, and areas subject to area-based regulations that are established solely to limit fisheries by quota management or to facilitate enforcement.
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III. What is the National System of MPAs?

A. National System Purpose

The purpose of the national system is to strengthen and connect the nation’s diverse marine protected area programs in order to more effectively protect the nation’s natural and cultural marine heritage and living marine resources for current and future generations.

B. National System Goals and Conservation Objectives

The national system’s goals and objectives are designed to address the requirements of the Order to develop a comprehensive National System of MPAs representing diverse United States marine ecosystems and the nation’s natural and cultural resources. These goals, which are all of equal importance, have been designed with input and recommendations of the MPA FAC and other stakeholders to meet the purpose of the national system relative to the conservation of the nation’s natural heritage, cultural heritage, and sustainable production marine resources (Table 2).

These goals and associated conservation objectives are intended to guide the development of the comprehensive national system, including identification of both existing MPAs to be included and conservation gaps which might be addressed through the establishment of MPAs. The national system as a whole will work collectively to achieve these goals and objectives. It is not expected that any individual MPA, MPA program, or system must address all goals or objectives. Measuring progress toward the attainment of these goals is addressed in Section VI(B).

The national system aims to include protected areas deemed to be nationally or regionally important because of their role in meeting the following objectives. The national system aims to strengthen the connection between individual MPAs by fostering MPA networks and working in the context of ecosystem-based management and a cultural landscape approach.

Table 2. National System Goals and Conservation Objectives

Natural Heritage Goal: Advance comprehensive conservation and management of the nation’s biological communities, habitats, ecosystems and processes and the ecological services, uses and values they provide to present and future generations through ecosystem-based MPA approaches.
Natural Heritage Objectives – Conserve and Manage:
Reproduction areas and nursery grounds
Biogenic habitats
Areas of high species and/or habitat diversity
Ecologically important geological features and enduring/recurring oceanographic features
Critical habitat of threatened and endangered species

Unique or rare species, habitats, and associated communities
Areas for migratory species
Linked areas important to life histories
Areas that provide compatible opportunities for education and research
Cultural Heritage Goal: Advance comprehensive conservation and management of cultural resources that reflect the nation’s maritime history and traditional cultural connections to the sea, as well as the uses and values they provide to present and future generations through a cultural landscape approach.
Cultural Heritage Objectives – Conserve and Manage:
Cultural and historic resources listed on the National Register of Historic Places (NRHP)
Cultural and historic resources determined eligible for the NRHP or listed on a State Register
Cultural sites that are important to a culture's identity and/or survival
Cultural and historic sites that may be threatened
Cultural and historic sites that can be utilized for heritage tourism
Cultural and historic sites that are under represented
Sustainable Production Goal: Advance comprehensive conservation and management of the nation’s renewable living resources and their habitats and the social, cultural and economic values and services they provide to present and future generations through ecosystem-based MPA approaches.
Sustainable Production Objectives – Conserve and Manage:
Reproduction areas, including larval sources and nursery grounds
Areas that sustain or restore high-priority fishing grounds
Areas for maintaining natural age/sex structure of important harvestable species
Foraging grounds
Areas that mitigate the impacts of bycatch
Areas that provide compatible opportunities for education and research

C. Building the National System from Existing and New Sites

The MPA Executive Order directs federal agencies to work together with other partners – both in and outside of government – to strengthen and expand the nation’s system of MPAs. Building an effective the national system involves three distinct actions and roles for the MPA Center that are described in subsequent sections:

1. Identifying, nominating and including existing MPAs meeting the above criteria into the national system and into the community of participating member sites engaged by the National MPA Center, and maintaining the official List of National System MPAs;
2. Strengthening the National System of MPAs by enhancing the management effectiveness of existing MPAs; and
3. Expanding the National System of MPAs by contributing to regional and MPA program efforts to establish new MPAs and MPA networks.

IV. Nominating MPAs to the National System

MPA programs across all levels of government may nominate eligible sites to participate in the National System. Eligibility criteria are summarized in Appendix C, and the nomination process is described in detail in Appendix D. Figure 3 (below) summarizes the nomination process.

Figure 3. Summary of Nomination Process



V. Strengthening the National System of MPAs and MPA Programs

Implementation of the national system began with the completion of the original version of this Framework in November 2008 and the first round of nominations of sites to the national system in April 2009. The first round of nominations resulted in 225 charter sites being admitted to the national system. As of March 2014, there are 437 sites in the national system, representing four federal programs and programs in 12 coastal states and territories.

Since the national system was launched in late 2008, the National Marine Protected Areas Center has focused on demonstrating the added value of the national system to its members through the following activities:

- Annual meetings of members of the national system to identify program priorities and opportunities for collaboration;
- Small grants focused on increasing collaboration among MPA programs, administered by the National Fish and Wildlife Foundation;
- Development of new spatial data and tools to better understand and address expanding human uses of the ocean and their implications for MPA planning and management;
- Regular updates and enhancement of the MPA Inventory;
- Updates on MPA science and management through the MPA Center website, marineprotectedareas.noaa.gov and social media;
- Training; and
- Collaboration on outreach and communication.

In 2011, the National Marine Protected Areas Center underwent an external review to obtain an objective, external assessment of progress in developing and implementing the national system. The external review process was conducted by four individuals with expertise in MPA science and management, and included a call for public comments as well as interviews with selected MPA managers. Key findings of the external review panel included that the MPA Center should focus on building partnerships among member sites; maximizing benefit to members of the national system; and facilitating professional networks among MPA managers.

A brief summary of the review findings is included in Appendix G.

Aligned with these recommendations, the timing of the implementation elements described below will depend on resources available and the priorities of national system partners. Significant additional resources will be needed to realize the full potential of each element. In addition, monetary and nonmonetary incentives would greatly enhance state, tribal, and local participation in the national system, thereby increasing its conservation impact. National system implementation components include:

- *Building Capacity for Improved MPA stewardship and effectiveness* – identifying and prioritizing shared needs for improvements in MPA science, management, and stewardship at regional and national levels and catalyzing partnerships and action to address identified priorities for existing MPAs.
- *Fostering regional MPA networks and collaboration* – supporting regional efforts to build ecological and institutional MPA networks, and provide for collaboration among participating MPA sites, systems, and programs.
- *National collaboration* – establishing and implementing a National System Partners Workgroup to build the management capacity of MPA programs and share information and best practices.
- *International collaboration* – identifying high impact opportunities to build MPA stewardship across international boundaries, through international fora and participation in international MPA networks, such as the North American MPA Network (NAMPAM) and the Caribbean MPA Network (CAMPAN).
- *Federal agency responsibilities to avoid harm* – providing guidance regarding Section 5 of the Order, which requires federal agencies to “avoid harm” to the natural and cultural resources protected by MPAs that become part of the national system.

A. Improving MPA Stewardship, Science, and Effectiveness

A significant purpose of the Order is to “strengthen the management, protection, and conservation of existing [MPAs]...” (Section 1 (a)). As such, a major emphasis of the national system is to provide support for the shared science, technical, education, and other priority stewardship needs of partner MPA programs to enhance the national system’s effectiveness.

The following are examples of the types of priority science and stewardship issues that may be identified and addressed through collaborative actions among MPA programs to improve MPA effectiveness. The MPA Center will support such collaborative efforts.

- **Enhancing MPA management capacity**
 - management plan development and review;
 - managing visitor and user impacts;
 - enforcement and compliance practices;
 - best practices for meaningful stakeholder involvement; and
 - sustainable financing mechanisms.
- **Improving MPA science and research**
 - building collaborative strategies for establishing biophysical, social, and economic baselines for MPAs and monitoring trends in these conditions; and
 - developing science-based tools to identify and measure regional, ecosystem, and site connectivity.
- **Promoting outreach and education**
 - improving awareness and understanding of the importance of marine resources and the role of MPAs in marine management;
 - sharing educational resources and strategies; and
 - improving public stewardship of marine resources through volunteer programs and other efforts.
- **Improving the evaluation of MPA effectiveness**
 - training and technical assistance on developing relevant indicators and protocols for monitoring and evaluating management effectiveness for individual MPAs and networks of MPAs; and
 - identifying consistent indicators for examining marine ecosystem and social and economic conditions associated with MPAs.

Collaborative activities will be implemented, subject to the availability of funds and other resources, through partnerships among MPA programs and others. Possible mechanisms include:

- training and workshops;
- direct technical assistance and tools;
- contractual or grant funding;
- support through external partnerships;
- best practices or technical publications;
- sharing of knowledge and experience across MPA sites and programs;
- clearinghouse for research on MPA issues;
- targeted research; and
- facilitation of linkages with international MPA programs and activities.

B. Fostering Regional MPA Networks and Collaboration

Within the national system, effective regional coordination and collaboration are critical for sharing information and experiences, identifying common priorities and collaborative solutions for enhancing the effectiveness of existing sites, and improving planning and decision making for new MPAs. In the same way, effective regional collaboration should also include linkages to other marine management initiatives such as Regional Planning Bodies, Regional Ocean Partnerships, Regional Fishery Management Councils, Landscape Conservation Cooperatives, advisory bodies related to protected areas and marine management and the regional associations of the U.S. Integrated Ocean Observing System. The national system will work with regional partnerships, in close collaboration with MPA programs, to provide expertise on MPA issues, foster regional MPA networks, provide information and tools to support decisions about place-based management and collaborate on initiatives and projects to address identified science and stewardship needs.

The scale of regional collaboration depends on the suite of management objectives being addressed. Different regional entities and agencies operate at varying scales, with different, often overlapping boundaries. Existing regional boundaries that may be relevant for different planning and management efforts include:

- Large marine ecosystems
- Marine ecoregions
- Landscape conservation cooperatives
- Cultural landscapes

In recognition of the benefits of MPA networks, several regions within the U.S. are developing regional networks or participating in international MPA networks. These may be designed as ecological networks to maximize benefits to marine life, or, more frequently, professional and institution building networks to build the capacity of MPA programs. California's development of a statewide MPA network organized into four sub-regions is the most comprehensive

regional ecological network in the U.S. Other regional capacity building efforts include the Pacific Islands MPA Community (PIMPAC) and the Caribbean MPA Network (CAMPAM).

C. National Coordination

In addition to fostering regional collaboration among MPAs, a corresponding national level effort is needed. Such an effort represents and promotes the priorities and issues of the various ecosystems and regions that make up the nation, as well as looking more broadly at important national and international trends, developments, priorities, and legal obligations. National coordination also serves to link across regions where resource conservation issues and MPA planning and management span regional boundaries. As required by the Order, the MPA Center will facilitate coordination at the national level. The National System Programs Workgroup (Programs Workgroup), described below, will be established as part of this coordination.

The Programs Workgroup is composed of one representative each from each program represented in the National System of MPAs, as well as the members of the Federal Interagency MPA Working Group. The Programs Workgroup provides operational guidance to the national system from the perspective of MPA managers. The MPA FAC will continue to provide recommendations to DOC and DOI on the implementation of the Order and on national system implementation from a stakeholder perspective.

The Programs Workgroup will:

- provide advice to the MPA Center on annual and long-term priorities and plans for the national system; and
- identify management issues and other priorities that require inter-regional, national, and/or international coordination or efforts.

Representatives to the Programs Workgroup will be selected by the participating MPA managing entities. Each federal agency will maintain an appointed ex officio member of the Federal Interagency MPA Working Group, who also will serve on the Programs Workgroup.

D. International Coordination

In addition to U.S. MPA programs and authorities, numerous international MPA efforts and linkages can contribute to and benefit from the national system. The United States shares many common resources with both neighboring and distant countries, and technical capabilities reside in many countries, organizations, and institutions around the world. In recognition of these important international connections, Section 4(a)(8) of the Order calls on federal agencies to identify opportunities to improve “linkages with, and technical assistance to, international [MPA] programs.”

For instance, migratory species (e.g., whales, sea turtles, pelagic fishes, and birds) rely on the marine and coastal waters of multiple countries during various stages of their lives. In addition, our underwater cultural heritage is governed by various international laws. For example, certain cultural resources that rest in the seabed of U.S. MPAs, such as sunken military craft and associated contents that have not been abandoned, have a protected sovereign status and permanent right, title, and interest may be vested in the flag country.

To strengthen international partnerships on MPA issues, the MPA Center, representing the National System of MPAs, and the Programs Workgroup, in coordination with the U.S. Department of State and internationally relevant regional

forums, can seek to enhance existing or establish new linkages with efforts in other countries, in accordance with international law. Such linkages should be focused on issues of mutual benefit to U.S. and international MPAs and MPA programs, such as policy coordination, collaborative activities, information and capacity sharing, capacity building, and technical assistance. These linkages may be formalized through participation in international MPA networks. International collaboration will be coordinated with and engage the MPA programs of the National System.

E. Federal Agency Responsibilities to Avoid Harm

Section 5 of the Order calls for federal agencies to “avoid harm” to the natural and cultural resources protected by MPAs that become part of the national system. Each federal agency is responsible for its own implementation of its responsibilities under Section 5.

The Order states:

Each Federal agency whose actions affect the natural or cultural resources that are protected by an MPA shall identify such actions. To the extent permitted by law and to the maximum extent practicable, each Federal agency, in taking such actions, shall avoid harm to the natural and cultural resources that are protected by an MPA. In implementing this section, each Federal agency shall refer to the MPAs identified under subsection 4(d) of this order.

Implementation

To implement Section 5 of the Order:

- The MPA Center will collect, maintain, and make publicly available via the MPA Center’s website, <http://marineprotectedareas.noaa.gov>, all relevant information for MPAs that are subject to agency requirements under Section 5, in the form of a List of National System MPAs. National system MPAs included in the List are those that have satisfied the requirements outlined in Sections IV (A) and (B) of the Framework and are officially a part of the National System of MPAs. Information maintained for each national system MPA on the List will include: site name, location, boundaries, authorizing legislation, level and types of protection and managing authority/program. Information on points of contact is available by contacting the MPA Center.
- Federal agencies shall: (1) identify their activities that affect the natural or cultural resources protected by individual national system MPAs, and (2) to the extent permitted by law and to the maximum extent practicable, avoid harm to those resources. Both of these activities should be accomplished through existing natural or cultural resource management or review authorities and procedures, including, but not limited to those under:
 - National Environmental Policy Act;
 - Coastal Zone Management Act;
 - National Historic Preservation Act;
 - Endangered Species Act;
 - Federal Water Pollution Control Act (Clean Water Act);

- Marine Mammal Protection Act;
 - National Wildlife Refuge System Administration Act;
 - National Park Service Organic Act;
 - Rivers and Harbors Act;
 - Sunken Military Craft Act;
 - National Marine Sanctuaries Act (Title III of the Marine Protection, Research, and Sanctuaries Act);
 - Magnuson-Stevens Fishery Conservation and Management Act;
 - Outer Continental Shelf Lands Act;
 - Coral Reef Conservation Act;
 - Energy Policy Act of 2005; and
 - Other pertinent statutes and Presidential Executive Orders.
- Upon receipt of a federal agency's request for assistance, the MPA Center will work to facilitate support for policy and coordination assistance through existing agency review processes.
 - As needed, the MPA Center, working with federal agencies, will produce voluntary technical guidance and best practices on priority issues to assist federal agencies in their determination of impacts to marine resources protected by national system MPAs and options for avoiding harm. The MPA Center also will work with federal agencies to provide public outreach materials to educate and inform the agencies and the public on the requirements of Section 5.
 - Federal agencies will report their actions to implement Section 5, any comments received, and responses to such comments on an annual basis but may do so through existing processes.

Activities to Be Considered

The implementation of Section 5 is governed by existing authorities, each with its own threshold and/or trigger for requiring individual federal agencies to identify, review, mitigate, or otherwise alter their activities based on impacts to natural or cultural resources. The Order does not provide any new authority for any federal agency or the MPA Center to review activities of any other federal agency or alter standards for existing review. The thresholds and/or triggers for agency action under Section 5 are the same as those listed under any existing authority or authorities that normally require agency review of a proposed activity. Section 5 does, however, require agencies to ensure that their activities avoid harm to the natural and cultural resources as protected by the MPAs included in the national system (to the extent permitted by law and to the maximum extent practicable) when fulfilling their existing requirements for identifying, reviewing and implementing activities.

Furthermore, there is no single definition for key terms used to describe the requirements under Section 5, including but not limited to: “avoid harm,” “affect,” or “to the extent permitted by law and to the maximum extent practicable.” Instead, the meaning of any of these terms, as applied to an agency’s requirements under Section 5, is dependent on the agency’s interpretation, in the context of the legal framework used to protect the resources of the MPA and any other applicable natural or cultural resource review or protection authorities or procedures.

Pursuant to Section 5 of the Order, agency requirements apply only to the natural or cultural resources specifically afforded protection by the site under its authorizing legislation. For example, within national system MPAs established for sustainable production, other resources not specifically protected by the MPA would not be subject to the “avoid harm” provision. For sites that have both a terrestrial (i.e., an area that falls outside of the definitional boundaries of ‘marine’) and marine area, only the marine portion and its associated protected resources will be included on the List of National System MPAs and subject to Section 5 of the Order.

Comment and Response on Agency Actions

Comments from any person, organization, or government entity concerning federal agency compliance with Section 5 should be directed to the relevant lead federal agency for the action or actions that are the subject of the comments. Each agency shall make a determination on the response and take appropriate action. Similarly, any requests for information regarding compliance with Section 5, including those under the Freedom of Information Act (FOIA), should be directed to the lead agency for the action or actions that are the subject of the request. Any comments or requests for information received by the MPA Center or any federal agency in regard to another agency’s compliance with this Section shall, pursuant to FOIA procedures, be forwarded in a timely manner to the relevant responsible agency for its consideration, with due notice given to the sender.

Reporting and Periodic Review

As required under Section 6, Accountability of the Order, “[e]ach Federal agency that is required to take actions under the order shall prepare and make public annually a concise description of actions taken by it in the previous year to implement the order, including a description of written comments by any person or organization stating that the agency has not complied with this order and a response to comments by the agency.”

VI. Expanding the National System of MPAs

The nation’s ocean and coastal waters contain more than 1,700 existing MPAs. Individually and collectively, these sites contribute to the conservation and sustainable use of America’s waters. Of those, about one quarter are now members of the US National System of MPAs. Established for a variety of purposes by diverse federal, state, and tribal agencies, each MPA has unique objectives and management approaches, influenced both by their fundamental legal mandates and by more practical programmatic priorities and resource levels.

The Executive Order puts forward a vision – and a challenge – to create a comprehensive national system of effective sites meeting the diverse goals and objectives listed above. While strengthening existing MPAs is a critical component of achieving that vision, it is likely that not all of the important ocean areas in US waters are adequately protected to ensure their long-term conservation and sustainable use in today’s rapidly changing world.

A. Identifying Conservation Gaps

To meet that need and the goals of the Order, the MPA Center may contribute to regional planning efforts and efforts by individual MPA programs to identify and fill important conservation gaps that may be effectively filled through the establishment of new MPAs and MPA networks.

Examples of such gaps include:

Representation gaps: where a particular habitat, ecosystem, or cultural resource type is either unrepresented or underrepresented in the national system.

Ecological gaps: where important species, habitats, ecosystems, or processes fundamental to the national system's goals are not adequately protected to ensure their lasting conservation and sustainable use.

Management gaps: where the management regimes (management objectives or governance types) of MPAs in the national system do not fully provide for lasting conservation or sustainable production of a particular species, habitat, cultural resource, or ecosystem.

B. National System Design Principles

The following principles are intended to guide the decisions and actions of managing entities and stakeholders in building and implementing an effective national system. These principles have been adapted from the World Commission on Protected Areas/International Union for Conservation of Nature (WCPA/IUCN) report, "Establishing networks of marine protected areas: A guide for developing national and regional capacity for building MPA networks" (WCPA/IUCN, 2007). These principles describe the properties of a national system comprised of functional ecological networks. In the United States, dozens of MPA programs have established MPAs over many decades – preceding the more recent scientific understanding of the functions and benefits of ecological networks. As a result, there are relatively few ecological MPA networks in U.S. waters. The design principles listed below represent the desired characteristics of the national system, and will be used to evaluate its effectiveness and inform programmatic work to identify and fill conservation gaps.⁶

- **Representativeness –**

- *Geographically representative* – represents the range of geographic regions of the nation.
- *Ecologically representative* – represents the range of marine and coastal biological diversity (from genes to species to habitats to ecosystems) and associated physical environments within the region or nation.
- *Culturally and/or historically representative* – represents the range of cultural and/or historic resources and values of a particular ecosystem or region or the nation.
- *Levels of government* – includes areas managed by federal, state, tribal, and local governments and communities.

⁶ The current professional literature on MPA networks is primarily focused on their ecological characteristics. Additional work to identify the principles and implementation guidelines for developing networks of cultural heritage sites is needed.

- **Replication** – Includes multiple sites to ensure continued representation in the face of harmful impacts.
- **Precautionary design** – Decisions are based on the best information currently available from natural science, social science, customary and local knowledge, and other sources. Where information is limited, decisions should reflect a precautionary approach.
- **Resilience** – Designed to maintain ecosystems’ natural states and to absorb shocks, particularly in the face of large-scale and long-term changes (such as climate change).
- **Viability** – Inclusion of self-sustaining, geographically dispersed component sites of sufficient extent to ensure population persistence through natural cycles of variation.
- **Connectivity** – Maximize and enhance the linkages among individual MPAs, groups of MPAs within a given eco-region, or MPA networks in the same and/or different regions.

VII. Tracking, Reporting and Evaluation

Tracking, reporting and evaluation of the national system are key components of an effective, adaptively managed system. The MPA Center will report on progress biennially, and post all data on the <http://marineprotectedareas.noaa.gov> website. In addition, the MPA Center will work with the Programs Workgroup and participating MPA sites and programs to determine how best to comprehensively track overall national system priorities and activities.

A. [Marineprotectedareas.noaa.gov](http://marineprotectedareas.noaa.gov) Website

As required by the Order, the website <http://www.marineprotectedareas.noaa.gov> will be maintained to communicate and archive all information about the development and implementation of the national system. The website will house information about a variety of technical, scientific, governance, and other MPA topics relevant to the breadth of MPA stakeholders, including the MPA FAC. In addition, the website will house information on national system progress, priorities, and plans, including:

- MPAs found to be eligible for nomination to the national system;
- MPAs that have been included in the national system;
- regional and national MPA partnerships to address science, stewardship, and management effectiveness needs;
- international activities and commitments;
- information on the nomination process and supporting analyses;
- information related to the evaluation of national system effectiveness;
- agency and MPA Center reports;

- public comments received on MPA nominations to and removals from the national system; and
- the official List of National System MPAs.

B. Evaluating National System Effectiveness

Monitoring and evaluating management effectiveness is a key component of an effective, adaptively managed national system. Monitoring and evaluation efforts of the national system are focused on measuring the effectiveness of the national system in achieving its conservation objectives and management objectives and the contributions of participating national system MPAs and MPA programs in achieving those objectives. The national system does not aim to monitor or evaluate individual MPAs or MPA programs, although the national system can provide assistance to MPA programs to assist them in better evaluating their own efforts. Stakeholders with an interest in participating in the monitoring of individual MPAs or MPA programs should consult with the managing entity or entities.

As the national system is still in its early stages, the primary focus of the program will be in strengthening the basic attributes of the system. The focus on evaluating effectiveness will be further developed in the future, and will include:

- technical and scientific support for fostering sound monitoring, and evaluation programs at the participating MPA site or system level;
- development and implementation of guidance for assessing national system effectiveness, developed in cooperation with participating national system MPA sites and systems; and
- cooperation with existing or developing observation, monitoring and evaluation programs.

The natural and social science data currently collected and used by MPA sites and systems to monitor and evaluate their own effectiveness will not only help in their adaptive management efforts, but also will contribute to the analysis of the national system's success in meeting its goals. The national system will aim to support the tools and technical assistance needed by partner MPA sites and systems to effectively monitor and evaluate their own effectiveness. It will not create new requirements for sites or systems to undertake new or expanded monitoring and evaluation activities.

With advice from the MPA FAC, the Programs Workgroup, national system MPA partners in the regions, and science and management experts, the MPA Center will develop and publish guidance for monitoring and evaluating the effectiveness of the national system. This guidance will provide an integrated approach for monitoring the effectiveness of the national system, including the degree to which the priority conservation objectives are met and the benefits are provided to participating MPA sites and systems.

The results of monitoring and evaluating the national system will be used to manage the system adaptively and identify future focus areas for stewardship and other initiatives, including but not limited to: conservation gaps; technical and other forms of assistance in support of MPA sites and programs; and necessary changes to the national system's goals, objectives, or other components.

VIII. Role of the MPA Center

As described in Executive Order 13158, the MPA Center is responsible for “carrying out the requirements of subsection 4(a) of this order” which describes the National System of MPAs. As such, the MPA Center is responsible for the overall coordination and operations of the National System of MPAs, including the nomination process and maintenance of the MPA Inventory and National System List, the MPA website, the MPA Federal Advisory Committee and – working with the individual MPA programs -- actions to strengthen and expand the National System and its component programs.

A. Strengthening the National System of MPAs and MPA Programs

The MPA Center will coordinate national efforts to improve MPA stewardship, science and effectiveness, and foster the development of MPA networks and collaboration.

B. Expanding the National System of MPAs

The role of the MPA Center in addressing conservation gaps is to support the efforts of MPA programs, stakeholders and communities. Neither the Order nor the Framework provides the MPA Center with the authority to designate or establish new MPAs or alter protections afforded by existing MPAs. Section 4(e) of the Order states:

The goal of the MPA Center shall be, in cooperation with the Department of the Interior, to develop a framework for a national system of MPAs, and to provide Federal, State, territorial, tribal, and local governments with the information, technologies, and strategies to support the system. This national system framework and the work of the MPA Center is intended to support, not interfere with, agencies’ independent exercise of their own existing authorities.

Resources permitting, the MPA Center may contribute to emerging and ongoing efforts to plan and designate new MPAs and MPA networks with the aim of strengthening and expanding the US National System of MPAs. The Center’s engagement will likely vary considerably, based on the requests of the management or planning entity, and may range from: (i) providing relevant data, derived products and decision-support tools; (ii) to analyses of important conservation gaps in place-based management; to (iii) involvement in planning, outreach, interagency coordination or stakeholder engagement prior to designation.

New MPAs that may eventually be established could subsequently be considered for inclusion in the national system pursuant to the eligibility criteria and nomination process outlined in this Framework.

Appendix A. Glossary of Key Terms

The following are definitions of key terms as used in this Framework document. See Table 2 for the full definition of key terms used in the definition of an MPA.

Adaptive management – “A systematic process for continually improving management policies and practices by learning from the outcomes of operational programs.” (British Columbia Forest Service, <http://www.for.gov.bc.ca/hfp/amhome/Amdefs.htm>).

Area – Must have legally defined geographical boundaries and may be of any size, except that the site must be a subset of the United States federal, state, local, or tribal marine environment in which it is located.

Biodiversity – The variety of living organisms in all their forms. Technically, biodiversity includes variety at three levels of biological organization: genetic variation within species, the variety of species, and the variety of ecological communities.

Conservation area – Multiple uses allowed; however, uses and activities may be restricted or zoned and access limited, as necessary to meet site management goals.

Cultural heritage – The legacy of physical evidence and intangible attributes of a group or society which is inherited and maintained in the present and bestowed for the benefit of future generations.

Cultural Landscape – A place where the intersection of culture and nature leave a distinct ecological or cultural imprint.

Cultural Landscape Approach to management – A management approach that uses cultural landscapes as an analytical framework to understand places and their associated resources. This approach is analogous and complementary to ecosystem-based management, and examines the relationships among living and non-living resources, and their environment. This approach enables a better understanding of the human connections to MPAs, as well as the important human influences on marine ecosystems over time.

[Marine] Cultural resource – The broad array of stories, knowledge, people, places, structures, and objects, together with the associated environment, that contribute to the maintenance of cultural identity and/or reveal the historic and contemporary human interactions with an ecosystem.

Ecological network – A set of discrete MPAs within a region that are connected through dispersal of reproductive stages (eggs, larvae, spores, etc.) or movement of juveniles and adults. The effective management of certain marine species may require networks of discrete MPAs encompassing regional collections of local populations linked by dispersal and movement, which may be essential for some local populations to persist. The creation of MPA networks must take into consideration other non-MPA areas that provide similar linkages, which does not necessarily imply additional management measures outside MPAs or the creation of a “super MPA” with boundaries encompassing all MPAs in the network.⁷

⁸ MPA FAC, 2005.

Ecosystem – A geographically specified system of organisms, including humans and the environment and the processes that control its dynamics.

Ecosystem approaches to management (or Ecosystem-based management) – A management approach that “looks at all the links among living and nonliving resources, rather than considering single species in isolation.” This approach “reflects the relationships among all ecosystem components, including humans and nonhuman species, and the environments in which they live. This system of management considers human activities, their benefits, and their potential impacts within the context of the broader biological and physical environment.”⁸

Extractive – Activities that remove or are intended to remove living or nonliving resources from an MPA.

Indigenous Peoples – Descendants of peoples who inhabited the area now encompassed by the United States and its territories at the time of Euro-American colonization, or the establishment of present political boundaries, and who retain some or all of their own social, economic, cultural and political institutions, irrespective of their legal status.

Large Marine Ecosystems – Regions of ocean space encompassing coastal areas from river basins and estuaries out to the seaward boundary and continental shelves and the seaward margins of coastal current systems. They are relatively large regions on the order of 200,000 square kilometers or greater, characterized by distinct bathymetry, hydrography, productivity, and tropically dependent populations.

Lasting – For natural heritage and cultural heritage MPAs, the site’s authority must clearly state its intent to provide permanent protection. For sustainable production MPAs, the site must be established with the intent at the time of designation to provide, at a minimum, the duration of protection necessary to achieve the mandated long-term sustainable production objectives for which the site was established.

Local government – A legally established unit of government at a level below state government, including but not limited to county, city, town, or village.

Management [managing] entity or entities – The federal, state, local, or tribal entity or entities with legal authority to designate, promulgate regulations for, and/or manage an MPA or other management area. In many cases, authority lies with one entity or program; however, in certain instances, such as the federal/state National Estuarine Research Reserve System and state/tribe co-management arrangements, authority is formally shared or split among two or more entities.

Marine environment – Must be: (a) ocean or coastal waters (note: coastal waters may include intertidal areas, bays, or estuaries); (b) an area of the Great Lakes or their connecting waters; (c) an area of lands under ocean or coastal waters or the Great Lakes or their connecting waters; or (d) a combination of the above.

Marine Protected Area – 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. See also Area, Marine environment, Reserved, Lasting, and Protection.

Marine Reserve – A type of MPA where extractive uses are prohibited (also referred to as “no-take” reserve).

⁸ U.S. Commission on Ocean Policy (USCOP). 2004. An Ocean Blueprint for the 21st Century, Washington, D.C.

National System of MPAs – The group of MPA sites, networks, and systems established and managed by federal, state, tribal, and/or local governments that collectively enhance conservation of the nation’s natural and cultural marine heritage and represent its diverse ecosystems and resources. National system MPAs work together at the regional and national levels to achieve common objectives for conserving the nation’s important natural and cultural resources.

Natural heritage – The nation’s biological communities, habitats, ecosystems, and processes and the ecological services, uses, and values they provide to present and future generations.

[Marine] Natural resource – Any biological or physical component of the marine environment that contributes to the structure, function, goods, or services provided by a marine ecosystem.

Network – A set of discrete MPAs within a region or ecosystem that are connected through complementary purposes and synergistic protections. A network of MPAs could focus on ecosystem processes, certain individual marine species, or cultural resources. For example, an ecological network of MPAs could be connected through dispersal of reproductive stages or movement of juveniles and adults (see “Ecological network”).

Precautionary design – Decisions are based on the best information currently available from natural science, social science, customary and local knowledge, and other sources.

Protection – Must have existing laws or regulations that are designed and applied to afford the site with increased protection for part or all of the natural and submerged cultural resources therein for the purpose of maintaining or enhancing the long-term conservation of these resources, beyond any general protections that apply outside the site.

Region or Regional – An area inclusive of and determined by participating national system sites and systems that is based on common management interests, similar or linked ecological characteristics, and/or other factors that provide a foundation for meaningful coordination.

Reserve area – No extractive uses allowed, except permitted scientific and educational uses; destructive or disruptive activities are limited; other uses and activities may be restricted or zoned; and access is limited, as necessary to meet site management goals.

Reserved – Must be established by and currently subject to federal, state, local, or tribal law or regulation.

Stakeholder – Individuals, groups of individuals, organizations, or political entities interested in and/or affected by the outcome of management decisions. Stakeholders may also be individuals, groups, or other entities that are likely to have an effect on the outcome of management decisions. Members of the public also may be considered stakeholders.

State – See United States.

Stewardship – Careful and responsible management to ensure goals and objectives are being achieved for the benefit of current and future generations.

Sustainable production resources – The nation’s renewable living resources and their habitats (including, but not limited to, spawning, mating, and nursery grounds and areas established to minimize bycatch of species) and the social, cultural, and economic values and services they provide to present and future generations.

System – A set of MPAs connected by shared programmatic, administrative, or other organizing principles or purposes. A system of MPAs is not necessarily confined to a specific geographic area such as a region or ecosystem.

Tribe – A federally or state recognized American Indian or Alaska Native government, or any extant or historical tribe, band, nation, or other group or community of indigenous peoples in or associated with the United States of America..

United States – Includes the several states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands of the United States, American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam.

Appendix B. Acronyms and Abbreviations Used

Acronyms

CAMPAN – Caribbean MPA Network
CEQ - Council on Environmental Quality
DOC – Department of Commerce
DOI – Department of the Interior
EPA – Environmental Protection Agency
FOIA – Freedom of Information Act
FMC – Federal Fishery Management Council
FWS – U.S. Fish and Wildlife Service

MPA – Marine protected area
MPA FAC – Marine Protected Areas Federal Advisory Committee
NAMPAN – North American MPA Network
NEPA – National Environmental Policy Act
NERRS – National Estuarine Research Reserve System
NOAA – National Oceanic and Atmospheric Administration
NRHP – National Register of Historic Places
PEA – Programmatic Environmental Assessment
PIMPAC – Pacific Islands MPA Community
U.S. – United States of America
WCPA/IUCN – World Commission on Protected Areas/International Union for Conservation of Nature

Abbreviations

Framework – Framework for Developing the National System of MPAs
MPA Center – National Marine Protected Areas Center
National System – National System of Marine Protected Areas
NOAA Fisheries Service – NOAA’s National Marine Fisheries Service
Order – Executive Order 13158 of May 26, 2000
Programs Workgroup – National System of MPA Program Representatives

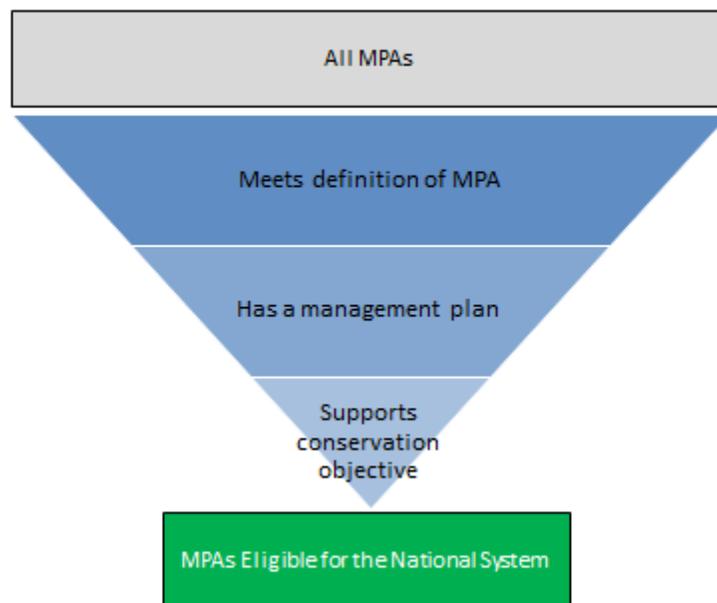
Appendix C. Eligibility Criteria for the National System of MPAs

To be eligible for nomination to the national system, existing MPAs must meet all three (four for cultural sites) criteria, shown in Figure 2 and described in more detail below:

1. Meet the definitional criteria of an MPA, including each of its key terms (see definitions in Table 1) – area, marine environment, reserved, lasting, and protection.
2. Have a management plan that addresses cultural and natural resources, as appropriate.
3. Support at least one priority goal and conservation objective of the national system.
4. Cultural heritage MPAs also must conform to criteria for including sites on the National Register of Historic Places, or be considered important by Indian Tribes and tribal communities, Alaska Natives, Native Hawaiians, and Pacific Islanders, or have the potential to provide information important to understanding cultural and natural heritage.

Additional sites not currently meeting the management plan criterion can be evaluated for eligibility to be nominated to the system on a case-by-case basis based on their ability to fill gaps in national system coverage of the conservation objectives and design principles described in Sections VI (A). To the extent practicable, the MPA Center intends to assist otherwise qualified sites that do not meet the management plan criterion to develop or strengthen their management plans at their request in order to meet this criterion.

Figure 2. Eligibility Criteria for the National System



(i) Definition of MPA and its Key Terms

To be eligible for nomination to the national system, an MPA must meet the definition set out in Table 1.

(ii) Management Plan Criteria

To be eligible for nomination to the national system, an MPA must have a management plan that:

Has been developed at one of the following scales:

- a site-specific MPA management plan,
- part of a larger MPA programmatic management plan,
- component of a broader, non-MPA programmatic management plan (e.g., fishery management plan or species recovery plan), or
- an enforceable community agreement.⁹

Includes both of the following components:

- specified conservation goals and/or objectives, and
- a process or requirement for monitoring and evaluation of goals.

(iii) Goals and Objectives of the National System

An MPA's conservation purpose must specifically contribute to at least one of the goals and objectives described in Section III (B) above.

(iv) Cultural Heritage Criteria

Cultural resources in the national system of MPAs must also comply with one or more of the following criteria. These criteria are applied within the context of a cultural landscape approach. A cultural landscape is a place where the intersection of culture and nature leave a distinct ecological or cultural imprint. A cultural landscape approach is an analytical framework for understanding the ways in which specific cultural and environmental processes overlap and influence one another.

(a) National Register of Historic Places

⁹ Given the unique nature of community agreements the requirement for these management agreements to include conservation goals and monitoring and evaluation components may be met through traditional or science-based approaches so long as they are enforceable. In some Pacific Island cultures, for example, management agreements may be part of local oral tradition, and are not written, but would still be considered as meeting this criterion.

Given the cultural resource management community's widespread acknowledgement of the standards developed by the National Park Service for inclusion of a cultural resource in the National Register of Historical Places (NRHP), the national system will integrate core elements of those standards into its criteria for MPAs with cultural marine resources. As such, the cultural marine resources within those MPAs must be historic and defined as at least 50 years of age, unless otherwise determined to be unique to the nation's maritime history or traditional connections to the sea as defined by the NRHP. In addition, the resources must meet the following NRHP evaluation criteria:

"The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or
2. That are associated with the lives of significant persons in our past; or
3. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. That have yielded or may be likely to yield, information important in history or prehistory."

(b) Designations by Tribal and Indigenous People

As identified by oral or written record, indigenous stories, knowledge, people, places, structures, objects, and traditional practices contribute to maintaining cultural identity and/or sustainable management of the environment. The national system will include cultural and natural marine resources that are formally recognized as important by tribal or indigenous peoples. Some examples are, but not limited to:

1. Areas of cultural value or historic significance to tribes and indigenous peoples.
2. Traditional cultural properties, including areas of spiritual value.
3. Important Great Lakes and marine subsistence areas.
4. Important ceremonial sites and traditional activity sites.
5. Tribal usual and accustomed areas.
6. Other areas as determined important by tribal or indigenous peoples.

Appendix D. Nomination Process for Existing Marine Protected Areas

The process for nominating and including eligible MPAs in the national system is as follows. Nominations of existing MPAs originate with the managing entity(ies), with the MPA Center providing background information and analysis (see Figure 3 for summary).

Figure 3. Summary of Nomination Process

1. The MPA Center will review sites in the United States Marine Protected Areas Inventory and identify the set of sites that meet the three (or four, for cultural sites) MPA eligibility criteria outlined in Section IV (A). Information on whether sites meet criterion 3, supporting at least one priority goal and conservation objective of the national system, will be provided by the managing entity. The MPA Inventory (see <http://www.marineprotectedareas.noaa.gov>) is a comprehensive database of all MPAs in U.S. waters.
2. The MPA Center will issue an annual call for nominations with broad outreach to MPA management programs.¹⁰
3. The managing entity or entities will be invited to nominate some or all of their eligible sites for inclusion in the national system, including additional information required to evaluate site eligibility relative to meeting priority conservation objectives.

The managing entity or entities may also provide a brief justification and nomination for: a) sites believed to meet the requirements for entry into the national system that are not currently listed in the MPA Inventory, or b) other sites that do not appear to currently meet the management plan eligibility criterion but are deemed to be a priority for inclusion based on their ability to fill gaps in national system coverage of the conservation objectives and design principles.

4. The MPA Center will review the set of nominated sites to ensure that nominations are sufficiently justified.
5. The MPA Center will notify the public, via the *Federal Register* and other means, of the set of sites nominated for inclusion in the national system and provide the opportunity to comment on the eligibility of nominated sites (or sites that have not been nominated) relative to the eligibility criteria and any additional justification. The MPA Center will work with the managing entities to ensure adequate public involvement.
6. The MPA Center will receive, evaluate, and forward public comment to the relevant managing entity or entities, which will reaffirm or withdraw (in writing to the MPA Center) the nomination based on public comment received and any other factors deemed relevant.

¹⁰ In most cases, management authority for an MPA lies with one agency or program; however, in certain instances, such as the federal/state National Estuarine Research Reserve System and state/tribe co-management arrangements, authority is formally shared or split among two or more entities. Similarly, Regional Fishery Management Councils have a unique role in the process for recommending federal fishery management zones and federal fisheries habitat conservation zones established by NOAA. Where explicit agreements and/or legislation govern shared management authority or other formal relationships, the multiple managing entities will be consulted throughout the nomination process.

7. The MPA Center will review the final determination for each nomination, consult as necessary with the managing entity or entities should there be any discrepancies, and accept mutually agreed upon MPAs into the national system.
8. MPAs that are accepted into the national system will be listed in the official List of National System MPAs (see below) comprising the national system and made available to the public via the *Federal Register*, the website <http://www.marineprotectedareas.noaa.gov>, and other means.

Where non-governmental stakeholders, including the general public, may have an interest in the nomination of certain MPAs, they are encouraged to contact the respective managing entity or entities to share their perspectives about nomination in addition to participating in the public comment process described in number 5 in this section. Similarly, where government agencies have an interest in the nomination of eligible MPAs for which they do not have management authority, they are encouraged to consult with the respective managing entity or entities.

Appendix E. The Official List of National System MPAs

1. Adding MPAs to the List and National System

Pursuant to Section 4(d) of the Order, and to ensure that managing entities, organizations, and the general public are aware of the MPAs that make up the national system, the MPA Center will maintain a List of National System MPAs. The List of National System MPAs will be the official inventory of all MPAs that have been formally included in and recognized as part of the National System of MPAs under the nomination process described above. In addition, MPAs on the List of National System MPAs are those sites that are the subject of Section 5 of the Order, "Agency Responsibilities," as described in Section V (E) of this document. This authority does not apply to MPAs not on the List of National System MPAs.

The List will include the following information for each national system MPA:

- a. name
- b. location
- c. conservation objective(s) contributed to
- d. boundaries
- e. key resources present
- f. authorizing legislation
- g. levels and types of protection
- h. managing authority or program

The MPA Center will regularly publish an updated, summary version of the List of National System MPAs in the *Federal Register*, and will make it available to the public at <http://www.marineprotectedareas.noaa.gov> or by request.

2. Modifying MPAs on the List and in the National System

Participation in the national system does not constrain the management entity from changing its management of the MPA. The management entity would still have the ability, within its own authorities and required processes, to add or reduce levels of protection, change the size of the MPA, or make other changes. Management entities would be asked to provide all significant updates to the MPA Center, but would not be required to re-nominate the site. If the MPA no longer meets the national system MPA eligibility criteria, it would be removed from the system (see Section IV (A)).

3. Removing MPAs from the List and National System

MPA sites or systems that have been included on the List of National System MPAs may be removed at any time by written request of the managing entity(ies) or the MPA Center for reasons including:

- the MPA ceases to exist (e.g., the legal authority or regulations expire);
- the MPA no longer meets the national system MPA eligibility criteria; or
- the managing authority requests removal.

All requests from managing entities or actions by the MPA Center to remove an MPA from the national system must be made in writing, will become part of the public record, and will be published at <http://www.marineprotectedareas.noaa.gov> and in the *Federal Register* for comment. If a managing entity contacts the MPA Center with a request to remove an MPA from the national system, the managing entity(ies) and the MPA Center will enter into a dialogue on the proposal. Any comments received from the public relating to the removal of an MPA from the national system will be forwarded to the managing entity(ies) for its consideration in making its final determination to have the site removed from the national system. Upon completion of all obligations by the respective managing entity(ies), the MPA will be removed from the List of National System MPAs and all information referencing the site will be removed from national system materials and archived in the national system information on the website.

Appendix F. Administrative and National Policy Requirements

1. Nothing in Executive Order 13158 or this Framework shall be construed as altering existing authorities regarding the establishment of federal MPAs in areas of the marine environment subject to the jurisdiction and control of states, the District of Columbia, Commonwealth of Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.
2. Neither Executive Order 13158 nor this Framework creates any right or benefit, substantive or procedural, enforceable in law or equity by a party against the United States, its agencies, its officers, or any person.
3. Neither Executive Order 13158 nor this Framework diminishes, affects, or abrogates Indian treaty rights or U.S. trust responsibility to Indian tribes.
4. Federal agencies taking actions pursuant to Executive Order 13158 or under this Framework must act in accordance with international law and with Presidential Proclamation 5928 of December 27, 1988, on the Territorial Sea of the United States of America; Presidential Proclamation 5030 of March 10, 1983, on the Exclusive Economic Zone of the United States of America; and Presidential Proclamation 7219 of September 2, 1999, on the Contiguous Zone of the United States.

Appendix G. Federal, State and Tribal MPA Programs in the U.S.

The nation's existing suite of MPA sites, programs, authorities, and systems at all levels of government are the fundamental components of the national system. The recognition of and full participation by these federal, state, tribal, and local government programs are critical to the national system's success. Working together voluntarily, these existing programs and authorities, federal MPA coordination initiatives, and linkages to international MPA initiatives will make important contributions to and receive benefits from the development of an effective national system. This section provides an overview of these major efforts and generally describes their respective roles in the national system.

A. U.S. MPA Programs and Authorities

MPAs in the United States are managed by a number of entities and programs at federal, state, tribal, and local government levels. This section provides a brief summary of these programs and describes the nature of their role in the development of the national system.

Federal and Federal/State MPA Programs

Currently, there are several federal MPA programs and one federal/state partnership MPA program in the United States. Each has one or more specific legal mandates that it is required to fulfill. Many of these programs have established and actively manage systems of MPAs designed to fulfill their responsibilities to the nation. As described below, the federal MPA programs include DOI's National Park System and National Wildlife Refuge System and NOAA's National Marine Sanctuary System, National MPA Center, and National Marine Fisheries Service programs. The National Estuarine Research Reserve System is composed of NOAA/state partnerships.

National Park System: The National Park System currently contains 85 coastal parks with over 11,000 miles of coastline and 2.5 million acres of ocean and Great Lakes waters. The National Park Service mission is preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. Ocean and Great Lakes units of the National Park System include biological, cultural and recreational resources of tremendous value to the nation in every region of the U.S.

National Wildlife Refuge System: The U.S. Fish and Wildlife Service's (FWS) mandate is to provide the federal leadership to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of people. The mission of the National Wildlife Refuge System, a program within the DOI FWS, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. There are 180 ocean and Great Lakes refuges.

National Marine Sanctuary System: Under the National Marine Sanctuaries Act, NOAA establishes areas of the marine environment that have special conservation, recreational, ecological, historical, cultural, archaeological, scientific, educational, or aesthetic qualities as national marine sanctuaries to: (A) improve the conservation, understanding, management, and wise and sustainable use of marine resources; (B) enhance public awareness, understanding, and appreciation of the marine environment; and (C) maintain for future generations the habitat and ecological services of the natural assemblage of living resources that inhabit these areas. There are currently 13 sanctuaries and one marine national monument in the national marine sanctuary system.

National Marine Protected Areas Center (MPA Center): The mission of the MPA Center is to facilitate the effective use of science, technology, training, and information in the planning, management, and evaluation of the nation's system of marine protected areas. The MPA Center is housed within NOAA's Office of National Marine Sanctuaries and coordinates across NOAA programs, as well as with pertinent federal, state, tribal, and local MPA and MPA-support entities. The MPA Center's specific national system roles are described in detail in Section VIII.

National Marine Fisheries Service Programs and Regional Fishery Management Councils (RFMC): Under a number of statutory authorities, the National Marine Fisheries Service establishes and manages MPAs to rebuild and maintain sustainable fisheries, conserve and restore healthy marine habitats, and promote the recovery of protected species, including marine mammals and anadromous fish. RFMCs have been established for the stewardship of fishery resources through the preparation, monitoring, and revision of fishery management plans. These FMCs enable states, the fishing industry, consumer and environmental organizations, and other interested persons to participate in and advise on the management of marine fisheries and to take into account the social and economic needs of the states and nation. FMC-recommended actions are subject to review and approval by the Secretary of Commerce through a delegation of authority to the National Marine Fisheries Service. The National Marine Fisheries Service is responsible for the promulgation of RFMC proposed regulations to delineate MPA boundaries and establish associated protective measures.

National Estuarine Research Reserve System (NERRS): The mission of the NERRS is to promote stewardship of the nation's estuaries through science and education using a system of protected areas. The NERRS, which is currently made up of 28 sites, is a unique partnership program between NOAA and the coastal states to protect estuarine land and water, which provides essential habitat for wildlife, and offers educational opportunities for students, teachers, and the public. The NERRS sites serve as living laboratories for scientists. With its unique state/federal partnership, the NERRS participation with the national system will require close consultation and coordination with the NOAA Office of Ocean and Coastal Resource Management and state agency or university staff of NERRS sites.

National Monuments: The Papahānaumokuākea Marine National Monument was created by Presidential Proclamation in 2006, under the authority of the Antiquities Act (16 U.S.C. 431). The Monument designation provided permanent protection to the area originally set aside as the Northwest Hawaiian Islands Coral Reef Ecosystem Reserve in 1998. This is managed jointly by NOAA, the U.S. Fish and Wildlife Service and the State of Hawaii. In January 2009, President Bush issued Presidential Proclamations that established three additional Pacific Marine National Monuments -- the Marianas Trench, Pacific Remote Islands and Rose Atoll. These monuments are managed jointly by the U.S. Fish and Wildlife Service and NOAA. In September 2014, President Obama significantly expanded the size of the Pacific Remote Islands National Monument, which is now the world's largest MPA, covering 308,316 square nautical miles. Buck Island Reef National Monument on St. Croix was expanded and Virgin Islands Coral Reef National Monument on St. John, created in 2001 to conserve coral reef ecosystems in the U.S. Virgin Islands.

State and Local Government MPA Programs

Each U.S. coastal state also has a variety of MPA programs and authorities, often at both the state and local government levels. State MPA programs can include: Fish and Wildlife agencies; Coastal Zone Management programs; Fishery Management agencies; Parks and Recreation agencies; Historic Preservation offices; and other authorities. MPAs are used by states for a variety of purposes ranging from managing fisheries, recreation, tourism, and other uses to protecting ecological functions, preserving shipwrecks, and maintaining traditional or cultural connections to the marine environment. In addition, some local governments within coastal states, such as counties and other municipalities, have

programs that establish and manage MPAs for protecting marine species, nursery grounds, shellfish beds, and other important natural and cultural resources. Similar to their federal analogs, some state MPA programs have also developed and continue to manage their existing sites as systems or networks of MPAs.

Given the significant coastal and marine resources under state jurisdiction, the large number of state MPAs – roughly 83 percent of the national total – compared to federal sites, and the potential impacts and benefits to states from MPAs located in federal waters, full state participation in the development of the national system is critical to its success. State and local government participation in the national system is voluntary, and the MPA Center works closely with states to determine their interest in participating. State government agencies, programs, and authorities that elect to participate in the national system are full partners and have an equal voice in decision making to set priorities for collaborative efforts at the regional and national levels.

Tribal MPA Authorities, Programs, and Linkages

Tribal governments have an integral role to play in resource management—legally, culturally and economically. The Order “does not diminish, affect, or abrogate Indian treaty rights or United States trust responsibilities to Indian tribes,” and calls on NOAA and DOI to “consult with...tribes...and other entities to promote coordination of federal, state, territorial, and tribal actions to establish and manage MPAs.” Because the federal government has a trust responsibility to all federally recognized tribes, conservation goals and management practices for MPAs should be established through government-to-government consultations.

Several Indian tribes in Western Washington and the Great Lakes have treaty-reserved subsistence rights. These tribes share co-management authority and responsibility for marine resources in their usual and customary fishing and other subsistence areas with the federal government and/or states, depending on the specific resource and area identified. Tribes that have sole management authority may choose to establish MPAs as a tool to meet conservation goals for areas where they have management responsibilities. For areas where tribes share co-management authority with the federal government and/or states, any entity wishing to establish MPAs must do so through government-to-government consultations. The MPA Center will work closely with tribes to determine their interest in participating in the national system. Tribal governments that elect to participate in the national system will be full partners and will have an equal voice in decision making to set priorities for collaborative efforts at the regional and national levels.

Numerous opportunities to enhance coordination and collaboration with tribes on issues related to MPAs are possible through the development of the national system. Some of these opportunities could include a range of potential partnerships aimed at the sharing of information; enhancing technical, scientific, and management capacity; and developing conservation strategies for marine resources of mutual concern. The MPA Center and national system partners, many of whom have ongoing relationships with tribes, will consult with tribal governments to determine their interest in participating in the national system and will work with them to develop appropriate mechanisms and protocols.

Appendix H. MPA Federal Advisory Committee

The Marine Protected Areas Federal Advisory Committee (MPA FAC) is authorized by the Order to provide expert advice and recommendations to DOC and DOI. The MPA FAC is comprised of 20 non-federal members representing diverse perspectives and areas of expertise, including natural and social science, commercial and recreational fishing, tribal and state governments, oil and gas, tourism, environmental organizations, and others. The MPA FAC also includes ten federal ex officio members to provide information and support from entities managing, supporting, or potentially affecting MPAs. The MPA FAC was first convened in 2003, and has provided many recommendations related to the design and implementation of the national system that have been incorporated into this Framework. Information on MPA FAC members and its work products are posted at <http://marineprotectedareas.noaa.gov/fac/>

Appendix I. Executive Order 13158

Executive Order 13158

Presidential Documents

Executive Order 13158 of May 26, 2000

Marine Protected Areas

By the authority vested in me as President by the Constitution and the laws of the United States of America and in furtherance of the purposes of the National Marine Sanctuaries Act (16 U.S.C. 1431 et seq.), National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-ee), National Park Service Organic Act (16 U.S.C. 1 et seq.), National Historic Preservation Act (16 U.S.C. 470 et seq.), Wilderness Act (16 U.S.C. 1131 et seq.), Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.), Coastal Zone Management Act (16 U.S.C. 1451 et seq.), Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), Marine Mammal Protection Act (16 U.S.C. 1362 et seq.), Clean Water Act of 1977 (33 U.S.C. 1251 et seq.), National Environmental Policy Act, as amended (42 U.S.C. 4321 et seq.), Outer Continental Shelf Lands Act (42 U.S.C. 1331 et seq.), and other pertinent statutes, it is ordered as follows:

Section 1. Purpose. This Executive Order will help protect the significant natural and cultural resources within the marine environment for the benefit of present and future generations by strengthening and expanding the Nation's system of marine protected areas (MPAs). An expanded and strengthened comprehensive system of marine protected areas throughout the marine environment would enhance the conservation of our Nation's natural and cultural marine heritage and the ecologically and economically sustainable use of the marine environment for future generations. To this end, the purpose of this order is to, consistent with domestic and international law: (a) strengthen the management, protection, and conservation of existing marine protected areas and establish new or expanded MPAs; (b) develop a scientifically based, comprehensive national system of MPAs representing diverse U.S. marine ecosystems, and the Nation's natural and cultural resources; and (c) avoid causing harm to MPAs through federally conducted, approved, or funded activities.

Sec. 2. Definitions. For the purposes of this order:

- a. "Marine protected area" means 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.
- b. "Marine environment" means those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands thereunder, over which the United States exercises jurisdiction, consistent with international law.
- c. The term "United States" includes the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands of the United States, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

Sec. 3. MPA Establishment, Protection, and Management. Each Federal agency whose authorities provide for the establishment or management of MPAs shall take appropriate actions to enhance or expand protection of existing MPAs and establish or recommend, as appropriate, new MPAs. Agencies implementing this section shall consult with the agencies identified in subsection 4(a) of this order, consistent with existing requirements.

Sec. 4. National System of MPAs. (a) To the extent permitted by law and subject to the availability of appropriations, the Department of Commerce and the Department of the Interior, in consultation with the Department of Defense, the Department of State, the United States Agency for International Development, the Department of Transportation, the Environmental Protection Agency, the National Science Foundation, and other pertinent Federal agencies shall develop a national system of MPAs. They shall coordinate and share information, tools, and strategies, and provide guidance to enable and encourage the use of the following in the exercise of each agency's respective authorities to further enhance and expand protection of existing MPAs and to establish or recommend new MPAs, as appropriate:

1. science-based identification and prioritization of natural and cultural resources for additional protection;
2. integrated assessments of ecological linkages among MPAs, including ecological reserves in which consumptive uses of resources are prohibited, to provide synergistic benefits;
3. a biological assessment of the minimum area where consumptive uses would be prohibited that is necessary to preserve representative habitats in different geographic areas of the marine environment;
4. an assessment of threats and gaps in levels of protection currently afforded to natural and cultural resources, as appropriate;
5. practical, science-based criteria and protocols for monitoring and evaluating the effectiveness of MPAs;
6. identification of emerging threats and user conflicts affecting MPAs and appropriate, practical, and equitable management solutions, including effective enforcement strategies, to eliminate or reduce such threats and conflicts;
7. assessment of the economic effects of the preferred management solutions; and
8. identification of opportunities to improve linkages with, and technical assistance to, international marine protected area programs.

b. In carrying out the requirements of section 4 of this order, the Department of Commerce and the Department of the Interior shall consult with those States that contain portions of the marine environment, the Commonwealth of Puerto Rico, the Virgin Islands of the United States, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands, tribes, Regional Fishery Management Councils, and other entities, as appropriate, to promote coordination of Federal, State, territorial, and tribal actions to establish and manage MPAs.

c. In carrying out the requirements of this section, the Department of Commerce and the Department of the Interior shall seek the expert advice and recommendations of non-Federal scientists, resource managers, and other interested persons and organizations through a Marine Protected Areas Federal Advisory Committee. The Committee shall be established by the Department of Commerce.

- d. The Secretary of Commerce and the Secretary of the Interior shall establish and jointly manage a website for information on MPAs and Federal agency reports required by this order. They shall also publish and maintain a list of MPAs that meet the definition of MPA for the purposes of this order.
- e. The Department of Commerce's National Oceanic and Atmospheric Administration shall establish a Marine Protected Area Center to carry out, in cooperation with the Department of the Interior, the requirements of subsection 4(a) of this order, coordinate the website established pursuant to subsection 4(d) of this order, and partner with governmental and nongovernmental entities to conduct necessary research, analysis, and exploration. The goal of the MPA Center shall be, in cooperation with the Department of the Interior, to develop a framework for a national system of MPAs, and to provide Federal, State, territorial, tribal, and local governments with the information, technologies, and strategies to support the system. This national system framework and the work of the MPA Center is intended to support, not interfere with, agencies' independent exercise of their own existing authorities.
- f. To better protect beaches, coasts, and the marine environment from pollution, the Environmental Protection Agency (EPA), relying upon existing Clean Water Act authorities, shall expeditiously propose new science-based regulations, as necessary, to ensure appropriate levels of protection for the marine environment. Such regulations may include the identification of areas that warrant additional pollution protections and the enhancement of marine water quality standards. The EPA shall consult with the Federal agencies identified in subsection 4(a) of this order, States, territories, tribes, and the public in the development of such new regulations.

Sec. 5. Agency Responsibilities. Each Federal agency whose actions affect the natural or cultural resources that are protected by an MPA shall identify such actions. To the extent permitted by law and to the maximum extent practicable, each Federal agency, in taking such actions, shall avoid harm to the natural and cultural resources that are protected by an MPA. In implementing this section, each Federal agency shall refer to the MPAs identified under subsection 4(d) of this order.

Sec. 6. Accountability. Each Federal agency that is required to take actions under this order shall prepare and make public annually a concise description of actions taken by it in the previous year to implement the order, including a description of written comments by any person or organization stating that the agency has not complied with this order and a response to such comments by the agency.

Sec. 7. International Law. Federal agencies taking actions pursuant to this Executive Order must act in accordance with international law and with Presidential Proclamation 5928 of December 27, 1988, on the Territorial Sea of the United States of America, Presidential Proclamation 5030 of March 10, 1983, on the Exclusive Economic Zone of the United States of America, and Presidential Proclamation 7219 of September 2, 1999, on the Contiguous Zone of the United States.

Sec. 8. General.

- a. Nothing in this order shall be construed as altering existing authorities regarding the establishment of Federal MPAs in areas of the marine environment subject to the jurisdiction and control of States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands of the United States, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and Indian tribes.

- b. This order does not diminish, affect, or abrogate Indian treaty rights or United States trust responsibilities to Indian tribes.
- c. This order does not create any right or benefit, substantive or procedural, enforceable in law or equity by a party against the United States, its agencies, its officers, or any person.

(Presidential Sig.) William J. Clinton
THE WHITE HOUSE,
May 26, 2000.

Appendix J. Executive Summary of External Review of MPA Center (2012)

The National Marine Protected Areas Center was established by Executive Order 13158 to "help protect the significant natural and cultural resources within the marine environment for the benefit of present and future generations." The Center opened in 2001 and has focused on three major goals of the Executive Order:

- (1) build and maintain the national system of MPAs;
- (2) improve MPA stewardship and effectiveness; and
- (3) facilitate international, national and regional coordination of MPAs activities.

After an initial ramping-up, funding has been chronically variable and less than needed to meet this ambitious mandate. Despite these funding challenges, the National System of MPAs was established in 2009, and currently includes nearly 300 MPAs. The MPA Center has also conducted a variety of activities and produced a variety of products designed to improve MPA stewardship and effectiveness, and MPA Center staff have regularly participated in -- and at times convened -- regional, national, and international meetings regarding MPA activities. Following a change in its leadership in 2011, the MPA Center conducted an external review of its first decade of operations (2001-2011). Input for the review included information provided by the MPA Center, public comments in response to a *Federal Register* notice and a posting on www.mpa.gov, comments directly solicited from key stakeholders, comments from a five member panel of experts, and the deliberations of a four-member external review panel. The following recommendations are not intended to represent a consensus, but rather are a compilation of the individual inputs of the members of the external review panel.

Recommendations of the external review panel:

(1) For each of the mandated goals in Executive Order 13158, the MPA Center should focus strategically on key activities where the Center can make a unique and important difference, and let go of lower priorities until funding becomes more substantial and stable. To this end, the review panel recommends that the Center implement an adaptive strategic planning process annually. For now, the panel suggests the following general priorities under each of the three major goals mandated by Executive Order 13158 and detailed in the MPA Center's strategic plan:

- **Build and maintain the national system of MPAs:** Now that the system exists in an early state, it is imperative to foster the value of membership and the emergence of a broad and fully functional system. Because federal funding will probably remain low in the immediate future, building capacity via synergistic partnerships among member sites will be essential.
- **Improve MPA stewardship and effectiveness:** Consult and work closely with existing national system members to determine from the bottom-up how high-level efforts by the MPA Center can best be focused to maximize benefit to members of the national system. Reassess the approach, audience and application of the MPA Center's Ocean Uses Atlas.
- **Facilitate international, national and regional coordination of MPA activities:** Given chronically insufficient funding, the key focus should remain national, with less emphasis on regional and especially international efforts. The MPA Center can play a unique and crucial role facilitating professional networks among MPA managers nationwide.

(2) The review panel recommends that the MPA Center carefully evaluate the list of requirements in Executive Order 13158 in light of the evolving landscape of place-based management in the United States. This evaluation should, first, explicitly reflect trends over the past decade in how place-based conservation such as the national system of MPAs

should be pursued, and second, prioritize efforts based on the practicalities of existing and projected resources available. The focus should be on truly effective outcomes that are unique to the national mission of the Center and that only the Center can provide effectively. Such strategic planning should be formal, annual, and adaptive. An internal audit of strengths, weaknesses, opportunities, and threats (SWOT analysis) would help to further define and refine future goals and actions. The MPA Federal Advisory Committee could play an important role by producing 10-year strategic visions for Center activities. In all such efforts, widespread discussions and meaningful input from a broad range of relevant stakeholders will be essential.

(3) The review panel recommends that the position of MPA Center Director be filled immediately in a way that provides relevant experience, stability and authority in leadership. Senior staff should take advantage of formal leadership training in fostering partnerships, developing cooperative networks, and building capacity. To fully address the issue of leadership, it will be essential to define explicitly and operationally the key phrase "strengthening and expanding the Nation's System of Marine Protected Areas," as mandated by Executive Order 13158. (Indeed, much of the key wording of the Executive Order should be defined more clearly and operationally.)

(4) The review panel's overarching recommendation to NOAA and the Department of the Interior (DOI) is that the MPA Center be provided substantial and stable resources commensurate with its broad and important mission of enhancing conservation and sustainable use of the nation's marine resources.

The DOI in particular should either become a full partner with NOAA in funding and staffing the MPA Center, as implied by Executive Order 13158, or explicitly become simply another collaborating agency (i.e., remove its logo from the MPA Center logo).

The panel recommends that the MPA Center focus its present limited funding on a few specific efforts that are unique to its mission and maximally effective in addressing the major goals of Executive Order 13158. This process would be accomplished by implementing the panel's recommendations regarding funding and staffing priorities (see the panel's responses to other review questions), which will require reallocation of some current Center funding to new priorities. Such efforts would be bolstered by developing means of securing supplemental resources from non-federal sources.

In all workshops and related activities, on-line coverage (webinars, etc.) would effectively showcase and increase the distribution of MPA Center products in a cost-effective manner. All such activities should involve long-term nurturing for broad impact and sustained success. (5) The review panel recommends that the MPA Center substantially increase its outreach and engagement activities with diverse national and regional constituencies, including social groups and institutions that both support and oppose the implementation of MPAs. The Center should play a pivotal role in facilitating a professional network of MPA managers throughout the nation in ways that provide tangible benefits to those managers while simultaneously strengthening the national system of MPAs. Capacity and constituency development training for Center personnel would be an important prerequisite, and a formal communication strategy, a practical needs assessment, and social marketing research (as simple as phone calls and informal social events with key stakeholders) will be necessary tools.

Present and past members of the MPA Federal Advisory Committee (FAC) could serve important ambassadorial roles in these efforts. Use of the www.mpa.gov website, the national MPA inventory, MPA Center publications and tools, and FAC documents will follow if those products are adequately advertised, meet user needs, and come with any required training. Overall, it will be essential to build effective partnerships with diverse constituencies that provide the synergies needed to successfully accomplish the overarching goals of Executive Order 13158 (Appendix 1), especially in the

context of variable and limited federal funding. Note that limited funding means that this and other tasks assumed by the MPA Center will necessarily result in trade-offs in priorities that may reduce investment in other relevant activities.

(6) There are presently plans within NOAA to relocate the MPA Center from its present home in the Office of Ocean and Coastal Resource Management to the Office of National Marine Sanctuaries. Regardless of the ultimate home of the MPA Center, the review panel recommends that the organizational structure of the Center maintains and fosters the following principles:

- continued focus on all national MPAs, which enhances the reality and public perception of a truly national service-oriented unit;
- autonomy, which enhances the reality and public perception of an independent service oriented unit; and
- separation from specific regulatory authorities, which enhances the reality and public perception of a politically neutral service-oriented unit.