Amendment 3

and Environmental Assessment

Fishery Management Plan for the

Bottomfish and Seamount Groundfish of the Western Pacific Region

October 19, 1990

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1.0 PREFACE

1.1 Responsible Agencies

The Western Pacific Regional Fishery Management Council (WPRFMC or Council) was established by the Magnuson Fishery Conservation and Management Act (MFCMA) to develop Fishery Management Plans (FMPs) for fisheries in the US Exclusive Economic Zone (EEZ) around American Samoa, Hawaii (including the Northwestern Hawaiian Islands), Guam, the Northern Mariana Islands, and other United States possessions in the Pacific[1]. Once an FMP is approved by the Secretary of Commerce, it is implemented by federal regulations which, in turn, are enforced by the National Marine Fisheries Service (NMFS) and the US Coast Guard, along with state and territorial agencies.

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1.2 Public Review and Comment

The Council elicits the help of commercial and recreational fishing interests, as well as other parties interested in the various fisheries. This ensures that those who might be affected by new management measures have an opportunity to submit ideas and suggestions for potential actions by the Council. Therefore, those affected by the FMPs are involved in the decision-making process.

The action proposed by this amendment was developed by the Bottomfish Plan Team, and was reviewed by the Scientific and Statistical Committee and the industry Advisory Panel. A draft of this amendment was distributed for comments to fishermen and other interested parties in August 1990. The final document is responsive to comments received, and the Council considered these comments at its September 1990 public meeting. The comments were

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[1] *Howland and Baker Islands, Jarvis Island, Johnston Atoll, Kingman Reef and Palmyra Island, and Wake Island.*

incorporated into the draft amendment, which will be submitted to the Secretary of Commerce and released for public review.

1.3 Relationship to Applicable Laws and Policies

This third amendment to the FMP for the bottomfish fisheries complies with the Secretary of Commerce's revised guidelines for the national standards of the MFCMA. Information and analysis in support of the proposed action are presented in a manner intended to satisfy MFCMA requirements, as well as the requirements of other applicable laws and policies. The FMP for the bottomfish and seamount groundfish fisheries satisfied the information and procedural requirements of the National Environmental Policy Act, the Regulatory Flexibility Act, Executive Order 12291, and other laws and directives. The FMP also served as an Environmental Impact Statement (EIS). Similarly, this amendment is intended to serve as an Environmental Assessment. The amendment assesses the economic and administrative/enforcement impacts of the proposed action, and will satisfy the requirement for a Regulatory Impact Review. This document contains all the information necessary under the several statutes and directives applicable to the planning process. A copy of the original FMP, its amendments, and companion regulations may be obtained from the Council. In addition, this amendment provides information regarding habitat and vessel safety concerns as required by the 1986 changes to the MFCMA.

1.4 List of Preparers

Amendment 3 was prepared by the WPRFMC Bottomfish and Seamount Groundfish Plan Team:

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2.0 BACKGROUND

The FMP for the Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region (WPRFMC 1986, as amended) covers the geographical region encompassing the US EEZ around American Samoa, Guam and Hawaii and the seamount groundfish fisheries in the FCZ around the Hancock Seamounts northwest of the Hawaiian Islands. Commercial, recreational and subsistence fisheries occur in American Samoa, Guam and Hawaii. A limited entry program was implemented in the Northwestern Hawaiian Islands (NWHI) in 1989. A moratorium on all fishing activity on the Hancock Seamounts is in effect until 1992 in an effort to rebuild depleted armorhead stocks.

2.1 Species and Habitat

The marine bottomfish resources of the western Pacific region can be divided into three broad classes related to their vertical distribution on the islands' shelves and slopes on and over the summits of seamounts. The first group is the reef fish complex, which occupies shallow reefs, bays, and lagoons, the second group is the bottomfish complex which inhabits the outer shelf and deep slopes; and the third group is the groundfish complex associated with the summits of some seamounts.

At present, the species most important to domestic handline fishermen are a variety of snappers, jacks, groupers, and emperor fishes which inhabit submarine banks and slopes to depths of 200 fathoms. Prior to the fishing moratorium on the Hancock Seamounts, foreign fleets harvested pelagic armorheads and alfonsins in this area.

2.2 Description of Fishery

Extensive background information on the bottomfish fisheries in Hawaii, Guam and American Samoa are found in the FMP and in the previous amendments to that plan. The following is a brief description of the current fisheries for bottomfish in the Western Pacific.

Main Hawaiian Islands - The fleet harvesting bottomfish in the MHI consists of both full-time commercial operations and fishermen who fish primarily for recreational or subsistence purposes but sell a portion of their catch to defray operating costs. An accurate estimate of the total number of vessels participating in the bottomfish fishery is not available at this time. However, estimates from the market monitoring program indicate that at least 1050 vessels sold a portion of their catch during 1989. The MHI fleet harvested 1,234,000 pounds of bottomfish in approximately 6,000 trips during 1989. Estimated value of these landings was $3,861,000.

Northwestern Hawaiian Islands - A limited access program was instituted for the NWHI fishery in 1989. A total of 10 vessels participated in the NWHI bottomfish fishery in 1989, 5 in the restricted Ho'omalu Zone and 5 in the open access Mau permit zone. These vessels made a total of 50 trips, landing 303,000 pounds in 1989. The estimated ex-vessel revenue was $756,000.

American Samoa - There are approximately 30 vessels landing bottomfish in American Samoa. In 1989, a total of 45,000 pounds were landed, about 78 percent of which were sold. Ex-vessel revenue for the fishery was estimated to be $70,000.

Guam - During 1989, 50,763 pounds were landed in approximately 2700 bottomfishing trips. Commercial landings accounted for approximately 15,000 pounds of the landings, with an ex-vessel value of about $30,000. The remainder of the harvest was recreational and subsistence.

CNMI - Commercial landings of 20,000 pounds with an ex-vessel value of $42,000 occurred during 1989. Thirty boats participated in the fishery, making a total of approximately 270 trips.

2.3 Condition of Stocks

Under the provisions of the framework FMP, the Bottomfish PMT performs an annual review of the fisheries and status of the stocks each year. According to the 1989 Annual Report prepared by the Bottomfish Plan Monitoring Team the principal bottomfish stocks in all areas where fisheries are currently occurring except the Main Hawaiian Islands appear to be in good condition. Several MHI stocks however, are showing signs of stress. These species are opakapaka, onaga, ehu and ulua.

2.4 Vessel Safety Considerations

Vessel safety is not affected in this fishery because none of the actions proposed in the FMP or in this amendment imposes any restrictions on vessel operations. Nonetheless, this amendment has been reviewed by the US Coast Guard for evaluation regarding vessel safety. The Coast Guard has concurred that no impact is expected.

3.0 EXISTING MANAGEMENT MEASURES

The Bottomfish and Seamount Groundfish FMP regulates fishing in the EEZ surrounding American Samoa, Guam and Hawaii and on the Hancock Seamounts (50 CFR 683 Subpart B). The FMP implemented a prohibition on the use of bottom trawl and bottom-set nets and a ban on the use of explosive and poisons for harvesting bottomfish. It established a permit requirement for the EEZ of the NWHI bottomfish fishery, provided for an experimental fishing permit (EFP) and established a moratorium on seamount groundfish fishing activities for an initial period of six years, ending in 1992. A subsequent amendment to the FMP (50 CFR 683.25) in 1989 implemented a limited entry program in the Northwestern Hawaiian Islands. The FMP was recently amended by administrative rule to include a provision making compliance with state catch reporting regulations a federal requirement.

4.0 NEED FOR AMENDMENT 3

The MFCMA does not define overfishing, nor does the Bottomfish and Seamount Groundfish FMP. In addition, biological data necessary to determine overfishing are limited, so management decisions might be made without sufficient regard to the long-term health of the resource or industry. To ensure that long-term viability is of basic consideration, the Secretary's revised guidelines (Federal Register: 54 FR 30826 et seq.) stipulate that each FMP specify an objective and measurable definition of overfishing for each stock or stock complex, with an

analysis of how the definition was developed and how it relates to biological potential.

5.0 MANAGEMENT OBJECTIVE OF AMENDMENT 3

The management objective of Amendment 3 is to ensure the long-term health of the bottomfish resources by specifying what portion of the spawning stock biomass must be protected to maintain the productive capacity of the species being managed under the FMP. The FMP currently focuses on indicators of growth and economic overfishing; the latter was the basis for implementing a limited entry provision for the Northwestern Hawaiian Islands. This amendment deals only with recruitment overfishing.

6.0 PROPOSED ACTION AND IMPACT

6.1 Proposed Action

The action of Amendment 3 to the Bottomfish and Seamount Groundfish FMP is to amend the plan to include a definition of recruitment overfishing as follows:

> "A bottomfish species is recruitment overfished when the Spawning Potential Ratio (SPR; Goodyear 1989), (i.e., the ratio of the spawning stock biomass per recruit at the current level of fishing ($SSBR_f$) to the spawning stock biomass per recruit that would occur in the absence of fishing ($SSBR_u$)), is equal to or less than .20."

6.2 Alternative Methods of Measurement

Two estimators of SPR are proposed. The relative utility of the two estimators will vary depending upon the type and amount of data that are available.

Option 1: The Equilibrium Estimator. The equilibrium estimator of SPR is based on yield-per-recruit theory (Beverton and Holt, 1957) and assumes that the rate of fishing and the size range of fish that are harvested have remained or will remain constant long enough for the population to be considered in equilibrium.

Algebraically, this estimator is expressed as:

$$SPR = \left(\frac{L_\infty - l_c}{L_\infty - l_m}\right)^{-F/K} \frac{\sum_{n=0}^{3} \frac{\Omega_n (1 - l_m/L_\infty)^n}{F/K + M/K + n}}{\sum_{n=0}^{3} \frac{\Omega_n (1 - l_m/L_\infty)^n}{M/K + n}}$$

where Ω_n = 1, -3, 3, -1 for n= 0, 1, 2, 3. Evaluation of this expression requires estimates of the length at entry into the fishery (l_c), the length at maturity (l_m), fishing mortality (F), natural mortality (M), and the von Bertalanffy growth constants (K, L_∞). If adequate age and growth data are available, then Z (i.e., F+ M), M, K and L_∞ can be estimated using traditional age-based estimation procedures (Ricker, 1975). If only length frequency data is available, then the composite parameters Z/K and M/K as well as L_∞ can be estimated using a length-based estimation procedure (Wetherall et. al., 1987). In either case, estimates of total mortality (Z or Z/K) are derived from current data and estimates of natural mortality (Z or M/K) are derived either from historical data from a period near the intiation of the fishery or current data collect from an area that has received light fishing pressure.

Option 2: <u>The Dynamic Estimator.</u> The dynamic estimator of SPR is a ratio of an estimate of the current relative spawning stock biomass (SSB) to the SSB existing at the initiation of the fishery. SSB is measured by the product of catch per unit effort (CPUE) and the proportion of the catch, corrected for size selection, that is mature. This is expressed as:

$$SPR = \frac{U_f P_f}{U_u P_u}$$

where U_f and U_u are the current (fished) and initial (unfished) CPUE, and P_f and P_u are the current and initial population correction coefficients. U_f and U_u are computed in terms of the aggregate catch rather than the catch of individual species to eliminate the effects of changes in targeting. P_f and P_u are calculated as $P = P_m/P_s$, where P_m is the proportion, by weight, of mature fish n the catch and P_s is the proportion of the mature size distribution selected by the fishery. For both U_u and P_u, the "unfished" condition can be approximated using either historical data from a period near the initiation of the fishery or current data collected from an area that has received light fishing pressure.

6.3 Data Requirements and Potential Biases

The relative utility of these two estimators depends on the type and quantity of data available for a given species in a given area. Somerton and Kobayashi (NMFS Admin Report H-90-10, 1990) calculate both estimators, where possible, for five principal bottomfish species from the Main Hawaiian Islands. The paper examines in detail the various types of data that are currently available for estimating SPR, focusing on the limitations of such data and potential biases associated with each estimator. The administrative report is provided as a supplementary document to this amendment.

For the EEZ bottomfish stocks outside of the Main Hawaiian Islands, the quantity and quality of data available with which to calculate one or both of the proposed estimators varies from area to area throughout the Western Pacific region. Table 1 summarizes the currently available data for all of the areas. Principal shortcomings of the available data are that the length at maturity is unknown for all species outside of Hawaii, as are the size distributions and CPUE at the initiation of the fishery. Studies to collect such data are planned. The seamount groundfish fishery is currently closed; its status will be reviewed in 1992.

6.4 Initial Use of Dynamic Estimator

6.4.1 Bottomfish Stocks in the EEZ surrounding American Samoa, CNMI, Guam and Hawaii

Initially the dynamic estimator will be used to measure recruitment overfishing since there is a greater availability of data with which to calculate this estimator. However, in this future it may be possible to calculate both estimators for a number of stocks. At that time, the Team will evaluate which estimator is more appropriate based on the best available scientific information. By the same reasoning, if new information becomes available which justifies a definition based on a SPR different than 0.2, the Council, based on the analysis of the PMT, may choose to adjust the definition through the framework process to reflect the best scientific information at that time. This adjustment would be made only after thorough review and concurrence by the SSC.

6.4.2 Pelagic Armorhead on the Hancock Seamounts

Application of the recruitment overfishing definition to pelagic armorhead is complicated because the breeding population of armorhead is spread across many seamounts and only about 1 % of the total known adult habitat, that is,

Table 1. Currently Available Data Needed to Estimate SPR

	Hawaii	Samoa	Guam	CNMI
Species Specific Data				
Number of Principal Species	7	15	9	9
Number of Species for Which:				
1) length-age data sufficient to estimate L_∞ and k	2	2	8	8
2) length-age data sufficient to estimate Z, F and M	0	0	0	0
3) length-maturity data sufficient to estimate l_m	5[2]	0[3]	0[2]	0
4) length-frequency data sufficient to estimate M/K, F/K and L_∞	7	2	1	0
5) length-frequency data sufficient to estimate P_f	7	10	8	0
6) length-frequency data sufficient to estimate P_u	7	0[2]	0[2]	0[2]
CPUE Data				
1) Current CPUE (U_f)	Yes	Yes	Yes	Yes
2) Initial or Unfished CPUE (U_u)	Yes	Maybe[2]	Maybe[2]	Maybe[2]

[2]Additional studies in progress.

[3]Future study anticipated.

the area of the Hancock Seamounts above 500 meters, occurs within the U.S. exclusive economic zone.

Since it is economically impossible for the United States to conduct resource assessment cruises of sufficient scale to adequately assess the entire armorhead population, determination of recruitment overfishing will be made as follows:

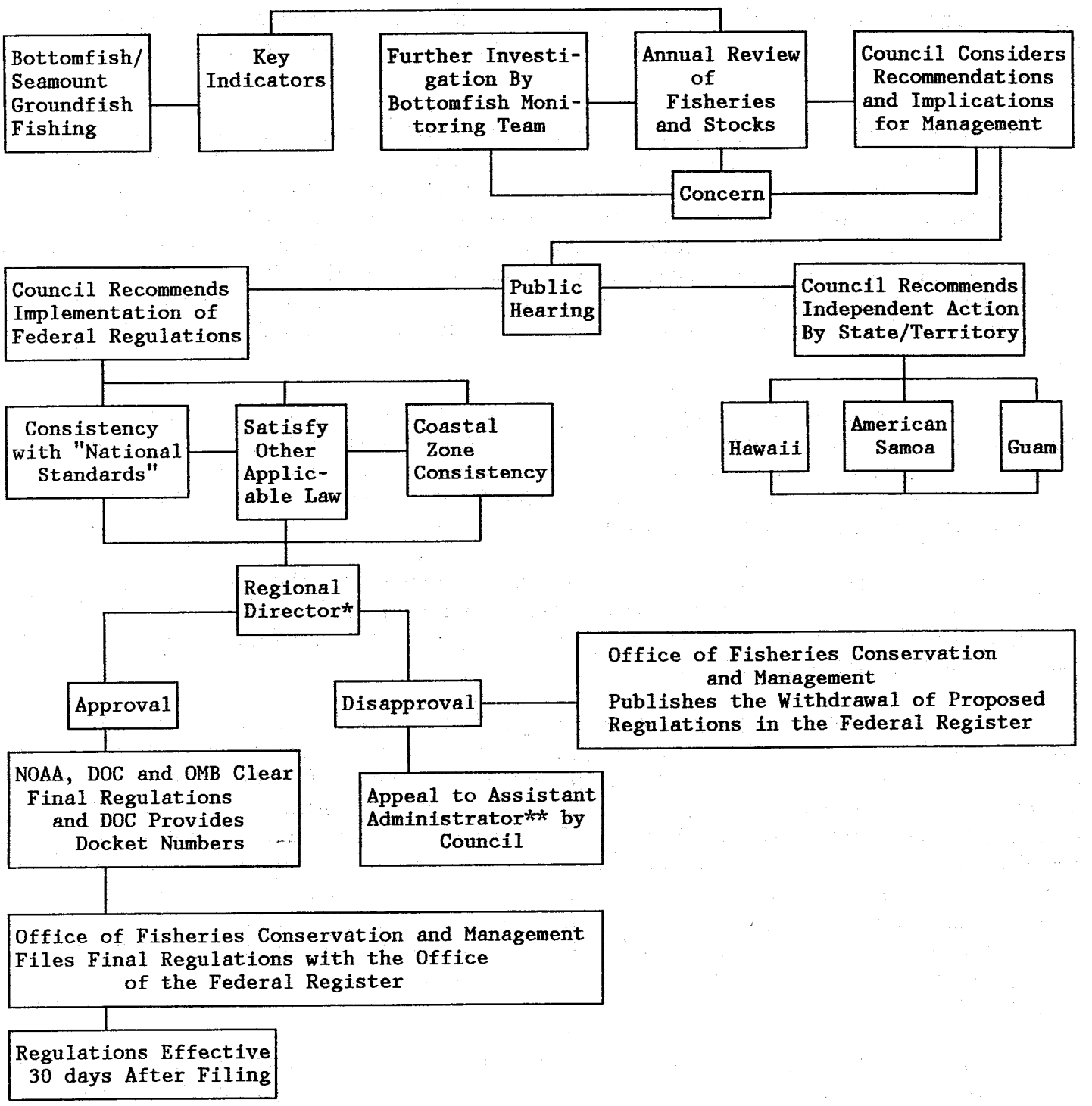
(1) If the Japanese trawl fishery for armorhead continues and if catch and effort statistics from this fishery are available, then spawning biomass will be assessed using the dynamic estimator of SPR. The value of U_o is computed as the average, over the three year period 1970-1972, of the annual estimates of the average U and the value of U_f will be computed as the most recently available annual estimate of average U. In both cases, the annual estimate of average U will be calculated as the total catch of armorhead from all areas excluding the Hancock Seamounts divided by the total effort. In this case, recruitment overfishing occurs when the calculated value of SPR is less than 0.20.

(2) In the absence of a Japanese fishery, the spawning biomass of the entire armorhead population will be assess indirectly from a value of dynamic SPR computed for the Hancock Seamounts alone. In the evaluation of SPR, U_o is computed as the average over the three period 1970-1972, of the annual estimates of U for Japanese trawlers on the Hancock Seamounts. Annual U is computed as the total catch divided by the total effort. U_f will be computed as the U obtained on a current standardized NMFS stock assessment survey to SE Hancock Seamount multiplied by a proportionality constant to convert NMFS U to Japanese U. A description of a standard NMFS armorhead stock assessment survey and a description of the proportionality constant are provided in Somerton and Kikkawa (in prep.). In the absence of a Japanese fishery, variation in annual recruitment and therefore spawning biomass is likely to be similar among the various seamounts. But the variation will not be identical, and the uncertainty involved with extrapolating from a part to the whole requires a more conservative definition of recruitment overfishing. In this case recruitment overfishing is therefore defined as occurring when Hancock Seamount SPR is less than 0.4.

6.5 Application of Definition

The FMP for the Bottomfish and Seamount Groundfish Fishery of the Western Pacific is a framework FMP which provides a process for annually monitoring and assessing the status of the stocks and fisheries on those stocks. This process is outlined in Figure 1.

FIGURE 1. Administrative framework for instituting new controls on bottomfishing.



* Southwest Regional Director of National Marine Fisheries Service.
** Assistant Administrator for fisheries of the National Oceanographic and Atmospheric Administration.

Each year the PMT prepares a report on the fisheries and status of the stocks for th Council. The annual report is intended to provide the kind of systematic review of the fishery as in the Stock Assessment and Fishery Evaluation (SAFE) report called for in the 602 guidelines.

Central to this annual assessment is the examination of a number of key indicator criteria by the Plan Team as part of their annual review of the fishery. Examples of these include temporal changes in CPUE, in mean size, and in percentage of mature fish in the catch. These indicators are used to identify potential problems in the fishery. Based on their analysis, the Team may recommend that the problem be investigated further or that the Council initiate one of the management actions listed in the FMP. Some of these management actions such as catch and size limits are directed toward individual species while others such as time and area closures, and gear limitations are directed toward a group of species.

If the Team recommends that management measures be imposed, the Team report to the Council would include analysis of the biological and socio-economic impacts of alternative management measures. After receiving such a recommendation from the Team, subject to SSC and Advisory Panel review and public comments, the Council may or may not choose to impose restrictive management regulations.

With this amendment, a recruitment overfishing analysis for the major monitorable species will be incorporated into the annual FMP monitoring and assessment process. Shoul the recruitment overfishing occur for one or more major species, the Council must choose to impose restrictive management regulations.

It is not possible at this time to specify the particular measures which the Council would propose if a stock is found to be approaching or have reached recruitment overfishing as defined. The appropriate response will depend on a number of factors, including the potential for selective management of the stock, the geographic distribution of the species involved, the apparent or suspected reasons for the stock's decline, and the feasibility of effective enforcement of particular measures. However, using the indicator approach and the framework process, the Council intends to ensure that management will be directed to achieving stock conditions such that SPR will never approach 0.2 due to the fishery. The Council's management goal is not to allow fishing to drive a stock down to a level where SPR is less than 0.2, but to manage the fishery to sustain a much higher level of productivity.

If a stock is found to be overfished, the Council will take action to rebuild the stock. As indicated, the Council's ultimate proposed actions will contain the necessary supporting analyses, including a draft regulatory impact review and environmental assessment. The analysis of the conservation and management measures proposed will cover such impact categories as impacts on the stock(s) in the fishery, on fishermen (including distribution of

impacts across vessel types and fishery participation types), on other fisheries, on markets and n consumers.

7.0 REJECTED ALTERNATIVES

7.1 List of Rejected Alternatives and Reason for Rejection

A. No action.

This alternative does not meet the needs of the Secretary's revised guidelines.

B. Define overfishing as a non-numerical threshold, e.g., if 3 or more of the key indicator criteria evaluated as part of the annual review indicate signs of stress for the stocks or fishery. The five key indicator criteria are aggregate CPUE, mean size, percent catch immature, revenue per trip and costs per trip.

This alternative was rejected because the signs of stress identified by these indicators may be indicative of growth overfishing or economic overfishing rather than recruitment overfishing. Concerns raised by the indicators may be cause for management response but to achieve other objectives than preventing recruitment overfishing. Several of the indicators, particularly the economic indicators clearly have little direct relationship to spawning stock biomass and could be subject to challenge.

C. Define the recruitment overfishing based on a SPR greater than 0.2 (0.3 or 0.4).

Except in the situation discussed for the armorhead stocks of the Hancock Seamounts where extrapolation uncertainty was high, this alternative was rejected in favor of the O.2 SPR definition. An SPR of O.2 as recommended by Goodyear is also being used for similar reef fish stocks in the Gulf and the Atlantic. The life history characteristics of Western Pacific bottomfish are similar to those for which Goodyear recommended O.2. Furthermore, stocks that are close to a SPR of 0.2 show no evidence of recruitment failure. Therefore, the Council considers a SPR of 0.2 to be sufficient to protect the BMUS from recruitment failure.

8.0 RELATIONSHIP OF AMENDMENT 3 TO OTHER APPLICABLE LAWS AND POLICIES

8.1 Coastal Zone Consistency

Section 307(c)(1) of the federal Coastal Zone Management Act (CZMA) requires that all federal activities which directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. The State of Hawaii

CZM policies directly relating to the action proposed in this amendment are contained in the coastal ecosystems and economic use resources categories of the Hawaii CZM statute (Act 188, Chapter 205A, HRS). Those policies are to: 1) improve the technical basis for natural resource management, 2) preserve valuable coastal (offshore) ecosystems of significant biological importance, and 3) minimize adverse environmental effects from economic uses of coastal zone resources. The action of this amendment is fully consistent with these objectives. The Council has also reviewed the Coastal Zone Management Programs of American Samoa and Guam, and found the action of this amendment to be consistent with policies set forth on fisheries and living marine resources. The Council requested reviews of this amendment from agencies responsible for CZM policy within each state and territory government. These agencies have concurred with the Council's finding of consistency.

8.2 Marine Mammal Protection Act and Endangered Species Act

The management measures of the FMP document were judged not to have any significant impact on marine mammals or endangered species. The formal Section 7 consultation from the NMFS agreed with this conclusion while specifying conditions for re-initiation of Section 7 consultations and setting acceptable levels of incidental take for threatened and endangered turtle species in the regulated EEZ bottomfish fishery for the NWHI. The action proposed in this amendment is passive with regard to marine mammal and endangered species interactions. The measures of Amendment 6 will not impose any new or increased risks to marine mammals or endangered species.

8.3 National Environmental Policy Act - Environmental Assessment (EA)

A. Purpose and Need for Action

This EA has been prepared in compliance with provisions of the National Environmental Policy Act which requires an assessment on the potential for significant impacts to the marine and human environments as a result of proposed Amendment 3 to the FMP for the Bottomfish and Seamount Groundfish Fisheries of the Western Pacific REgion. The proposed action is consistent with the goals and objectives of the FMP, National Standards of the MFCMA, and the revised guidelines for the national standards (50 CFR Part 602).

B. Analysis of Impacts of the Preferred Alernative

1) The proposed action is not expected to jeopardize the long-term productive capability of the bottomfish and seamount groundfish stocks. This action requires that management measures must to imposed if a overfishing according to a measurable definition occurs. Therefore, it will help to ensure the long-term maintenance of the spawning stock biomass by preventing any potential for recruitment overfishing and failure.

2) The proposed action will complement existing FMP regulations in helping to prevent damage to the ocean and coastal habitats. The regulations prohibit the use of bottomtrawl and bottom-set nets as well as the use of explosives and poisons or intoxicating substances to harvest bottomfish and seamount groundfish.

3) The proposed action is not expected to have any adverse impact on public health or safety. The markets for bottomfish and established high quality standards. The proposed action is seen as a means of fostering these standards.

4) The proposed action is not expected to affect adversely any endangered or threatened species or marine mammals. It is viewed as complementary to existing FMP regulations prohibiting use of bottom-set nest for harvesting bottomfish.

5) The proposed action will not result in cumulative adverse effects that could substantially impact bottomfish and seamount groundfish management unit species or any related stocks that may be affected by the proposed action. All cumulative effects are expected to be beneficial to the stocks, fishermen, and the fisheries under the Council's management purview.

6) The proposed action is not expected to generate controversy. However, it is acknowledged that there are uncertainties in the development and application of spawning potential ratio as a method of defining a situation where recruitment overfishing is deemed to be taking place. Furthermore, the estimators of spawning potential ratio will probably require refinement and revision as more scientific data become available. Under these circumstances the validity of the overfishing definition may be challenged; nevertheless, it is the intent of the Council to exercise the best informed judgement in implementing the proposed action to prevent the stocks of bottomfish and seamount groundfish from closely approaching or reaching an overfished state. The proposed action in and of itself should not result in socio-economic impacts.

7) The proposed action will not have any effect upon flood plain and wetlands, or trails and rivers listed, or eligible for listing, on the National Trails and Nationwide Inventory of Rivers.

C. Agencies and Persons Consulted:

The Coastal Zone Management offices and Natural Resources offices of American Samoa, Guam, Hawaii and the Northern Mariana Islands were sent this draft amenment for review, as were the US Goast Guard and Fish and Wildlife Service, and commercial bottomfish fishermen, both federally-permitted and otherwise.

D. Finding of No Significant Impact

Based on the information contained in the environmental assessment and previous sections of the FMP amendment, it is concluded that the action proposed will not have a significant impact upon the marine or human environment. An environmental impact statement, therefore, is not required.

8.4 Executive Order 12291 and Regulatory Flexibility Act

Amending the plan to include a definition of overfishing does not in itself result in socio-economic impacts. It is at that point where the threshold is reached and restrictive action is mandated that socio-economic impacts must be assessed. Until a particular stock in danger of recruitment overfishing has been identified and specific management measures elected, it is not possible to assess the potential socio-economic impact of implementing an overfishing definition. The framework process requires that for any recommended management action an assessment of the biological and socio-economic impacts of alternatives be provided.

If a given stock is determined to be at or below the threshold level for recruitment overfishing, the analysis of management options will include a Regulatory Impact Review (RIR) which will assess the economic and social impacts on:

- small boat fishermen
- large-boat fishermen
- commercial fishing
- recreational/subsistence fishing
- multi-species, multi-gear fishing operations
- at-sea discards
- potential for gear conflict
- markets/consumers

(See Sec 6.2.1.D of the FMP)

The action proposed by this amendment does not, at this time, require the issuance of new rules, review of existing rules, or development of legislative proposals concerning regulations. A regulatory impact review and flexibility analysis will be performed when regulatory review and/or amendment become necessary.

8.5 Paperwork Reduction Act

No additional rule for establishing record-keeping and reporting requirements, for the purpose of collecting information from the public, are proposed under Amendment 3.

8.6 Indigenous Peoples' Fishing Rights

There is no formal agreement between the US government and the indigenous people (i.e., native Chamorros, Hawaiians and Samoans) of the region that allocate preferential

fishing rights to native people. The necessity and legal possibility of granting such rights, however, are being investigated. If indigenous people are awarded special considerations, then the Bottomfish and Seamount Groundfish FMP might require revision. At present, Amendment 3 does not appear to affect any native Chamorro, Hawaiian or Samoan cultural or religious practices.

9.0 LITERATURE CITED

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