

**FINAL COMBINED  
FISHERY MANAGEMENT PLAN AMENDMENT #1  
AND  
ENVIRONMENTAL ASSESSMENT  
FOR THE  
SPINY LOBSTER FISHERIES  
OF THE  
WESTERN PACIFIC REGION**

**June 1983**

**Western Pacific Fishery Management Council  
1164 Bishop Street, Room 1608  
Honolulu, Hawaii**

CHARTER 1000

BY THE BOARD OF DIRECTORS

AND

THE STOCKHOLDERS

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## 1.0 PREFACE TO COMBINED FINAL FMP AMENDMENT/ENVIRONMENTAL ASSESSMENT

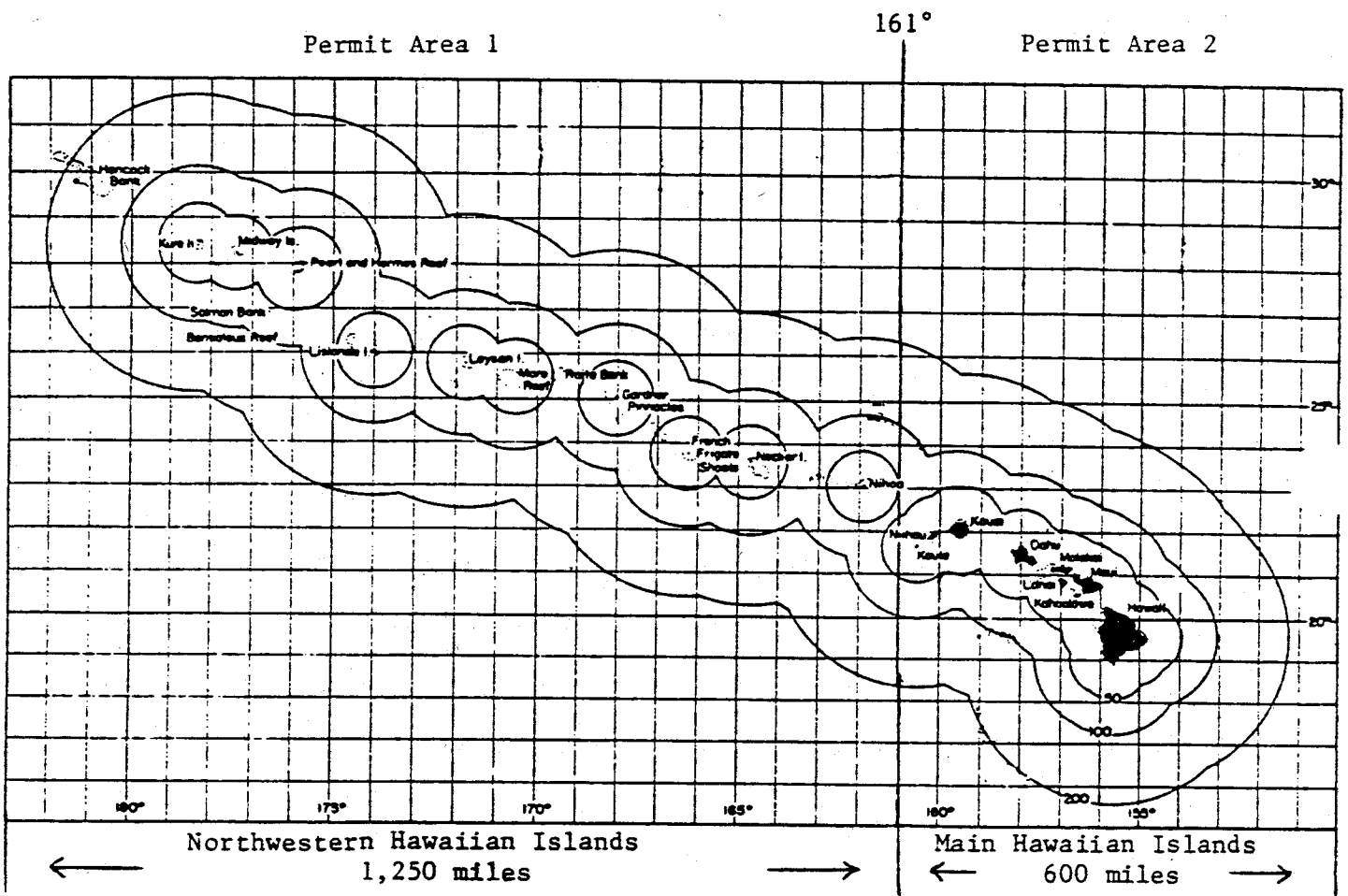
### 1.1 Title and Location of Proposed Action

This amendment to the Fishery Management Plan (FMP) for Spiny Lobster Fisheries of the Western Pacific Region will establish conservation and management measures for spiny lobster fisheries in the Fishery Conservation Zone (FCZ) around the main islands of Hawaii, east of 161° W. longitude (see Figure 1). The FCZ consists of the waters from the edge of Hawaii's territorial sea to a distance of 200 nautical miles from the baseline for measuring the territorial sea. Exclusive U.S. jurisdiction over all fish (except highly migratory species) in the FCZ was established by the Magnuson Fishery Conservation and Management Act (MFCMA).

### 1.2 Responsible Agencies

The Western Pacific Fishery Management Council (the Council) was established under the MFCMA to develop fishery management plans (FMPs) for fisheries in the FCZ around Hawaii, the territories (American Samoa, Guam) and possessions of the United States in the Pacific Ocean. After a FMP is approved by the Secretary of Commerce, it is implemented by Federal regulations and enforced by the National Marine Fisheries Service and the U.S. Coast Guard in cooperation with state and territorial agencies.

Figure 1. The Hawaiian Archipelago



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### 1.3 Public Review and Comment

The MFCMA requires the Council to hold public hearings in developing FMPs and amendments. This is to ensure that those who may be affected will have an opportunity to give the Council their views about the proposed action and alternatives and to provide information to the Council. The draft amendment was distributed to a large number of government agencies, environmental organizations, and fishing industry enterprises. Comments were received in written form, as well as at a public hearing held in Honolulu, Hawaii on March 14, 1983.

A summary of the comments and a list of commenters are provided in Section 12 of this document, together with Council responses to the issues raised. All written and verbal testimony was considered by the Council, and revisions to the amendment were made wherever applicable and appropriate. All who commented on the draft will be sent a copy of the final amendment.

### 1.4 Relationship to Other Laws and Policies

The Spiny Lobster FMP for which this amendment is being prepared complied with the information and procedural requirements of several other laws and directives, including the National Environmental Policy Act of 1969, the Regulatory Flexibility Act, and Executive Order 12291. The original draft and

final FMPs also served as draft and final environmental impact statements (EISs). Similarly, this document serves as the Environmental Assessment (EA) for Amendment #1. This document also includes a Regulatory Impact Review (RIR) which analyzes the benefits and costs of each alternative management regime and demonstrates that the selected management measures provide maximum net benefits relative to other alternatives and that the benefits of management outweigh the costs. This volume contains all the information necessary under the several statutes and directives applicable to the amendment process. The amendment involves the adoption of existing State lobster fishing regulations for the FCZ around the main Hawaiian Islands, rather than new regulations, so there is no additional regulatory impact that would require a Regulatory Flexibility Analysis. This amendment does not contain a collection of information requirement for purposes of the Paperwork Reduction Act. A copy of the original FMP and its companion Source Document (containing detailed scientific reports and appendixes) may be obtained from the Council.

#### 1.5 List of Preparers

This FMP amendment was prepared by Council staff with assistance from the Hawaii Division of Aquatic Resources (HDAR). The principal participants were:

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SPINY LOBSTER FMP AMENDMENT #1

2.0 TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1. Preface .....	1
2. Table of Contents .....	6
3. Summary .....	8
4. Management Unit .....	16
5. Problems and Issues .....	17
6. Objectives .....	18
7. Description of the Fishery .....	19
7.1 Stocks .....	19
7.2 Habitat .....	20
7.3 Jurisdiction .....	20
7.4 Fishery Activities .....	22
7.5 Economic Characteristics .....	23
7.6 Socio-Cultural Framework .....	25
8. Alternative Management Measures and Strategies .....	26
9. Impacts of Alternative Strategies .....	33
(Regulatory Impact Review)	
10. Preferred Alternative .....	43
10.1 Selected Management Measures .....	43
10.2 Optimum Yield .....	46
10.3 Domestic Annual Harvest .....	47
10.4 Domestic Annual Processing .....	47
10.5 Foreign Fishing .....	47
10.6 Joint Venture Processing .....	47
10.7 Implementation and Enforcement .....	48

<u>Section</u>	<u>Page</u>
11. Proposed Amendment of Regulations, Part 681 - .....	49
Western Pacific Spiny Lobster Fisheries	
Subpart A - General Provisions .....	51
Subpart B - Management Measures for Permit Area 1 .....	68
(the Northwestern Hawaiian Islands)	
Subpart C - Proposed Management Measures for .....	75
Permit Area 2 (the Main Hawaiian Islands)	
12. Comments on the Draft FMP .....	76
Amendment/Environmental Assessment	

### 3.0 SUMMARY

#### A. Findings of the Fishery Management Plan (FMP)

The Fishery Management Plan for the Spiny Lobster Fisheries of the Western Pacific Region was approved by the Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration (NOAA), on May 14, 1982. Regulations promulgated under the FMP went into effect on March 9, 1983. The FMP will remain in effect indefinitely and may be amended as necessary.

The objectives of the FMP as approved are:

1. To assure the long-term productivity of western Pacific spiny lobster stocks and to prevent overfishing;
2. To promote the efficient contribution of western Pacific spiny lobster resources to the United States economy;
3. To collect and analyze biological and economic information about western Pacific spiny lobster fisheries and improve the basis for management and conservation in the future; and,
4. To prevent unfavorable impacts of the fishery on the Hawaiian monk seal and other endangered or threatened species.

The following management measures are established by the FMP:

1. In the FCZ around the Northwestern Hawaiian Islands (NWHI), or Management Area 1, a number of specific conservation and management measures are imposed, including a minimum carapace size limit

(7.7 cm) and tail size limit (5.0 cm.) for lobsters; requiring that only traps can be used to harvest lobsters; requiring release of sub-legal and egg bearing (berried) lobsters; prohibiting lobster fishing in certain waters; requiring lobster fishermen to obtain permits and submit reports on catch and effort in the fishery; and authorizing NMFS to require domestic vessels to carry an observer for data collection purposes.

2. In the FCZ around the main Hawaiian Islands, American Samoa and Guam (Management Area 2), the Council did not establish a need for Federal regulations to implement conservation and management measures other than permit and data reporting requirements and authority for NMFS to place observers on domestic vessels for data collection purposes at NMFS' discretion.

B. Need for Amendments

The spiny lobster fishery around the main Hawaiian Islands is managed under a set of State laws and rules. State law establishes a seasonal closure and prohibits taking of berried spiny lobsters as well as of berried slipper lobster and Kona crab. State rules (regulations), promulgated by the Department of Land and Natural Resources (DLNR) under the authority of State law, establish a minimum size for spiny lobsters and prohibit landing lobsters from which the carapace and tail have been separated. Lobsters must be landed whole and cannot be taken by spears or other pointed objects. These State laws and regulations apply to all lobster taken from State waters. However, State law also provides that such measures "shall not apply where the marine life or products have been

taken from or caught outside the waters of the State and the possession or sale has been licensed by the [DLNR] under rules adopted by the Department" (Chapter 189-6 HRS). Thus, with an import permit, a person may bring into the State and sell lobsters which would otherwise be "illegal" under the State's season, size and condition of catch limitations.

Until 1981, the commercial lobster catch around the main Hawaiian Islands was insubstantial compared to the catch made by recreational fishermen, principally sport divers. Commercial lobster landings occurred largely as incidental catch in multi-species trap and tangle-net fisheries. In the past two years (1981-1982), the commercial fishery for spiny lobster has expanded into offshore areas, including the Fishery Conservation Zone, and commercial landings are estimated to have increased at least 100% from those reported in 1980 (S. Kaiser, commercial lobster fisherman, personal communication). Four fishermen are known to have entered the commercial lobster fishery in the past two years. They are using commercial lobster traps specifically to target spiny lobster, rather than harvesting lobster in fish traps, together with a mix of fish species. One commercial fisherman has been encouraged to invest in a new vessel just to harvest lobster, and other fishermen are planning to diversify their fishing operations to include spiny lobster. The developing nature of the main islands' spiny lobster fishery presents the risk of overfishing unless the State's management program is effectively enforced.

In view of the recent developments in the spiny lobster fishery, the Division of Aquatic Resources (DAR, an agency in the DLNR) and the Coastal Zone Management Program, Department of Planning and Economic Development (DPED), have pointed out the need to amend the FMP to achieve an effective, cooperative

Federal/State lobster fishery management strategy around the Hawaiian Islands, particularly around the main islands. Complementary management is needed to assure long-term protection of the productivity of spiny lobster resources throughout their range in the Hawaiian Islands at a reasonable administrative and enforcement cost. The State's conservation and management measures are appropriate for the fishery, and the State's shore-based enforcement approach is the most cost-effective means to carry out those measures.

Without amendment, the FMP as approved may result in reduced effectiveness of the State's program with possible long-term adverse effects on spiny lobster stocks in the main islands. This potential problem arises in several ways:

1. The approved FMP does not establish size limits, seasons, or condition of catch requirements in the FCZ around the main Hawaiian Islands. Therefore, with a State issued "import" permit, a fisherman can land spiny lobsters taken in the FCZ without regard to the State's conservation and management measures. There is a potential for enforcement problems if the FMP is not amended. The State's management program is enforced by inspection of landings on shore. Fishermen could conceivably claim lobsters were taken in the FCZ even if they were taken in State waters.
2. If the State were to eliminate the "import" permit (at least with respect to spiny lobsters), there is still a question whether the State's law and regulations would apply to lobsters taken in the FCZ under a FMP that does not establish size limit, season, or other such measures. That is, State courts could hold that the  
late,

lobsters were taken legally outside State waters under the FMP, and the State could not prohibit the landing of those lobsters in Hawaii. There have been no court decisions dealing with this specific situation, though it must be noted that NOAA attorneys are of the opinion that State conservation and management measures for fishing around the main islands continue to apply to the same extent as they applied before approval and implementation of the FMP.

3. Even if State landing laws and rules continue to be effective, they would not apply to out-of-state vessels which land lobsters outside the State.

An amendment to the Spiny Lobster FMP to establish complementary management for FCZ and State waters is desirable to assure that there is effective conservation and management of the main Hawaiian Islands spiny lobster fishery, at minimum additional cost. Because this fishery has recently expanded into the FCZ, commercial fishermen could claim that they can land spiny lobster without regard to the State's management measures. Although the spiny lobster stock in the FCZ is small in relation to that in State waters, this loophole could jeopardize the State enforcement program, with possible adverse long-term effects on the larger lobster stock in State waters. Therefore, the amendment is needed to manage the main Hawaiian Islands' spiny lobster stock throughout its range.

#### C. Proposed Action

The draft amendment proposes to adopt State measures in the FCZ around the

main Hawaiian Islands (see Sec. 10). Most lobster fishing around the main Hawaiian Islands occurs in State waters, primarily by recreational fishermen operating close to shore. The existing State management measures are accepted by the fishermen, are appropriate to prevent overfishing and are enforceable by shore-based inspections of landings. Spiny lobster catches around the main islands have been stabilized since the adoption of State measures in 1958. Landings made by commercial fishermen in State waters and in the FCZ have increased substantially since 1980 (S. Kaiser, commercial lobster fisherman, personal communication). As yet, there are no signs of user conflicts or conservation problems under the State's management program, but vigilant enforcement will be necessary to prevent overharvesting in the near future. There is no reason to believe that economic productivity of the fishery can be enhanced by new measures applicable in the FCZ. However, the development of a cooperative working relationship between the Federal and State governments in the management of spiny lobster fisheries, which is the principal purpose of the amendment, will prevent the existing State enforcement program from losing effectiveness as a result of misrepresentation by fishermen of the area of spiny lobster catches around the main Hawaiian Islands.

D. Alternatives Considered but Rejected

1. Extend the measures adopted for the FCZ in the Northwestern Hawaiian Islands (Management Area 1) to the FCZ around the main Hawaiian Islands - This would establish uniform measures throughout the FCZ, but differences would remain between State and FCZ management regulations which could pose enforcement problems. State regulations are protecting the stock(s) adequately, and no



significant user conflicts have been identified as yet.

2. Amend State rules - The DLNR could amend State rules which now allow exemption from landing laws upon obtaining an "import" permit. This would administratively assert that the State's size, season, and condition of catch restrictions apply to all spiny lobsters landed in Hawaii, whether taken in State waters or the FCZ. Whether the State courts would uphold this change is unknown.

E. Determinations in the Amendment

There are insufficient data to specify a precise estimate of maximum sustainable yield (MSY) for the spiny lobster stock(s) around the main Hawaiian Islands. The Council has concluded that the best available information supports a tentative determination that MSY is in a range of 15,000 to 30,000 lobsters of the minimum legal size of 8.26 cm. carapace length (CL), or approximately one pound each. The portion of the main islands' stock in the FCZ is unknown but undoubtedly small.

The Council has concluded that a non-numerical definition of optimum yield (OY) is appropriate for the main islands' FCZ fishery. OY is defined as "the greatest catch of non-berried lobsters with a carapace length of 8.26 cm. (3¼ in.) or larger which can be taken each year from the FCZ waters around the main Hawaiian Islands, by vessels fishing in accordance with the measures in this plan." The fishery is fully utilized by domestic fishermen and markets; that is, domestic annual harvest (DAH) equals OY. There is no surplus available for foreign fishing (TALFF=0) nor is there any lobster available for joint venture processing (JVP=0)

This OY approach does not establish a quota for lobster harvests. The Council estimates that total harvests associated with this management regime for the main islands' fishery, including State waters and FCZ catches, will be between 15,000 and 30,000 lobster per year, which is the estimated average annual catch in the most recent three-year period for which data are available. Deviations from this estimate in any single year or even two year period will not be cause for concern given the many unknowns about stock abundance, population dynamics, natural environmental variables, and the characteristics of the fishery. The Council will assess the effectiveness of the plan annually.

The data base for determining MSYs, OYs, or regulatory measures for other crustaceans, particularly slipper lobster and Kona crab, is insufficient to satisfy MFCMA requirements for the use of best available information. The FMP establishes reporting requirements that will fill gaps in the data base. Without more data, a thorough analysis of alternative conservation and management measures for slipper lobster and Kona crab fishing cannot be conducted. It is uncommon for Kona crab to be captured in the present trap fishery for spiny lobster. Thus, there is no reason for concern that this fishery is accounting for a significant share of total landings of Kona crab or is a threat to stock conservation. Slipper lobster is taken in the trap fishery for spiny lobster but, with the mesh size of wire traps presently in use, the fishery is not taking undersized slipper lobster and there is no threat to stock conservation. The Council will closely monitor the lobster fishery for changes in fishing operations which could represent a threat to slipper lobster stocks and would justify regulatory measures.

#### 4.0 FISHERY MANAGEMENT UNIT

The spiny lobster fishery management unit in the original FMP includes commercial, recreational and subsistence fishing for spiny lobster, with incidental catches of slipper lobster (family Scyllaridae) and, rarely, Kona crab (family Raninidae). There are four distinct components described in the FMP, including the main Hawaiian Islands fishery, the Northwestern Hawaiian Islands (NWHI) commercial fishery, and small fisheries in American Samoa and Guam. This amendment deals only with the main Hawaiian Islands' spiny lobster fishery. Other components will continue to be managed as described in the original FMP. The target species in the main Hawaiian Islands fishery are Panulirus penicillatus and P. marginatus. No specific conservation and management measures are proposed for slipper lobster and Kona crab, except that incidental catches must be reported with spiny lobster catches, as called for in the approved FMP.

## 5.0 PROBLEMS AND ISSUES

The principal concern addressed by this amendment is the need for complementary management of the spiny lobster fishery in the FCZ and State waters around the main Hawaiian Islands. The effectiveness of the State's laws and regulations to prevent overfishing may be reduced or jeopardized without complementary management (see Section 3.B.). Spiny lobster catches around the main islands have been stable since the enforcement of State measures beginning in 1958. Shore-based enforcement is the most cost-effective strategy to carry out a spiny lobster fishery management program and is the strategy used by the State. If there is not a complementary management regime across State and FCZ waters, then the adequacy of a shore-based enforcement strategy is diminished. In turn, there could be a high risk of overfishing, because the probability of catching violators would be low. Complementary management will reduce this risk to acceptable levels by maintaining the effectiveness of shore-based enforcement by State and Federal authorities.

There are no problems of economic efficiency or user conflicts in the main Hawaiian Islands lobster fishery in the FCZ which require attention at this time, but the expanding commercial fishery will require effective enforcement in order to avoid overfishing. The State's capability to enforce fishing laws and regulations, including those which pertain to spiny lobster, are spread thin, and the lack of parallel lobster fishing regulations in the FCZ and State waters around the main islands reduces the probability of catching violators.

## 6.0 OBJECTIVES

The objectives listed in the original FMP continue to be valid. Establishment of a complementary management regime for State waters and the FCZ around the main Hawaiian Islands is intended primarily to assure continued protection of the stock(s) of spiny lobster and prevent overfishing by reinforcing the State's management program. The State's conservation and management measures are appropriate for conservation purposes, and should be extended to the FCZ to assure their continued effectiveness.

The additional objectives relevant to selection of the appropriate management strategy around the main Hawaiian Islands are:

1. Maintain established fishery patterns and management measures unless positive benefits would be generated by new measures;
2. Achieve efficient enforcement without increasing administration burdens and costs.
3. Achieve, to the maximum extent practicable, consistent Federal/State management of spiny lobster resources throughout their range in the Hawaiian Islands.

## 7.0 DESCRIPTION OF THE FISHERY

### 7.1 Description of the Stocks

The FMP summarizes most of the information available on the abundance, distribution, and population dynamics of spiny lobster stocks in the region. With respect to the main Hawaiian Islands, lobsters are "berried" year-round. No significant differences in life history features have been identified for the two species of spiny lobsters (P. penicillatus, P. marginatus), although P. penicillatus may be less catchable in traps. Growth rates for the two species have not been firmly established. Spiny lobsters sampled around Oahu tend to have a large percentage of the population in the 8 cm. to 9 cm. size range, with few lobsters of larger size (see Fig. 7.3, Source Document). This probably reflects the high fishing pressure applied around Oahu, such that most legal-sized (8.26 cm. CL) lobsters are captured in their first year of availability to the fishery.

The maximum sustainable yield (MSY) of the main Hawaiian Islands stock(s) of spiny lobster has not been calculated by conventional stock assessment methods. There are insufficient data on catch, effort, size and sex composition of the catch, and life history characteristics for such calculations. Commercial landings reported to the Hawaii Division of Aquatic Resources have remained relatively stable in the past 25 years. Recreational catches have not been reliably estimated, but there is no reason to believe there have been major fluctuations in recent years. It seems likely that relatively higher commercial landings and lower recreational catches in the 1948-50 period had been replaced by lower commercial landings and higher recreational catches by the 1970's. It

appears that the stock is being fished at or near maximum sustainable yield for the main islands as a group. There may be some localized areas of overfishing around Oahu, where the bulk of commercial and recreational fishing occurs. There are no data to indicate stock depletion over a broad geographic range of the main islands. Most fishing has been in State waters, although the commercial lobster fishery has recently expanded into the FCZ. The average annual total harvest of spiny lobsters is estimated to have been 15,000 - 30,000 lobsters in recent years.

In the absence of more complete and accurate data, the maximum sustainable yield (MSY) for the spiny lobster stock around the main Hawaiian Islands can be provisionally estimated as approximately 15,000 to 30,000 lobsters per year of 8.26 cm. carapace length or longer. There are insufficient data to estimate catches and MSYs for slipper lobster and Kona crab.

## 7.2 Habitat

There is nothing to add to the discussion in the FMP, except to re-emphasize that most of the spiny lobster habitat around the main islands is within State waters.

## 7.3 Resource Management Jurisdiction

### 7.3.1 Coastal Zone Management (CZM)

Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972 (CZMA) requires that all Federal activities which directly affect the coastal zone be consistent with approved State coastal zone management plans to the maximum extent practicable.

The primary motivation for this proposed amendment is to encourage Federal/State cooperative management practices to ensure conservation of spiny lobster stocks throughout their range in the Hawaiian Islands. By responding to questions about the consistency of Federal/State management policies, this amendment is supportive of the position of the State in furthering consistent and cooperative fisheries management practices.

#### 7.3.2 Endangered and Threatened Species

There is little to add to the discussions in Section 7.3.3 of the FMP. The endangered Hawaiian monk seal (Monachus schauinslandi) is rarely seen around the main Hawaiian Islands. The fishery conservation and management measures of this FMP amendment will apply only to the small amount of fishing occurring in the FCZ. Thus, it is likely that this FMP amendment and the associated lobster fishery within the FCZ of the main Hawaiian Islands would not affect the Hawaiian monk seal.

Green sea turtles are listed as threatened and are found in nearshore feeding and resting aggregations around the main Hawaiian Islands, but there is only one recent reported and confirmed nesting of a green sea turtle in the main Hawaiian Islands. Leatherback turtles are listed as endangered. They are regularly sighted in offshore waters, but are not known to nest in Hawaii. Hawksbill turtles (also listed as endangered) are known to nest on Molokai and the island of Hawaii in small numbers. Since this FMP amendment deals only with the small lobster fishery within the FCZ around the main Hawaiian Islands,



any interaction between listed sea turtles and this particular portion of the lobster fishery or the FMP amendment would be minimal. Thus, it would be expected that this action would not likely affect green, hawksbill, or leatherback turtles. Fishing gear in the FCZ is entirely limited to traps; therefore potential impacts are minimized.

The FMP contains a list of other endangered and threatened species in the Western Pacific Region. None will be affected by this FMP amendment.

#### 7.4 Descriptions of Fishery Activities

The main Hawaiian Islands fishery has been predominantly a recreational fishery since after World War II. The advent of SCUBA gear and the quick growth in the popularity of diving apparently led to rapid shifts from a commercial to a recreational fishery. Until recently, commercial catches resulted principally from multi-species net and trap fisheries rather than from traps constructed specifically to catch spiny lobster. The commercial landings made consist of whole lobsters, since State laws and regulations prohibit landing of lobsters from State waters in any other condition. Table 1 presents commercial catches of spiny lobster, slipper lobster and Kona crab around the main Hawaiian Islands reported for the 1974-1980 period. In the past two years (1981-1982), the commercial fishery for spiny lobster has expanded into offshore areas, including the Fishery Conservation Zone, and commercial landings are estimated to have increased at least 100% from those reported in 1980 (S. Kaiser, commercial lobster fisherman, personal communication). Four fishermen are known to have entered the commercial lobster fishery in the past two years. They are using

commercial lobster traps specifically to target spiny lobster, rather than harvesting lobster incidentally as in the past. Their fishing effort ranges from 50 to 100 traps per night. One commercial fisherman has been encouraged to invest in a new vessel just to harvest lobster, and other fishermen are planning to diversify their fishing operations to include spiny lobster (S. Kaiser, commercial lobster fisherman, personal communication).

Reliable estimates of recreational catches have not been made. A recreational fisheries catch-and-effort survey program funded by NMFS has generated estimates for 1979-80 catches, but these estimates have not yet been verified and thus are not presented in this amendment. Whether the recreational fishery has grown or decreased in recent years cannot be determined.

There is no known processing of spiny lobster harvested in the main Hawaiian Islands fisheries.

#### 7.5 Economic Characteristics of the Fishery

There is no new information on the economic characteristics of the fishery around the main Hawaiian Islands. The fishery has been primarily recreational. The commercial fishery is still relatively small, does not generate large revenues, does not involve substantial employment, and does not appear to have large scale economic development potential.

TABLE 1

REPORTED COMMERCIAL CATCH (lbs.), SALES (lbs.), AND VALUE (\$) OF MAIN ISLAND SPINY LOBSTER, SLIPPER LOBSTER, AND KONA CRAB, 1974-1980

	SPINY LOBSTER			SLIPPER LOBSTER			KONA CRABS		
	Catch	Sales	Value	Catch	Sales	Value	Catch	Sales	Value
1974	4,467	3,530	7,415	N/A	N/A	N/A	N/A	N/A	N/A
1975	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1976	6,317	5,040	11,357	N/A	N/A	N/A	N/A	N/A	N/A
1977	13,474	12,833	31,328	159	98	257	27,581	24,724	63,975
1978	6,292	5,754	17,256	138	134	397	27,620	24,269	68,844
1979	7,259	6,340	21,265	163	63	201	27,544	24,089	67,633
1980	3,542	2,629	9,107	87	74	234	8,147	5,489	14,345

Source: Hawaii Division of Aquatic Resources

## 7.6 Socio-Cultural Framework

Spiny lobsters are a relatively small part of the main Hawaiian Islands commercial fisheries and are important principally as a recreational fishery target species. There are not yet conflicts which would justify new regulatory approaches apart from the State's set of management measures. Spiny lobsters have no known cultural significance to particular sectors of the fishing community. The Council is aware of expressed concerns about native Hawaiian fishing rights. State law recognizes certain fishing rights as being the private property of the konohiki, for the waters from the beach to the reefs or to a distance one mile from the beach if there is not a reef (Ch. 188-4 HRS). This plan amendment will not affect those rights.

## 8. ALTERNATIVE MANAGEMENT STRATEGIES

The Council has considered several alternative strategies involving combinations of management and conservation measures. These are described in the following sections.

### A. Alternative 1: Adopt State of Hawaii Measures in the FCZ

The State of Hawaii's spiny lobster fishery management regime includes State laws and rules applicable to fishing for and landing of spiny lobsters and other crustaceans in the State. Spiny lobsters must be at least 3½ inches (or 8.26 cm.) in carapace length (CL) to be retained for personal consumption or sale. Berried female lobster must be released, as must undersized lobsters. It is unlawful to harvest spiny lobster in the months of June, July, and August. Lobsters must be landed whole, as it is unlawful to separate the carapace from the tail. It is unlawful to use spears, chemicals, explosives, or other toxic materials to harvest lobsters. Any persons selling or offering to sell lobsters in the State must abide by general commercial fishing requirements such as obtaining a license and filing catch reports. Exceptions from the regulations may be granted on a case-by-case basis from the Board of Land and Natural Resources. An "import" permit can be obtained which allows a person to bring lobsters into the State which otherwise would be subject to size or season limits. The emphasis of this "Special Marine Animal or Product Possession and Sale License" is to monitor rather than to manage the fishery. The major features of existing State laws and regulations for spiny lobster and slipper lobster management are summarized in Table 2.

TABLE 2.

MAJOR FEATURES OF STATE OF HAWAII LAWS AND REGULATIONS  
FOR SPINY LOBSTER AND SLIPPER LOBSTER

Spiny Lobster (Ula)

Season	- Closed June 1 to August 31 inclusive
Ula with eggs	- Unlawful to take at any time
Spearing of spiny lobster	- Prohibited at all times - puncture wound shall be evidence of violation
Minimum size for sale or home consumption	- Not less than 3.25 inches (8.26 cm) carapace length

Slipper Lobster (Ula Papapa)

Season	- Closed June 1 to August 31 inclusive
Ula Papapa with eggs	- Unlawful to take at any time
Spearing of slipper lobster	- Prohibited at all times
Minimum size for home consumption	- None
Minimum size for sale	- Not less than 1 pound

The principal arguments in favor of applying these measures in the FCZ are:

1. The spiny lobster conservation problems in the FCZ are the same as those in State waters and there is no justification for departing from the State's management approach. Since the adoption of State regulatory measures in 1958, spiny lobster catches around the main islands have been relatively stable.
2. There are no user conflicts in the FCZ which warrant measures which differ from the State's.
3. This approach assures complementary management in State waters and the FCZ with a minimum of administrative difficulty; no change in State measures is needed.
4. The present fishery is predominately within State waters, and no action to supersede State measures should be taken without strong evidence of need and benefits.
5. State enforcement, management and monitoring of the fishery will be reinforced and strengthened by complementary management. This applies equally to conservation measures (size limits, seasons) and to administrative requirements (permits, data reports). In turn, the total costs of management (State and Federal) will be minimized. All vessels would be equally controlled.
6. Consistency in Federal/State management of spiny lobster resources in the Hawaiian Islands will be achieved to the maximum extent practicable.

B. Alternative 2: Adopt Measures in the Main Hawaiian Islands FCZ  
Identical to the Measures Adopted for the NWHI under the FMP

The approved FMP establishes a comprehensive conservation and management regime for the fishery in the FCZ of the NWHI. Management measures include a minimum size limit of 7.7 cm. (or 3.0 inches) CL for whole lobsters; a minimum width of 5.0 cm. for lobster tails de-tailed at sea, with allowance for 15% of a delivery to be between 4.5 and 5.0 cm. in width; release of egg-bearing and undersized lobsters; selected area closures; prohibition of the use of nets, spears, chemicals and explosives to harvest lobsters; an observer program allowing NMFS to require a vessel to carry an observer; permit and catch reporting requirements; and a quick response mechanism to address reports of interaction between the lobster fishery and Hawaiian monk seals.

Some or all of these NWHI measures could be extended to the FCZ around the main Hawaiian Islands, thus establishing the same measures in all FCZ areas around Hawaii. There are several reasons why this alternative is not warranted.

1. Conservation of spiny lobsters around the main islands would not be enhanced by this management regime. In the NWHI, the combination of size limits with area closures and the economic realities of the fishery militate against biological overfishing. In the main Hawaiian Islands, the bulk of the fishery is by recreational participants, who are not subject to a profitability constraint. It is likely that most lobsters reaching 7.7 cm. CL each year would be caught by sport fishermen in their first year of availability. The risk of general overfishing (or at least localized depletion) would probably increase markedly. If similar measures were not



adopted in both the FCZ and State waters, the shore-based management and enforcement approach would be ineffective.

2. Economic or social values would not increase. Most lobster are taken in State waters. Even if the State changed its laws and rules in State waters, there could be a short-lived increase in total catch, including commercial landings, but at the cost of a high risk of significantly lower catches in the future as the population of mature reproductive lobsters could quickly be reduced. Area closures could mitigate this risk, but at a high enforcement cost. Initial selection of areas to be closed would probably generate considerable controversy and would require a large amount of new data to demonstrate the need for selective closures.
3. Without a change in State laws and rules, there would continue to be different management measures in the FCZ and State waters. The enforcement problems would be increased.

C. Alternative 3: Amend State Laws and Rules

Under this alternative, the State would amend its laws and rules to extend its lobster fishery conservation and management program to all fishing by vessels registered and licensed by the State. The "import" permit program would be retained to assure monitoring of imports by brokers, wholesalers, or other businesses which buy and import lobsters from other States or foreign countries. The major reasons this approach is not desirable are:

1. Amending the State's "import" permit system would be a very time-consuming process. Because this permit is established under statute, action by the State legislature would be required, further complicating matters. There might be reluctance to make an exception to the general "import" permit program for fear of establishing a precedent.
2. Out-of-State vessels would not be subject to these conservation and management measures if they were to deliver spiny lobsters outside Hawaii.

D. Alternative 4: No Action

Under this alternative, the FMP would not be amended at this time. There would be no active conservation and management measures for fishing in the FCZ around the main Hawaiian Islands, although commercial permits, logbooks, and observer provisions from the approved FMP would continue to apply. State laws and rules would apply to fishing in State waters, where the bulk of the fishing occurs, and to all lobster landings in Hawaii. The reasons this alternative is undesirable are:

1. There would continue to be differences between the State's management regime in State waters and the FMP in the FCZ which could result in adverse effects on the spiny lobster stock(s) around the main Hawaiian Islands. The State would have considerable difficulty demonstrating the guilt of anyone with an import permit bringing in "undersized" lobsters and claiming the lobsters were taken in the FCZ. The State's enforcement program is

carried out by shore-based inspections, and the State carries out very limited at-sea enforcement activities at this time. Adoption of this alternative would not assure that enforcement can be carried out through shoreside inspection of landings, which is far simpler and less costly than at-sea enforcement.

2. This approach would not resolve the question of inconsistency raised by the State of Hawaii because of differences in conservation and management measures in State waters and in the FCZ.

1.2.1

1.2.2

9. IMPACTS OF ALTERNATIVE STRATEGIES (REGULATORY IMPACT REVIEW)

As emphasized earlier, the main Hawaiian Islands' fishery has been conducted predominately in State waters by recreational fishermen. The expanding commercial fishery now extends into the FCZ, but this area accounts for only a small percentage of the total catch. The area of potential lobster habitat in the FCZ is small in comparison to that in State waters. Direct impacts of the FMP amendment on the lobster stock will likewise be limited. Indirectly, however, the amendment affects how the State waters' fishery is conducted, the effectiveness of the State's management measures which apply to State waters, and the condition of the State waters' spiny lobster stock(s). For the purposes of comparing the impacts of the alternatives considered by the Council, this analysis views the fishery as a unit. No distinction is made between fishing in State waters or the FCZ.

The principal categories of impacts are as follows:

Biological/Physical - Impacts on:

- spiny lobster stock(s)
- incidental catches
- endangered and threatened species
- habitat

Economic and Social - Impacts on:

- recreational catch and effort
- recreational fishery economic values
- commercial catch and effort
- incomes, costs, and profits
- employment
- other economic categories

Enforcement and Administration - Impacts on:

- enforcement costs
- government administrative costs
- reporting and data collection burdens
- plan amendment costs

Sections 8 and 9 of the approved FMP provide substantial detail on the different conservation and management measures which could be applied regardless of location of the fishery. The following sections will address the impacts of the four different strategies being considered and will compare the alternatives relative to the objectives of the plan and amendment.

A. Adopt State Measures in the FCZ (Preferred Alternative)

1. Biological/Physical Impacts

This alternative would assure continued conservation of the spiny lobster stock(s) in the main Hawaiian Islands. It would maintain the shore-based enforceability of State conservation and management measures, which appear to be adequately protecting spiny lobster productivity. The biological

condition of slipper lobster, Kona crab or other crustacean species will not be affected. As information is collected, the need for conservation and management measures can be determined for these species. The probability of any interaction with endangered or threatened species appears extremely slight given the low level of lobster fishing in the FCZ and the scarcity of such endangered or threatened species around the main islands; nor are their habitats likely to be affected.

## 2. Economic/Social Impacts

Recreational catch and effort are likely to be maintained under this alternative. General economic and social benefits of the recreational fishery should be maintained (or enhanced compared to no action) as the productivity of lobsters is protected. Incidental catches of other crustaceans would not be affected, and the incomes, costs, and profits from the commercial fishery will not be affected. The employment impacts will be negligible. There is no processing industry because lobsters are landed whole. Support activities are minimal and will not be affected.

## 3. Enforcement/Administrative Impacts

This alternative would assure that shore-based enforcement of conservation measures would continue to be effective. This is the least costly mode of enforcement available. Administrative cost associated with permits, data management and other support activities would be unaffected, since there would be no change from current requirements. Data collection and reporting burdens would be unchanged from those of current State and Federal provisions. The amendment will promote a cooperative Federal/State relationship in lobster

fisheries management and may encourage a consolidated permit and data reporting system that would reduce the paperwork burden for fishermen. The cost of preparing and processing this plan amendment was approximately \$20,000.

B. Adopt NWHI Measures in FCZ Around Main Islands (Alternative 2)

1. Biological/Physical Impacts

This alternative could increase the risk of overfishing. The potential intensity of fishing pressure from recreational and commercial vessels around the main islands is much greater than in the NWHI, and it appears likely that most lobsters would be caught almost as soon as they reach 7.7 cm. CL (especially around Oahu). There would be increased risk that the reproductive potential of lobsters would be threatened. Selective area closures could mitigate this risk but would be difficult to establish and costly to enforce. Incidental catches of slipper lobster and Kona crab would probably be unaffected. There would not be any impacts on endangered or threatened species, or their habitats.

2. Economic/Social Impacts

This alternative could result in a short-term increase in recreational catches of spiny lobster, but long-term catches would then likely decrease as the stock is reduced. If so, the long-term value of the fishery would be considerably reduced as the population of mature lobsters declined. Commercial catches also might show a short period of increase and then decline from previous stable levels. The effect on incomes, costs and profits would not be significant in relation to the total value of commercial landings of spiny



lobster in Hawaii. Income and profits from other species would not be affected. The employment impacts would be negligible. Effects on processing and support industries would be insignificant.

3. Enforcement/Administrative Impacts

If the State did not also adopt these measures, this alternative could impose a substantial enforcement burden on the State of Hawaii. Shore-based enforcement would not be sufficient to assure compliance by all fishermen in State waters. Conceivably, the State could agree to the new size limits and seasons, but this would require legislative as well as regulatory changes, at considerable cost. Administrative costs associated with permits and data management would not be affected. Data collection and reporting burdens would be unchanged.

C. Amend State Conservation and Management Measures (Alternative 3)

1. Biological/Physical Impacts

This alternative could assure continued protection of lobsters as far as vessels landing lobsters in Hawaii are concerned. However, vessels could fish and deliver lobsters out of Hawaii, in which case the State's size limits and seasons could lose their effectiveness, and the stock would likely suffer. No impacts on incidental catches of slipper lobster or Kona crab would be expected. Endangered and threatened species would not be affected, nor would their habitats.

2. Economic/Social Impacts

Recreational catches of spiny lobster would not be affected under this alternative as long as all lobsters are landed in Hawaii. If lobsters are taken to other ports, there could be decreases in recreational catches and values if there is insufficient enforcement capability to assure compliance with size and season restrictions in all waters. That is, there could be a potential for overfishing by out-of-State vessels, which would result in a decline in the lobster stock and reduced recreational catches. Commercial catches would sustain this increase for only a short time, after which catches would likely fall below the recent average. Total commercial income and profit would then decline. There would not be any impacts on employment, processing, or support activities.

3. Enforcement/Administration Impacts

The difficulty of enforcing the measures under this alternative would not be great if vessels landing lobsters in Hawaii are the only participants in the fishery. Shore-based enforcement would be effective. If vessels take their catch to other ports, enforcement costs could rise sharply. Administrative costs for permits and data management would be unchanged. Data collection and reporting burdens also would be unchanged. This alternative would take considerable time to implement because State law-making and rule-making procedures must be followed.

D. No Action (Alternative 4)

1. Biological/Physical Impacts

There is a risk of overfishing if no action is taken. Shore-based enforcement might no longer be sufficient to insure compliance with size and season restrictions. At-sea enforcement is quite costly in relation to the value of the fishery. The stock status of slipper lobster and Kona crab would not be affected. There would not be any impacts expected on endangered and threatened species or on their habitats.

2. Economic/Social Impacts

Recreational catches and values would decline if this alternative resulted in reduction of the spiny lobster stock. Commercial catches, and subsequent income and profit, also would decline in this event, but the amount of decline would be small. The catch of slipper lobster and Kona crab would not be affected. Employment, processing and support activities would not be significantly affected.

3. Enforcement/Administration Impacts

There are no changes in administrative costs for permits and data management. Data collection and reporting burdens would be unchanged. The cost of processing and implementing this amendment, though low, would be avoided.

1. Protect Stock Productivity

The preferred alternative (1) is most likely to assure the long-term productivity of the main Hawaiian Islands lobster stock and prevent overfishing. Alternative 3 might also do so if all vessels land their catches in Hawaii. Alternative 2 is not likely to achieve this objective because it would set too low a size limit for the main islands' fishery. Alternative 4 would not address the current risk of overfishing by either in- or out-of-State vessels.

2. Maintain or Enhance Contribution to Economy

The preferred alternative is most likely to maintain a long-term stream of values from recreational and commercial fishing. There would be no disruption or dislocation of the fishery. Alternative 3 would achieve similar benefits if all catches are landed in Hawaii. Alternative 2 might result in a short-term increase in economic value from the fishery, but at the cost of long-term productivity and benefits. Alternative 4 would not promote long-term contributions to the economy because it would not assure long-term productivity of the resource.

3. Collect Information

The preferred alternative could generate better information than the reporting requirement of the approved FMP, because there might be improved accuracy if there is no advantage to misrepresenting the area of catches. Other alternatives would not have a significant effect toward this objective.

4. Prevent Unfavorable Impacts on Endangered and Threatened Species

The fishery around the main Hawaiian Islands is unlikely to have any interaction with endangered and threatened species. None of the alternatives is significant in this respect.

5. Avoid Disruption of Established Fisheries

The preferred alternative would maintain established fisheries. Alternative 3 would likely meet this objective inasmuch as established fisheries are by Hawaii residents and vessels. Alternative 2 probably would result in substantial short- and long-term changes in the fisheries. Alternative 4 could result in changes if the stock becomes reduced.

6. Reduce Administrative and Enforcement Burdens

The preferred alternative is the simplest approach in administrative terms. It will maintain the basis for shore-based enforcement, which is the least costly enforcement technique available. Alternatives 2 and 3 would be costly and difficult to achieve, given the likely degree of controversy and debate which would arise. Alternative 3 could result in potentially high enforcement costs if out-of-State vessels which participate in the Northwestern Hawaiian Islands' fishery enter the main islands' fishery. Alternative 4 would generate high enforcement costs to insure full compliance by at-sea enforcement capability.

In summary, the Preferred Alternative would satisfy all objectives at a relatively low cost; Alternative 3 could satisfy most objectives at a higher cost; Alternative 2 would only partially satisfy the objectives, and at a high

cost; and Alternative 4 would not satisfy the objectives.

## 10.0 PREFERRED ALTERNATIVE

### 10.1 Selected Management Measures and Justification

This amendment proposes that the following conservation and management measures be established for spiny lobster fisheries in the FCZ around the main Hawaiian Islands (which would be recognized as Permit Area 2):

Measure #1: All spiny lobsters less than 3.25 inches (or 8.26 cm.) CL must be released

Although the FMP established a minimum size limit of 3.0 inches (7.7 cm) CL for spiny lobster taken in the Northwestern Hawaiian Islands (Permit Area 1), a larger minimum size limit is justified for the main islands' fishery. The economic factors which restrain fishing effort in the NWHI are lacking in the main islands, where sport diving pressure on the spiny lobster stock is heavy. The larger minimum size limit is intended to relieve the impact of this fishing pressure on the main islands' lobster stock. The commercial landings reported over the past 25 years in the main islands' lobster fishery indicate that the fishery has been relatively stable since the time that the 8.26 cm size limit has been in effect through State regulations. There is no rationale for changing the minimum size limit from that enforced by the State. The selected size of 8.26 cm is within the range of carapace length already discussed by the Council's Scientific and Statistical Committee as biologically appropriate for the Hawaiian Islands' spiny lobster fishery. An

additional rationale for the larger minimum size limit to regulate the main islands' fishery is that the 10-fathom area closures which restrict the NWHI fishery do not apply in the main islands. The risk that a size limit smaller than 8.26 cm CL would jeopardize the stock is thus higher in the main islands' fishery.

Measure #2: All spiny lobsters carrying eggs must be released.

This measure protects the reproductive potential of spiny lobster stocks. It is one of the regulatory measures in the original FMP and is justified by the same rationale. Most, if not all, established management programs for spiny lobster resources throughout the world include this conservation measure.

Measure #3: No spiny lobsters may be taken in June, July, and August.

A summer closure on the lobster fishery is not for biological reasons, as there is no significant peak in spiny lobster reproduction around the main Hawaiian Islands during the June-August period. Rather, the closure is justified because of the highly seasonal nature of the sport diving fishery which places heavy pressure on the main islands' spiny lobster stock. Recreational fishing is difficult to regulate by other means, so the taking of spiny lobster is totally prohibited during the summer months of peak diving activities.

Measure #4: No spiny lobsters may be taken using spears, chemicals, poisons, or explosives.



These prohibitions are essentially the same as regulatory measures in the original FMP and are justified by the same rationale.

Measure #5: Traps in which spiny lobster may be caught incidentally shall not exceed the following size dimensions:  
6'x6'x10'.

Although a few commercial fishermen are targeting on spiny lobster using conventional lobster traps, the bulk of the landings in the main islands are made by sport divers and by multi-species tangle-net and fish trap fisheries. Multi-species trap fisheries cannot be conducted effectively using the smaller and more specialized lobster traps. Therefore, trap gear as large as the specified dimensions will be permitted so as to minimize disruption of the traditional multi-species fishery. Spiny lobster are an unavoidable incidental catch made with this gear.

Measure #6: Spiny lobsters must be landed whole, and should not be in a condition where the body is penetrated or mutilated, or the carapace and tail are separated.

The existing FMP regulations, which apply to the Northwestern Hawaiian Islands' fishery, allow de-tailing of spiny lobster. The rationale for this is that, with a small number of commercial vessels landing large catches of lobster tails, it is not difficult to statistically relate the minimum allowed carapace length of 7.7 cm to an equivalent tail width (5.0 cm). In the main Hawaiian Islands' fishery, a large number of harvesters land a small number of lobster each. A data gathering program to assure that de-tailed lobster taken in the main Hawaiian Islands are the equivalent of the

permissible carapace length would be unreasonably complex and expensive. A second reason for the requirement that spiny lobster be landed whole is the need to prevent gear conflict and resource competition in the main islands' fishery between traditional harvesters and modern, large scale harvester-processors.

The permit, reporting and logbook requirements and other provisions of the approved FMP for the FCZ around the main Hawaiian Islands would remain unchanged.

#### 10.2 Optimum Yield

The optimum yield (OY) for this portion of the fishery is defined as "the greatest amount of non-berried spiny lobster with a carapace length of  $3\frac{1}{4}$  in. (8.26 cm.) or larger which can be taken each year from FCZ waters around the main Hawaiian Islands by vessels fishing in accordance with the measures in this plan." This non-numeric definition of OY is appropriate in recognition that an undetermined amount of spiny lobster may be taken from the FCZ in any year. There is a relatively small proportion of potential spiny lobster habitat in the main islands' FCZ, and the majority of landings are from State waters. Nonetheless, as a precaution, an OY must be established. A numeric OY is not possible based on current data. As a benchmark for annual reviews, the OY for the main Hawaiian Islands fishery is estimated to be 15,000 to 30,000 lobsters per year.

### 10.3 Domestic Annual Harvest

Vessels and participants in the domestic fishery have demonstrated their ability to harvest more than 800,000 spiny lobsters per year, including NWHI harvests. It is likely that the "surplus" of legal-sized lobsters in the NWHI soon will be harvested, so there will be substantial capacity to take spiny lobsters elsewhere. If any new sources of lobsters are found around the main Hawaiian Islands, there is the ability and desire to harvest those lobsters. Therefore, domestic annual harvest (DAH) equals OY. As a benchmark for comparison, the range of values associated with DAH for the main Hawaiian Islands is 15,000 to 30,000 lobsters per year.

### 10.4 Domestic Annual Processing

There is no processing for the spiny lobster fishery around the main Hawaiian Islands. Lobsters must be landed whole.

### 10.5 Total Allowable Level of Foreign Fishing

Domestic vessels and fishermen will harvest the OY. Thus, the total allowable level of foreign fishing (TALFF) in the main islands FCZ is zero (0).

### 10.6 Joint Venture Processing

There is no processing in the main islands fishery. The amount available for joint venture processing (JVP) is zero (0).

#### 10.7 Implementation and Enforcement

This amendment will have little or no impact on present participants in the fishery. Permit and reporting requirements remain unchanged from the approved FMP. Shoreside enforcement will be maintained. Since most landings presently are from State waters, the State of Hawaii will maintain its primary managerial role for the main islands fishery. This amendment reinforces that role, so that spiny lobster fishing regulations can be effectively enforced at a time when fishing pressure and the risk of overfishing are increasing. The State's present enforcement efforts are spread thin, and this amendment is needed to eliminate a loophole which could jeopardize the State enforcement program as a result of misrepresentation by fishermen of the area of spiny lobster catches.

11. PROPOSED AMENDMENT OF REGULATIONS

Part 681 - Western Pacific Spiny Lobster Fisheries

Subpart A - General Provisions

Sec.

- 681.1 Purpose and Scope
- 681.2 Definitions
- 681.3 Relation to State Law
- 681.4 Permits
- 681.5 Recordkeeping and Reporting
- 681.6 Vessel Identification
- 681.7 Prohibitions
- 681.8 Enforcement
- 681.9 Penalties
- 681.10 Observers

Subpart B - Management Measures for Permit Area 1 (the Northwestern Hawaiian Islands)

- 681.20 General
- 681.21 Size Restrictions
- 681.22 Reproductive Condition Restrictions
- 681.23 Closed Areas (Refugia)
- 681.24 Gear Restrictions
- 681.25 Landing Requirements
- 681.26 Experimental Fishing
- 681.27 Monk Seal Protective Measures
- 681.28 Monk Seal Emergency Protective Measures

Subpart C - Proposed Management Measures for Permit Area 2  
(the Main Hawaiian Islands)

- 681.30 General
- 681.31 Size Restrictions
- 681.32 Reproductive Condition Restrictions
- 681.33 Closed Season
- 681.34 Gear Restrictions

AUTHORITY: 16 U.S.C. 1801 et seq.

SUBPART A - GENERAL PROVISIONS

681.1 Purpose and Scope

(a) The purpose of this part is to implement the Fishery Management Plan for the Spiny Lobster Fisheries of the Western Pacific (FMP) developed by the Western Pacific Fishery Management Council under the Magnuson Fishery Conservation and Management Act (Magnuson Act).

(b) These regulations govern commercial fishing for spiny lobsters by fishing vessels of the United States, within the U.S. fishery conservation zone (FCZ) seaward of American Samoa, Guam, and Hawaii. The management measures specified in Subpart B apply only in the FCZ seaward of the Northwestern Hawaiian Islands (Permit Area 1). The management measures specified in Subpart C apply only in the FCZ seaward of the main Hawaiian Islands (Permit Area 2).

681.2 Definitions

In addition to the definitions in the Magnuson Act, and unless the context requires otherwise, the terms used in this part have the following meanings:

Administrator means the Administrator of the National Oceanic and Atmospheric Administration (NOAA), or a designee.

Authorized Officer means:

(a) Any commissioned, warrant, or petty officer of the Coast Guard;

(b) Any certified enforcement agent of the National Marine Fisheries Service;

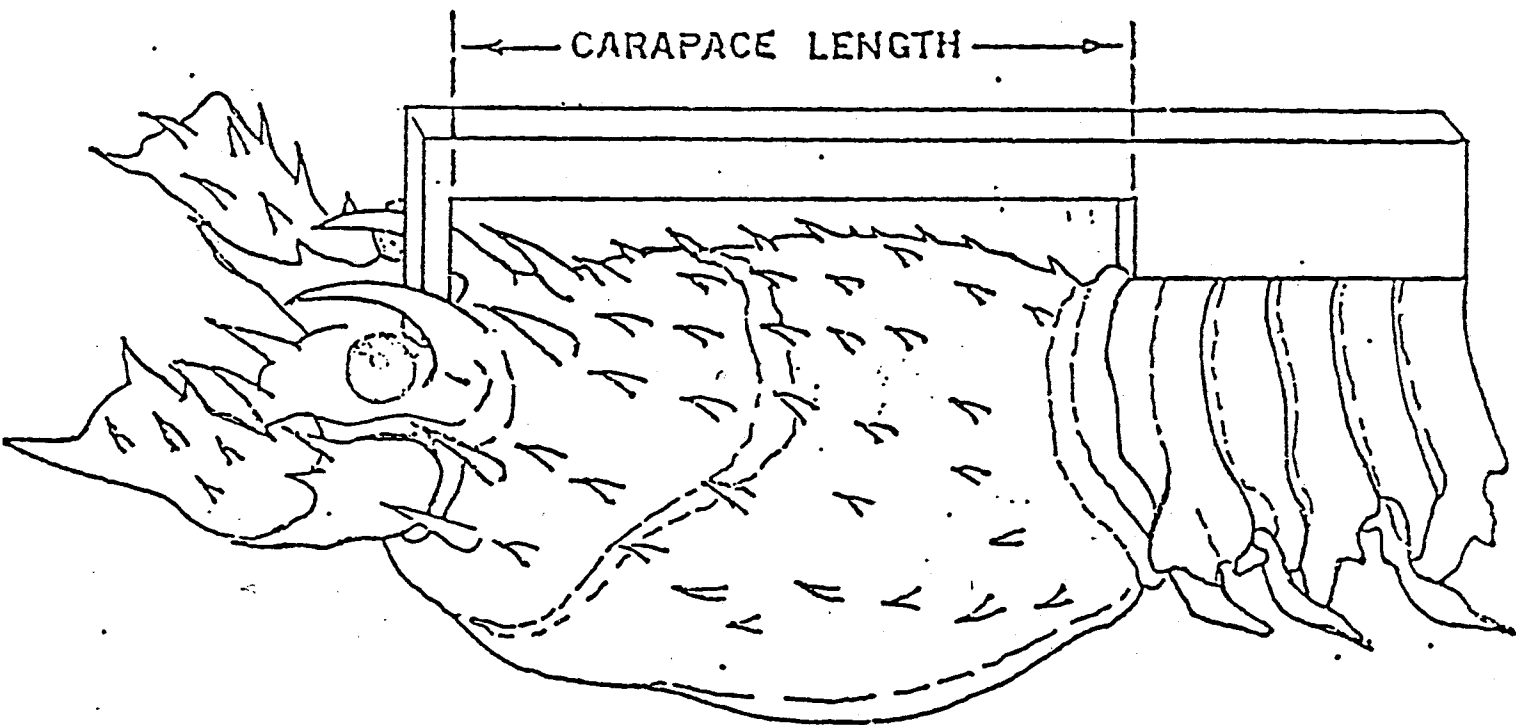
(c) Any officer designated by the head of any Federal, State, or Territorial agency which has entered into an agreement with the Secretary and

the Secretary of Transportation to enforce the provisions of the Magnuson Act;  
and

(d) Any Coast Guard personnel accompanying, and acting under the direction of, any person described in paragraph (a) of this definition.

Carapace length means a measurement in a straight line from the ridge between the two largest spines above the eyes, back to the rear edge of the carapace (see figure 1).

FIGURE 1. METHOD OF MEASURING CARAPACE LENGTH





Closed area means an area of the FCZ that is closed to the harvest of spiny lobster.

Commercial fishing means fishing with the intent to sell all or part of the catch of spiny lobsters. All spiny lobster fishing in the Northwestern Hawaiian Islands (Permit Area 1) is considered commercial fishing.

Fishery conservation zone (FCZ) means that area adjacent to the United States which, except where modified to accommodate international boundaries, encompasses all waters from the seaward boundary of each of the coastal States to a line each point of which is 200 nautical miles from the baseline from which the territorial sea of the United States is measured.

Fishing means:

- (a) The catching, taking, or harvesting of fish;
- (b) The attempted catching, taking, or harvesting of fish;
- (c) Any other activity which can reasonably be expected to result in the catching, taking, or harvesting of fish;
- (d) Any operations at sea in support of or in preparation for any activity described in paragraphs (a) through (c) of this definition.

Fishing vessel means any vessel, boat, ship, or other craft which is used for, equipped to be used for, or of a type which is normally used for fishing or for assisting or supporting a vessel engaged in fishing.

Interested parties means the State of Hawaii Department of Land and Natural Resources, the Western Pacific Fishery Management Council, holders of permits issued under this Part, the U.S. Fish and Wildlife Service, and any person who has notified the Regional Director of his or her interest in the procedures and decisions described in Sections 681.27 and 681.28 and who has specifically requested to be considered an "interested party".

Kona crab means a crustacean of the species Ranina ranina.

Land or Landing means bringing fish to shore or off-loading fish from a fishing vessel.

Magnuson Act means the Magnuson Fishery Conservation and Management Act, 16 U.S.C. 1801 et. seq.

Management Area means the FCZ of the United States seaward of the Territory of American Samoa, the Territory of Guam, and the State of Hawaii.

NMFS means the National Marine Fisheries Service.

Official number means the documentation number issued by the Coast Guard or the number issued by a State or the Coast Guard for undocumented vessels.

Operator, with respect to any vessel, means the master or other individual on board and in charge of that vessel.

Owner, with respect to any vessel, means:

- (a) Any person who owns that vessel in whole or in part;
- (b) Any charterer of the vessel, whether bareboat, time, or voyage;
- (c) Any person who acts in the capacity of a charterer, including but not limited to parties to a management agreement, operating agreement, or any similar agreement that bestows control over the destination, function, or operation of the vessel; or
- (d) Any agent designated as such by a person described in paragraph (a), (b), or (c) of this definition.

Permit Area 1 means the FCZ of the Hawaiian Islands Archipelago lying to the west of 161°00' W. longitude, commonly known as the Northwestern Hawaiian Islands.

to the east of 161°00' W. longitude, commonly known as the Main Hawaiian Islands;

Permit Area 3 means the FCZ of the Territory of Guam and the FCZ of the Territory of American Samoa.

Person means any individual (whether or not a citizen or national of the United States), corporation, partnership, association, or other entity (whether or not organized or existing under the laws of any State), and any Federal, State, local, or foreign government or any entity of any such government.

Processing means changing the form of a product through such methods as freezing, cleaning, or removing tails. It does not include the boxing or packaging of a product.

Regional Director means Director, Southwest Region, National Marine Fisheries Service, 300 South Ferry Street, Terminal Island, California 90731, or a designee.

Secretary means the Secretary of Commerce or a designee.

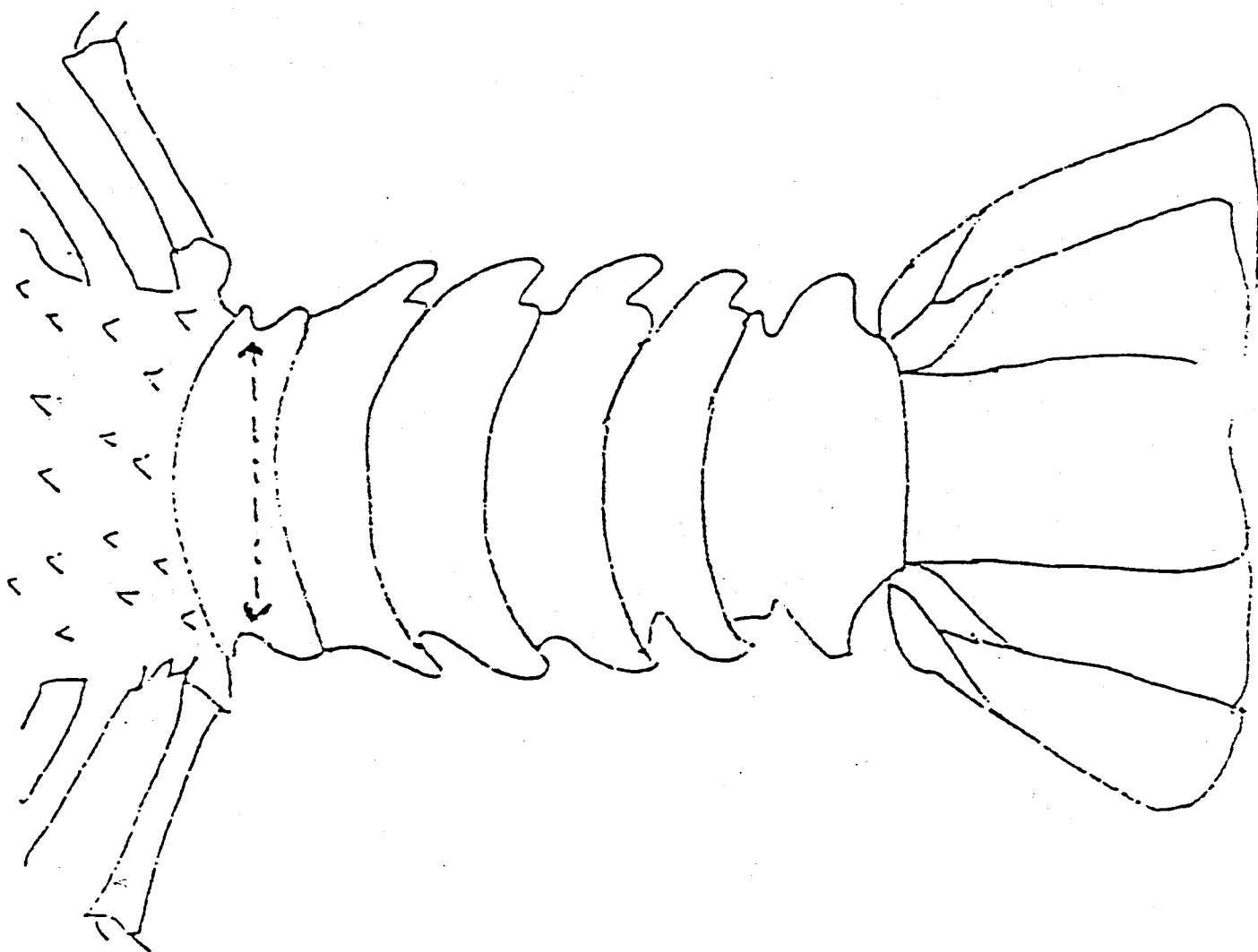
Slipper lobster means any crustacean of the family Scyllaridae.

Spiny lobster means either of the following two species of crustaceans: Panulirus marginatus or Panulirus penicillatus.

State means the State of Hawaii, the Territory of American Samoa, and the Territory of Guam.

Tail width means the straight line distance between the lateral notches on the first tail segment (see Figure 2).

FIGURE 2. TAIL WIDTH



Trap means a box-like device used for catching and holding lobsters.

U.S.-harvested spiny lobster means spiny lobster caught, taken, or harvested by vessels of the United States within the Management Area.

Vessel of the United States means:

- (a) Any vessel documented or numbered by the U.S. Coast Guard under U.S. law; or
- (b) Any vessel, under five net tons, registered under the laws of any State.

#### 681.3 Relation To State Law

Any State law which applies to vessels registered under the laws of that State and which is consistent with this Part (including any State landing law) continues in effect with respect to fishing activities covered by this Part.

#### 681.4 Permits.

##### (a) General

(1) Any vessel of the United States engaged in commercial fishing for spiny lobsters in the Management Area must have a permit issued under this section.

(2) Each permit is valid for fishing only in the area specified in the permit. Permit areas are defined in 681.2.

(3) Only one permit issued under this part is valid for one vessel at any one time.

(4) The holder of a permit allowing a vessel to fish one area may obtain a permit for that vessel to fish another area upon surrendering to the Regional Director any current permit issued for that vessel under this part.

(b) Applications.

(1) An application for a permit under this section must be submitted to the Regional Director by the vessel owner or operator at least 15 days before the date on which the applicant desires to have the permit made effective.

(2) Each application must be submitted on an appropriate form which may be obtained from the Regional Director. Each application must be signed by the vessel owner or operator and contain the following information:

- (i) The applicant's name;
- (ii) The owner's name, mailing address, and telephone number;
- (iii) The operator's name, mailing address, and telephone number;
- (iv) The name of the vessel;
- (v) The vessel's official number;
- (vi) The radio call sign of the vessel;
- (vii) The home port of the vessel;
- (viii) The engine horsepower of the vessel;
- (ix) The approximate fish-hold capacity of the vessel;
- (x) The processing capacity of the vessel;
- (xi) The type and quantity of lobster fishing gear used by the vessel;
- (xii) The permit area in which the applicant proposes to fish;
- (xiii) Whether the application is for a new permit or a renewal; and
- (xiv) The number and expiration date of any prior permit for the vessel issued under this part.

(c) Fees. No fee is required for a permit under this section.

(d) Change in application information. Any change in the information

specified in paragraph (b) of this section must be reported to the Regional Director ten days before the effective date of the change.

(e) Issuance.

(1) Within 15 days after receipt of a properly completed application, the Regional Director will determine whether to issue a permit.

(2) If an incomplete or improperly completed permit application is filed, the Regional Director will notify the applicant in writing of the deficiency in the application. If the applicant fails to correct the deficiency within 30 days following the date of notification, the application will be considered abandoned.

(f) Expiration. Permits issued under this section expire on the June 30 following the effective date of the permit.

(g) Renewal. An application for renewal of a permit must be submitted to the Regional Director in the same manner as described in paragraph (b) of this section.

(h) Alteration. Any permit that has been substantially altered, erased, or mutilated is invalid.

(i) Replacement. Permits may be issued to replace lost or mutilated permits. An application for a replacement permit is not considered a new application.

(j) Transfer. Permits issued under this section are not transferable or assignable to other persons. A permit is valid only for the vessel for which it is issued.

(k) Display. Any permit issued under this section must be on board the vessel at all times while the vessel is fishing for spiny lobster in the FCZ. Any permit issued under this section must be displayed for inspection upon

request of any Authorized Officer.

(1) Sanctions. 50 CFR 621.51 - 621.56 govern the imposition of sanctions against a permit issued under this part. As specified in those regulations, a permit may be revoked, modified, or suspended if the vessel for which the permit is issued is used in the commission of an offense prohibited by the Magnuson Act or this part; or if a civil penalty or criminal fine imposed under the Magnuson Act, and pertaining to such a vessel, is not paid.

681.5 Recordkeeping and Reporting.

(a) Logbook. The operator of any vessel engaged in commercial fishing for spiny lobster subject to this part shall:

(1) Maintain on board the fishing vessel, while fishing for spiny lobster, an accurate and complete NMFS spiny lobster fishery logbook, recording all information specified in paragraph (b) (1), (2), and (3) of this section within 24 hours after the completion of the fishing day.

(2) Make the fishing logbook available for inspection by an Authorized Officer or any employee of the National Marine Fisheries Service designated by the Regional Director to make such an inspection; and

(3) Within 72 hours of each landing of spiny lobster, submit to the Regional Director a copy of the log sheet(s) for that fishing trip.

(b) Fishing Information. Fishing logbooks must contain the following information for all spiny lobster taken under this part:

(1) Vessel information:

- (i) Name of vessel;
- (ii) Call sign of vessel;
- (iii) Permit number of vessel;



(iv) Size of crew; and

(v) Number of traps.

(2) Fishing information:

(i) Location of lobster catch by statistical area as depicted in the NMFS spiny lobster fishery logbook;

(ii) Date and time of trap deployment and number of traps deployed;

(iii) Date and time of trap retrieval and number of traps retrieved;

(iv) Number and species of legal spiny lobsters per trap deployment;

(v) Number and species of sublegal spiny lobsters per trap deployment;

(vi) Number and species of berried female spiny lobsters per trap deployment; and

(vii) Number of slipper lobsters and kona crabs per trap deployment.

(3) Endangered species information:

(i) Whether monk seals or sea turtles are observed in the fishing area;

(ii) Whether monk seals or sea turtles are observed in the vicinity of the fishing gear;

(iii) Whether monk seals or sea turtles interfere with fishing operations;

(iv) Whether monk seals or sea turtles prey on released lobsters;

(v) Whether monk seals or sea turtles are entangled but released alive; and

(vi) Whether monk seals or sea turtles are entangled but released dead.

(4) Processing information:

(i) Weight of whole lobsters frozen at sea;

- (ii) Weight of lobster tails frozen at sea;
  - (iii) Weight of whole lobsters to be frozen on land; and
  - (iv) Weight of lobster tails to be frozen on land.
- (5) Sale information:
- (i) Number, weight, and revenue from sale of live lobsters;
  - (ii) Number, weight, and revenue from sale of whole, frozen lobsters;
  - (iii) Number, weight, and revenue from sale of frozen tails; and
  - (iv) Weight and revenue from sale of lobster byproducts.

(c) Processor information. Processors of lobster products harvested in the Management Area shall submit an annual report covering the period January 1 to December 31 to the Regional Director on a form which can be obtained from the Regional Director. This report is due by April 1 of the following year and must specify the following:

- (1) Source (by FCZ surrounding each State) of lobsters processed;
- (2) Poundage of lobsters processed by species;
- (3) Number of individual lobsters processed by species;
- (4) Method of processing;
- (5) Form of final product; and
- (6) Current actual lobster-processing capacity.

681.6 Vessel Identification.

(a) Official number. Each fishing vessel subject to this part must display its official number on the port and starboard sides of the deckhouse or hull, and on an appropriate weather deck so as to be visible from enforcement vessels and aircraft.

(b) Numerals. The official number must be affixed to each vessel subject to this part in block Arabic numerals at least 18 inches in height for fishing vessels of 65 feet in length or longer, and at least ten inches in height for all other vessels. Markings must be legible and of a color that contrasts with the background.

(c) Duties of operator. The operator of each fishing vessel subject to this part shall:

(1) Keep the displayed official number clearly legible and in good repair; and

(2) Ensure that no part of the vessel, its rigging, or its fishing gear obstructs the view of the official number from an enforcement vessel or aircraft.

681.7 Prohibitions.

(a) It is unlawful for any person to:

(1) Use any vessel to fish for spiny lobster in a permit area unless a permit has been issued for that vessel and area as specified in 681.4, and that permit is aboard the vessel;

(2) Falsify or fail to make, keep, maintain, or submit any logbook or other record or report required by 681.5;

(3) Fail to affix and maintain vessel markings, as required by 681.6;

(4) Fail to comply immediately with enforcement and boarding procedures specified in 681.8;

(5) Refuse to carry an observer when requested to do so by the Regional Director under 681.10;

(6) Fail to provide the 48 hour notice required by section 681.10(b);

(7) Possess, have custody or control of, ship, transport, offer for sale, sell, import, export, or land any spiny lobster which was taken or retained in violation of the Magnuson Act, this part, or any regulation issued under the Magnuson Act;

(8) Refuse to allow an Authorized Officer to board a fishing vessel subject to such person's control for purposes of conducting any search or inspection in connection with the enforcement of the Magnuson Act, this part, or any other regulation or permit issued under the Magnuson Act;

(9) Forcibly assault, resist, oppose, impede, intimidate, or interfere with an Authorized Officer in the conduct of any search or inspection described in paragraph (a)(8) of this section;

(10) Resist a lawful arrest for any act prohibited by this part;

(11) Interfere with, delay, or prevent, by any means, the apprehension or arrest of another person by an Authorized Officer, knowing that such other person has committed any act prohibited by this part;

(12) Transfer directly or indirectly, or attempt to transfer, any U.S.-harvested spiny lobster to any foreign fishing vessel, while such foreign vessel is within the FCZ, unless the foreign fishing vessel has been issued a permit under Section 204 of the Magnuson Act which authorizes the receipt by such vessel of U.S.-harvested spiny lobster; or

(13) Violate any other provision of this part, the Magnuson Act, or any regulation or permit issued under the Magnuson Act.

(b) In Permit Area 1, in addition to the prohibitions in paragraph (a) of this section, it is unlawful for any person to:

(1) Fish for, take, or retain spiny lobsters:

(i) By methods other than lobster traps or by hand, as specified in 681.24, or

(ii) From closed areas specified in 681.23;

(2) Retain or possess on a fishing vessel any spiny lobster or tail which is less than the minimum size specified in 681.21, except for the tail-width allowance of 681.21(b);

(3) Possess on a fishing vessel any spiny lobster taken in Permit Area 1 in a condition such that neither its carapace length nor its tail width can be determined;

(4) Retain or possess on a fishing vessel, or remove the eggs from, any egg-bearing spiny lobster, as specified in 681.22;

(5) Fail to report before landing, as specified in 681.25; or

(6) Fail to comply with any protective measures promulgated under 681.26 or 681.27.

(c) In Permit Area 2, in addition to the prohibitions in paragraph (a) of this section, it is unlawful for any person to:

(1) Fish for, take, or retain spiny lobsters:

(i) By methods other than traps or by hand,

as specified in 681.34, or

(ii) In the months of June, July, and August, as specified in 681.33

(2) Retain or possess on a fishing vessel any spiny lobster taken in Permit Area 2 which is less than the minimum size specified in 681.31;

- (3) Possess on a fishing vessel any spiny lobster taken in Permit Area 2 in a condition where the lobster is not whole and undamaged as specified in 681.35;
- (4) Retain or possess on a fishing vessel, or remove the eggs from, any egg-bearing spiny lobster, as specified in 681.32.

681.8 Enforcement.

(a) General. The owner or operator of any fishing vessel subject to this part shall immediately comply with instructions issued by an Authorized Officer to facilitate safe boarding and inspection of the vessel, its gear, equipment, logbook, permit, and catch, for purposes of enforcing the Magnuson Act and this part.

(b) Signals. Upon being approached by a Coast Guard cutter or aircraft, or other vessel or aircraft authorized to enforce the Magnuson Act, the operator of a fishing vessel shall be alert for signals conveying enforcement instructions. The VHF-FM radiotelephone is the normal method of communicating between vessels. However, visual methods or loudhailer may be used if the radio does not work. The following signals, extracted from U.S. Hydrographic Office publication H.O. 102 International Code of Signals, may be communicated by flashing light or signal flags:

- (1) "L" means "You should stop your vessel instantly;"
- (2) "SQ3" means "You should stop or heave to; I am going to board you"; and
- (3) "AA AA AA etc." is the call to an unknown station, to which the signaled vessel should respond by identifying his vessel by radio, visual signals, or by lighting his official number; and

(4) "RY-CY" means "You should proceed at slow speed. A boat is coming to you."

(c) Boarding. The operator of a vessel signaled to stop or heave to for boarding shall:

(1) Stop the vessel immediately and lay to or maneuver in such a way as to allow the Authorized Officer and the boarding party to come aboard;

(2) Provide a ladder, illumination, and a safety line when necessary requested by an authorized officer to facilitate boarding and inspection; and

(3) Take such other action as required to ensure the safety of the Authorized Officer and the boarding party and to facilitate the boarding.

681.9 Penalties.

Any person or fishing vessel found to be in violation of this part is subject to the civil and criminal penalty provisions, permit sanctions, and forfeiture provisions of the Magnuson Act, and to 50 CFR Parts 620 and 621, 15 CFR Part 904, and other applicable law.

681.10 Observers.

(a) All fishing vessels subject to this part must carry an observer when requested to do so by the Regional Director.

(b) The operator of a fishing vessel subject to this part shall notify the Regional Director of his departure 48 hours before leaving port to fish for spiny lobster in the Management Area. The operator shall provide this notice by contacting the National Marine Fisheries Service, Western Pacific Program Office, telephone (808) 955-8831, 2570 Dole Street, Honolulu, Hawaii.

SUBPART B - MANAGEMENT MEASURES FOR PERMIT AREA 1 (THE NORTHWESTERN  
HAWAIIAN ISLANDS)

681.20 General.

The management measures specified in this subpart govern fishing for spiny lobster in the FCZ seaward of the Northwestern Hawaiian Islands (Permit Area 1).

681.21 Size Restrictions.

(a) Whole lobsters. Only spiny lobsters with a carapace length of 7.7 cm or greater may be retained.

(b) Lobster tails. If the carapace length cannot be determined, only lobsters with tails at least 5.0 cm wide may be retained, except for an allowance of up to 15 percent by number of the total catch per trip, which may have tail widths greater than or equal to 4.5 and less than 5.0 cm.

681.22 Reproductive Condition Restrictions.

A female spiny lobster of any size may not be retained if it is carrying eggs externally. Eggs may not be removed from female spiny lobsters.

681.23 Closed Areas (Refugia).

(a) Spiny lobster fishing is not allowed within 20 nautical miles of Laysan Island.

(b) Spiny lobster fishing is not allowed within the FCZ landward of the 10 fathom curve as depicted on National Ocean Survey Charts, Numbers 19022, 19019, and 19016.



681.24 Gear Restrictions.

(a) Spiny lobsters may be taken only with lobster traps or by hand. Lobsters may not be taken by means of poisons, drugs, other chemicals, spears, nets, hook or explosives.

(b) An entryway in a spiny lobster trap may measure no greater than 10½ inches in its greatest diagonal or diameter at the larger end, and no greater than 6½ inches in its greatest diagonal or diameter at the smaller end.

681.25 Landing Requirements.

The operator of a fishing vessel that has taken spiny lobsters in the FCZ off the Northwestern Hawaiian Islands shall contact the U.S. Coast Guard, by radio or otherwise, at the 14th District, Honolulu, Hawaii (Telex: 392401); Pacific Area, San Francisco, California (Telex: 330427); or 17th District, Juneau, Alaska (Telex: 45305), at least 24 hours before landing, and report the port, the approximate date, and time at which the lobsters will be landed.

681.26 Experimental Fishing.

(a) General. The Secretary may authorize experimental fishing for spiny lobster which would otherwise be prohibited by this part. No experimental fishing may be conducted unless a NMFS scientific observer is aboard the vessel.

(b) Council review. Before authorizing experimental fishing, the Secretary will submit to the Western Pacific Fishery Management Council a copy of the plan under which the experimental fishing will be conducted, and request the Council's comments.

(c) Implementation. After authorization by the Secretary, as demonstrated by the placement of a NMFS scientific observer on a vessel, the vessel may fish in accordance with the plan described in paragraph (b) of this

section.

681.27 Monk Seal Protective Measures.

(a) General. This section establishes a procedure which will be followed if the Regional Director receives a report of a monk seal death that appears to be related to the spiny lobster fishery in Permit Area 1.

(b) Notification. Upon receipt of a report of a monk seal death that appears to be related to the spiny lobster fishery, the Regional Director will notify all interested parties of the facts known about the incident. He will also notify them that an investigation is in progress, and that, if the investigation reveals a threat of harm to the monk seal population, protective measures may be implemented.

(c) Investigation. The Regional Director will investigate the incident reported and will attempt:

- (1) To verify that the incident occurred;
- (2) To determine the extent of the harm to the monk seal population;
- (3) To determine the probability of a similar incident recurring;
- (4) To determine details of the incident such as:
  - (i) The number of animals involved,
  - (ii) The cause of the mortality,
  - (iii) The age and sex of the dead animals,
  - (iv) The relationship of the incident to the reproductive cycle; e.g., breeding season (March-September), non-breeding season (October-February),
  - (v) The population estimates or counts of animals at the island where the incident occurred, and
  - (vi) Any other relevant factors;

- (5) To discover and evaluate any extenuating circumstances; and
- (6) To evaluate any other relevant factors.

The Regional Director will make the results of his investigation available to the interested parties and request their advice and comments.

(d) Determination of Relationship. The Regional Director will review and evaluate the results of the investigation and any comments received from interested parties. If there is substantial evidence that the death of the monk seal was related to the spiny lobster fishery, the Regional Director will:

- (1) Advise the interested parties of his conclusion and the facts upon which it is based; and

- (2) Request from the interested parties their advice on the necessity of protective measures and suggestions of appropriate protective measures.

(e) Determination of Response. The Regional Director will consider all relevant information discovered during the investigation or submitted by interested parties in deciding on the appropriate response. Protective measures may include, but are not limited to, changes in trap design, changes in gear, closures of specific areas, or closures for specific periods of time.

(f) Action by the Regional Director. If the Regional Director decides that protective measures are necessary and appropriate, the Regional Director will:

- (1) Prepare a document which describes the incident, the protective measures proposed, and the reasons for the protective measures;
- (2) Provide it to the interested parties; and
- (3) Request their comments.

(g) Implementation.

(1) If, after completing the steps described in paragraph (f) of this section, the Regional Director still thinks that protective measures are necessary and appropriate, he will recommend the protective measures to the Administrator and provide notice of this recommendation to the Chairman of the Western Pacific Fishery Management Council and the Director of the Division of Aquatic Resources, Department of Land and Natural Resources, State of Hawaii.

(2) If the Administrator concurs with the Regional Director's recommendation, a notice will be published in the Federal Register which includes:

- (i) The protective measures;
- (ii) The reasons for the protective measures; and
- (iii) A description of the incident that triggered the procedure described in this section.

(h) Notification of "no action". If at any point in the process described in this section, the Regional Director or Administrator decides that no further action is required, the interested parties will be notified of this decision.

(i) Effective dates.

(1) The protective measures will take effect 10 days after the date of publication in the Federal Register.

(2) The protective measures will remain in effect for the shortest of the following time periods:

- (i) Until the FMP and this section are amended to respond to the problem;
- (ii) Until other action that will respond to the problem is taken under the Endangered Species Act;

forth in paragraph (j) of this section, decides that the protective measures are no longer required and repeals the measures; or

- (iv) For the period of time set forth in the Federal Register notice, not to exceed three months. The measures may be renewed for three months after again following procedures in paragraphs (b) through (g) of this section.

(j) Repeal.

(1) If the Administrator decides the protective measures may no longer be necessary for the protection of the monk seals, the interested parties will be notified of this preliminary decision and the facts upon which it is based. The Administrator will request advice on the proposed repeal of the protective measures.

(2) The Administrator will consider all relevant information obtained by the Regional Director or submitted by interested parties in deciding whether to repeal the protective measures.

(3) If the Administrator decides to repeal the protective measures:

- (i) Interested parties will be notified of the decision, and
- (ii) The notice of repeal and the reasons for the repeal will be published in the Federal Register.

618.28 Monk Seal Emergency Protective Measures.

(a) Determination of emergency. If at any time during the process described in 681.27 the Regional Director determines that an emergency exists involving monk seal mortality related to the spiny lobster fishery and that measures are needed immediately to protect the monk seal population, he will:

- (1) Notify the interested parties of this determination and

request their immediate advice and comments; and

(2) Forward a recommendation for emergency action and any advice and comments received from interested parties to the Administrator.

(b) Implementation of emergency provisions. If the Administrator agrees with the recommendation for emergency action:

(1) He will determine the appropriate emergency protective measures;

(2) A notice of the emergency protective measures will be published in the Federal Register; and

(3) He will notify the interested parties of the emergency protective measures. Holders of permits to fish in Permit Area 1 will be notified by certified mail. Permit holders that the Regional Director knows are on the fishing grounds also will be notified by radio.

(c) Effective dates.

(1) Emergency protective measures are effective against a fisherman at 12:01 a.m. local time of the day following the day the fisherman receives actual notice of the measures.

(2) Emergency protective measures are effective for 10 days from the day following the day the first permit holder is notified of the protective measures.

(3) Emergency protective measures may be extended for an additional 10 days if necessary to allow the completion of the procedures set out in 681.27.

SUBPART C - PROPOSED MANAGEMENT MEASURES FOR PERMIT AREA 2  
(THE MAIN HAWAIIAN ISLANDS)

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681.30 General

The management measures specified in this subpart govern fishing for spiny lobster in the FCZ seaward of the main Hawaiian Islands (Permit Area 2)

681.31 Size Restrictions

Only spiny lobsters with a carapace length of 8.26 cm or greater may be retained.

681.32 Reproductive Condition Restrictions

A female spiny lobster of any size may not be retained if it is carrying eggs externally. Eggs may not be removed from female spiny lobsters.

681.33 Closed Season

Spiny lobster fishing is not allowed in Permit Area 2 during the months of June, July, and August.

681.34 Gear Restrictions

(a) Spiny lobsters may be taken only with traps or by hand. Lobsters may not be taken by means of poisons, drugs, other chemicals, spears, nets, hook, or explosives.

(b) A trap may measure no greater than the following size dimensions: 6' x 6' x 10'.

681.35 Lobster Condition

Any spiny lobster with a punctured or mutilated body, or a separated carapace and tail, may not be retained.

## 12.0 COMMENTS ON THE DRAFT FMP AMENDMENT/ENVIRONMENTAL ASSESSMENT

This section summarizes oral and written testimony on the draft FMP Amendment/Environmental Assessment submitted for public review. The draft was reviewed at one public hearing with attendance of 23. In addition, 13 letters were received from government agencies, environmental organizations, and private interests. Section 12.1 below summarizes comments, oral and written, provided during the review period. Council concurrence with responses proposed by the Spiny Lobster Plan Development Team is indicated following each comment. Comments suggesting editorial rather than substantive changes have been accommodated in the final amendment and are not listed below.

### 12.1 Summary of Public Comments with Responses

1. Comment: The justification in the proposed amendment concentrates on the advantages of adopting the group of State management measures within the FCZ, but the reasons for adopting the 6 individual measures is missing. The Council should consider each of the proposed measures, determine if each is essential to the fishery, and present a justification of the importance of each individual measure.

Commenters: National Marine Fisheries Service

Response: Spiny lobster landings around the main Hawaiian Islands have been relatively stable over the past 25 years, since State regulations for resource management were put into effect. This in itself provides a strong argument for adopting State measures for the FCZ around the main islands. Nevertheless, Section 10.1 of this document has been revised to include a



justification for each specific management measure.

Council Concurrence: May 23, 1983 (40th Meeting).

2. Comment: The need for Federal regulation is not clear, as there is no measurable impact on the fishery resulting from the amendment. Little lobster fishing occurs in the FCZ, and there are no resource problems or gear conflicts. It appears that the State has been successful with its management program without regulations in the FCZ. There is no discussion of what developments have taken place to change that success or how enforcement of the State regulations may be ineffective without the amendment.

Commenters: National Marine Fisheries Service

Response: The real benefit of the amendment is not a quantifiable impact on the main Hawaiian Islands' lobster fishery but the development of a cooperative working relationship between the Federal and State governments. The costs of inaction in not proceeding with the amendment are a deteriorating Federal/State relationship in fisheries management in general and the possibility of continued misunderstanding with the State with regard to the FMP for spiny lobster. The State has indicated that it will impose an additional paperwork burden on fishermen participating in the Northwestern Hawaiian Islands' lobster fishery until such time as the proposed amendment has received Council approval. Section 3.B. of this document has been revised to provide a more detailed discussion of how the lack of complementary Federal regulations in the FCZ jeopardizes the effectiveness of the State's enforcement program.

Council Concurrence: May 23, 1983 (40th Meeting).

3. Comment: The legal size of spiny lobsters which are sold whole should be regulated uniformly, regardless of where they are caught in the Hawaiian Islands. Permitting lobsters taken in the Northwestern Hawaiian Islands' (NWHI) fishery to be smaller than those taken around the main islands discriminates against main islands' lobster fishermen. A minimum size limit of 3.25 inches (8.26 cm) carapace length for all areas would simplify enforcement.

Commenters: Main Hawaiian Islands' lobster fisherman.

Response: The issue was considered at length in the preparation of the original Fishery Management Plan and the regulations which have been implemented for the NWHI lobster fishery. That fishery concentrates on producing lobster tails, and during FMP preparation, the fishing industry expressed a desire for a smaller size limit in order to produce a more marketable size of lobster tail. The rationale applied by the Council in establishing a minimum size limit of 7.7 cm carapace length was biological -- research had suggested that a large percentage of the reproductive potential of the NWHI lobster stock could be protected with this size limitation. It is true that the smaller animals which can be legally harvested in the NWHI for sale in the whole lobster market are a more economical purchase for the consumer than the larger animals which are taken in the main islands, and this creates a disadvantage for commercial lobster fishermen in the main islands. However, the distant-water fishery for live lobster has the economic disadvantage of long distances and high fuel costs in getting the catch to market. The NWHI lobster fishery is exclusively a commercial trap fishery, whereas a large percentage of

the lobster catch around the main islands is taken by sport divers. Diving is a much more efficient harvesting method than trapping, and the larger size limit applied to the main islands' fishery acts to protect the lobster stock through enforced "inefficiency". Enforcement problems arising from the different size limits for the NWHI and main islands' lobster fisheries are avoided through the requirement that a Federal fishing permit can be held for only one of the two areas at any one time.

Council Concurrence: May 23, 1983 (40th Meeting).

4. Comment: The requirements of escape vents (to allow the release of undersized lobster) and destruct panels (to prevent ghost fishing) were not included in the original Spiny Lobster FMP and do not appear in the amendment. Is this due to economic consideration for the fishermen in the NWHI fishery? The regulations should require that traps have escape gaps and destruct panels, or a benefit-cost analysis should be provided to show why those measures were not included in the FMP.

Commenters: Main Hawaiian Islands' lobster fisherman; U.S. Army Engineers, Pacific Ocean Division; University of Hawaii Environmental Center.

Response: Preliminary research has documented the effectiveness of escape vents in releasing undersized lobster. The occurrence of "ghost" fishing by lost traps has also been documented. However, when these practices were considered during the preparation of the original FMP and regulations for the NWHI fishery, the fishing industry was strongly opposed to them. In other lobster fisheries, traps with built-in escape vents have proven more effective

in catching legal-sized lobster than traps without vents. This may provide an incentive for the use of such gear in the NWHI. The Council is awaiting the results of lobster studies which it has funded, as well as research by the National Marine Fisheries Service Honolulu Laboratory, before taking up this issue, which may be the subject of a future amendment.

Council Concurrence: May 23, 1983 (40th Meeting).

5. Comment: Although the summer months (June-August) are the most productive for lobster trapping in the NWHI, this is the period of greatest reproductive activity and should be a closed season. De-tailing of summer lobster catch reveals that virtually all female lobsters carry internal eggs. The existing regulations require release of external egg-bearing females, but this measure does not adequately protect the NWHI lobster stock during the spawning season.

Commenters: Two commercial lobster fishermen.

Response: A large percentage of the reproduction in the spiny lobster population from Maro Reef and northward in the NWHI occurs in the summer months, when lobster trapping is the heaviest. However, there is no indication that a closed season is needed for stock protection, given the present level of fishing effort in this region. Closing the NWHI lobster fishery during the summer would prevent smaller and less seaworthy vessels from fishing at all because winter sea conditions are too rough.

Council Concurrence: May 23, 1983 (40th Meeting).

6. Comment: What is the rationale for the summer closed season for lobster fishing in the main Hawaiian Islands? There is no distinct peak in the percentage of berried female spiny lobster caught during the summer.

Commenters: Main Hawaiian Islands' commercial lobster fisherman.

Response: There is no statistically significant summer peak in spiny lobster reproduction around the main Hawaiian Islands. However, the greatest fishing pressure on lobster stocks around the main islands comes from recreational diving, so there is a distinct summer peak in fishing effort. The recreational fishery is difficult to regulate directly, and the summer closure on lobster harvesting serves to relieve fishing pressure during the season of greatest sport diving activity.

Council Concurrence: May 23, 1983 (40th Meeting).

7. Comment: The fishing regulations implemented for the NWHI under the original Spiny Lobster FMP specified that lobster trap entry-ways be no larger than 6½ inches across at the inner opening and 10½ inches across at the outer opening. There are two types of traps (plastic Dungeness crab pots and Caribbean-style slat-top traps) currently in use which have larger openings than permitted under the existing regulations. The regulations should be amended so that of fishermen do not have to modify or replace gear they have already invested in.

Commenters: South Pacific International Seafoods, NWHI commercial

lobster fisherman.

Response: The restriction on the maximum size of trap openings stemmed from the concern of environmental organizations that monk seals placing their heads into lobster traps could become stuck and subsequently drown. Hearsay reports that sea lions had drowned in California two-chambered lobster traps could not be verified, so the National Marine Fisheries Service measured monk seal skulls which were available and also measured the openings of the California two-chambered wire traps, the principal gear type during the initial years of the NWHI lobster fishery. This exercise resulted in the gear restriction which was adopted as part of the existing regulations. Under present conditions in the NWHI fishery, a large number of traps are in violation of the regulation.

There have been no reports of monk seal entrapment in hundreds of thousands of trap-nights in the NWHI lobster fishery. Nor has this problem ever arisen in exploratory trapping surveys by the NOAA vessel Townsend Cromwell or in lobster trapping experiments at French Frigate Shoals, where monk seal activity is substantial. Still, monk seals are known to penetrate far into caves and holes in the reef structure in search of food, and the gear restriction may be justified for no reason except the possibility, no matter how remote, of harm to monk seals. Although the existing gear could be modified to satisfy the restriction on trap opening size, this could be costly to the fishermen.

Rather than broaden the scope of Amendment #1 and delay its approval and implementation, the Council, by a unanimous vote at its 40th meeting,

declared that an emergency exists in the western Pacific spiny lobster fishery and requested the Secretary of Commerce to implement emergency regulations to permit a wider range of lobster trap designs while still affording protection to the Hawaiian monk seal. The Council also unanimously voted to prepare a second FMP amendment which will make the requested change permanent.

Council Concurrence: May 23, 1983 (40th Meeting).

8. Comment: The regulations adopted under the original Spiny Lobster FMP do not specify that dockside enforcement of the minimum size limit should take place at the catcher vessel before the catch is unloaded. Inspection of the catch during processing is not only legally awkward but could disrupt processing operations.

Commenters: South Pacific International Seafoods.

Response: Any party in possession of illegal size lobster, knowingly or unknowingly, is in violation of the Spiny Lobster FMP regulations. This is the only means of making the regulations effective, particularly in instances where a vessel unloads before Federal agents have an opportunity to inspect the catch, or if undersized catch is discovered after processing of a vessel's catch has begun.

Council Concurrence: May 23, 1983 (40th Meeting).

9. Comment: Various Federal and State permits and catch reports are required under the system of laws and regulations which regulate the spiny lobster fishery in the Hawaiian Islands. This imposes a considerable burden on

the fishing industry. A single permit and catch report which satisfies both Federal and State requirements is needed to reduce red tape.

Commenters: South Pacific International Seafoods.

Response: The Council believes that a significant reduction in paperwork could be achieved by a consolidated State/Federal lobster fishing permit and catch reporting system. Rather than broaden the scope of Amendment #1 and delay its approval and implementation, the Council believes that the feasibility of consolidating the various permit and catch reporting systems should be examined by Council staff, in cooperation with Federal and State agencies. If feasible, a "one-stop" permit and catch reporting system could be addressed in amendment #2, together with the issue of trap opening size. If the issue of multiple permits and catch reports cannot be resolved rapidly, it should be considered separately in a future amendment, so that resolution of the trap issue (amendment #2) is not delayed.

Council Concurrence: May 23, 1983 (40th Meeting).

10. Comment: The Spiny Lobster FMP and draft amendment separate the main Hawaiian Islands from the Northwestern Hawaiian Islands along a dividing line at 161° W. longitude. This line crosses a bank known as "Middle Bank". With a portion of this bank in Permit Area 1 and another portion in Permit Area 2, there may be problems of compliance by fishermen who are uncertain about the dividing line. The dividing line between the two regions of the Hawaiian Islands should be shifted to 160° 50' W. longitude, to the east of Middle Bank.

Commenters: South Pacific International Seafoods.



Response: There is no indication of a commercially-significant lobster resource at Middle Bank, nor are lobster boats known to fish there. The use of this well-known bank as a landmark may make fishermen better aware that differences in fishing regulations exist between the two regions of the Hawaiian Islands.

Council Concurrence: May 23, 1983 (40th Meeting).

11. Comment: Uncharted pinnacles rise abruptly to depths of 10 fathoms or shallower off Maro Reef and Gardner Pinnacles, and it is difficult for lobster fishermen to avoid violating the 10-fathom closure regulation in such areas.

Commenters: NWHI commercial lobster fisherman.

Response: The small, uncharted pinnacles described are unlikely to harbor spiny lobster. The existing regulations specify that lobster fishing is not allowed landward of the 10 fathom curve "... as depicted on National Ocean Survey Charts, Numbers 19022, 19109, and 19016". Uncharted banks will not appear in those charts and, thus, are not recognized as closure areas in the regulations.

Council Concurrence: May 23, 1983 (40th Meeting).

12. Comment: Is there real evidence that a spiny lobster of 7.7 cm carapace length has an equivalent tail width of 5 cm? Spiny lobsters of this carapace length taken in the Florida fishery would have a tail width smaller than 5 cm.

Commenters: NWHI commercial lobster fisherman with experience in the Florida spiny lobster fishery.

Response: The statistical relationship was thoroughly analyzed by the Honolulu Laboratory of the National Marine Fisheries Service in establishing the tail width requirement. A complete analysis of the statistical relationship for the Hawaiian spiny lobster may be found in the administrative record of the original FMP. The Florida spiny lobster species referred to is different from those in the Hawaiian Islands, and a different relationship would apply.

Council Concurrence: May 23, 1983 (40th Meeting).

13. Comment: The 10-fathom closure area established for the Northwestern Hawaiian Islands' spiny lobster fishery is unenforceable by Coast Guard units.

Commenters: 14th Coast Guard District.

Response: It is estimated that 16% of the total lobster habitat in the NWHI occurs inshore of the 10-fathom contour. The justification for the 10-fathom area closure is to maintain a spawning stock which will promote recruitment to offshore lobster stocks. Although the area closures are not enforceable by Coast Guard units, the alternative would be to open all areas to lobster fishing and set a larger minimum size limit. This trade-off was unacceptable to the Council in its deliberations leading to the approval and implementation of the original FMP regulations for the NWHI spiny lobster fishery.

Council Concurrence: May 23, 1983 (40th Meeting).

14. Comment: The Fish and Wildlife Service should be recognized in Definitions (681.2) as an "Interested Party", particularly as it reflects the reporting of monk seal interactions (681.5 and 681.27).

Commenters: U.S. Fish and Wildlife Service; U.S. Department of Interior, Pacific Southwest Region.

Response: This request pertains to the existing regulations, rather than the proposed amendment. Nevertheless, it has been accomodated.

Council Concurrence: May 23, 1983 (40th Meeting).

15. Comment: The section of the regulations on protective measures relating to monk seals, including the record keeping and reporting process, should be expanded to include sea turtles.

Commenters: U.S. Fish and Wildlife Service; U.S. Department of Interior, Pacific Southwest Region.

Response: This comment pertains to the existing regulations rather than the proposed amendment. The regulations require recordkeeping and reporting of sightings and encounters with turtles. The original FMP went through the Section 7 consultation process (as required under the Endangered Species Act) and plan approval process without the issue of emergency protective measures for turtles being raised. The Council believes that to impose emergency protective measures for turtles, in addition to monk seals, would

constitute an unwarranted regulatory burden on fishermen.

Council Concurrence: May 23, 1983 (40th Meeting).

16. Comment: Monk seal protective measures in Subpart B (681.27 and 682.28) should be made part of the regulations for Subpart C (Main Hawaiian Islands). Encounters with monk seals and turtles may be less frequent in the main Hawaiian Islands than in the NWHI, but, in the event they do occur, they should be subject to the same regulations.

Commenters: U.S. Fish and Wildlife Service; U.S. Department of the Interior, Pacific Southwest Region.

Response: The very small number of monk seal sightings around the main Hawaiian Islands suggests a probability of interaction with the lobster fishery too low to warrant the additional regulatory burden proposed. Lobster trapping effort is also much lower in the main islands than in the NWHI. State laws and regulations are adequate to protect the monk seal in Permit Area 2. An additional mechanism for response to a monk seal death related to the lobster fishery in the FCZ around the main islands is the emergency action power granted to the Secretary of Commerce under the amended Magnuson Act.

Council Concurrence: May 23, 1983 (40th Meeting).

17. Comment: A summary of presently known data on recruitment would clarify what the needs are for research and monitoring of spiny lobster populations. With better recruitment data, optimum yield (OY) and maximum sustainable yield (MSY) can be determined sooner and with more accuracy.

Commenters: University of Hawaii Environmental Center.

Response: Spiny lobster research conducted as part of the "Resource Investigations of the NWHI" project and Council-supported research by Dr. Craig MacDonald will make it possible to improve estimates of OY and MSY. This amendment was proposed before the results of these research projects were available. However, the findings presented will certainly be considered for future amendments.

Council Concurrence: May 23, 1983 (40th Meeting).

18. Comment: Amendment 1 appears to create a problem of economic impact, while making State and Federal regulations complementary, by the revised management measure "spiny lobsters must be landed whole....". At present, fishermen harvesting spiny lobster in the Northwestern Hawaiian Islands find it profitable to process lobsters on-board and freeze the tails. Regulations under the original spiny lobster FMP accommodated this practice. However, the amended FMP would not allow fishermen to conduct on-board freezing of lobster tails. What will the economic impact be if freezing of lobster tail is not allowed?

Commenters: University of Hawaii Environmental Center.

Response: The proposed amendment has no effect on the fishery producing lobster tails which is practiced in the Northwestern Hawaiian Islands. The amendment would only extend the State's requirement that lobster be landed whole to the FCZ around the main Hawaiian Islands, east of 161° W. longitude.

Council Concurrence: May 23, 1983 (40th Meeting).

19. Comment: Coordination between State and Federal spiny lobster management is subject to disruption when State legislation affecting spiny lobster fishing is amended. The 1983 Hawaii Legislature approved an act that, among other things, requires the Department of Land and Natural Resources to promulgate rules relating to requirements for escape openings on any type of trap. Is there any mechanism within the FMP that could accomodate such uncoordinated changes?

Commenters: University of Hawaii Environmental Center.

Response: Because of the different procedures used by the Federal and State governments to revise regulations, it is not possible to completely synchronize the two management regimes. However, the Council conducts annual reviews of the FMP, and this provides an opportunity to identify needed adjustments in regulations. H.B. No. 837, H.D.1, passed by the 1983 Hawaii Legislature authorizes the Department of Land and Natural Resources (DLNR) to promulgate rules which describe the type, measurements, and locations of escape openings on traps. The subject of escape gaps has been raised as a possible issue for a future FMP amendment. By working in a cooperative and timely manner on this and other issues of mutual interest, the Council and the State will continue to synchronize spiny lobster regulations to the maximum extent practicable.

Council Concurrence: May 23, 1983 (40th Meeting).

20. Comment: Spiny lobster fishermen should not only report incidences of monk seal entanglement in fishing gear in their logbooks, but should also photograph these incidents. The carrying and use of a camera as standard equipment on vessels operating in the monk seal habitat should be required in Section 681.5 of the spiny lobster regulations.

Commenters: Greenpeace Hawaii.

Response: This proposal would impose a totally unwarranted data collection burden on fishermen. If this proposal were implemented, fishermen concerned about releasing an entangled monk seal would be encouraged to take photographs rather than provide immediate aid to the seal.

Council Concurrence: May 23, 1983 (40th Meeting).

21. Comment: Section 681.28, MONK SEAL EMERGENCY PROTECTIVE MEASURES, must be the primary procedure to follow when the death of a seal due to fishery interaction is reported. The lengthy investigation in Section 681.27, though important in the long term, is not necessary for the immediate resolution of the problem: protecting the monk seals from harm. In addition to mortality, serious injury to a seal should also be considered to be an emergency, as the injury could be fatal. Vessel operators should be required to immediately notify by radio other operators in the area in the event of such an incident so that they can be prepared to take measures to avert similar incidences. The following sections alone should be considered in the investigation of a monk seal death: 681.27 (c):1,3,4 (1,11) 5, 6. Although in-depth investigations into the cause of monk seal injuries and mortalities are certainly called for,

please do not establish regulations which require such lengthy review and comment periods that the very future of the monk seal population is in jeopardy.

It is of the utmost importance that emergency measures be taken quickly. Therefore, the Regional Director should be given no more than 2 working days to declare an emergency situation: notifying all vessels in the area and contacting various knowledgeable parties to discuss the situation. Within 5 working days, some determination should be made as to preventative measures. As presently written, 681.27 and 681.28 do not give any time references at all. It is necessary to do so, so that the emergency is addressed quickly.

Section 681.28 (c) 3 states that emergency protective measures may be extended "for an additional 10 days". No provision is made for extension after that time. This statement should be amended to read "and for as many additional 10-day periods as needed to assure the protection of the seals".

Commenters: Greenpeace Hawaii.

Response: Unless an injured or dead monk seal is actually caught in a trap, it will be difficult to establish that the lobster fishery is responsible. There are many causes of monk seal injury or death. To date, the lobster fishery is not one of those causes, despite hundred of thousands of trap-nights of fishing. This track record does not warrant extension of the monk seal emergency protective measures to an injured seal, especially considering the difficulty of establishing the cause of an injury. Under the amended Magnuson Act, the Secretary of Commerce has the authority to take emergency actions to regulate a fishery. Section 681.28 of the Spiny Lobster FMP provides similar



authority to the Regional Director of NMFS. Either mechanism can be used to avoid lengthy investigations and delays in rule-making if a monk seal emergency exists in the lobster fishery. The Endangered Species Act provides additional protection to this species.

Council Concurrence: May 23, 1983 (40th Meeting).

22. Comment: Under Section 7.1 (Description of Stock) is the statement that "... P. penicillatus and P. marginatus were caught in approximately equal numbers in trap samples around Oahu." It would be useful to provide the source of this statement because State catch reports do not distinguish between species of spiny lobster.

Commenters: U.S. Army Engineers, Pacific Ocean Division.

Response: The statement has been removed from the final amendment. It was based on studies by Morris (1968) and McGinnis (1972). From these studies the differential catch of tagged lobsters suggests that the trap catches are biased with respect to species, and with respect to sex for P. penicillatus. MacDonald (1978) suggests that P. marginatus are equally likely to be caught regardless of sex, that male P. penicillatus are 80% as likely to be caught as P. marginatus, and that female P. penicillatus are only 35% as likely as P. marginatus to be caught in traps. Thus, the apparent equal abundance of the two species in the trap catches at Oahu reflects a substantially higher abundance of P. penicillatus than P. marginatus.

Council Concurrence: May 23, 1983 (40th Meeting).

12.2 Individuals Testifying at Public Hearing

Honolulu, Hawaii

Date: March 14, 1983

Attendance: 23

Individuals Testifying:

Kaiser, Steve, part-time commercial fisherman, Waimanalo, Hawaii

Mounier, Bruce, commercial lobster fisherman, Honolulu, Hawaii

Yee, Jeffrey, South Pacific International Seafoods, Honolulu, Hawaii

12.3 Individuals and Organizations Submitting Written Comments

Cheung, Kisuk, Chief, Engineering Division, Pacific Ocean Division, U.S. Army Engineers, Ft. Shafter, Hawaii.

Coggeshall, Dale, Pacific Islands Administrator, U.S. Fish and Wildlife Service, Honolulu, Hawaii

Cox, Doak, Director, University of Hawaii Environmental Center, Honolulu, Hawaii

Ford, Alan, Regional Director, National Marine Fisheries Service, Southwest Region, Terminal Island, California

Higashionna, Ryokichi, State of Hawaii, Director of Transportation, Honolulu, Hawaii

Kono, Hideto, Director, State of Hawaii Department of Planning and Economic Development, Honolulu, Hawaii

Ono, Susumu, Chairman, State of Hawaii Board of Land and Natural Resources, Honolulu, Hawaii

Parnell, Jacqueline, Director, State of Hawaii Office of Environmental Quality Control, Honolulu, Hawaii

Port, Patricia, Regional Environmental Officer, U.S. Department of Interior, Pacific Southwest Region, San Francisco, California

Schwartz, J.E., District Planning Officer, Fourteenth U.S. Coast Guard District, Honolulu, Hawaii

White, Sue, Monk Seal Campaign Coordinator, Greenpeace Hawaii, Honolulu, Hawaii

Yee, Jeffrey, South Pacific International Seafoods, Honolulu, Hawaii



REGULATORY IMPACT REVIEW  
FOR FISHERY MANAGEMENT PLAN AMENDMENT #1  
FOR THE  
SPINY LOBSTER FISHERIES  
OF THE  
WESTERN PACIFIC REGION

August 1983

Western Pacific Fishery Management Council  
1164 Bishop Street, Room 1608  
Honolulu, Hawaii 96813

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## 1.0 INTRODUCTION

### 1.1 Proposed Action

The harvest of spiny lobsters in the U. S. Fishery Conservation Zone (FCZ) around the Hawaiian Islands is managed under the Fishery Management Plan (FMP) for the Spiny Lobster Fisheries of the Western Pacific Region. Regulations implementing the FMP were published in the Federal Register on February 7, 1983, with an effective date of March 9, 1983. Management emphasis of the FMP and its implementing regulations was directed toward conservation of spiny lobster stocks in the Northwestern Hawaiian Islands (Management Area 1). These are the only known stocks of significant commercial potential in the FCZ of the western Pacific region.

In the FCZ around the main Hawaiian Islands, American Samoa and Guam (Management Area 2), the Council did not establish a need for Federal regulations to implement conservation and management measures other than permit and data reporting requirements and authority for NMFS to place observers on domestic vessels for data collection purposes at NMFS' discretion.

The spiny lobster fishery management unit in the approved FMP includes commercial, recreational and subsistence fishing for spiny lobster (Panulirus spp.), with incidental catches of slipper lobster (family Scyllaridae) and, rarely, Kona crab (family Raninidae). There are four distinct components described in the FMP, including the main Hawaiian Islands fishery, the Northwestern Hawaiian Islands (NWHI) commercial fishery, and small fisheries in American Samoa and Guam. This amendment deals only with the main Hawaiian

Islands' spiny lobster fishery. Other components will continue to be managed as described in the original FMP.

The Western Pacific Regional Fishery Management Council now proposes to amend the FMP to establish a set of management measures for spiny lobster fishery in the FCZ around the main Hawaiian Islands, east of 161° W. longitude. These measures are the equivalent of the set of laws and regulations under which the State of Hawaii manages the spiny lobster fishery in the territorial waters around the main Hawaiian Islands.

State law establishes a seasonal closure and prohibits taking of berried spiny lobsters as well as of berried slipper lobster and Kona crab. State rules (regulations), promulgated by the Department of Land and Natural Resources (DLNR) under the authority of State law, establish a minimum size limit and a seasonal closure for spiny lobster harvest and prohibit the landing of lobsters from which the carapace and tail have been separated. Lobsters cannot be taken using spears, chemicals, explosives, or other toxic materials.

#### 1.2 Need for Amendment

State laws and regulations have been effective in controlling the harvest of spiny lobster taken from territorial waters. However, State law also provides that such measures "shall not apply where the marine life or products have been taken from or caught outside the waters of the State and the possession or sale has been licensed by the [DLNR] under rules adopted by the Department" (Chapter 189-6 HRS). The approved FMP does not establish size limits, seasonal closures, or condition of catch requirements for lobster harvest in the FCZ around the main Hawaiian Islands. Thus, with a State-issued import permit, a



person may bring into the State and sell lobsters which would otherwise be "illegal" under the State's season, size and condition of catch limitations. A fisherman can land spiny lobsters taken in the FCZ without regard to the State's conservation and management measures.

Until recently, there was little or no lobster fishing in the FCZ around the main Hawaiian Islands, and commercial lobster landings were insubstantial compared to the catch made by recreational fishermen, principally sport divers operating close to shore. Historically, commercial lobster landings occurred largely as an incidental catch in multi-species trap and tangle-net fisheries. However, in recent years (1981-1982), the commercial trap fishery for spiny lobster has expanded significantly, and fishing activity is occurring in the FCZ as well as in territorial waters. Commercial landings of spiny lobster around the main Hawaiian Islands are estimated to have increased at least 100% over those reported in 1980. At least 4 fishermen have invested in commercial traps specifically to target spiny lobster, <sup>even if the main Hawaiian Islands</sup> rather than harvesting lobster as an incidental catch in traditional fish traps. Individual fishing effort ranges from 50 to 100 traps per fishing night. One commercial fisherman has been encouraged to invest in a new vessel just to harvest lobster, and other fishermen have stated their intention to diversify their fishing operations to include spiny lobster.

Because the lobster trap fishery has recently expanded into the FCZ, commercial fishermen could claim that they can land spiny lobster without regard to the State's management program, which is enforced by inspection of landings on shore. The State's capability to enforce fishing laws and regulations, including those which pertain to spiny lobster, are spread thin, and there is a

need to adopt lobster fishing regulations in the FCZ which are comparable to existing State regulations.

This amendment is needed to eliminate a loophole which could result from misrepresentation by fishermen of the area of spiny lobster catches and to maintain the effectiveness of shore-based enforcement by State and Federal authorities. Since most landings presently are from State waters, the State of Hawaii will maintain its primary managerial role for the main islands' fishery. This amendment reinforces that role, so that spiny lobster fishing regulations can be effectively enforced at a time when fishing pressure and the risk of overfishing are increasing.

## 2.0 OBJECTIVES

The objectives listed in the approved FMP continue to be valid for the management of the Northwestern Hawaiian Islands' spiny lobster fishery.

Establishment of a complementary management regime for State waters and the FCZ around the main Hawaiian Islands is intended primarily to assure sustained productivity of the spiny lobster stocks and to prevent overfishing by reinforcing the State's management program.

Additional objectives relevant to selection of an appropriate management strategy for the main Hawaiian Islands' spiny lobster fishery are:

1. Maintain established fishery patterns and management measures unless positive benefits would be generated by new measures;
2. Achieve efficient enforcement without increasing administration burdens and costs.
3. Achieve, to the maximum extent practicable, consistent Federal/State management of spiny lobster resources throughout their range in the Hawaiian Islands.



### 3.0 DETERMINATIONS IN AMENDMENT

#### 3.1 Maximum Sustainable Yield

The approved FMP summarizes most of the information available on the abundance, distribution, and population dynamics of spiny lobster stocks in the western Pacific region. With respect to the main Hawaiian Islands, lobsters are "berried" year-round. No significant differences in life history features have been identified for the two major species of spiny lobsters (P. penicillatus, P. marginatus), although P. penicillatus may be less catchable in traps. Growth rates for the two species have not been firmly established. Spiny lobsters sampled around the island Oahu, in the main island group, tend to have a large percentage of the population in the 8 cm. to 9 cm. CL size range, with few lobsters of larger size (see Fig. 7.3, Source Document). This probably reflects the high fishing pressure applied around Oahu, such that most legal-sized (8.26 cm. CL) lobsters are captured in their first year of availability to the fishery.

The maximum sustainable yield (MSY) of the main Hawaiian Islands stock(s) of spiny lobster has not been calculated by conventional stock assessment methods. There are insufficient data on catch, effort, size and sex composition of the catch, and life history characteristics for such calculations. Commercial landings reported to the Hawaii Division of Aquatic Resources have remained relatively stable in the past 25 years. Recreational catches have not been reliably estimated, but there is no reason to believe there have been major fluctuations in recent years. It seems likely that relatively higher commercial landings and lower recreational catches in the 1948-1950 period had been replaced by lower commercial landings and higher recreational catches by the

1970's. It appears that the stock is being fished at or near maximum sustainable yield for the main islands as a group. There may be some localized areas of overfishing around Oahu, where the bulk of commercial and recreational fishing occurs. There are no data to indicate stock depletion over a broad geographic range of the main islands. Most fishing has been in State waters, although the commercial lobster fishery has recently expanded into the FCZ. The average annual total harvest of spiny lobsters is estimated to have been 15,000 - 30,000 lobsters in recent years.

In the absence of more complete and accurate data, the maximum sustainable yield (MSY) for the spiny lobster stock around the main Hawaiian Islands can be provisionally estimated as approximately 15,000 to 30,000 lobsters per year of the minimum legal size of 8.26 cm. carapace length. Approximately 20% of the total spiny lobster habitat, and presumably lobster stock, in the main Hawaiian Islands occurs in the FCZ. There are insufficient data to estimate catches and MSYs for slipper lobster and Kona crab.

### 3.2 Optimum Yield

The Council has concluded that a non-numerical definition of optimum yield (OY) is appropriate for the main islands' FCZ fishery. OY is defined as "the greatest catch of non-berried lobsters with a carapace length of 8.26 cm. (3 $\frac{1}{4}$  in.) or larger which can be taken each year from the FCZ waters around the main Hawaiian Islands, by vessels fishing in accordance with the measures in this plan." This OY approach does not establish a quota for lobster harvests. The Council estimates that total harvests associated with this management regime for the main islands' fishery, including State waters and FCZ catches, will be between 15,000 and 30,000 lobster per year, which is the estimated average annual

catch in the most recent three-year period for which data are available. Deviations from this estimate in any single year or even two year period will not be cause for concern given the many unknowns about stock abundance, population dynamics, natural environmental variables, and the characteristics of the fishery. The Council will assess the effectiveness of the plan annually.

### 3.3 Domestic Annual Harvest

Vessels and participants in the domestic fishery have demonstrated their ability to harvest nearly 800,000 spiny lobsters per year, including Northwestern Hawaiian Islands' harvests. It is likely that the "surplus" of legal-sized lobsters in the NWHI soon will be harvested, so there will be substantial capacity to take spiny lobsters elsewhere. If any new sources of lobsters are found around the main Hawaiian Islands, there is the ability and desire to harvest those lobsters. Therefore, domestic annual harvest (DAH) equals OY. As a benchmark for comparison, the range of values associated with DAH for the main Hawaiian Islands is 15,000 to 30,000 lobsters per year.

### 3.4 Domestic Annual Processing

There is no processing of spiny lobster taken around the main Hawaiian Islands. State regulations require that lobsters must be landed whole.

### 3.5 Total Allowable Level of Foreign Fishing

Domestic vessels and fishermen will harvest the OY. Thus, the total allowable level of foreign fishing (TALFF) in the main islands FCZ is zero (0).

### 3.6 Joint Venture Processing

There is no processing in the main islands fishery. The amount available for joint venture processing (JVP) is zero (0).



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- include measures

#### 4.0 ALTERNATIVE MANAGEMENT STRATEGIES

The Council has considered four alternative strategies to address the need for consistency in spiny lobster management for State waters and the FCZ around the main Hawaiian Islands. These are described in the following sections.

##### A. Alternative 1: Adopt State of Hawaii Measures in the FCZ

The State of Hawaii's spiny lobster fishery management regime includes laws and rules applicable to fishing for and landing of spiny lobsters and other crustaceans. Spiny lobsters must be at least 3½ inches (or 8.26 cm.) in carapace length (CL) to be retained for personal consumption or sale. Berried female lobster must be released, as must undersized lobsters. It is unlawful to harvest spiny lobster in the months of June, July, and August. Lobsters must be landed whole, as it is unlawful to separate the carapace from the tail. It is unlawful to use spears, chemicals, explosives, or other toxic materials to harvest lobsters.

In the decade prior to the establishment of State laws and regulations for spiny lobster management, reported commercial landings declined steadily from a post-World War II high of 30,000 to 40,000 pounds per year to 9,000 pounds by 1958, the year in which regulations first came into effect. Since that time, reported commercial landings around the main Hawaiian Islands have generally ranged between 5,000 and 10,000 pounds per year. Table 1 shows historical trends in reported landings.

The spiny lobster conservation problems in the FCZ are the same as those in State waters. Considering the relative stability in commercial landings since State laws and regulations became effective, the Council has concluded

that there is no justification for departure from the State's management approach. The majority of present landings are from State waters, and no action to supersede State measures should be taken without strong evidence of need and benefits.

B. Alternative 2: Adopt Measures in the Main Hawaiian Islands FCZ  
Identical to the Measures Adopted for the NWHI under the FMP

The approved FMP establishes a comprehensive conservation and management regime for the fishery in the FCZ of the NWHI (Management Area 1). Management measures include a minimum size limit of 7.7 cm. (or 3.0 inches) CL for whole lobsters; a minimum width of 5.0 cm. for lobster tails de-tailed at sea, with allowance for 15% of a delivery to be between 4.5 and 5.0 cm. in width; release of egg-bearing and undersized lobsters; selected area closures; prohibition of the use of nets, spears, chemicals and explosives to harvest lobsters; an observer program allowing NMFS to require a vessel to carry an observer; permit and catch reporting requirements; and a quick response mechanism to address reports of interaction between the lobster fishery and Hawaiian monk seals.

Table 1 - Reported commercial catch of spiny lobster for main Hawaiian Islands and Northwestern Hawaiian Islands, 1948-1980

Year	Main Hawaiian Islands <sup>1</sup> lb	Northwestern Hawaiian Islands <sup>2</sup> lb	Total Hawaiian Islands <sup>1</sup> lb
1948			42,370
1949			43,632
1950			34,012
1951			17,230
1952			18,052
1953			17,938
1954			14,999
1955			16,136
1956			12,732
1957			14,392
1958			9,192
1959			12,339
1960			10,473
1961			12,642
1962			7,890
1963			10,277
1964			9,846
1965			8,158
1966			5,481
1967			4,415
1968			4,751
1969			9,250
1970			5,398
1971			6,140
1972			5,349
1973			5,577
1974	4,467		4,467
1975	4,319		4,319
1976	6,317		6,317
1977	13,474	72,000	85,474 <sup>1 2</sup>
1978	6,292	45,000	51,292 <sup>1 2</sup>
1979	7,259	100,000	107,259 <sup>1 2</sup>
1980	3,542	328,000	331,542 <sup>1 2</sup>
1981			

Source: <sup>1</sup> Hawaii Division of Aquatic Resources  
<sup>2</sup> Honolulu Laboratory, Southwest Fisheries Center, National Marine Fisheries Service

Some or all of these NWHI measures could be extended to the FCZ around the main Hawaiian Islands, thus establishing uniform measures throughout the FCZ around Hawaii. There are several reasons why this alternative is not warranted:

1. Conservation of spiny lobsters around the main islands would not be enhanced by this management regime. In the NWHI, the combination of lobster size limits with area closures and the costs of operating in the distant-water fishery militate against overfishing. In the main Hawaiian Islands, the bulk of the fishery is by recreational participants, who are not subject to a profitability constraint. It is likely that most lobsters reaching 7.7 cm. each year would be caught by sport fishermen in their first year of availability. The risk of general overfishing (or at least localized depletion) would probably increase markedly. If similar measures were not adopted in both the FCZ and State waters, the shore-based management and enforcement approach would be ineffective.
2. Even if the State adopted similar measures for spiny lobster management in State waters, there could be a short-lived increase in total catch, including commercial landings, but at the cost of a high risk of significantly lower catches in the future as the population of mature reproductive lobsters could quickly be reduced. Area closures could mitigate this risk, but at a high enforcement cost. Initial selection of areas to be closed would probably generate considerable controversy and would require a large amount of new data to demonstrate the need for selective closures.

3. Without a change in State laws and rules, there would continue to be different management measures in the FCZ and State waters. The enforcement problems would be increased.

C. Alternative 3: Amend State Laws and Rules

Under this alternative, the State would amend its rules which presently allow exemption from the State's size, season, and condition of catch restrictions upon obtaining an "import" permit. This would administratively assert that the State measures which regulate the harvest of spiny lobsters apply to all lobsters landed in Hawaii, whether taken in State waters or in the FCZ. Whether the State courts would uphold this change is unknown. The import permit system is established by statute, so action by the Hawaii State Legislature would be required to exempt spiny lobster. Legislative approval would be highly problematic, not to mention time consuming. Vessels could avoid compliance with State landing laws if they delivered their catch outside Hawaii.

D. Alternative 4: No Action

Under this alternative, the FMP would not be amended at this time. There would be no active conservation and management measures for fishing in the FCZ around the main Hawaiian Islands, although commercial permits, logbooks, and observer provisions from the approved FMP would continue to apply. State laws and rules would apply to fishing in State waters, where the bulk of the spiny lobster catch is made. The State import permit system would control the landing of lobster caught outside State waters. The reasons this alternative is undesirable are:

1. There would continue to be differences between the State's manage-

ment regime in State waters and the FMP in the FCZ which could result in adverse effects on the spiny lobster stock(s) around the main Hawaiian Islands. The State would have considerable difficulty demonstrating the guilt of anyone with an import permit bringing in "undersize" lobsters and claiming the lobsters were taken in the FCZ. The State's enforcement program is carried out by shore-based inspections, and the State carries out very limited at-sea enforcement activities at this time. Adoption of this alternative would not assure that enforcement can be carried out through shoreside inspection of landings, which is far simpler and less costly than at-sea enforcement.

2. This approach would not resolve the question of inconsistency raised by the State of Hawaii because of differences in conservation and management measures in State waters and in the FCZ.

## 5.0 IMPACTS OF ALTERNATIVE STRATEGIES

The proposed action would amend the Fishery Management Plan for the Spiny Lobster Fisheries of the Western Pacific Region by adopting a set of management measures for the spiny lobster fishery in the FCZ around the main Hawaiian Islands (Management Area 2) that are the equivalent of existing State laws and regulations to manage the lobster fishery in State waters.

The main Hawaiian Islands' fishery has been conducted predominately in State waters by recreational fishermen. The expanding commercial fishery now extends into the FCZ, but this area accounts for only a small percentage of the total catch. The area of potential lobster habitat in the FCZ is small in comparison to that in State waters. Direct impacts of the FMP amendment on the lobster stock will likewise be limited. Indirectly, however, the amendment affects how the State waters' fishery is conducted, the effectiveness of the State's management measures which apply to State waters, and the condition of the State waters' spiny lobster stock(s). For the purposes of comparing the impacts of the alternatives considered by the Council, this analysis views the fishery as a unit. No distinction is made between fishing in State waters or the FCZ.

This section considers the benefits and costs and assesses the impacts of the proposed action. The categories of impacts are as follows:

### Biological/Physical - Impacts on:

spiny lobster stock(s)

incidental catches

endangered and threatened species  
habitat

Economic and Social - Impacts on:

recreational catch and effort  
recreational fishery economic values  
commercial catch and effort  
incomes, costs, and profits  
small business entities  
employment

Enforcement and Administration - Impacts on:

enforcement costs  
government administrative costs  
reporting and data collection burdens  
plan amendment costs

A. Adopt State Measures in the FCZ (Preferred Alternative)

1. Biological/Physical Impacts

This alternative would maintain the shore-based enforceability of State conservation and management measures by implementing equivalent measures to regulate the harvest of spiny lobster in the FCZ around the main Hawaiian Islands. Since the implementation of the State measures in 1958, commercial landings of spiny lobster have been relatively stable. With increasing fishing activity in the FCZ around the main islands, there is a greater risk that the State's management program will lose effectiveness and stock productivity will not be maintained within a stable range. If this occurred, the average annual



harvest could be reduced by up to 15% from that of recent years, with 2,250 to 4,500 fewer lobster landed. The biological condition of slipper lobster, Kona crab, or other incidental catches will not be affected. As information is collected, the need for conservation and management measures can be determined for these species. The probability of any interaction with endangered or threatened species appears extremely slight given the scarcity of such species around the main islands; nor are their habitats likely to be affected.

## 2. Economic/Social Impacts

By reinforcing the effectiveness of the State management program, this alternative would maintain the productivity of the main islands' spiny lobster stock so that the average annual harvest will continue to range from 15,000 to 30,000 lobsters. This will prevent a 15% reduction in long-term annual landings (2,250 to 4,500 fewer lobsters per year). If valued at the present Honolulu market price of \$5.50 per pound, this number of lobster will generate annual economic benefits from \$12,375 to \$24,750 greater than the reduced catch under no action.

Fishermen will not bear any additional cost to comply with complementary management measures in the FCZ because they are already <sup>covered by</sup> complying with a similar set of regulations in State waters. Main islands' fishermen who sell their spiny lobster catch are principally part-time fishermen who have regular jobs and are not dependent on lobster fishing as a livelihood. Thus, the impacts on small business entities and employment will be negligible. There is no processing industry because of the requirement that lobsters taken around the

main islands be landed whole. Support activities are minimal and will not be affected.

3. Enforcement/Administrative Impacts

State enforcement, management and monitoring of the fishery will be reinforced and strengthened by complementary management in the FCZ, with a minimum of administrative difficulty. All vessels would be equally controlled, and no change in the State measures is needed. The present cost of enforcement is estimated to be \$28 per inspection. This alternative would assure that shore-based reinforcement of State conservation measures would continue to be effective with no additional cost. The only additional administrative cost is that of preparing and processing this amendment, approximately \$20,000.

Consistency in Federal/State management of spiny lobster resources in the Hawaiian Islands will be achieved to the maximum extent practicable. It is not possible to quantify the benefits of achieving consistency in State/Federal management; however, this will promote cooperative resource management and will avoid misunderstanding and costly legal action, such as has occurred in a few areas of the U.S. mainland where regional fishery councils and States have not cooperated.

B. Adopt NWHI Measures in FCZ Around Main Islands (Alternative 2)

1. Biological/Physical Impacts

This alternative could increase the risk of overfishing. The potential intensity of fishing pressure from recreational and commercial vessels around the main islands is much greater than in the NWHI, and it appears likely

that most lobsters would be caught almost as soon as they reach 7.7 cm. CL (especially around Oahu). There would be a short-term increase in commercial/recreational catches, after which catches would fall at least 15% below the recent annual average. Not only would landings decline by 2,250 to 4,500 lobsters per year, but there would also be increased risk that the reproductive potential of lobsters would be threatened. Selective area closures could mitigate this risk but they would be difficult to establish and costly to enforce.

Incidental catches of slipper lobster and Kona crab would probably be unaffected. There would not be any impacts on endangered or threatened species or their habitats.

## 2. Economic/Social Impacts

There could be a short-lived increase in total catch, but at the cost of a high risk of significantly lower catches in the future as the population of mature reproductive lobsters could quickly be reduced. Over the long-term, commercial/recreational landings could decline an estimated 15%, or 2,250 to 4,500 lobsters, below the average annual harvest in recent years. If valued at the present Honolulu market price of \$5.50 per pound, this number of lobster would represent a loss of \$12,375 to \$24,750 in annual economic benefits. The cost of lobster fishing operations would not increase as a result of compliance with different sets of regulations for State waters and for the FCZ around the main islands. Because of part-time nature of the main islands' lobster fishery, small business and employment impacts would be negligible. Effects on processing and support industries would also be insignificant.

## 3. Enforcement/Administrative Impacts

If the State did not also adopt these measures, this alternative could impose a substantial enforcement burden on the State of Hawaii. Shore-based enforcement would not be sufficient to assure compliance by all fishermen in State waters. At-sea enforcement of both State and FCZ regulations would be necessary, raising enforcement costs by \$527 per inspection. Conceivably, the State could agree to the new size limits and seasons, but this would require legislative as well as regulatory changes, at an estimated cost of \$29,000. Preparing and processing a FMP amendment would add approximately \$20,000 in administrative costs.

Without a change in State laws and rules, this alternative would not resolve the question of inconsistency of regulations in State waters and in the FCZ around the main Hawaiian Islands.

Area closures could mitigate the risk of overfishing under this alternative, but at a high enforcement cost. Initial selection of areas to be closed would probably generate considerable controversy and would require a large amount of new data to demonstrate the need for selective closures.

C. Amend State Conservation and Management Measures (Alternative 3)

1. Biological/Physical Impacts

This alternative would maintain the shore-based enforceability of the State management program as far as vessels landing lobsters in Hawaii are concerned. To this extent, it will protect the productivity of the main islands' spiny lobster stock to the same degree as Alternative #1 (Preferred Alternative). However, vessels could deliver lobsters outside Hawaii, in which case the State's season, size, and condition of catch restrictions could lose

their effectiveness, and the stock could be adversely affected. There are no vessels presently delivering lobster to ports outside Hawaii, and the quantitative impact on stock productivity if this occurred cannot be reliably estimated. The biological condition of slipper lobster, Kona crab, or other incidental catches will not be affected. Endangered or threatened species would not be affected, nor would their habitats.

## 2. Economic/Social Impacts

As long as all lobsters are landed in the State of Hawaii, the annual harvest around the main islands should be maintained in the stable range of 15,000 to 30,000 lobsters per year, or 2,250 to 4,500 more than if the annual harvest were reduced as a consequence of no action. If valued at the present Honolulu market price of \$5.50 per pound, this number of lobster would generate \$12,375 to \$24,750 more annual economic benefits than the reduced catch under no action. If lobsters are landed in ports outside Hawaii, there could be decreases in recreational/commercial catches and values because compliance with size and season restrictions could not be assured. Although the potential for overfishing increases with out-of-State deliveries, the resulting reduction in the annual lobster harvest and values cannot be reliably estimated.

The application of the State's size, season, and condition of catch restrictions to all spiny lobsters landed in Hawaii, whether taken in State waters or the FCZ, would not increase fishing costs because main islands' fishermen already comply with the regulations in State waters. Main islands' fishermen who sell their spiny lobster catch are principally part-time fishermen who have regular jobs. Therefore, the impacts on small business entities and employment will be negligible. There would not be any impacts on processing or

support activities.

3. Enforcement/Administrative Impacts

The difficulty and cost of enforcing the State's management program under this alternative would not increase if vessels landing lobsters in Hawaii are the only participants in the main islands' fishery. Shore-based enforcement would maintain its effectiveness. If vessels take their catch to other ports, at-sea enforcement will be necessary, raising the cost of enforcement by an estimated \$527 per inspection.

Although this alternative would resolve the question of inconsistency of regulations in State waters and in the FCZ, it would require amendment of one or more State of Hawaii statutes, and the time and difficulty involved in making these changes would increase administrative costs by an estimated \$29,000. The cost of amending a State statute is always high because action of the State Legislature is required. The administrative cost would be above average in this case because of reluctance to make spiny lobster an exception to the State's general fisheries management and import permit program.

D. No Action (Alternative 4)

1. Biological/Physical Impacts

Under this alternative, there would continue to be differences between the State's management regime in State waters and the FMP in the FCZ which could result in adverse effects on the spiny lobster stock(s) around the main Hawaiian Islands. The State would have considerable difficulty demonstrating the guilt of anyone with an import permit bringing in "undersized" lobsters and

claiming the lobsters were taken in the FCZ. With increasing fishing effort in the FCZ around the main islands, there is a greater risk that the State's management program will lose effectiveness and stock productivity will not be maintained within a stable range. If this occurred, the average annual harvest could be reduced as much as 15% compared to recent years, with 2,250 to 4,500 fewer lobster landed.

The stock status of slipper lobster and Kona crab would not be affected. There would not be any impacts expected on endangered and threatened species or on their habitats.

## 2. Economic/Social Impacts

Commercial/recreational catches and values would decline if this alternative resulted in reduction of the spiny lobster stock. If the State's management program loses effectiveness as a consequence of increasing lobster fishing activity in the FCZ around the main islands, the average annual harvest could be reduced as much as 15% (2,250 to 4,500 fewer lobster) from that of recent years. If valued at the present Honolulu market price of \$5.50 per pound, this number of lobster would represent a loss of \$12,375 to \$24,750 in annual economic benefits.

Fishing costs would not increase under this alternative. Small business, employment, processing and support activities would not be significantly affected.

## 3. Enforcement/Administrative Impacts

The cost of preparing and processing this amendment, approximately

\$20,000, would be avoided. Shore-based enforcement might no longer be sufficient to insure compliance with the State's size and season restrictions. The need for at-sea enforcement would increase costs by an estimated \$527 per inspection. This approach would not resolve the question of inconsistency because differences would remain in conservation and management measures in State waters and in the FCZ. It is not possible to quantify the cost of not achieving consistency in State/Federal fisheries management. However, in areas of the U.S. mainland where regional fishery councils and States have not cooperated, this has led to misunderstandings and costly legal action.



E. Summary of Costs and Benefits

The major categories of costs and benefits of the 4 management alternatives are compared below in matrix form:

Alternatives	Benefits and Costs			
	Spiny Lobster Stock Condition	Incidentally- Caught Species/ Endangered Species	Economic/ Social	Administration/ Enforcement
1 (Preferred)	+	0	Long-term + up to 12,375 to 24,750/year	- \$20,000
2	-	0	Long-term - up to 12,375 to 24,750/year	- \$20,000 to \$49,000 - \$527 per inspection
3	+	0	Long-term + up to \$12,375 to \$24,750/year	- \$29,000 0 to - \$527 per inspection
4	-	0	Long-term - up to \$12,375 to \$24,750/year	- \$527 per inspection

Code: 0 = no impact  
 - = negative impact (added cost in \$)  
 + = positive impact (added benefits in \$)

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## 6.0 PREFERRED ALTERNATIVE

### 6.1 Selected Management Regime and Justification

The proposed action would amend the regulations implementing the approved FMP to establish a set of management measures for the harvest of spiny lobster in the FCZ around the main Hawaiian Islands (which would be recognized as Management Area 2) which are the equivalent of existing State laws and regulations. The individual management measures and their justification are described in Section 6.2. The Preferred Alternative was selected based on comparing how well the alternatives would contribute to achieving the 4 objectives of the approved FMP and two additional objectives identified in this amendment.

#### 1. Protect Stock Productivity

The preferred alternative (1) is most likely to assure the long-term productivity of the main Hawaiian Islands' lobster stock and to prevent overfishing. Alternative 3 might also do so if all vessels land their catches in Hawaii. Alternative 2 is not likely to achieve this objective because it would set too low a lobster size limit for the main islands' fishery. Alternative 4 would not address the current risk of overfishing by either in- or out-of-State vessels.

#### 2. Maintain or Enhance Contribution to Economy

The preferred alternative is most likely to maintain a long-term stream of values from recreational and commercial fishing. Alternative 3 would achieve similar benefits if all catches are landed in Hawaii. Alternative 2 might result in a short-term increase in economic value from the fishery, but at

the cost of long-term productivity and benefits. Alternative 4 would not promote long-term contributions to the economy because it would not assure long-term productivity of the resource.

3. Collect Information

The preferred alternative could generate better information than the reporting requirement of the approved FMP, because there might be improved accuracy if there is no advantage to misrepresenting the area of catches. Other alternatives would not have a significant effect toward this objective.

4. Prevent Unfavorable Impacts on Endangered and Threatened Species

The fishery around the main Hawaiian Islands is unlikely to have any interaction with endangered and threatened species. None of the alternatives is significant in this respect.

5. Avoid Disruption of Established Fisheries

The preferred alternative would maintain established fisheries. Alternative 3 would likely meet this objective inasmuch as established fisheries are by Hawaii residents and vessels. Alternative 2 probably would result in substantial short- and long-term changes in the fisheries. Alternative 4 could result in changes if the lobster stock becomes reduced.

6. Reduce Administrative and Enforcement Burdens

The preferred alternative is the simplest approach in administrative terms. It will maintain the basis for shore-based enforcement, which is the least costly enforcement technique available. Alternatives 2 and 3 would be

costly and difficult to achieve, given the likely degree of controversy and debate which would arise. Alternative 3 could result in potentially high enforcement costs if out-of-State vessels which participate in the Northwestern Hawaiian Islands' fishery enter the main island's fishery. Alternatives 2 and 4 would generate high enforcement costs to insure full compliance by at-sea enforcement.

In summary, the Preferred Alternative (1) would satisfy all objectives at a relatively low cost; Alternative 3 could satisfy most objectives at a higher cost; Alternative 2 would only partially satisfy the objectives, and at a high cost; and Alternative 4 would not satisfy the objectives.

The analysis in Section 5.0 indicates that the Preferred Alternative (1) and Alternative 3 protect spiny lobster productivity and maintain long-term economic benefits to the same extent. The administrative cost of implementing the Preferred Alternative is at least \$9,000 less than that of Alternative 3, and the enforcement cost of the Preferred Alternative is approximately \$500 less per inspection. Alternative 2 would result in a long-term reduction of stock productivity, with a decline in catch rates and economic/social values and would substantially increase enforcement costs. Alternative 4 (no action) would increase the risk of overfishing, with a decline in catch rates and economic/social values.

## 6.2 Selected Management Measures and Justifications

Measure #1: All spiny lobsters less than 3.25 inches (or 8.26 cm) CL must be released.

Although the FMP established a minimum size limit of 3.0 inches (7.7 cm) CL for spiny lobster taken in the Northwestern Hawaiian Islands (Permit Area 1), a larger minimum size limit is justified for the main islands' fishery. The economic factors which restrain fishing effort in the NWHI are lacking in the main islands, where sport diving pressure on the spiny lobster stock is heavy. The larger minimum size limit is intended to relieve the impact of this fishing pressure on the main islands' lobster stock. The commercial landings reported over the past 25 years in the main islands' lobster fishery indicate that the fishery has been relatively stable since the time that the 8.26 cm size limit has been in effect through State regulations. There is no rationale for changing the minimum size limit from that enforced by the State. The selected size of 8.26 cm is within the range of carapace length already discussed by the Council's Scientific and Statistical Committee as biologically appropriate for the Hawaiian Islands' spiny lobster fishery. An additional rationale for the larger minimum size limit to regulate the main islands' fishery is that the 10-fathom area closures which restrict the NWHI fishery do not apply in the main islands. The risk that a size limit smaller than 8.26 cm CL would jeopardize the stock is thus higher in the main islands' fishery.

Measure #2: All spiny lobsters carrying eggs must be released.

This measure protects the reproductive potential of spiny lobster stocks. It is one of the regulatory measures in the approved FMP and is

justified by the same rationale. Most, if not all, established management programs for spiny lobster resources throughout the world include this conservation measure.

Measure #3: No spiny lobsters may be taken in June, July and August.

A summer closure on the lobster fishery is not for biological reasons, as there is no significant peak in spiny lobster reproduction around the main Hawaiian Islands during the June-August period. Rather, the closure is justified because of the highly seasonal nature of the sport diving fishery which places heavy pressure on the main islands' spiny lobster stock. Recreational fishing is difficult to regulate by other means, so the taking of spiny lobster is totally prohibited during the summer months of peak diving activities.

Measure #4: No spiny lobsters may be taken using spears, chemicals, poisons, or explosives.

The prohibitions are essentially the same as regulatory measures in the approved FMP and are justified by the same rationale.

Measure #5: Traps in which spiny lobster may be caught incidentally shall not exceed the following size dimensions: 6'x6'x10'.

Although a few commercial fishermen are targeting on spiny lobster using conventional lobster traps, the bulk of the landings in the main islands are made by sport divers and by multi-species tangle-net and fish trap fisheries. Multi-species trap fisheries cannot be conducted effectively using the smaller and more specialized lobster traps. Therefore, trap gear as large as the spe-

cified dimensions will be permitted so as to minimize disruption of the traditional multi-species fishery. Spiny lobster are an unavoidable incidental catch made with this gear.

Measure #6: Spiny lobsters must be landed whole and should not be in a condition where the body is penetrated or mutilated, or the carapace and tail are separated.

The existing FMP regulations, which apply to the Northwestern Hawaiian Islands' fishery, allow de-tailing of spiny lobster. The rationale for this is that, with a small number of commercial vessels landing large catches of lobster tails, it is not difficult to statistically relate the minimum allowed carapace length of 7.7 cm to an equivalent tail width (5.0 cm). In the main Hawaiian Islands' fishery, a large number of harvesters land a small number of lobster each. A data gathering program to assure that de-tailed lobster taken in the main Hawaiian Islands are the equivalent of the permissible carapace length would be unreasonably complex and expensive. A second reason for the requirement that spiny lobster be landed whole is the need to prevent gear conflict and resource competition in the main islands' fishery between traditional harvesters and modern, large scale harvester-processors.

The permit, reporting and logbook requirements and other provisions of the approved FMP for the FCZ around the main Hawaiian Islands would remain unchanged.



6.3 Determination of Impacts Under Executive Order 12291 and the  
Regulatory Flexibility Act

The participants in the main Hawaiian Islands' spiny lobster fishery are part-time fishermen who have regular jobs and who supplement their income by fishing. Thus, small fishing businesses would not be affected by this action. Section 5.0 projected that the proposed action could maintain the annual economic benefits from the fishery at a level from \$12,375 to \$24,750 higher than no action. For these reasons, the proposed action is not deemed to be "major" under the definition of Executive Order 12291 and will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act.

6.4 Applicability of the Paperwork Reduction Act

The data collection and reporting burdens of the approved FMP would be unchanged by the proposed action, and there is no new collection of information requirement for purposes of the Paperwork Reduction Act.





