

CHAPTER 2: DESCRIPTION OF THE ALTERNATIVES

2.1 INTRODUCTION

This chapter describes a variety of alternative actions ranging from continuation of bottomfish fishing as it has been conducted under the existing FMP, to an immediate cessation of bottomfish fishing in the NWHI. Scoping and other public meetings conducted revealed that the primary focus of this EIS should be an analysis of management alternatives for the NWHI bottomfish fishery alternatives. Therefore, only one of the alternatives considered in this EIS contains measures for the management bottomfish fishery resources in island areas other than Hawaii (Alt. 1B). A reasonable alternative not within the jurisdiction of the lead agency may have included alternatives for a potential NWHI National Marine Sanctuary. As NOAA's National Ocean Service is in the process of developing an EIS for potential sanctuary, the function of this EIS is not to duplicate that effort. The range of alternatives considered in this EIS was selected to provide various degrees of mitigation of potential impacts of the NWHI bottomfish fishery on Hawaiian monk seals and the NWHI coral reef ecosystem. Other mitigative qualities of the preferred alternative include measures contained in the existing FMP (Sect. 2.3).

2.2 DESCRIPTION OF ALTERNATIVES

2.2.1 Alternative 1: Current Management

2.2.1.1 Alternative 1A: No Action

This alternative includes all of the management measures of the current FMP. "No action" refers to "no change" from present management. The regulations under which the fishery currently operates are described in Sections 2.3.1 through 2.3.4.

2.2.1.2 Alternative 1B (Preferred Alternative): Modify FMP with Pending Measures

This alternative modifies the existing FMP by including several measures which the Council has recently recommended. The pending changes to the Bottomfish FMP management regime include:

- A) Eligibility Criteria for New Entry in to NWHI Mau Zone Limited Access Program;
- B) Permit Renewal Requirements for NWHI Bottomfish Limited Access Program;
- C) Including the Commonwealth of the Northern Mariana Islands and U.S. Pacific Remote Island Areas in the Bottomfish and Seamount Groundfish FMP; Including New Bottomfish Species in the list of MUS; and,
- D) Limiting Large-Vessel Fishing in the EEZ Around Guam (50 ft/50 nm closure).

Each pending measure is described in greater detail in Section 2.3.5. As these measures have been recommended separately by the Council within recent years, the impact analysis for each measure was also conducted separately. The impact analysis and range of alternatives considered for each measure can be found at respective appendices attached to this EIS (e.g. Appendix B:

Measure to Adjust Permit Renewal Requirements for the Northwestern Hawaiian Islands Bottomfish Limited Access Program).

2.2.2 Alternative 2: Immediate Cessation of Bottomfish Fishing in the NWHI

This alternative requires that fishing for bottomfish management unit species in the EEZ surrounding the NWHI immediately cease. Fishing conducted in the main Hawaiian Islands (MHI) and other island areas of the Western Pacific Region under the existing Bottomfish and Seamount Groundfish FMP and its implementing regulations would be unaffected.

2.2.3 Alternative 3: Phase-out of Bottomfish Fishing in the NWHI

This alternative limits continued fishing for bottomfish management unit species in the EEZ surrounding the NWHI to the lifetimes of current permit holders with a recurring and recent history of participation in the fishery. Eligibility criteria would be based on participation in the fishery within a qualifying period (e.g., one year of participation within the last five years). All permits would be non-transferable. Again, fishing conducted in the MHI and other island areas of the Western Pacific Region under the existing Bottomfish and Seamount Groundfish FMP and its implementing regulations would be unaffected.

2.2.4 Alternative 4: Adaptive Management Through Zoning

This alternative establishes zones, including protected areas where fishing is prohibited, in waters surrounding the NWHI to reduce the risk of damage to biological resources and habitats, while allowing uses there and elsewhere that are compatible with resource protection. Other areas within the Western Pacific Region could be zoned later, as needs arise.

The zoning approach to fisheries management requires looking at a marine protected area not as one homogenous unit, but as an interconnected system of multiple heterogeneous spatial units or zones. With such a system in place, only those activities inherently incompatible with an area's sustainability are banned throughout (Sobel 1993). Other activities may be limited to portions of the protected area or otherwise restricted to ensure compatibility.

In recent years zoning has acquired increased acceptance as an effective tool for managing marine resources. The MSA includes a discretionary provision that allows for the designation of zones where fishing time and/or fishing practices can either be limited or eliminated (Sec. 303). The U.S. Coral Reef Task Force (2000) identified the application of marine zoning as one of the "Core Conservation Principles" to implement Executive Order 13089, Coral Reef Protection, and the National Action Plan to Conserve Coral Reefs. The Ecosystem Principles Advisory Panel (1999), a panel of experts convened by NMFS to recommend how best to integrate ecosystem principles into future fisheries management and research, stated that Regional Fishery

Management Councils should use information from Fisheries Ecosystem Plans to develop zone-based management regimes. Alternative 4 would help to implement EO 13089.

Executive Order 13158, Marine Protected Areas, directs the Department of Commerce and the Department of the Interior to jointly develop a national system of marine protected areas (MPAs). The purpose of the system is to strengthen the management, protection, and conservation of existing protected areas and establish new or expanded MPAs. The MPA system is to be scientifically based, representing diverse U.S. marine ecosystems, and the nation's natural and cultural resources. Establishing such a system is intended to reduce the possibility that MPAs are harmed by federally-approved or funded activities. Alternative 4 would help to implement EO 13158.

Perhaps the best known example of a multiple-use marine protected area largely based on the concept of zoning, such as proposed here for Alternative 4, is the Great Barrier Reef Marine Park in Australia. The Park covers approximately 350,000 km² and is the largest system of corals and associated organisms in the world. Commercial fishing, tourism, recreational activities (including fishing and diving) and scientific research are all practiced in specifically designated zones under various levels of protection, including some zones where no activity at all is permitted.

With adaptive management, the zoning restrictions applied to specific areas can be modified as needed. In the case of the Great Barrier Reef Marine Park, management decisions are flexible and adaptable to the Park's changing short-term priorities and patterns of use. This requires regularly revising zoning plans and management regimes, both in order to reflect changing public demands and advances in the scientific understanding of sustainable ecosystems.

Descriptions of the zones selected for Alternative 4 in this EIS are as follows:

1. General Use Zone - The least restrictive of the zones, this provides for commercial, charter and recreational fishing activities, consistent with current federal regulations developed pursuant to the FMP and its amendments (see Section 2.3).
2. Special Use Zone - Entry is prohibited except to conduct justifiable scientific research or to exercise Native Hawaiian customary and traditional rights for subsistence, cultural or religious purposes.
3. Eco-tourism Zone - Provides for appreciation and enjoyment by the general public of marine areas in their relatively undisturbed state. Permitted activities include sport diving, limited recreational fishing, justifiable scientific research and the exercise of Native Hawaiian customary and traditional rights for subsistence, cultural or religious purposes. Commercial fishing is prohibited.
4. Preservation Zone - Provides for the preservation of the area in an undisturbed state. All entry is prohibited, except in an emergency, with the exception of permitted scientific research that cannot be conducted elsewhere.

These zones would include waters under the jurisdiction of various state and federal agencies that have conservation and management responsibilities (Appendix G). The development of a zoning plan would require the coordination of these legislative and institutional responsibilities across jurisdictional lines, as well as the appropriate involvement of all stakeholders in the planning process.

Two variations of the zoning approach are analyzed in this EIS, as described below. The alternatives are identical except in the geographic areas included within their respective Preservation Zones. Because potential interactions with or competition for prey species with the critically endangered Hawaiian monk seal are significant concerns, protection of monk seal colonies was used as the basis for defining areas for inclusion in the Preservation Zone. Alternatives 4A would protect the two most important monk seal colonies; Alternative 4B would protect the five most important monk seal colonies. The sixth most important colony, that at Midway Atoll, is protected by inclusion in the Eco-tourism Zone, where commercial fishing is prohibited and recreational fishing is strictly controlled.

2.2.4.1 Description of Alternative 4A

General Use Zone: All waters around the NWHI out to 200 nautical miles except for waters designated as an Eco-Tourism Zone, Special Use Zone or Preservation Zone.

Special Use Zone: Waters shallower than 10 fathoms (fm) around the NWHI except for waters designated as an Eco-tourism Zone or Preservation Zone. The 10 fm contour was chosen as a boundary because that is the putative seaward boundary of the Hawaiian Islands National Wildlife Refuge.¹ Under this alternative, however, the boundary of the refuge may be adjusted during development of the proposed zoning plan.

Eco-tourism Zone: Waters around Midway Islands between the parallels of 28° 5' and 28° 25' N latitude and between the meridians of 177° 10' and 177° 30' W longitude. These boundaries were chosen because they are the current boundaries of the Midway Atoll National Wildlife Refuge.²

¹According to the USFWS (1999), the boundaries of the Hawaiian Islands National Wildlife Refuge include the Northwestern Hawaiian Islands, with the exception of Midway and Kure Atolls, and extend seaward to 10 fathoms, except for around Necker Island, where the boundary extends to 20 fathoms. However, the boundaries of the refuge with respect to submerged lands are not clearly defined statutorily and have historically been a point of contention between the federal government and the State of Hawai'i (Yamase 1982).

²The boundaries of the Midway Atoll National Wildlife Refuge were established by Executive Order 13022 (USFWS 1997).

Preservation Zone: federal waters within a radius of 20 nautical miles³ of the geographic centers of the islands and reefs in the NWHI as follows: French Frigate Shoals, 23° 45' N latitude, 166° 15' W longitude; and Laysan Island, 25° 45' N latitude, 171° 45' W longitude.

2.2.4.2 Description of Alternative 4B

General Use Zone: All waters around the NWHI out to 200 nautical miles except for waters designated as an Eco-Tourism Zone, Special Use Zone or Preservation Zone.

Special Use Zone: Waters shallower than 10 fathoms around the NWHI except for waters designated as an Eco-tourism Zone or Preservation Zone. The 10 fathom contour was chosen as a boundary because that is the seaward boundary of the Hawaiian Islands National Wildlife Refuge. Under this alternative, however, the boundary of the refuge may be adjusted during development of the proposed zoning plan.

Eco-tourism Zone: Waters around Midway Atoll between the parallels of 28° 5' and 28° 25' N latitude and between the meridians of 177° 10' and 177° 30' W longitude. These boundaries were chosen because they are the current boundaries of the Midway Atoll National Wildlife Refuge.

Preservation Zone: Waters within a radius of 20 nautical miles of the geographic centers of the islands and reefs in the NWHI as follows: French Frigate Shoals, 23° 45' N latitude, 166° 15' W longitude; Laysan Island, 25° 45' N latitude, 171° 45' W longitude; Pearl and Hermes Reef, 27° 50' N latitude, 175° 50' W longitude; Lisianski Island, 26° 00' N latitude, 173° 55' W longitude; and Kure Atoll, 28° 25' N latitude, 178° 20' W longitude.

Figures 2-1 through 2-6 show the boundaries of the special use, eco-tourism and preservation zones identified for Alternatives 4A and 4B. Bathymetric data for the NWHI are limited and in some areas suspect. The following figures are composites of several data sets and thus the inconsistencies in depth units shown. Bottomfish fishing generally takes place between 30 and 150 fm. Ralston and Polovina (1982) have shown that the 100-fm contour is a valid measure of

available bottomfish habitat. The figures below show the 10 fathom and 400 meter contours to visually bracket the bottomfish habitat. The precise center locations of the island masses were identified in the NMFS final rule pertaining to lobster vessels transiting Crustaceans Permit Area 1 VMS Subarea (63 FR 20539, April 27, 1998). It is not stated how these points were derived. Further, the charted coordinates may not match current reference systems or global positioning system (GPS) readings, and hence should not be used for navigational purposes.

³A 20 nm radius encompasses the depths at which the NWHI bottomfish fishery occurs. A circle rather than a depth contour was chosen as a boundary because it facilitates compliance and enforcement.

FIGURE 2-1: Proposed Preservation Zone Around French Frigate Shoals - Alternatives 4A and 4B

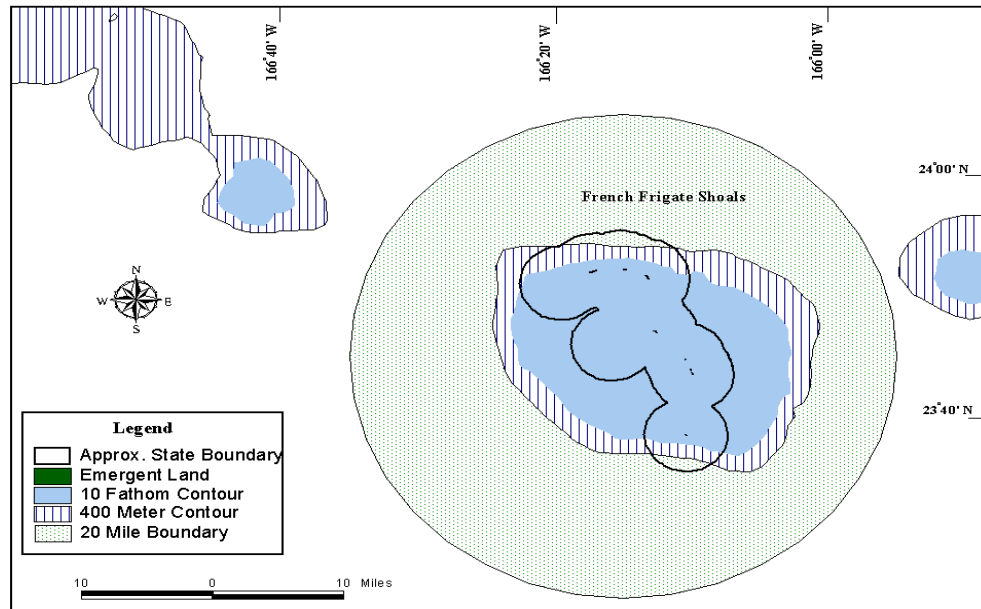


FIGURE 2-2: Proposed Preservation Zone Around Laysan Island - Alternatives 4A and 4B

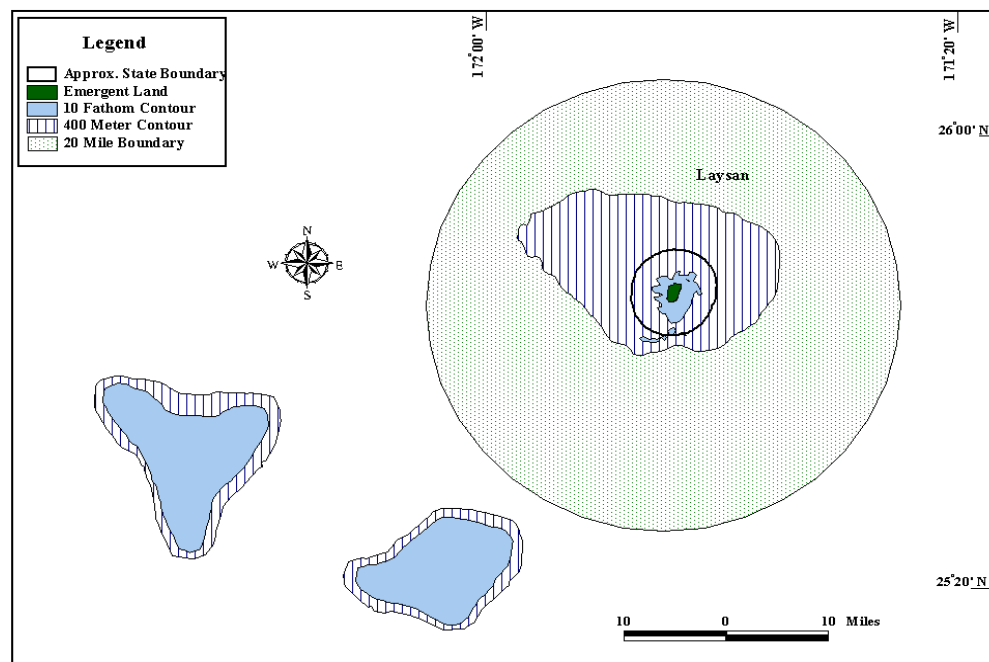


FIGURE 2-3: Proposed Preservation (Alternative 4B) and Special Use (Alternative 4A) Zones Around Pearl and Hermes Reef

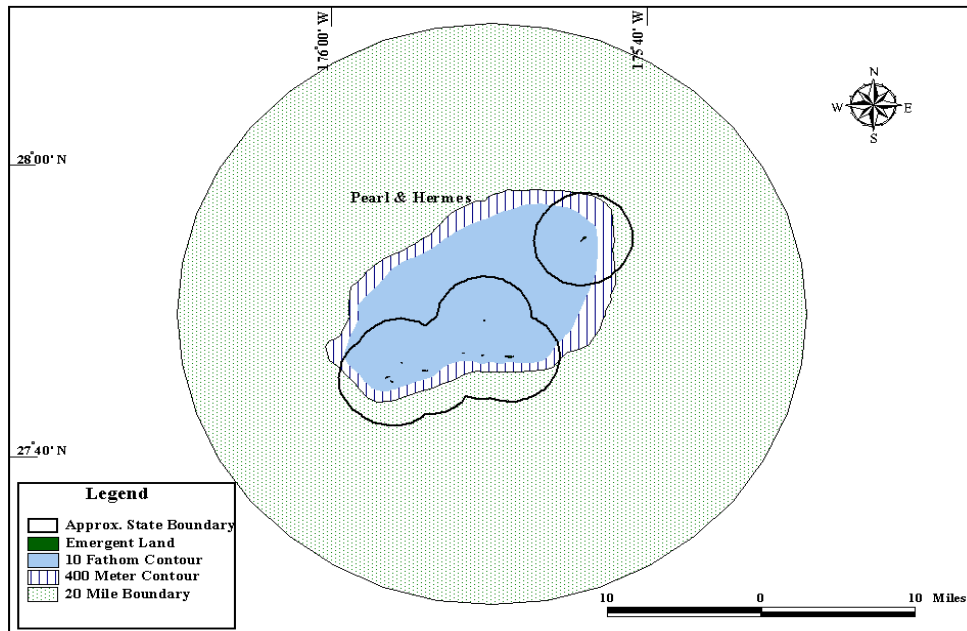


FIGURE 2-4: Proposed Preservation (Alternative 4B) and Special Use (Alternative 4A) Zones Around Lisianski Island

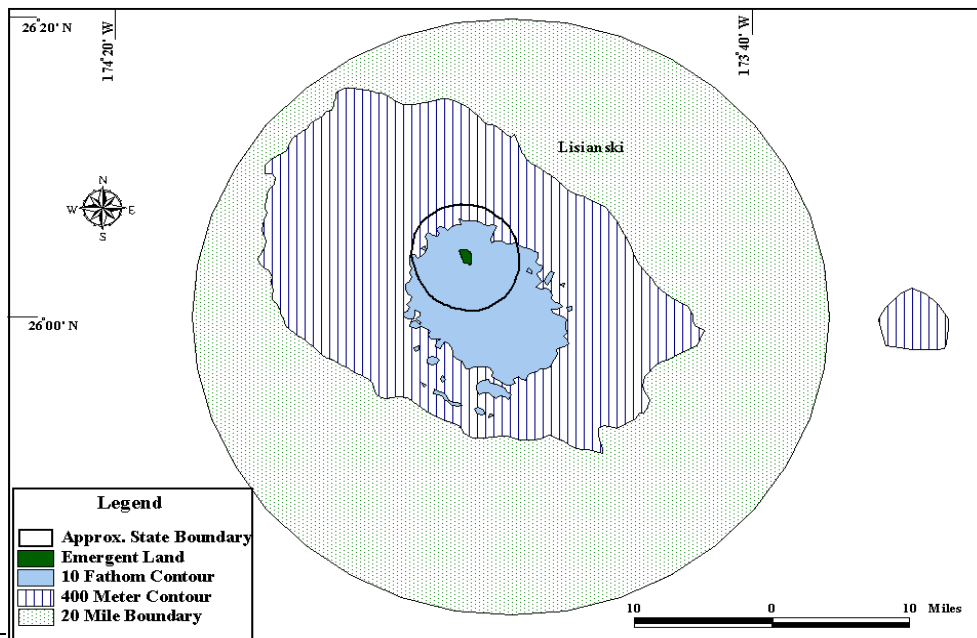


FIGURE 2-5: Proposed Eco-tourism Zone Around Midway Atoll

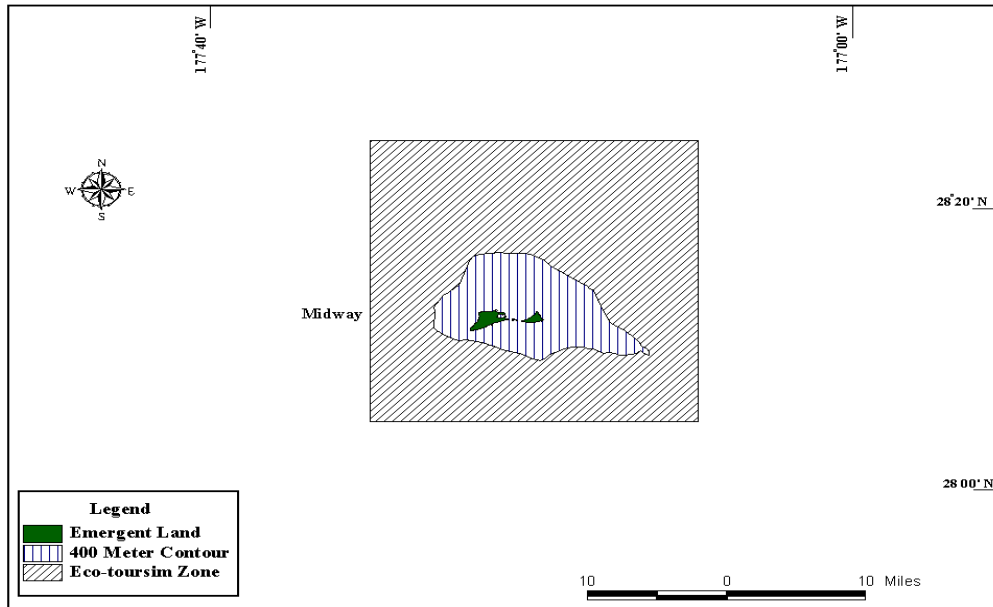
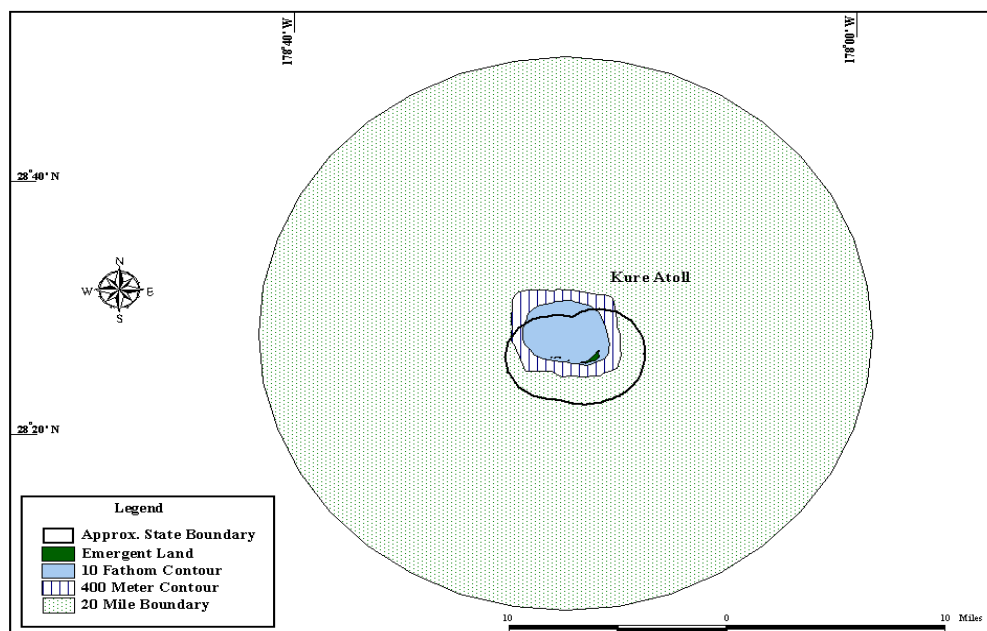


FIGURE 2-6: Proposed Preservation (Alternative 4B) and Special Use (Alternative 4A) Zones Around Kure Atoll



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ENT BOTTOMFISH AND SEAMOUNT GROUNDFISH FISHERY MANAGEMENT REGIME

2.3.1 Overview of the FMP and Amendments

The Bottomfish and Seamount Groundfish FMP was implemented in 1986. It prohibits certain destructive fishing techniques, including explosives, poisons, trawl nets and bottom-set gillnets; establishes a moratorium on the commercial harvest of seamount groundfish stocks at the Hancock Seamounts; and implements a permit system for fishing for bottomfish in the EEZ around the NWHI. (The moratorium on the commercial harvest of seamount groundfish stocks at the Hancock Seamounts, the only exploitable seamount habitat in the management area, remains in effect. At its 123rd meeting (June 21-24, 2004), the Council approved an extension of the moratorium until August 31, 2010 (69 FR 51400). Consequently, there is no seamount groundfish fishery in the region. The plan also establishes a management framework that includes adjustments such as catch limits, size limits, area or seasonal closures, fishing effort limitation, fishing gear restrictions, access limitation, permit and/or catch reporting requirements and a rules-related notice system.

The FMP has been amended seven times since 1986. Implemented in 1987, Amendment 1 includes the establishment of potential limited access systems for bottomfish fisheries in the EEZ surrounding American Samoa and Guam within the framework measures of the FMP. Amendment 2 (1988) divides the EEZ around the NWHI into two zones: the Ho‘omalua Zone to the northwest and the Mau Zone to the southeast. The amendment also establishes a limited access system for the Ho‘omalua Zone. Amendment 3 (1991), which has been supplanted by Amendment 6, defined recruitment overfishing as a condition in which the ratio of the spawning stock biomass per recruit at the current level of fishing to the spawning stock biomass per recruit that would occur in the absence of fishing is equal to or less than 20 percent. Amendment 3 also delineated the process by which overfishing is monitored and evaluated. Amendment 4 (1990) requires vessel owners or operators to notify NMFS at least 72 hours before leaving port if they intend to fish in a 50 nm “protected species study zone” around the NWHI. This notification allows federal observers to be placed on board bottomfish vessels to record interactions with protected species if this action is deemed necessary. Amendment 5 (1999) establishes a limited access system for the Mau Zone and a framework for a Community Development Program. Amendment 6 (1999) identifies and describes essential fish habitat for managed species of bottomfish, discusses measures to minimize bycatch and bycatch mortality in the bottomfish fishery, provides criteria for identifying when overfishing has occurred in the fishery and describes fishing communities in the Region. Amendment 6 initially was only partially approved, with the provisions for bycatch, overfishing and fishing communities in Hawai‘i disapproved. The disapproved provisions were rewritten and the revised provisions have been implemented. Amendment 7 (2003) brings the Bottomfish FMP into conformity with the Coral Reef Ecosystem (CRE) FMP by prohibiting fishing for BMUS in the CRE FMP’s no-take areas

and amending the BMUS list to exclude species now managed under the CRE FMP.

In American Samoa fisheries data are collected in the Offshore Creel Survey. Commercial, subsistence and recreational domestic fishing boats landing catch in five designated areas are interviewed. Interviews usually take place between 0500 and 2100 hours on two weekdays and one weekend/holiday per week. The interview hours have been extended in the past three years to cover boats that come in earlier or after the normal sampling period. Two DMWR samplers based on Tau and Ofu collect fisheries data from the Manu'a islands fleet (WPRFMC 2004). On Guam, the Department of Agriculture's Fisheries Section conducts its offshore creel surveys at the Agana Boat Basin, the Agat Marina, and the Merizo boat ramp. Staff losses have decreased sampling from two weekdays and two weekends a month at Agana Boat Basin to one weekday and one weekend a month. In Hawaii, catch and revenue data for bottomfish have been collected by the Division of Aquatic Resources since 1948 in the form of a report submitted by commercial fishermen. No data are collected for recreational or subsistence fishermen. Additional data are obtained from a market monitoring program and from fishermen interviews. In the CNMI, a voluntary commercial purchase database system is employed to characterize the fishery. This system indirectly records landings by recording all local fish sales to commercial establishments. Data are only collected on Saipan, which is by far the largest market.

2.3.2 Management Unit Species

Bottomfish management unit species (BMUS) means the fish listed in Table 2-1.

TABLE 2-1: Bottomfish Management Unit Species

COMMON NAME	LOCAL NAME	SCIENTIFIC NAME
Snappers:		
Silver jaw jobfish	Lehi (H); palu-gustusilvia (S)	Aphareus rutilans
Grey jobfish	Uku (H); asoama (S)	Aprion virescens
Squirrelfish snapper	Ehu (H); palu-malau (S)	Etelis carbunculus
Longtail snapper	Onaga, 'ula'ula (H); palu-loa (S)	Etelis coruscans
Blue stripe snapper	Ta'ape (H); savane (S); funai (G)	Lutjanus kasmira
Yellowtail snapper	Palu-i 'Iusama (S); yellowtail, kalekale (H)	Pristipomoides auricilla

COMMON NAME	LOCAL NAME	SCIENTIFIC NAME
Pink snapper	‘Ōpakapaka (H); palu-‘tlena ‘lena (S); gadao (G)	Pristipomoides filamentosus
Yelloweye snapper	Palusina (S); yelloweye ‘ōpakapaka, kalekale (H)	Pristipomoides flavipinnis
Snapper	Kalekale (H)	Pristipomoides sieboldii
Snapper	Gindai (H,G); palu-sega (S)	Pristipomoides zonatus
Jacks:		
Giant trevally	White ulua (H); tarakito (G); sapo-anae (S)	Caranx ignoblis
Black jack	Black ulua (H); tarakito (G); tafauli (S)	Caranx lugubris
Thick lipped trevally	Pig ulua, butaguchi (H)	Pseudocaranx dentex
Groupers:		
Blacktip grouper	Fausi (S); gadau (G)	Epinephelus fasciatus
Sea bass	Hāpu‘upu‘u (H)	Epinephelus quernus
Lunartail grouper	Papa (S)	Variola louti
Emperor fishes:		
Ambon emperor	Filoa-gutumumu (S)	Lethrinus amboinensis
Redgill emperor	Filoa-pa‘lo‘omumu (S); mafuti (G)	Lethrinus rubrioperculatus
Seamount groundfish:		
Alfonsin		Beryx splendens
Ratfish/butterfish		Hyperoglyphe japonica
Armorhead		Pseudopentaceros richardsoni

Notes: G--Guam; H--Hawai‘i; S--American Samoa.

2.3.3 Management Area and Subareas

The inner boundary of the fishery management area is a line coterminous with the seaward boundaries of the State of Hawai'i, the Territory of American Samoa, and the Territory of Guam (the "3 mile-limit"). The Commonwealth of the Northern Mariana Islands is currently not included in the management area of the FMP. The outer boundary of the fishery management area is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured, or is coterminous with adjacent international maritime boundaries. The outer boundary of the fishery management area north of Guam will extend to those points which are equidistant between Guam and the island of Rota in the Commonwealth of the Northern Mariana Islands.

The fishery management area is divided into five subareas (Figure 2-7) with the following designations and boundaries:

- (1) Main Hawaiian Islands (MHI) means the EEZ of the Hawaiian Islands Archipelago lying to the east of 161°20' W longitude.
- (2) Northwestern Hawaiian Islands (NWHI) means the EEZ of the Hawaiian Islands Archipelago lying to the west of 161°20' W. Midway Island is treated as part of the Northwestern Hawaiian Islands Subarea.
 - (i) Ho'omalū Zone means that portion of the EEZ around the NWHI west of 165°W. longitude.
 - (ii) Mau Zone means that portion of the EEZ around the NWHI between 161°20' W longitude and 165° W longitude.
- (3) Hancock Seamount means that portion of the EEZ in the Northwestern Hawaiian Islands west of 180°00' W longitude and north of 28°00' N latitude.
- (4) Guam means the EEZ seaward of the Territory of Guam.
- (5) American Samoa means the EEZ seaward of the Territory of American Samoa.

FIGURE 2-7: Western Pacific Bottomfish Fishery Management Areas

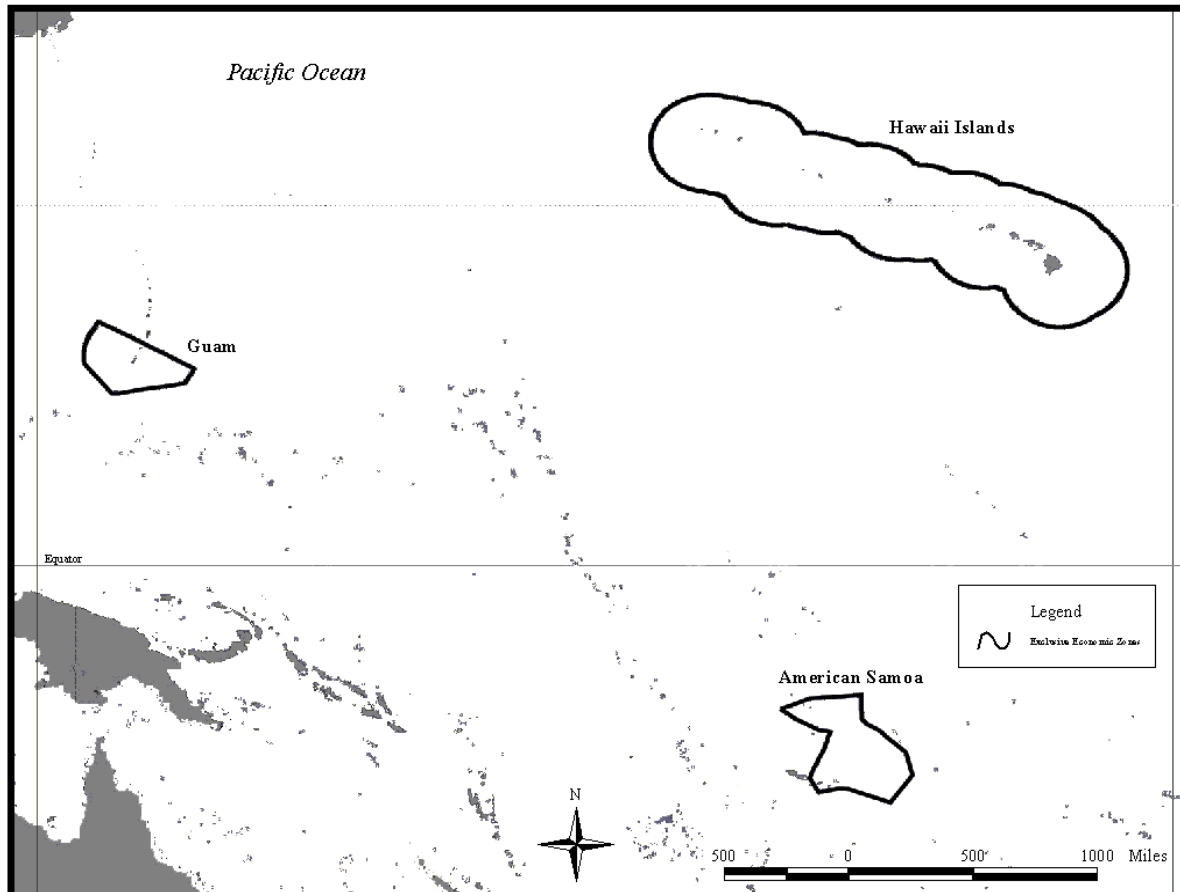
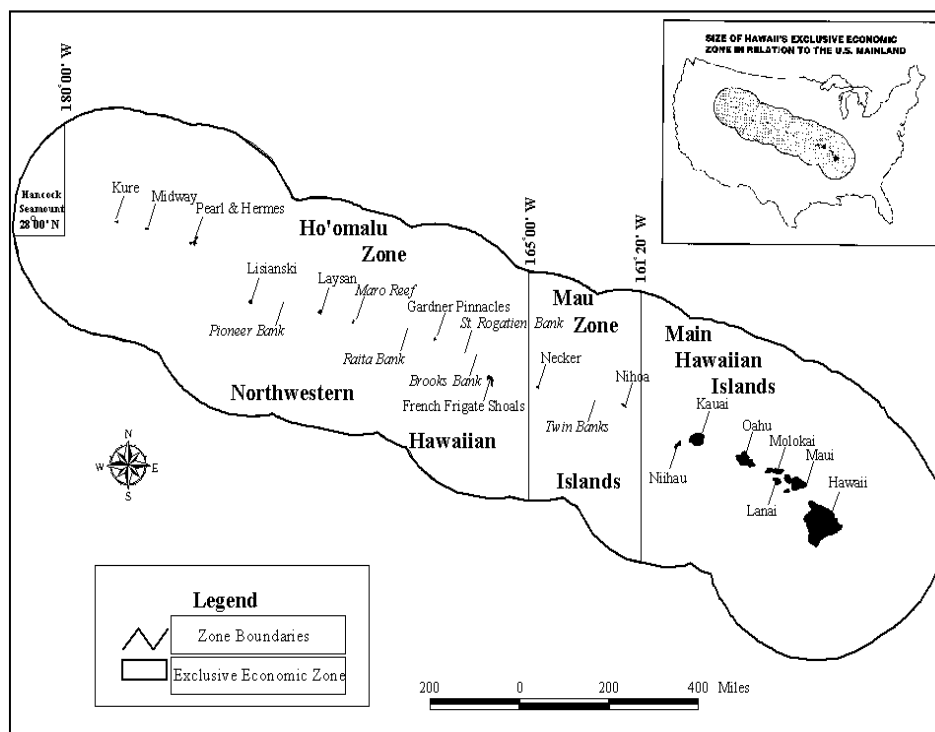


FIGURE 2-8: Bottomfish Management Sub-Areas in Hawaiian Archipelago



2.3.4 Current Bottomfish and Seamount Groundfish Fisheries FMP Regulations

Gear restrictions

- (1) Fishing for bottomfish and seamount groundfish with bottom trawls and bottom set gillnets is prohibited.
- (2) Possession of a bottom trawl and bottom set gillnet by any vessel having a Ho'omalulu Zone permit or Mau Zone permit or otherwise established to be fishing for bottomfish or seamount groundfish in the management subareas is prohibited.
- (3) The possession or use of any poisons, explosives, or intoxicating substances for the purpose of harvesting bottomfish and seamount groundfish is prohibited.

Permits

- (1) The owner of any vessel used to fish for bottomfish management unit species in the Northwestern Hawaiian Islands Subarea must have a permit and the permit must be registered for use with the vessel. A single vessel can not be registered for use with a Ho'omalulu Zone permit and a Mau Zone permit at the same time.

(2) Ho‘omalū Zone limited access permit:

(i) A Ho‘omalū zone permit may not be sold or otherwise transferred to a new owner. A Ho‘omalū zone permit or permits may be held by a partnership or corporation. If 50 percent or more of the ownership of the vessel passes to persons other than those listed in the original application, the permit will lapse and must be surrendered to the NMFS Regional Administrator.

(ii) Upon application by the owner of a permitted vessel, the NMFS Regional Administrator will transfer that owner’s permit to a replacement vessel owned by that owner, provided that the replacement vessel does not exceed 60 ft (18.3 m) in length. The replacement vessel must be put into service no later than 12 months after the owner applies for the transfer, or the transfer shall be void. An owner of a permitted vessel may apply to the Regional Administrator for transfer of that owner’s permit to a replacement vessel greater than 60 ft (18.3 m) in length. The Regional Administrator may transfer the permit upon determining, after consultation with the Council and considering the objectives of the limited access program, that the replacement vessel has catching power that is comparable to the rest of the vessels holding permits for the fishery, or has catching power that does not exceed that of the original vessel, and that the transfer is not inconsistent with the objectives of the program. The Regional Administrator shall consider vessel length, range, hold capacity, gear limitations, and other appropriate factors in making determinations of catching power equivalency and comparability of the catching power of vessels in the fishery.

(iii) Ho‘omalū Zone limited access permit renewal-- A qualifying landing for Ho‘omalū Zone permit renewal is a landing of at least 2,500 lb (1,134 kg) of bottomfish management unit species from the Ho‘omalū Zone or a landing of at least 2,500 lb (1,134 kg) of fish from the Ho‘omalū Zone, of which at least 50 percent by weight was bottomfish management unit species. A permit is eligible for renewal for the next calendar year if the vessel covered by the permit made three or more qualifying landings during the current calendar year.

(iv) The NMFS Regional Administrator may issue new Ho‘omalū Zone limited access permits if the Regional Administrator determines, in consultation with the Council that bottomfish stocks in the Ho‘omalū Zone are able to support additional fishing effort. When the Regional Administrator has determined that new permits may be issued, they shall be issued to applicants based upon eligibility, determined as follows:

(a) Point system:

Two points will be assigned for each year in which the applicant was owner or captain of a vessel that made three or more of any of the following types of landings in the NWHI: Any amount of bottomfish management unit species, regardless of weight, if made on or before August 7, 1985; at least 2,500 lb (1,134 kg) of bottomfish management unit species, if made after August 7, 1985; or at least 2,500 lb (1,134 kg) of any fish lawfully harvested from the NWHI, of which at least 50 percent by weight was bottomfish, if made after August 7, 1985. One

point will be assigned for each year in which the applicant was owner or captain of a vessel that landed at least 6,000 lb (2,722 kg) of bottomfish from the main Hawaiian Islands. For any one year, points will be assigned for landings in the Northwestern Hawaiian Islands Subarea or main Hawaiian Islands Subarea, but not in both subareas. New permits shall be awarded to applicants in descending order, starting with the applicant with the largest number of points. If two or more persons have an equal number of points, and there are insufficient new permits for all such applicants, the new permits shall be awarded by the Regional Administrator through a lottery.

(b) Before the NMFS Regional Administrator issues an Ho‘omaluku zone permit to fish for bottomfish, the primary operator and relief operator named on the application form must have completed a protected species workshop conducted by NMFS.

(c) An applicant must own at least a 25-percent share in the vessel that the permit would cover, and only one permit will be assigned to any vessel.

(3) Mau Zone limited access permit:

(i) Eligibility for new Mau Zone limited access permits:

(a) The NMFS Pacific Islands Regional Office (PIRO) will issue an initial Mau Zone permit to a vessel owner who qualifies for at least three points under the following point system: An owner who held a Mau Zone permit on or before December 17, 1991, and whose permitted vessel made at least one qualifying landing of bottomfish management unit species on or before December 17, 1991, shall be assigned 1.5 points; an owner whose permitted vessel made at least one qualifying landing of bottomfish management unit species during 1991, shall be assigned 0.5 point; an owner whose permitted vessel made at least one qualifying landing of bottomfish management unit species during 1992, shall be assigned 1.0 point; an owner whose permitted vessel made at least one qualifying landing of bottomfish management unit species during 1993, shall be assigned 1.5 points; an owner whose permitted vessel made at least one qualifying landing of bottomfish management unit species during 1994, shall be assigned 2.0 points; an owner whose permitted vessel made at least one qualifying landing of bottomfish management unit species during 1995, shall be assigned 2.5 points; an owner whose permitted vessel made at least one qualifying landing of bottomfish management unit species during 1996, shall be assigned 3.0 points. A “qualifying landing” means any amount of bottomfish management unit species lawfully harvested from the Mau Zone and offloaded for sale. No points shall be assigned to an owner for any qualifying landings reported to the State of Hawai‘i more than 1 year after the landing.

(b) More than one Mau Zone permit may be issued to an owner of two or more vessels, provided each of the owner’s vessels for which a permit will be registered for use has made the required qualifying landings for the owner to be assigned at

least three eligibility points.

(c) A Mau Zone permit holder who does not own a vessel at the time initial permits are issued must register the permit for use with a vessel owned by the permit holder within 12 months from the date the permit was issued. In the interim, the permit holder may register the permit for use with a leased or chartered vessel. If within 12 months of initial permit issuance, the permit holder fails to apply to the NMFS PIRO to register the permit for use with a vessel owned by the permit holder, then the permit expires.

(d) Before the NMFS PIRO issues a Mau Zone permit to fish for bottomfish, the primary operator and relief operator named on the application form must have completed a protected species workshop conducted by NMFS.

(e) A Mau Zone permit may be held by an individual, partnership, or corporation. No more than 49 percent of the underlying ownership interest in a Mau Zone permit may be sold, leased, chartered, or otherwise transferred to another person or entity. If more than 49 percent of the underlying ownership of the permit passes to persons or entities other than those listed in the original permit application supplemental information sheet, then the permit expires and must be surrendered to the NMFS PIRO. A Mau Zone permit holder may apply to the NMFS PIRO to register the permit for use with another vessel if that vessel is owned by the permit holder, and is no longer than 60 ft (18.3 m). If a Mau Zone permit holder sells the vessel, for which the permit is registered for use, the permit holder must within 12 months of the date of sale apply to the NMFS PIRO to register the permit for use with a vessel owned by the permit holder. If the permit holder has not applied to register a replacement vessel within 12 months, then the permit expires. If a permitted vessel owned by the permit holder is sold or becomes unseaworthy, the Mau Zone permit with which the vessel was registered may be registered for use with a leased or chartered vessel for a period not to exceed 12 months from the date of registration of the leased or chartered vessel. If by the end of that 12-month period the permit holder fails to apply to the NMFS PIRO to register the permit for use with a vessel owned by the permit holder, then the permit expires.

(ii) A Mau Zone permit will be eligible for renewal if the vessel for which the permit is registered for use made at least five separate fishing trips with landings of at least 500 lb (227 kg) of bottomfish management unit species per trip during the calendar year. Only one landing of bottomfish management unit species per fishing trip to the Mau Zone will be counted toward the landing requirement. If the vessel for which the permit is registered for use fails to meet the landing requirement, the owner may apply to the NMFS Regional Administrator for a waiver of the landing requirement. Grounds for a waiver are limited to captain incapacitation, vessel breakdowns, and the loss of the vessel at sea if the event prevented the vessel from meeting the landing requirement. Unprofitability is not sufficient for waiver of the landing requirement.

Prohibitions

It is unlawful for any person to do any of the following:

- (1) Fish for bottomfish or seamount groundfish using prohibited gear.
- (2) Fish for, or retain on board a vessel, bottomfish management unit species in the Ho‘omaluku Zone or Mau Zone without the appropriate permit, registered for use with that vessel.
- (3) Serve as primary operator or relief operator on a vessel with a Mau or Ho‘omaluku Zone permit without completing a protected species workshop conducted by NMFS.
- (4) Fail to notify the USCG at least 24 hours prior to making any landing of bottomfish taken in the Ho‘omaluku Zone.
- (5) Fish within any protected species study zone in the NWHI without notifying the NMFS PIRO of the intent to fish in these zones. Protected species study zones means the waters within 50 nm around the following islands of the NWHI and as measured from the following coordinates: Nihoa Island 23°05' N latitude, 161°55' W longitude; Necker Island 23°35' N latitude, 164°40' W longitude; French Frigate Shoals 23°45' N latitude, 166°15' W longitude; Gardner Pinnacles 25°00' N latitude, 168°00' W longitude; Maro Reef 25°25' N latitude, 170°35' W longitude; Laysan Island 25°45' N latitude, 171°45' W longitude; Lisianski Island 26°00' N latitude, 173°55' W longitude; Pearl and Hermes Reef 27°50' N latitude, 175°50' W longitude; Midway Island 28°14' N latitude, 177°22' W longitude; and Kure Island 28°25' N latitude, 178°20' W longitude.

Notification

- (1) The owner or operator of a fishing vessel must inform the NMFS PIRO at least 72 hours (not including weekends and holidays) before leaving port, of his or her intent to fish within the protected species study zones. The notice must include the name of the vessel, name of the operator, intended departure and return date, and a telephone number at which the owner or operator may be contacted during the business day (8 a.m. to 5 p.m.) to indicate whether an observer will be required on the subject fishing trip.
- (2) The operator of a fishing vessel that has taken bottomfish in the Ho‘omaluku Zone must contact the USCG, by radio or otherwise, at the 14th District, Honolulu, HI; Pacific Area, San Francisco, CA; or 17th District, Juneau, AK, at least 24 hours before landing, and report the port and the approximate date and time at which the bottomfish will be landed.

At-sea observer coverage

All fishing vessels must carry an observer when directed to do so by the NMFS Regional Administrator.⁴

Reporting and recordkeeping

Any person who is required to do so by applicable state law or regulation must make and/or file

⁴ In the early 1990s, NMFS placed observers on some bottomfish fishing vessels, but funding for this lapsed. Recently, funds have again become available and in the fourth quarter of 2003 observers were again deployed in the fleet.

all reports of management unit species landings containing all data and in the exact manner required by applicable state law or regulation.

Framework for regulatory adjustments

By June 30 of each year, a Council-appointed bottomfish monitoring team will prepare an annual report on the fishery by area covering the following topics: fishery performance data; summary of recent research and survey results; habitat conditions and recent alterations; enforcement activities and problems; administrative actions (e.g., data collection and reporting, permits); and state and territorial management actions. Indications of potential problems warranting further investigation may be signaled by the following indicator criteria: mean size of the catch of any species in any area is a pre-reproductive size; ratio of fishing mortality to natural mortality for any species; harvest capacity of the existing fleet and/or annual landings exceed best estimate of MSY in any area; significant decline (50 percent or more) in bottomfish catch per unit of effort from baseline levels; substantial decline in ex-vessel revenue relative to baseline levels; significant shift in the relative proportions of gear in any one area; significant change in the frozen/fresh components of the bottomfish catch; entry/exit of fishermen in any area; per-trip costs for bottomfishing exceed per-trip revenues for a significant percentage of trips; significant decline or increase in total bottomfish landings in any area; change in species composition of the bottomfish catch in any area; research results; habitat degradation or environmental problems; and reported interactions between bottomfish fishing operations and protected species in the NWHI.

The team may present management recommendations to the Council at any time. Recommendations may cover actions suggested for federal regulations, state/territorial action, enforcement or administrative elements, and research and data collection. Recommendations will include an assessment of urgency and the effects of not taking action. The Council will evaluate the team's reports and recommendations, and the indicators of concern. The Council will assess the need for one or more of the following types of management action: catch limits, size limits, closures, effort limitations, access limitations, or other measures. The Council may recommend management action by either the state/territorial governments or by Federal regulation.

If the Council believes that management action should be considered, it will make specific recommendations to the NMFS Regional Administrator after requesting and considering the views of its Scientific and Statistical Committee and Bottomfish Advisory Panel and obtaining public comments at a public hearing. The Regional Administrator will consider the Council's recommendation and accompanying data, and, if he or she concurs with the Council's recommendation, will propose regulations to carry out the action. If the Regional Administrator rejects the Council's proposed action, a written explanation for the denial will be provided to the Council within 2 weeks of the decision. The Council may appeal denial by writing to the Assistant Administrator, who must respond in writing within 30 days.

2.3.5 Pending Management Measures

2.3.5.1 Permit Renewal Requirements for NWHI Bottomfish Limited Access Program

Participation in the NWHI bottomfish fishery is controlled through limited access programs in each of the two management zones, the Ho‘omalau Zone to the west of 165°00' W and the Mau Zone between 165°00' W and 161°20' W. These zones were established to reduce the risk of biological overfishing and to improve the economic health and stability of the bottomfish fishery in the NWHI. The programs provide for a limited number of fishing permits to be issued each calendar year. Permits may not be sold, leased, or chartered. Based on the biological, economic, and social characteristics of the bottomfish fisheries in the two zones, the long-term target fleet sizes for the Ho‘omalau and Mau Zones have been determined by the Council to be seven vessels and 10 vessels, respectively (in the Mau Zone, two permits are reserved for a pending Community Development Program, as described below).

Prior to establishment of the limited entry regime for the Mau Zone (Amendment 5, 1999), access was open in that zone and it was there that fishermen gained experience and qualifying points toward a Ho‘omalau Zone permit. Open access to the Mau Zone did not lead to overfishing, but did result in economically marginal performance for participants. Consequently, an economic study of the optimal number of vessels in the NWHI bottomfish fishery was undertaken (Pooley 1996). Various scenarios were modeled, including a continuation of average vessel catch rates, harvesting at MSY without increasing effort (often part-time) by vessel, and harvesting at MSY by all full-time equivalent operations. The results showed that there were substantially more than the optimal number of vessels in the Mau Zone, but that the Ho‘omalau Zone could support one or two more vessels than were then fishing (five). The Council, consequently, established a two-year moratorium on new entrants into the Mau Zone, effective March 27, 1997. While the moratorium was in effect, the Council began the process of establishing limited access for the Mau Zone, with 10 being the target number of permits.

In order to help reduce the fleet sizes to the target levels and, once the targets are reached, to possibly allow opportunities for new entry, the two limited access programs include “use-it-or-lose-it” provisions. Permits are renewable only if the permit holder meets requirements that consist of a minimum number of landings in a given year, each with a minimum weight of bottomfish management unit species. The annual renewal requirements for the Ho‘omalau Zone are three landings of at least 2,500 pounds each and for the Mau Zone, five landings of at least 500 pounds each. The Ho‘omalau Zone limited access program allows entry by new participants using a point-based qualification system. Applicants are assigned points according to their level of historical participation and landings of bottomfish. Any available new permits (the target level less the number of renewals) are issued according to the number of points assigned to each applicant, in descending order. Similar provisions for allowing new entry into the Mau Zone have been developed by the Council but a regulatory adjustment has not yet been approved (see

below).

Fleet attrition in the Mau Zone occurred rapidly. The number of permits issued decreased from 25 in 1997 to only nine in 2000, the first full year in which the limited access program operated. Six of the nine permitted vessels made their minimum landings and in 2001 the number of permitted vessels consequently dropped to six. In the Ho‘omalau Zone, the target level of seven permitted vessels was reached in 1997, dropping to six in 1999, five in 2000-2001, and four in 2002. Currently, there are six vessels permitted to fish in the Mau Zone and four vessels permitted to fish in the Ho‘omalau Zone.

Excess capacity is no longer a problem in either zone and the risk of overfishing has been substantially reduced. However, there remain the challenges of allowing adequate opportunities for participation in the two zones (with the objective of maintaining participation at the target levels) and continuing to allocate those opportunities fairly and equitably. Now that participation has dropped below the target levels, the Council has approved a recommendation to NMFS that the use-it-or-lose-it provisions be relaxed, affording more flexibility in fishing operations and effectively giving permit holders more durability and security in their permits. This regulatory adjustment has not yet been implemented. While this measure increases the preference that is given to existing permit holders relative to prospective participants, the Council made this recommendation in the context of, and partly in response to, the uncertain regulatory environment associated with establishment of a potential NWHI National Marine Sanctuary. The Council expressed concern regarding the uncertain limitations that a potential sanctuary may put on the number of allowable participants in the fishery and on who is eligible to participate. Thus the Council recommended that the landing requirements for permit retention be removed at least until completion of the sanctuary designation process, and that this change be retroactive to the date of establishment of the NWHI Reserve, 4 December 2000 (WPRFMC 2002a). The existing prohibitions on permit sale, lease, and charter would remain in effect. See Appendix B for a detailed description of this measure, including an impact analysis of the alternatives considered.

2.3.5.2 Eligibility Criteria for New Entry in to the NWHI Mau Zone Limited Access Program

The Council recommended that a weighted point system for issuance of new Mau Zone limited access permits (WPRFMC 2002b). The point system recommended is as follows:

- (1) One point will be assigned for each year in which the applicant was owner or captain of a vessel that landed at least 2,500 lbs. of bottomfish management unit species from the main Hawaiian Islands.
- (2) Two points will be assigned for each year between 1994 and 1999 in which the applicant was owner or captain of a vessel that made five qualifying landings of bottomfish management unit species. One point will be assigned for each year before 1994 in which the applicant was owner

or captain of a vessel that made five qualifying landings of bottomfish management unit species. A “qualifying landing” means at least 500 lbs. of bottomfish management unit species lawfully harvested from the NWHI and offloaded for sale.

Western Pacific Community Development Program

The Magnuson-Stevens Act provides for the establishment of a Western Pacific Community Development Program (CDP) for any fishery under the authority of the Council (Sec. 305(i)(2)). This provision was added to the Act to address concerns that communities consisting of descendants of indigenous peoples in the Council’s area have not been appropriately sharing in the benefits from the area’s fisheries. The Council and the Secretary of Commerce, respectively, have discretion to develop and to approve programs for eligible communities for the purpose of enhancing access to the fisheries under the authority of the Council. In 1999, the Council developed, and the Secretary of Commerce approved, an allocation of approximately one-fifth (20 percent) of the target number of Mau Zone permits to a community development program. The rationale for allocating 20 percent of the permits for the community development program was that Hawaiians make up about 20 percent of the State’s population.

The following CDP eligibility criteria was published in the Federal Register on April 16, 2002. These criteria are based on language in the Magnuson-Stevens Act and specify that to be eligible to participate in a Western Pacific Community Development Program, a community must:

- (1) be located in Western Pacific Region;
- (2) consist of community residents descended from aboriginal people indigenous to the Western Pacific Area who conducted commercial or subsistence fishing using traditional fishing practices in the waters of the Western Pacific;
- (3) consist of community residents who reside in their ancestral island homeland;
- (4) have knowledge of customary practices relevant to fisheries of the Western Pacific;
- (5) have a traditional dependence on fisheries of the Western Pacific; and
- (6) experience economic or other barriers that have prevented full participation in Western Pacific fisheries and, in recent years, have not had harvesting, processing or marketing capability sufficient to support substantial participation in fisheries in the area.

The Council also recommended that a weighted point system be used for CDP Mau Zone permit applicants which qualify under the eligibility criteria listed above. Existing provisions of the Mau Zone limited access permit program, including non-transferable permits and the “use it or lose it” requirement, would remain for CDP permit holders.

See Appendix A for a detailed description of these measures including an impact analysis on the range of alternatives considered.

2.3.5.3 Inclusion of the Commonwealth of the Northern Mariana Islands and U.S. Pacific Remote Island Areas in the Bottomfish and Seamount Groundfish FMP; Inclusion of Additional Bottomfish Species as MUS

As noted in Section 1.1, the Council has the responsibility to prepare a FMP for any fishery requiring conservation and management in the EEZ around the CNMI and the PRIAs. Currently, neither area is included under the Bottomfish and Seamount Groundfish FMP. The reasons for this differ between the two areas. As described in Appendices C and G, the EEZ around the CNMI extends from shore out to 200 nm, but the CNMI maintains that its territorial seas extend out to 12 nm from the archipelagic baseline. This dispute kept the CNMI from participating in the Council process for some years. More recently, the CNMI has chosen to participate in the Council process, and the Council has agreed to defer management of fisheries in waters 0-3 nm from shore to the CNMI while retaining management authority in waters 3-200 nm from shore.

Federal jurisdiction around the PRIAs extends from shore out to 200 nm. Historically, however, little bottomfishing has taken place around these isolated islands. With the recent increased federal emphasis on protection of coral reefs and associated marine resources, it is deemed prudent to initiate permitting and recordkeeping requirements for these areas so that basic catch and effort data will be available should additional management actions be warranted in the future.

Consequently, at its June 14-16, 2000 meeting, the Council approved a recommendation to the Secretary that includes the Commonwealth of the Northern Mariana Islands and U.S. Pacific remote island areas (Wake, Howland, Baker and Jarvis Islands, Johnston and Palmyra Atolls, Kingman Reef and Midway Islands) under the Bottomfish and Seamount Groundfish FMP, Crustaceans FMP and Precious Corals FMP for the Western Pacific Region. This FMP amendment would extend existing management measures in the Bottomfish and Seamount Groundfish FMP to bottomfish fisheries occurring in the EEZ around the CNMI and remote island areas. In addition, federal permit and reporting requirements would be established for the bottomfish fishery in the remote island areas.

The CNMI and PRIA amendment also provides for the inclusion of additional bottomfish species as management unit species (MUS). The species to be added are all primarily members of the shallow-water bottomfish species complex. These species and their distribution within the region are described in Table 2-2. See Appendix C for a detailed description of this measure including an impact analysis on the range of alternatives considered.

2.3.5.4 Measure to Limit Large-Vessel Fishing in the EEZ Around Guam

New bottomfish fishing activity on the offshore banks of Guam has prompted concerns about: 1) information on the fishery being inadequate for effective management; 2) the potential for local

catch rates to decline to levels that are not viable for the small-vessel component of the fishery; 3) threats to sustained community participation in the fishery; and 4) disruptions to traditional patterns of supply of bottomfish products to the local market. After considering a wide range of preliminary management options, many of them suggested through a public scoping process, the Council analyzed the likely effects of four management alternatives: 1) no action; 2) require federal permitting and logbook reporting for all vessels greater than 50 feet in length (“large vessels”) that land bottomfish management unit species in Guam and close all federal waters within 50 nautical miles of Guam to bottomfish fishing by large vessels; 3) impose a 250-pound-per-trip landing limit on onaga in federal waters around Guam; and 4) establish a limited access program for the bottomfish fishery in federal waters around Guam.

At its 118th meeting in June 2003, the Council took final action and endorsed the preferred alternative to require federal permits and reports from all vessels greater than 50 feet in length that land bottomfish in Guam and close federal waters within 50 nautical miles of Guam to bottomfishing by large vessels. See Appendix D for a detailed description of this measure including an impact analysis on the range of alternatives considered.

TABLE 2-2: Proposed Additions to Bottomfish Management Unit Species (Alt. 1B)

SPECIES	ENGLISH NAME	COMPLEX	AS	GUAM	HI	CNMI	PRI AS
Carangid spp.	misc. and unidentified	S	X	X	X	X	X
Carangoides orthogrammus	yellow-spotted trevally	S/D?	X	X	X	X	
Caranx melampygus	bluefin trevally	S/D?	X	X	X	X	X
Caranx sexfasciatus	bigeye trevally	S	X	X	X	X	X
Grouper spp.	misc. and unidentified	S	X	X	X	X	X
Cephalopholis sonnerati	peacock/tomato grouper	S/D?	X	X		X	X
Cephalopholis urodeta	flagtail grouper	S	X	X	X	X	X

SPECIES	ENGLISH NAME	COMPLEX	AS	GUAM	HI	CNMI	PRI AS
Epinephalus hexagonatus	starspotted grouper	S	X	X	X	X	X
Epiinephalus howlandi	blacksaddle grouper	S	X	X			X
Epinephalus macrospilos	snubnose grouper	S	X	X		X	X
Epinephalus merra	honeycomb grouper	S	X	X	X	X	X
Epinephelus octofasciatus	eightbar grouper	?		X		X	
Epinephelus polyphkadion	camouflaged grouper	S	X	X		X	X
Lethrinid spp.	misc. and unidentified	S	X	X		X	X
Gnathodentex aurolineatus	yellowspot emperor	S	X	X		X	X
Gymnocranius grandoculis	blue-line large eye bream	S	X	X		X	
Lethrinus atkinsoni	pacific yellowtail emperor	S	X	X		X	
Lethrinus erythacanthus	orange-spotted emperor	S	X	X		X	
Lethrinus harak	thumbprint emperor	S	X	X		X	
Lethrinus obsoletus	yellowstripe emperor	S	X	X		X	

SPECIES	ENGLISH NAME	COMPLEX	AS	GUAM	HI	CNMI	PRI AS
Lethrinus olivaceus	longnose emperor	S	X	X		X	
Lethrinus xanthochilus	yellowlip emperor	S		X		X	X
Monotaxis grandoculus	bigeye emperor	S	X	X	X	X	X
Lutjanis spp.	misc. and unidentified	S	X	X		X	X
Aphareus furcatus	brown/blue smalltooth jobfish	S/D?	X	X	X	X	X
Lutjanus bohar	twinspot/red snapper	S/D?	X	X	X	X	X
Lutjanus fulvus	blacktail snapper	S	X	X	X (Introduced)	X	X
Lutjanus gibbus	humpback snapper	S/D?	X	X	X	X	X
Lutjanus monostigmus	onespot snapper	S	X	X		X	X
Pristipomoides argyrogrammicus	blue-lined gindai	S/D?	X	X		X	X

S - Shallow water species complex; D - Deep water species complex.