

DEFINITION & CLASSIFICATION SYSTEM FOR U.S. MARINE PROTECTED AREAS

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TOWARD A COMMON LANGUAGE FOR MARINE PROTECTED AREAS

Faced with widespread declines in ocean health and a growing interest in place-based ecosystem management, many nations, including the United States, are establishing marine protected areas (MPAs) to conserve vital marine habitats and resources. Familiar examples of U.S. MPAs include national marine sanctuaries, national parks and wildlife refuges, many state parks and conservation areas, and a variety of fishery management closures. Over the past several decades, a variety of legal authorities and programs have been established at all levels of government resulting in a dramatic increase in the number of MPAs. More than 1,600 such federal and state/territory sites exist today.

This complex assortment of different MPA types and purposes poses many challenges to policy-makers and stakeholders alike. Chief among these is terminology. Although MPAs have long been used for decades in the U.S. as a conservation and management tool, the nation still lacks a straightforward and consistent language to accurately describe the many types of MPAs occurring in our waters and to understand their effects on ecosystems and the people that use them.

For example, the official programmatic names of many U.S. MPAs (such as sanctuaries, parks, preserves, or natural areas) rarely reflect the area's actual conservation purpose, allowable uses, or management approach. Similarly, the term "marine protected area" is frequently assumed to mean "no-take reserves," when in fact, no-take MPAs are rare in the United States, occupying only about 3% of U.S. waters. This chronic confusion over MPA terms continues to unnecessarily complicate the critically important national dialogue about whether, when, and how to use this promising ecosystem management tool.

In response, the National Marine Protected Areas Center has developed a Classification System that provides agencies and stakeholders with a straightforward means to describe MPAs in purely functional terms using five objective characteristics common to most MPAs:

- Conservation Focus
- Level of Protection
- Permanence of Protection
- Constancy of Protection
- Scale of Protection

For most MPAs in the U.S. and elsewhere, these five functional characteristics provide an accurate picture of why the site was established, what it is intended to protect, how it achieves that protection, and how it may affect local ecosystems and local human uses. Combining elements of several domestic and international MPA classification schemes, this approach to describing U.S. MPAs is intended to augment, but not replace official programmatic names and terms. It is designed to provide a neutral, intuitive, common language with which to describe, understand, and evaluate proposed and existing MPA sites, networks and systems.

NOAA's National Marine Protected Areas (MPA) Center's mission 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 works in partnership with federal, state, tribal, and local governments and stakeholders to develop a science-based, comprehensive national system of MPAs. These collaborative efforts will lead to a more efficient, effective use of MPAs now and in the future to conserve and sustain the nation's vital marine resources.



WHAT IS A MARINE PROTECTED AREA?

The term “marine protected area” encompasses a variety of conservation and management methods in the United States. In practice, MPAs are defined areas where natural and/or cultural resources are given greater protection than the surrounding waters. In the U.S., MPAs span a range of habitats including the open ocean, coastal areas, inter-tidal zones, estuaries, and the Great Lakes. They also vary widely in purpose, legal authorities, agencies, management approaches, level of protection, and restrictions on human uses.

In order to better define the term “marine protected area” for the purpose of building and implementing a national MPA system, the MPA Center uses criteria based on the official definition of a marine protected area in MPA Executive Order 13158:

“...any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.”

The MPA Center further defined five key terms from this definition in its **Framework for the National System of MPAs**: area, marine environment, reserved, lasting, and protection.

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 United States 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	<p>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.</p> <p>For the 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 which 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	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.

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-anchor zones), polluted shellfish-bed closure areas, areas closed 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.</p>

USER'S GUIDE TO THE CLASSIFICATION SYSTEM

Much of the information needed to classify and understand any specific MPA in the U.S. is publicly available through the MPA Center's MPA Inventory, which contains more than 1,600 individual sites and is available on www.mpa.gov. In addition, the MPA Center's interactive MPA Mapping Tool allows users to visualize MPA boundaries and provides access to the MPA Inventory data in an interactive web-based mapping environment (available at: <http://www.mpa.gov/dataanalysis/mpainventory/mpaviewer/mpaviewer.swf>). Other relevant information can be found in official programmatic documents including management plans, regulations, designation documents, and statutes.

The MPA Classification System can be applied to a single MPA site, or to individual management zones established within a larger MPA site. In a zoned MPA, each zone is classified independently based on its own characteristics and attributes. The overall MPA site then reflects the aggregate characteristics of its component management zones. Four of the five classification characteristics require unique, site-specific selections for the associated attribute options. One (Conservation Focus) allows multiple attribute selections in recognition of the complexity and variety of MPA applications. MPA examples are presented here for illustrative purposes only and may not always correspond to specific local sites.

The MPA Classification System uses five key functional characteristics to describe any MPA. Taken together, these characteristics influence the site's effects on local ecosystems and human users, and thus its role in contributing to the conservation of healthy marine ecosystems. Among these five site characteristics, the first two – the site's Conservation Focus and its Level of Protection – reflect many of the issues of greatest interest to stakeholders in local, regional, and national MPA dialogues.

(A) CONSERVATION FOCUS

Most MPAs have legally established goals, conservation objectives, and intended purpose(s). Common examples include MPAs created to conserve biodiversity in support of research and education; to protect benthic habitat in order to recover over-fished stocks; and to protect and interpret shipwrecks for maritime education. These descriptors of an MPA are reflected in the site's Conservation Focus, which represents the characteristics of the area that the MPA was established to conserve. The Conservation Focus, in turn, influences many fundamental aspects of the site, including its design, location, size, scale, management strategies and potential contribution to surrounding ecosystems. U.S. MPAs generally address one or more of these areas of Conservation Focus:



Natural Heritage: MPAs or zones established and managed wholly or in part to sustain, conserve, restore, and understand the protected area's natural biodiversity, populations, communities, habitats, and ecosystems; the ecological and physical processes upon which they depend; and, the ecological services, human uses and values they provide to this and future generations.

Examples: Natural Heritage MPAs include most national marine sanctuaries, national parks, national wildlife refuges, and many state MPAs.



Cultural Heritage: MPAs or zones established and managed wholly or in part to protect and understand 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.

Examples: Cultural Heritage MPAs include some national marine sanctuaries, national and state parks, and national historic monuments.



Sustainable Production: MPAs or zones established and managed wholly or in part with the explicit purpose of supporting the continued extraction of renewable living resources (such as fish, shellfish, plants, birds, or mammals) that live within the MPA, or that are exploited elsewhere but depend upon the protected area's habitat for essential aspects of their ecology or life history (feeding, spawning, mating, or nursery grounds).

Examples: Sustainable Production MPAs include some national wildlife refuges and many federal and state fisheries areas, including those established to recover over-fished stocks, protect by-catch species, or protect essential fish habitats.

(B) LEVEL OF PROTECTION

MPAs in the U.S. vary widely in the level and type of legal protections afforded to the site's natural and cultural resources and ecological processes. Any MPA, or management zone within a larger MPA, can be characterized by one of the following six levels of protection, which will directly influence its effects on the environment and human uses.



Uniform Multiple-Use: MPAs or zones with a consistent level of protection, allowable activities or restrictions throughout the protected area. Extractive uses may be restricted for natural or cultural resources.

Examples: Uniform multiple-use MPAs are among the most common types in the U.S., and include many sanctuaries, national and state parks, and cultural resource MPAs.

(B) LEVEL OF PROTECTION, CONTINUED

Zoned Multiple-Use: MPAs that allow some extractive activities throughout the entire site, but that use marine zoning to allocate specific uses to compatible places or times in order to reduce user conflicts and adverse impacts.

Examples: Zoned multiple-use MPAs are increasingly common in U.S. waters, including some marine sanctuaries, national parks, national wildlife refuges, and state MPAs.



Zoned Multiple-Use With No-Take Area(s): Multiple-use MPAs that contain at least one legally established management zone in which all resource extraction is prohibited.

Examples: Zoned no-take MPAs are emerging gradually in U.S. waters, primarily in some national marine sanctuaries and national parks.



No-Take: MPAs or zones that allow human access and even some potentially harmful uses, but that totally prohibit the extraction or significant destruction of natural and cultural resources. This includes Papahānuamokuākea Marine National Monument, which allows very limited subsistence fishing activities by Native Hawaiians by permit.

Examples: No-take MPAs are relatively rare in the U.S., occurring mainly in state MPAs, in some federal areas closed for either fisheries management or the protection of endangered species, or as small special use (research) zones within larger multiple-use MPAs. Also called marine reserves or ecological reserves.



No Impact: MPAs or zones that allow human access, but that prohibit all activities that could harm the site's resources or disrupt the ecological and cultural services they provide. Examples of activities typically prohibited in no-impact MPAs include resource extraction of any kind (fishing, collecting, or mining); discharge of pollutants; disposal or installation of materials; and alteration or disturbance of submerged cultural resources, biological assemblages, ecological interactions, physiochemical environmental features, protected habitats, or the natural processes that support them.

Examples: No-impact MPAs are rare in U.S. waters, occurring mainly as small isolated MPAs or in small research-only zones within larger multiple-use MPAs. Other commonly used terms include fully protected marine (or ecological) reserves.



No Access: MPAs or zones that restrict all human access to the area in order to prevent potential ecological disturbance, unless specifically permitted for designated special uses such as research, monitoring or restoration.

Examples: No-access MPAs are extremely rare in the U.S., occurring mainly as small research-only zones within larger multiple-use MPAs. Other commonly used terms for no access MPAs include wilderness areas or marine preserves.

(C) PERMANENCE OF PROTECTION

Not all MPAs are permanently protected. Many sites differ in how long their protections remain in effect, which may in turn profoundly affect their ultimate effects on ecosystems and users.

Permanent: MPAs or zones whose legal authorities provide some level of protection to the site in perpetuity for future generations, unless reversed by unanticipated future legislation or regulatory actions.

Examples: Permanent MPAs include most national marine sanctuaries and all national parks.

(C) PERMANENCE OF PROTECTION, CONTINUED

Conditional: MPAs or zones that have the potential, and often the expectation, to persist administratively over time, but whose legal authority has a finite duration and must be actively renewed or ratified based on periodic governmental reviews of performance.

Examples: Conditional MPAs include some national marine sanctuaries with ‘sunset clauses’ applying to portions of the MPA in state waters

Temporary: MPAs that are designed to address relatively short-term conservation and/or management needs by protecting a specific habitat or species for a finite duration, with no expectation or specific mechanism for renewal.

Examples: Temporary MPAs include some fisheries closures focusing on rapidly recovering species (e.g. scallops).

(D) CONSTANCY OF PROTECTION

Not all MPAs provide year-round protection to the protected habitat and resources. Three degrees of constancy throughout the year are seen among U.S. MPAs.

Year-Round: MPAs or zones that provide constant protection to the site throughout the year.

Examples: Year-round MPAs include all marine sanctuaries, national parks, refuges, monuments, and some fisheries sites.

Seasonal: MPAs or zones that protect specific habitats and resources, but only during fixed seasons or periods when human uses may disrupt ecologically sensitive seasonal processes such as spawning, breeding, or feeding aggregations.

Examples: Seasonal MPAs include some fisheries and endangered species closures around sensitive habitats.

Rotating: MPAs that cycle serially and predictably among a set of fixed geographic areas in order to meet short-term conservation or management goals (such as local stock replenishment followed by renewed exploitation of recovered populations).

Examples: Rotating MPAs are still rare in the U.S. They include some dynamic fisheries closures created for the purpose of serially recovering a suite of localized population to harvestable levels.

(E) SCALE OF PROTECTION

MPAs in the U.S. vary widely in the ecological scale of the protection they provide. MPA conservation targets range from entire ecosystems and their associated biophysical processes, to focal habitats, species, or other resources deemed to be of economic or ecological importance. The ecological scale of a site’s conservation target generally reflects its underlying legal authorities and, in turn, strongly influences the area’s design, siting, management approach, and likely effects.

Ecosystem: MPAs or zones whose legal authorities and management measures are intended to protect all of the components and processes of the ecosystem within its boundaries.

Examples: Ecosystem-scale MPAs include most marine sanctuaries, national parks and national monuments.

Focal Resource: MPAs or zones whose legal authorities and management measures specifically target a particular habitat, species complex, or single resource (either natural or cultural).

Examples: Focal-resource MPAs include many fisheries and cultural resource sites, including some national wildlife refuges and marine sanctuaries.

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