

The Marine Life Protection Act and Marine Protected Areas
Workshop and Lecture, Oct 18 & 21, 2008

Glossary

- A Aquatic Protected Area** – a marine protected area consisting of freshwater resources.
- B Benthic** – pertaining to the environment of the sea floor or lake bottom and adjacent waters, and the organisms that reside there.

Biodiversity – the species number, variety, and essential interdependence of all living things. Includes the number and variety of living organisms, the genetic differences among them, the communities and ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning.

Biogeographic Area – an area on land or in water where organisms live. Biogeography is the study of the distribution of organisms over space and time.

- C Coastal Planning Areas** – Distinct geographic locations subject to site-specific, ongoing management and/or regulatory planning within legally defined, fixed boundaries that include upland and marine/intertidal components. Coastal Planning Areas are similar to Marine Planning Areas, but involve plans for land management or land use recommendations, policies, and/or guidelines aimed at protecting coastal and marine resources from development impacts and impaired water quality. (See Coastal Zone Management Act)

Coastal Waters – in the Great Lakes region, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connecting waters, harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes are considered coastal waters. In other areas, those waters adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries are considered coastal waters.

Coastal Zone Management Act – a federal authority that establishes the Coastal Zone Management Program and the National Estuarine Research Reserves System. It provides a framework for decision-making that balances coastal resource use and conservation.

Compensatory Restoration Projects – Projects to compensate for interim losses of natural resources and the services they provide—from the time of injury until recovery is completed.

Cooperative Assessments – Assessments that are done cooperatively after an oil spill or hazardous substance release by trustees and the party responsible for the incident. This cooperation generally results in faster, more efficient restoration of injured natural resources.

Critical Habitat – defined under the Endangered Species Act, critical habitat is "the specific areas within the geographic area occupied by a species on which are found those physical and biological features essential to the conservation of the species, and that may require special management considerations or protection; and specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species."

Cultural Heritage – the 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 this and future generations.

Cultural Resource – a tangible entity that is valued by or significantly representative of a culture, or that contains significant information about a culture. Cultural resources for purposes

Sources:

1. California Department of Fish and Game <http://www.dfg.ca.gov/mlpa/defs.asp> as of Oct. 3, 2008.
2. National Marine Protected Areas <http://mpa.gov/glossary.html> as of Oct. 3, 2008
3. National Oceanic and Atmospheric Administration <http://www.darrp.noaa.gov/glossary/index.html> as of Oct. 15, 2008

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of MPA Executive Order 13158 are tangible entities at least 50 years in age that reflect the nation's maritime history and traditional cultural connections to the sea, such as archaeological sites, historic structures, shipwrecks, artifacts, and traditional cultural properties. Cultural resources are categorized as districts, sites, buildings, structures, and objects for the National Register of Historic Places, and as archaeological resources, cultural landscapes, structures, and ethnographic resources for MPA management purposes.

D de facto Marine Protected Areas (DFMPAs) – areas of the ocean where access and/or use are restricted for reasons other than conservation. For example, military installations, anchoring sites, navigational channels and oil and gas transfer areas.

Duration of Protection – also Lasting Protection. Site must be established with the intent at the time of designation to provide permanent protection.

E Ecosystem – a community of organisms (animals, plants, and micro-organisms), including humans, interacting with each other and their physical environment.

Ecotone – the transition area between adjacent ecological communities. It may be a gradual shift from one to the other, or it may be a sharp divide.

Edge – the physical limit to a particular ecosystem (like the edge of a kelp forest as it gives way to a sandy bottom). Edges are important because they are often areas with less cover than the center of the habitat, thus potentially resulting in increased predation. If a habitat is fragmented (broken apart), the amount of edges is increased, likely increasing the rates of predation on the organisms in that particular habitat.

Essential Fish Habitat (EFH) – authorized by the Magnuson-Stevens Fishery Conservation and Management Act, EFH are those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle.

Estuary – a partially enclosed body of water where saltwater from the sea mixes with freshwater from rivers, streams and creeks. These areas are subject to tidal forces, like the sea, but are sheltered from the full force of ocean winds and waves by the coastline, marshes, and wetlands.

Exclusive Economic Zone (EEZ) – the assertion of jurisdiction under the EEZ (3 nautical miles to 200 miles offshore) provides a basis for U.S. economic exploration and exploitation, scientific research, and protection of the environment. While coastal states have primary jurisdiction and control over the first three miles of the EEZ and the federal government has primary jurisdiction over and controls the remaining 197 miles, the Coastal Zone Management Act provides coastal states with substantial authority to influence federal actions beyond three nautical miles.

F Fishery – an area with an associated fish or aquatic population which is harvested for its value (commercial, recreational, subsistence). Examples include the salmon fishery in Alaska or the tuna fishery in the eastern Pacific.

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Fishery Closure Area – a fishery closed or restricted by a government entity. Such closure prohibits fishing for commercial, recreational, or subsistence purposes.

Fishery Management Councils – regional councils which were established by the Magnuson-Stevens Fishery Conservation and Management Act. Each of the eight councils is individually responsible for recommending the regulation of fisheries in federal waters within its jurisdiction with the approval of the Secretary of Commerce.

Fishery Management Zone – areas where fishing for some or all species is prohibited to protect critical habitats, rebuild fish stocks, ensure against overfishing, or enhance fishery yield. The closure to fishing may not be permanent depending on how fish stocks respond.

Forager – an organism that searches for food.

G GIS (Geographical Information System) – A system of hardware, software, and procedures designed to support the capture, management, manipulation, analysis, modeling, and display of spatially referenced data for solving complex planning and management problems.

H Habitat – the place and its associated environmental conditions where an organism naturally lives, grows, and reproduces; such conditions include characteristics of the soil, water, and biologic community (for example, other plants and animals).

Habitat Areas of Particular Concern (HAPC) – a habitat area designated by a Fishery Management Council under the Magnuson-Stevens Fishery Conservation and Management Act of 1976 to help focus conservation efforts on localized areas that are vulnerable to degradation or are especially important ecologically.

Home Range – the area in which an organism normally lives.

I In situ – situated in the original, natural or existing place or position. For example, observing a jelly *in situ* means observing it in its natural habitat, the ocean.

Intertidal – refers to the environment between high and low tides (mean high water and mean low water) that is alternately exposed to the air and to the sea.

L Lasting Protection – See also Duration of Protection. Site must be established with the intent at the time of designation to provide permanent protection.

M Magnuson-Stevens Fishery Conservation and Management Act – calls for assessment and consideration of ecological, economic, and social impacts of fishing regulations on fishery participants and fishing communities in marine fishery management plans.

Marine Environment (U.S.) – (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 Life Protection Act (MLPA) [California] – initiated in 1999, the MLPA directs the state [of California] to design and manage a network of marine protected areas in order to, among other things, protect marine life and habitats, marine ecosystems, and marine natural heritage, as well as improve recreational, educational and study opportunities provided by marine

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ecosystems. Scientists, resource managers, experts, stakeholders and members of the public all play important roles in guiding the outcomes of this public-private partnership. Marine protected areas include state marine reserves, state marine parks and state marine conservation areas.

Marine Life Reserve – [2852(d) FGC] for the purposes of this chapter, means a marine protected area in which all extractive activities, including the taking of marine species, and, at the discretion of the commission and within the authority of the commission, other activities that upset the natural ecological functions of the area, are prohibited. While, to the extent feasible, the area shall be open to the public for managed enjoyment and study, the area shall be maintained to the extent practicable in an undisturbed and unpolluted state.

Marine Managed 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 or cultural resources therein.

Important note: While the terms “marine managed area” (MMA) and “marine protected area” (MPA) each have the same base definition, the specific definitions of the component terms of “area,” “marine environment,” “reserved,” “lasting” and “protection” differentiate the scope of MMA and MPA.

In both the MMA and MPA contexts, the terms “area,” “marine environment,” “reserved,” and “protection” each have essentially the same meaning. The term “lasting” in the MMA context, however, is defined as “must provide the same protection, for any duration within a year, at the same location on the same dates each year, for at least two consecutive years. Must be established with an expectation of, or history of, or at least the potential for, permanence.” See Lasting for the MPA-related definition of this term.

Marine Managed Areas (MMA) Inventory – an earlier (2001-2007) database of U.S. aquatic, coastal, or marine sites that have been set aside for the protection of some or all of the natural and cultural resources therein. The database included federal, state, commonwealth, and territory sites.

Marine Planning Areas – distinct marine locations subject to site-specific, ongoing management or regulatory planning within fixed boundaries. A Marine Planning Area is the subject of a site-specific, comprehensive management plan; and often involves ongoing collaborations between relevant agencies and stakeholders at all levels; and subprograms involving education/outreach, enforcement, research, monitoring and evaluation.

Marine Protected Areas (MPAs) – any area of the marine environment that has been reserved by federal, state, tribal or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein. They 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.

Marine Resource Areas – broad or multiple geographic areas defined by an underlying, mapped marine resource that is afforded some degree of protection through state laws, regulations, or policies.

Marine Reserves – areas in which some or all extractive activities are prohibited.

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Marine Sanctuary – as defined by the U.S. government: Multiple-use marine protected areas, protected under the National Marine Sanctuaries Act, that may include breeding and feeding grounds of whales, sea lions, sharks, and sea turtles; significant coral reefs and kelp forest habitats; and the remains of historic shipwrecks. Some sanctuaries are zoned to include no-take areas. (Note: States may have sanctuaries that have a different purpose or are defined differently.)

Marine Waters – as defined by U.S. Executive Order 13158 on MPAs: Waters under tidal influence, extending to the Mean High Water mark on land, and into river mouths to a salinity gradient of 5 parts/thousand, and the fresh waters of the Great Lakes to the Ordinary High Water mark on land.

Mark-recapture/Tag-recapture – a method commonly used in ecology to estimate population size, survival of individuals, movement, growth, etc. A researcher visits a study area and traps a group of individuals alive. These organisms are given unique identifiers (tags, bands, etc.) and then released back into the environment. A certain amount of time is allowed to pass before the researcher comes back to the site. On a subsequent visit, the researcher captures another group of individuals. Some of the organisms will be marked (from the researcher's initial visit), while others will not be. The unmarked individuals will be given their own unique identifiers and released back into the environment. The recaptured individuals will have their information recorded (weight, length, age, sex, etc.) and released back into the environment. The population size of the study organism can then be estimated using the number of recaptured individuals plugged into various formulae.

Multiple-Use MPAs – often employed over larger areas, multiple-use areas allow for integrated management of complete marine ecosystems, usually through a zoning process.

N National Marine Sanctuaries – Marine areas identified for their biodiversity, ecological integrity, and cultural legacy that are protected by law.

National Marine Sanctuaries Act – Legislation designed to identify, designate, and manage areas of the marine environment that are of special national significance due to their conservation, recreational, ecological, historical, scientific, educational, or aesthetic qualities.

National Monument – an area designated by the President of the United States, under the authority of the Antiquities Act of 1906, to protect objects of scientific and historical interest that are located on federal lands.

National Parks (U.S.) – a large area of land preserved in its natural state as public property.

National System of MPAs – an assemblage of MPA sites, systems, and networks established and managed by federal, state, tribal, or local governments that collectively work together at the regional and national level to achieve common objectives for conserving the nation's important natural and cultural resources.

[Marine] Natural Heritage – the nation's biological communities, habitats, ecosystems, and processes, and the ecological services, uses, and values they provide to this and future generations.

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

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Natural Resource Services – Ecological and human services provided by natural resources that may be injured after an oil spill or hazardous substance release. Ecological services include flood control, sediment stabilization, and habitat. Human services include fishing, beachgoing, and wildlife viewing.

Network of MPAs – 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.

NOAA (National Oceanic and Atmospheric Administration) – A U.S. Department of Commerce agency whose mission is to describe and predict changes in the earth's environment and to conserve and manage the nation's coastal and marine resources to ensure sustainable economic opportunities.

No-Take Zones – areas in which all extractive activities are prohibited.

O Ontogenetic (Ontogeny) – the origin and development of an organism from the fertilized egg to its mature form.

P Pelagic – pertaining to the open ocean and organisms living within it, including highly migratory fishes such as swordfish, tuna, and many species of shark.

Protection – sites that 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.

R Recreation Area – an area that allows for recreational fishing, diving, boating, kayaking, and other recreational activities. Recreation areas can be zoned within multiple-use MPAs, or occur outside of MPAs.

S Spillover – the movement of organisms outside of a marine protected area's boundaries, perhaps due to overcrowding, natural movement or other reasons.

Stakeholder – individuals, groups of individuals, organizations, or political entities interest 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 Marine Conservation Area (California) – [36700(c) PRC] is a non-terrestrial marine or estuarine area that is designated so the managing agency may achieve one or more of the following: (1) protect or restore rare, threatened or endangered native plants, animals or habitats in marine areas; (2) protect or restore outstanding, representative or imperiled marine species, communities, habitats and ecosystems; (3) protect or restore diverse marine gene pools; (4) contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative or imperiled marine habitats or ecosystems; (5) preserve outstanding or unique geological features; or (6) provide for sustainable living marine resource harvest.

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State Marine Recreational Management Areas (MMAs) – a non-terrestrial marine or estuarine area designated so the managing agency may provide, limit or restrict recreational opportunities to meet other than purely local needs while preserving basic resource values for present and future generations.

Restrictions [36710(e) PRC]: prohibits any activities that would compromise the recreational values for which the area may be designated. Specified recreational opportunities may be protected, enhanced or restricted, while preserving basic resource values of the area.

Allowable uses [36710(e) PRC]: no other uses are restricted.

State Marine Park (California) – [36700(b) PRC] is a non-terrestrial marine or estuarine area that is designated so the managing agency may provide opportunities for spiritual, scientific, educational, and recreational opportunities, as well as one or more of the following: (1) protect or restore outstanding, representative or imperiled marine species, communities, habitats and ecosystems; (2) contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative or imperiled marine habitats or ecosystems; (3) preserve cultural objects of historical, archaeological and scientific interest in marine areas; or (4) preserve outstanding or unique geological features.

State Marine Reserve (California) – [36700(a) PRC] is a non-terrestrial marine or estuarine area that is designated so the managing agency may achieve one or more of the following: (1) protect or restore rare, threatened or endangered native plants, animals or habitats in marine areas; (2) protect or restore outstanding, representative or imperiled marine species, communities, habitats and ecosystems; (3) protect or restore diverse marine gene pools; or (4) contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative or imperiled marine habitats or ecosystems.

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

Subtidal – a marine or estuarine environment that lies below mean low water; always (or almost always) submerged in a tidally-influenced area.

T Telemetry – the remote detection and measurement of organismal function, activity or condition.

Tide – the periodic, rhythmic rise and fall of the sea surface that results from the gravity of the moon and sun acting on the rotating Earth.

Translocation – removal of things (organisms) from one place to another.

W Wetlands – Transitional areas between uplands and water that are subject to periodic flooding or prolonged saturation and contain specific plant communities and soil types. Wetlands can be classified as either tidal—within the reach of the tides—or nontidal.

Wildlife Refuge – an area designated for the protection or replenishment of wild animals, within which hunting and fishing are either prohibited or strictly controlled.

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