



## MARINE PROTECTED AREAS

by  
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A marine protected area (MPA) is an area of the marine environment set aside with special restrictions. These restrictions may include “no-take” regulations where all harvest of fisheries species is illegal or they may be less restrictive, with protection only extended to some species or with prohibitions on use of certain fishing equipment. Marine protected areas are often called by other names including marine reserves, sanctuaries, parks, fishery reserves, or no-take zones.

MPAs have been established in over 30 countries for a variety of purposes, but have not previously been used off of Louisiana. Presently, however, the Gulf of Mexico Fishery Management Council is considering them as a management tool.

Federal laws requiring protection of essential fish habit (EFH) and ecosystem management, rather than management by individual species, have led to interest in MPAs. The Sustainable Fisheries Act of 1996 required the Regional Fishery Management Councils to identify EFH, negative impacts on that habitat and actions that should be taken for the conservation of EFH. In October 1998, the Gulf Council submitted its amendment for EFH requirements. Among its recommendations was closing areas to all fishing or regulating specific equipment types during spawning, migration, feeding, and nursery activities, and designating zones for use as marine protected areas to limit damaging effects of fishing practices.

Another reason for consideration of MPAs is that traditional management practices such as seasons, gear restrictions, size and trip limits, and quotas are less effective with more fishermen entering the fishery, better gear and technology, and enforcement difficulties.

Both benefits and problems/costs can be expected with the creation of MPAs.

### Benefits

- Better commercial and recreational fisheries. MPAs may serve as areas that produce large spawner fish, whose eggs, larvae and young are carried to areas open to fishing. Additionally, some large fish may wander off of the MPA to fished areas.
- Simplified enforcement. In theory, violations should be easy to detect using boat and airplane surveillance.

- Improved fairness. All groups of fishermen are treated equally because no harvest is allowed by anyone.
- Preservation of biodiversity. A more natural habitat and fisheries population, which is not affected by fishing, would be created.
- Reduced fishing mortality (deaths). This would be especially useful if MPAs are located where concentrations of young fish occur.
- Creation of wilderness areas for study. After over 100 years of fishing in the Gulf of Mexico, scientists have no idea what natural ecosystems were like.
- Growth in the diving industry and tourism. Tourist divers travel long distances to see underwater attractions.

### **Problems/Costs**

- Lost fishing opportunities. No-take or no-fishing zones reduce fishing.
- Higher costs. Fishermen may have to travel further to fish or to go around MPAs. Also, MPA boundaries will need to be marked on the water and on maps and charts.
- Fishing benefits may be hard to predict. Increased fishing pressure may occur near MPAs. Also, they may not be useful for some migratory species such as tuna and mackerel. Finally, if more fishermen enter the fishery, the benefits produced by an MPA may disappear.
- Difficult to site. Proper placement is important to get the most benefits. Also, the idea may produce a “not in my backyard” reaction from the public.
- Enforcement difficulties. This is a contrast to one of the benefits, which was “simplified enforcement.” At-sea enforcement is expensive and the more and larger fish in an MPA will likely create an incentive to poach. Other questions arise—Can fish taken outside the reserve be in a fisherman’s possession inside the reserve? Can a boat have fishing gear aboard in the MPA? Can fishing vessels travel across the MPA?

There are basically 3 types of MPAs: single small areas, single large areas, or networks of small or large areas. A small area might be chosen to protect a unique habitat (such as the Flower Gardens just west of the Louisiana-Texas border) or a specific biological event, such as the mutton snapper spawning concentration on Riley’s Hump off of Florida. A single large area may be selected to protect habitat or nursery grounds from either fishing pressure or habitat destruction. A network of MPAs may be developed to protect a variety of life stages (including migration corridors) for important fisheries stocks. Some scientists consider a network of small MPAs to be more effective than a single large MPA in maintaining stable fisheries populations and habitats.