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REPORT BY THE

Comptroller General

OF THE UNITED STATES

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Progress And Problems Of Fisheries Management Under The Fishery Conservation And Management Act

In response to a joint request from the House Committee on Merchant Marine and Fisheries and its Subcommittee on Fisheries and Wildlife Conservation and the Environment, GAO assessed progress and problems in fisheries management under the Fishery Conservation and Management Act, emphasizing the activities of the regional fisheries management councils.

The report addresses the progress made and the problems encountered in carrying out the act and contains detailed information on the activities of each of the five councils GAO reviewed.

The report includes recommendations to the Secretary of Commerce.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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CZIC COLLECTION

To the Chairman and Ranking Minority Member
House Committee on Merchant Marine and Fisheries
and the Chairman and Ranking Minority Member
Subcommittee on Fisheries and Wildlife Conservation
and the Environment
House Committee on Merchant Marine and Fisheries

Pursuant to your request of June 2, 1978, and discussions with your offices, this is our report on the progress and problems in fisheries management under the Fishery Conservation and Management Act, emphasizing activities of the regional fishery management councils and their interactions with the National Marine Fisheries Service.

As your offices requested, we did not take time to obtain agency comments on matters discussed in the report. However, we discussed its contents informally with officials of the Department of Commerce; the National Oceanic and Atmospheric Administration; the National Marine Fisheries Service; and the Gulf, Mid-Atlantic, New England, North Pacific, and Pacific Fishery Management Councils, and their comments are included where appropriate.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 2 days from the date of the report. At that time we will send copies to the House and Senate Committees on Appropriations and the Budget; the Senate Committees on Governmental Affairs and Commerce, Science and Transportation; the House Committees on Government Operations and Science and Technology; the Permanent Subcommittee on Investigations, Senate Committee on Governmental Affairs; the Subcommittee on Reports, Accounting, and Management, Senate Committee on Governmental Affairs; the Director, Office of Management and Budget; the Secretary, Assistant Secretary for Administration, and Director, Office of Audits, Department of Commerce; the Administrator and Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration; and the Executive Directors,

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Gulf, Mid-Atlantic, New England, North Pacific, and Pacific Fishery Management Councils. At that time copies will also be made available to other interested parties.

Acting Comptroller General
of the United States

REPORT OF THE
COMPTROLLER GENERAL
OF THE UNITED STATES

PROGRESS AND PROBLEMS OF FISHERIES MANAGEMENT UNDER THE FISHERY CONSERVATION AND MANAGEMENT ACT

D I G E S T

The National Marine Fisheries Service and eight regional councils have done much to achieve successful domestic fisheries management. They are working toward insuring conservation and realizing the full potential of the Nation's fishery resources. Specifically they have

--established eight regional fishery management councils,

--managed foreign fishing in the Fishery Conservation Zone through preliminary fishery management plans,

--developed plans to provide fisheries management for domestic and foreign fishermen, and

--decreased demand on domestic fish stocks. (See p. 5.)

The major functions of these councils are to prepare, monitor, and revise fishery management plans; the National Marine Fisheries Service estimates that eventually about 70 will be developed and implemented. As of September 1978, three fishery management plans had been approved and implemented, and other plans were in various stages of preparation and review. (See p. 10.)

Sixteen preliminary fishery management plans have been established to control foreign fishing in U.S. waters. Preliminary plans are prepared by the Secretary of Commerce and identify how much of a fishery resource can be used by foreign fishermen. These plans generally remain in effect until a permanent fishery management plan, prepared by the appropriate regional fishery management council, is implemented.

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Foreign fishing in U.S. waters has declined significantly. In 1975 approximately 2,700 foreign vessels were operating within 200 miles of the United States. In 1977 the number was reduced to about 930. In 1974 foreign fishermen harvested approximately 3.1 million metric tons; in 1976 approximately 2.3 million metric tons; and in 1977 foreign nations reported a harvest of approximately 1.7 million metric tons, which was 400,000 tons below the allocation of 2.1 million metric tons. The foreign allocation for 1978 is 1.9 million metric tons.

The foreign and domestic commercial catch was 3.8 million metric tons in 1977. Although the total commercial catch decreased 14 percent in 1977, the U.S. share increased from 48 percent in 1976 to 56 percent in 1977.

While progress has been made, basic problems exist in carrying out the Fishery Conservation and Management Act which hinder management effectiveness. The problems include

--limited biological and socioeconomic data upon which to base fishery management plans;

--limited public involvement, understanding, and acceptance;

--time-consuming process to develop and approve plans;

--jurisdictional problems; and

--limited long-range planning. (See p. 14.)

The councils and the National Marine Fisheries Service recognize some of these problems and are working toward solutions and improvements. For example, plans to provide necessary biological, social, and economic data have been approved by the Assistant Administrator for Fisheries. Suggestions are being developed and considered to streamline the development and approval process. Furthermore, a number of councils are considering ways to improve public participation.

Chapters 1-4 of this report address in general the progress made and problems encountered since the act was implemented. The appendixes detail the activities of the five councils reviewed.

RECOMMENDATIONS

The Secretary of Commerce should:

--Support the National Marine Fisheries Service's biological, social, and economic data collection plans to assure that the data necessary for effective fisheries management is provided.

--Monitor the extent to which jurisdictional problems impede fishery management plan implementation and, through the National Marine Fisheries Service and the councils, work with the States to enforce fishery management plans. If cooperative efforts with the States are ineffective, the Secretary should use the preemptive authority or propose additional legislation to extend Federal fisheries management over the territorial sea.

GAO also recommends that the Secretary of Commerce direct the Assistant Administrator for Fisheries to:

--Encourage councils to publicize and conduct meetings on fishery management plans at more convenient locations and to clearly explain in each plan why some actions were taken and others rejected.

--Speed up the fishery management plan development process by providing needed guidance on plan requirements to the councils; promptly reviewing draft plans; working with councils to develop implementing regulations concurrently with final plans; and, where feasible, using negative or generic environmental impact statements.

--Assist the councils in developing long-range plans for fisheries management which include measurable long-range, in addition

Tear Sheet

to short-range, biological, social, and economic goals.

AGENCY COMMENTS

As the Committee requested, GAO did not take additional time to obtain formal agency comments on the matters discussed in this report. However, the issues in the report were discussed with Agency officials who concurred with GAO's conclusions and recommendations and said that the study is perceptive and helpful.

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ABBREVIATIONS

ADF&G	Alaska Department of Fish and Game
FCMA	Fishery Conservation and Management Act
FMPs	fishery management plans
GAO	General Accounting Office
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OTA	Office of Technology Assessment
OY	optimum yield

GLOSSARY

Anadromous species	Fish, such as salmon, which spawn in fresh waters, migrate to ocean waters, then return to fresh waters to spawn.
Domestic fisheries	Fisheries or portions thereof under U.S. jurisdiction or for species taken entirely or predominately by U.S. fishermen.
Ecological	Pertaining to the branch of biology that deals with relations between living organisms and their environment.
Fisheries resources	Fish, shellfish, and other forms of aquatic plant or animal life.
Fishery	The act of or place for commercial and recreational fishing, often with reference to a particular season, species, or group of species.
Fishing effort	The activity of catching or harvesting fish, usually measured as a combination of the amount of gear and time used while fishing.
Gear	Fishing equipment such as nets, lines, and traps.
Maximum sustainable yield	The scientific term describing the balance between catching a certain number of fish of a particular species and leaving that number needed to allow propagation.
Ocean escapement	Allowing salmon to avoid ocean sport and commercial fisheries for further maturity, enhancement of fresh water spawning opportunities, and fulfillment of Indian fishing rights.

Optimum yield	The amount of fish that will provide the greatest overall benefit to the Nation, particularly for food production and recreation and that is determined on the basis of the maximum sustainable yield, modified by relevant economic, social, or ecological factors.
Overfishing	Harvesting more fish or shellfish than the maximum sustainable yield.
Recreational fishing	Fishing for pleasure, amusement, relaxation, or home consumption. If part or all of the catch is sold, the monetary returns constitute an insignificant part of the person's income.
Stock	A type or species of fish capable of being managed as a unit.
Territorial sea	A zone from the coastline to 3 miles offshore. This zone is regulated by individual States with each having jurisdiction over fish resources within its coastal boundaries. In some States, cities and towns have jurisdiction over some fisheries within their coastal boundaries.
Trolling	A method of catching fish, particularly salmon, by dragging lines through the water behind the boat at a slow speed. Hooks baited with herring or artificial lures are attached to the lines.

CHAPTER 1

INTRODUCTION

Depletion and overfishing of domestic fishery resources prompted the Congress in 1976 to pass the Fishery Conservation and Management Act, (Public Law 94-265). As a result of the act, U.S. jurisdiction was extended to 200 miles from the territorial sea baseline, and a new fisheries management organization was established. Eight regional fishery management councils--the New England, Mid-Atlantic, South Atlantic, Caribbean, Gulf, Pacific, North Pacific, and Western Pacific Councils--were set up to manage fisheries in conjunction with the States and the Department of Commerce's National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NMFS).

FISHERIES MANAGEMENT THROUGH THE ACT

The act emphasizes local fisheries management planning. The councils prepare, monitor, and revise fishery management plans (FMPs), and the Secretary of Commerce reviews, approves, and implements them.

Each FMP prepared and any applicable implementing regulations are to be consistent with the following national standards for fishery conservation and management described in section 301(a) of the act:

1. "* * * prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery."

2. "* * * be based upon the best scientific information available."

3. "* * * to the extent practicable, an individual stock of fish be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination."

4. "* * * not discriminate between residents of different states * * *."

5. "* * * where practicable, promote efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose."

6. "* * * take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches."

7. "* * * where practicable, minimize costs and avoid unnecessary duplication."

The Secretary of Commerce is to review fishery management plans for consistency with these national standards as well as with other provisions of the act and any other applicable law.

Additionally, the law established a new concept of fishery management planning--optimum yield. Optimum yield is the allowable catch which will provide the greatest overall benefit to the Nation, particularly concerning food production and recreational opportunities, and which is determined on the basis of the maximum sustainable yield 1/ from each fishery, modified by any relevant economic, social, and ecological factor.

In the past it was considered adequate to base fisheries management on the analytically determined total allowable catch that each species could sustain without damage to the present stock. The act recognizes, however, that in addition to biological factors implicit in the maximum sustainable yield concept, social, economic, and ecological factors are quite important in a free society and strongly affect the actual use of each species. The concept of optimum yield as opposed to maximum (or "best" as opposed to "most") should consider these social, economic, and ecological factors.

The Secretary of Commerce and the regional councils are responsible for determining optimum yield. To achieve optimum yields from U.S. fish stocks the Secretary or the councils may, in formulating management plans,

--require permits and fees from fishing vessels;

--limit or prohibit fishing at certain designated zones for specified periods by specified types of vessels or with specified fishing gear;

--limit the catch of fish by quotas on total number, size, weight, sex, etc.; and

--limit access to a fishery under certain conditions.

1/Maximum sustainable yield is the total allowable catch that each species can sustain without damage to the parent stock.

While the act sets forth explicit requirements for determining biological, sociological, and economic objectives upon which FMPs must be based, it does not specify how these determinations should be made. Those responsible for implementing the act are directed merely to rely upon "the best scientific information available."

The law has produced accomplishments in fisheries management and conservation. (See ch. 2.) However, some controversy has accompanied implementation of the law. (See ch. 3.) Improvements are needed to enhance benefits to the Nation from strong fishery management and conservation practices.

PRIOR GAO FISHERIES REPORTS

We have issued the following reports on the U.S. fishing industry which concerned development and conservation measures:

--"U.S. Fishing Industry Can Be Strengthened By Developing Underutilized Fish Resources," (GGD-75-68, May 30, 1975).

--"Action Is Needed Now to Protect Our Fishery Resources," (GGD-76-34, Feb. 18, 1976).

--"The U.S. Fishing Industry--Present Condition and Future of Marine Fisheries," (CED-76-130, Dec. 23, 1976).

--"The U.S. Great Lakes Commercial Fishing Industry--Past, Present and Potential," (CED-77-96, Sept. 30, 1977).

--"The Pacific Fishery Management Council's Role in Salmon Fisheries," (CED-79-4, Nov. 9, 1978).

In these reports we advocated strong actions to manage and conserve fisheries while developing underutilized species.

ORIGIN AND SCOPE OF STUDY

Because of our prior work, the Chairmen and Ranking Minority Members of the House Committee on Merchant Marine and Fisheries and the Subcommittee on Fisheries and Wildlife Conservation and the Environment of the same Committee requested that we study the progress and problems of the act with emphasis on the councils and their interactions with NMFS, the law's impact on selected fisheries, and the adequacy of programs administered by NMFS to conserve and develop fisheries.

This report is the first in a series and addresses progress and problems of NMFS and five regional fishery management councils selected by the Subcommittee. (See apps. I-V.)

In performing the study we reviewed activities of the New England, Mid-Atlantic, Gulf, Pacific, and North Pacific Regional Fishery Management Councils. We attended and reviewed minutes of council meetings, interviewed council members and staff, and talked to members of the councils' scientific and statistical committees and advisory panels. We also interviewed selected fishermen, fish processors, and vessel owners, and held discussions with representatives of NMFS, the Coast Guard, and various State agencies.

Chapters 1-4 of this report address in general the progress made and problems encountered since the act was implemented. The appendixes detail the activities of the five councils reviewed.

CHAPTER 2

PROGRESS IN FISHERIES MANAGEMENT ACHIEVED BY NMFS AND THE REGIONAL COUNCILS

The Fishery Conservation and Management Act authorized establishment of an innovative fisheries management organization and system to manage fisheries. The act was passed on April 13, 1976, and became effective March 1, 1977. The National Marine Fisheries Service and the regional councils have done much to achieve the goals of this law, including

--establishment of the eight regional fishery management councils,

--management of foreign fishing effort in the Fishery Conservation Zone through preliminary fishery management plans,

--development of fishery management plans for domestic and foreign fishermen, and

--decreased pressure on domestic fish stocks.

REGIONAL FISHERY MANAGEMENT COUNCILS ESTABLISHED

The act created a system of resource management in the form of a partnership consisting of the Secretary of Commerce, the States, and the eight regional fishery management councils. This system emphasizes local development of fishery management plans by the councils and approval and implementation of the plans by the Secretary of Commerce.

The first step in implementing the act--establishment of the councils--was carried out quickly and efficiently. Charters for the councils were filed on July 21, 1976, and members were appointed by August 1976. By the end of 1976, the councils were operating.

The councils are federally supported through the Department of Commerce. The Secretary of Commerce has provided program, administrative, and technical support to establish the councils, processed budget requests and funding, and provided guidance on operation to councils.

Interim and final regulations were published by the Secretary in the Federal Register on September 15, 1976, and July 5, 1977, respectively. Generally, the regulations defined terms, geographical boundaries, uniform standards

for organization, practices and procedures, and guidelines for development of FMPs. Additional interim regulations were published on July 18, 1977, which addressed more controversial areas such as intercouncil boundaries, administration practices and procedures, and format and content of FMPs. Guidance has also been given to the councils through workshops on limited entry 1/ and optimum yield.

Makeup of the councils

The councils have voting and nonvoting members, as mandated by the act. Voting members include

--the principal fishery management official in each State in the council's region,

--the NMFS Regional Director, and

--individuals selected by the Secretary of Commerce from lists submitted by Governors of the States in the council's region.

The State appointees act as liaisons between the councils and the States. The NMFS representative performs a similar role between the councils and NMFS. Individual members selected from the Governors' lists generally include commercial and recreational fishermen, processors, and consumers; therefore, they represent those groups to the council. Nonvoting members include Federal, State, and local representatives and others with an interest in fisheries management.

As mandated by the act, each council is to establish a scientific and statistical committee to assist the council in developing, collecting, and evaluating statistical, biological, economic, social, and other scientific information needed by the council as input for fishery management plans. Such committees are multidisciplinary and generally include marine biologists, scientists, statisticians, and economists.

The act also provides that the councils may establish advisory panels as necessary to assist in carrying out their responsibilities. All councils have established panels to advise them on particular issues related to fisheries management. Such panels are made up mainly of fishermen, processors, dealers, and others familiar with particular species on which the council seeks advice.

1/A concept applied to limiting the number of fishing units participating in a fishery.

The act also provides for Federal funding through the Secretary of Commerce for council staff. Each council can appoint and assign duties to an executive director and other full- and part-time administrative employees. Council staff are responsible for preparing budgets, financial management, procurement, coordinating planning efforts, maintaining council records, correspondence, and preparing required council reports.

Although the makeup of each council is different, we found that for most councils the mix of council members, advisory panel members, and professional staff represents the various interest groups. In a Congressional Research Service study, council members were asked whether they adequately represented the various interest groups. Six of the eight councils said yes. Our discussions with council members and industry representatives confirmed that membership generally represents the various interests.

Council duties

Regional council duties also include

--preparing comments on applications for foreign fishing within the 200-mile zone,

--conducting public hearings in developing fisheries management plans and amendments to such plans,

--reviewing and revising optimum yield and total allowable level of foreign fishing for each area of authority, and

--submitting an annual report to the Secretary of Commerce on council activities.

The councils have cooperated and worked with other Federal agencies (other than NMFS), the States, and each other to manage foreign and domestic fisheries. Accordingly, a system has been established to manage foreign and domestic fishing as outlined in the act through the cooperation of the Departments of Commerce and State, the U.S. Coast Guard, the States, and the councils.

The first major step toward achieving the act's fishery management goals was the development of measures to manage foreign fishing activities within the Fishery Conservation Zone.

MANAGING FOREIGN FISHING THROUGH THE ACT

The act extended U.S. jurisdiction to 200 miles from the U.S. coastline and established a system to manage foreign fishing activities in the Fishery Conservation Zone. The Department of State, in cooperation with the Department of Commerce, negotiated international fishery agreements with 12 major nations that wanted to fish in the Fishery Conservation Zone.

Anticipating foreign fishing permit applications before March 1, 1977, and recognizing that the councils would probably not be fully organized and capable of preparing FMPs to control foreign fishing before that time, the Department of Commerce prepared 16 preliminary fishery management plans. These preliminary plans identified that portion of the optimum yield that would not be harvested by domestic fishermen, thus establishing the total allowable catch by foreign fishermen in the Fishery Conservation Zone.

The Secretary of Commerce published regulations to govern 1977 fishing activities of foreign vessels in February 1977. These regulations became effective on March 1, 1977, and were issued pursuant to the preliminary plans. The regulations included conditions under which permits would be issued to foreign fishing vessels, quotas, vessel reporting requirements, vessel identification procedures, enforcement procedures, observer acceptance, and report and recordkeeping requirements.

Allowable surplus fish available to foreign nations were listed in the regulations by species, ocean area, and quantity available in metric tons. Detailed regulations for each fishery also included species, catch quota or effort limitation, open seasons and areas, closed seasons and areas, gear restrictions, statistical reporting, and incidental catch.

The final regulations to govern foreign fishing during 1978 were published on November 28, 1977. These regulations amended and streamlined the foreign fishing regulations based on experience gained during the first year of administering the act. Many of the changes were based on amendments to the preliminary management plans, reflecting changes in the status of certain fish stocks. Additionally, NMFS established a fee schedule for foreign vessels operating within the Fishery Conservation Zone. Criteria used in establishing the schedule were based on guidance in the act and included reasonableness, recovery of an appropriate portion of management costs attributable to foreign fishing, nondiscrimination, simplicity in computation and collection, and function and size of the vessel.

Enforcement of foreign fishing regulations is the joint responsibility of NMFS and the U.S. Coast Guard. As of June 1978, the Coast Guard and NMFS had boarded foreign vessels over 1,700 times. NMFS and Coast Guard enforcement personnel had documented 613 infractions of Federal regulations governing fishing in the Fishery Conservation Zone by foreign vessels.

Programs were developed in 1977 to place U.S. observers on foreign fishing vessels. The observers collect data on total catch, catch composition, level of fishing efforts, gear utilization, catch disposition, and marine mammal catch. The observers also perform biological sampling and monitor fleet compliance with foreign fishing regulations.

In 1977 observers were on board about 36 percent of foreign vessels for 26 percent of the days that the vessels were off Alaska and the North Pacific areas. Observers were on board about half the foreign vessels for about 21 percent of the vessel days they were in Atlantic waters. In 1978 an observer program was also initiated to cover Japanese tuna longline vessels which catch billfish and sharks incidentally. Observers were on board these vessels about 11 to 14 percent of total vessel days in the Gulf of Mexico. The observer program is paid for through reimbursements from the foreign nations.

DEVELOPMENT OF FISHERY MANAGEMENT PLANS

The act specified that the councils prepare FMPs to provide fisheries management for both domestic and foreign fishermen. The FMPs, when approved and implemented by the Secretary of Commerce, replace the corresponding preliminary management plans.

Because the councils are unique, each council's progress in preparing plans has varied. In June 1978 the Assistant Administrator for Fisheries, NOAA, testified before the Subcommittee on Fisheries and Wildlife Conservation and the Environment of the House Merchant Marine and Fisheries Committee that certain councils, because of experience with fishery management in these geographical areas of concern, have moved quickly in carrying out their functions. Other councils have progressed slowly.

NMFS estimates that eventually about 70 FMPs will be developed and implemented. As of September 1978, the Secretary of Commerce had approved and implemented three FMPs, including Atlantic groundfish from the New England Council,

surf clam and ocean quahog from the Mid-Atlantic Council, and 1977 and 1978 commercial and recreational salmon fisheries from the Pacific Council. Additionally, the New England Council's plan for the Atlantic herring fishery was undergoing public review; the Pacific Council's plan for the Northern anchovy fishery had been approved and proposed regulations were undergoing review, and the North Pacific Council's plans for tanner crab off the coast of Alaska and the Gulf of Alaska groundfish fishery had been approved and final regulations were being prepared.

The following table indicates, by council and fishery, when the council began or plans to begin FMP preparation.

Fishery	Date
New England Council:	
Sea herring	8/77
Scallop	8/77
Pollock	1/78
Red fish (ocean perch)	1/78
Hake (silver)	10/77
Other hake	4/78
Red crab	6/78
Northern shrimp	Plan not yet scheduled
New England groundfish (cod, haddock, and yellowtail flounder)	Plan adopted
Revised FMP for 1978	Plan adopted
Comprehensive FMP for 1979	6/78
Lobster	1979
Mid-Atlantic Council:	
Squid	4/77
Mackerel	9/77
Butterfish	12/77
Fluke	5/78
Sharks	12/77
Scup	9/78
Sea bass	Plan not yet scheduled
Surf clam and ocean quahog	Plan adopted
Bluefish	6/78
American lobster	Plan not yet scheduled
American shad, hickory shad, and river herring	Plan not yet scheduled
Dogfish	Plan not yet scheduled
Tilefish	Plan not yet scheduled

Fishery	Date
South Atlantic Council:	
Swordfish	6/78
Billfish	3/77
Snapper-grouper complex	9/77
King and Spanish mackerel	2/78
Corals	7/78
Spiny lobster	7/78
Calico scallops	11/78
Caribbean Council:	
Spiny lobster	6/77
Shallow water reef fish	7/77
Migratory coastal pelagics	6/78
Mollusk	1979
Precious corals	1979
Deep water reef fish	1979
Gulf of Mexico Council:	
Groundfish	10/77
Shrimp	11/77
Coastal migratory pelagics	6/78
Reef fishes	11/77
Coastal herrings	10/78
Precious corals	10/78
Gulf swordfish	1978
Spiny lobster	8/78
Squid	Plan not yet scheduled
Sharks	6/78
Stone crab	5/78
Western Pacific Council:	
Spiny lobster	4/77
Precious corals	4/77
Seamount resources	4/77
Billfish	4/77
Bottomfish	4/77

Fishery	Date
Pacific Council:	
Comprehensive salmon	6/77
Groundfish	4/77
Dungeness crab	9/77
Pink shrimp	9/77
Anchovy	Plan adopted
Squid	9/77
Jack Mackerel	4/78
Pacific herring	7/78
Commercial and Recreational salmon, 1977	Plan adopted
Revised FMP for 1978	Plan adopted
Revised FMP for 1979	10/78
North Pacific Council:	
King crab	4/77
Bering Sea groundfish	4/77
Bering Sea clam	7/77
Snail	1982
Dungeness crab	1981
Tanner crab	Plan adopted
Groundfish-Gulf of Alaska	Plan adopted
Commercial troll fishery	Plan withdrawn
High seas salmon east of 175° E will replace commercial troll fishery	4/77
Bering Sea shrimp	7/78
Bering Sea herring	1978
Scallops	1979
Shrimp (except Bering Sea)	1980
Corals	1983
Halibut	6/78
Ocean salmon	Plan not yet scheduled

According to an NMFS official, a council will generally take about 1 to 1-1/2 years to prepare a management plan. The time needed to prepare the plan, of course, will depend on the complexity of the fishery and procedures used to develop the plan; that is, in-house or by contract. NMFS estimates that once a preliminary draft plan is submitted, it needs an additional 230 to 270 days to review and approve the plan, hold necessary public hearings, and publish implementing regulations.

PROGRESS TOWARD REDUCING FISHING DEMAND ON FISHERY RESOURCES

The Fishery Conservation and Management Act was motivated by the overfished or depleted condition of fishery resources. In his June 1978 testimony before the Subcommittee on Fisheries and Wildlife Conservation and the Environment, House Merchant Marine and Fisheries Committee, the Assistant Administrator for Fisheries, NOAA, stated "the decline of these valuable fish stocks has been either stopped or substantially slowed." Through the provisions of the act, pressure on fishery resources has been reduced by controlling the size of the catch, limiting the number of fishing vessels, or restricting fishing to certain areas.

Foreign fishing has declined significantly. In 1975 approximately 2,700 foreign vessels were operating within 200 miles of the United States. In 1977 the number was reduced to about 930. In 1974 foreign fishermen harvested approximately 3.1 million metric tons; in 1976 approximately 2.3 million metric tons; and in 1977 foreign nations reported a harvest of approximately 1.7 million metric tons, which was 400,000 tons below the allocation of 2.1 million metric tons. The foreign allocation is 1.9 million tons during the 1978 season.

The foreign and domestic commercial catch was 3.8 million metric tons in 1977. Although the total commercial catch decreased 14 percent in 1977, the U.S. share increased from 48 percent in 1976 to 56 percent in 1977.

CHAPTER 3

IMPLEMENTATION PROBLEMS HINDER EFFECTIVE FISHERIES MANAGEMENT

While progress has been made in establishing the regional councils, managing foreign fishing, developing management plans, and reducing fishing levels on depleted stocks, basic problems in implementing the Fishery Conservation and Management Act are hindering management effectiveness. The problems include

--limited biological and socioeconomic data upon which to base FMPs;

--limited public involvement, understanding, and acceptance;

--time-consuming process to develop and approve plans;

--jurisdictional problems; and

--limited long-range planning.

The problems are complex. Administrative, scientific, legal, and educational solutions are needed which, in most cases, will require time to devise and implement.

DATA TO DEVELOP PLANS IS LIMITED

We found that lack of adequate biological, sociological, and economic data has been a problem in developing FMPs. The act put new pressures and emphasis on data required for fishery management. Specifically, biological data is needed to assess the status of the stocks and to devise management and conservation practices including providing data upon which quotas are set and restoration strategies are determined. In addition, because the law established a new concept of optimum yield, data on the social and economic effects of fishery management is required.

Biological data

Traditionally, fisheries management has been based on biological considerations. Therefore, biological data is more sophisticated and research concepts are better understood than are economic or social information.

The principal biological data tool is stock assessment, the study of marine fish population in terms of their

potential commercial yield, as well as the limits of that yield. Stock assessment attempts to develop an understanding of marine ecosystems and the effects of man's activities upon them. The mechanisms that influence marine ecosystems, as well as those that influence fishing activities, if understood and properly applied, serve as one means to predict the effects of future activities. Therefore, stock assessments contribute significantly to fisheries management.

Stock assessments seek to develop information on what the maximum sustainable yield of a fishery is. That is, fisheries are viewed as a renewable resource dependent upon the introduction (recruitment) of young fish into the population, their rate of growth, their natural mortality, and the mortality rate caused by fishing activities. The management goal is to not remove more from the population than can be replaced, thus allowing maintenance on a steady basis of an allowable surplus over and above the parental stock necessary to produce that surplus. The principle that catch should not exceed the maximum sustainable yield has found nearly universal acceptance in the international community.

NMFS and council officials acknowledge that present biological stock assessment data is limited. A need exists for biological stock assessment data including

--an understanding of species stock biology,

--stock indexes which clearly show trends in abundance of fish stocks,

--survey information that demonstrates changes in total stock abundances and age composition,

--survey information giving prerecruit indexes,

--accurate knowledge of species/stock abundance and area locations,

--accurate age and size composition,

--historical catch-effort data,

--understanding of movements and migration,

--knowledge of the effect of such factors as temperature and water quality, and

--knowledge concerning the interrelatedness among species.

Fishermen and scientists argue that FMPs are based on inadequate scientific information. In commenting on the 1978 salmon plan, the scientific and statistical committee of the Pacific Council noted certain deficiencies in biological data and concluded that "the lack of fully adequate information is still a serious problem." The committee found that the council had used the best scientific information available, "but this is still meager in several critical areas and should be rectified as soon as possible." The committee also found that information was needed on spawning escapements to California rivers and streams, the extent of the shaker problem (method used to shake incidental catch off the hook) and associated mortalities of hooked and released fish, particularly during the early season in Oregon and California waters, and an analysis of the overall effects of adopting a coastwide, 28-inch minimum length for chinook salmon. Similarly, when the Mid-Atlantic Council asked NMFS for a bluefish assessment, there was no data available simply because NMFS had no reason to accumulate data for this species before the act.

In a June 1977 report, the Office of Technology Assessment (OTA) stated that "presently no stock has adequate quantitative data on all items necessary to develop estimates of maximum potential yields that can be harvested without reducing the parent stock." OTA also stated that it would be desirable to establish clear research priorities for future stock assessment efforts, to define the level of assessment accuracy required for specific management decisions, and to evaluate the accuracy of current assessment methods.

Social and economic data

Social and economic data, generally not used for fisheries management before the act, is even more limited than biological data. Social data on fishermen and the communities in which they live and economic data on variation in fishing effort and prices and current and uniform catch statistics are necessary to determine the social and monetary impact of FMPs on fishermen.

Additional economic information is necessary to

--determine optimum yield,

--project domestic catch and capacity to catch,

--promote efficiency in the harvest sector of the fishing industry,

--understand and manage the impact of foreign fishing and imports of fish to U.S. markets,

--determine the greatest overall benefit to recreational fishing, and

--define fisheries on economically relevant terms.

Needed social data includes

--baseline information on the makeup of fishing communities in the United States,

--information on social and cultural factors influencing the acceptance of fisheries management proposals, and

--information on factors influencing the type and rate of technological change that can be expected in the fishing industry in the future.

An intradepartmental Committee on Fisheries Management Data of the Department of Commerce, which focuses on economic and allied data needs, noted a lack of data policy, long-range plans, and research in this area. The committee found that key questions need to be answered, including what data should be collected, by whom, and how often. It suggested that NMFS should have a mechanism for identifying existing, new, and changing needs and for developing comprehensive and practical ways of meeting these needs. The committee stated that "this function has been better performed for biological data than for economic and social data."

NMFS and council officials commented that the council's efforts in devising FMPs have been hindered by a general lack of social and economic data. For example, the Pacific Council's salmon plan development team economist said that the team does not yet know what essential economic information is needed as input for fishery management plans. He believed that the councils' fishery plans are most vulnerable in terms of economic data. Particularly, he felt that there is a lack of reliable data on the quantity and landing statistics for fishing boats. Similarly, members of the Mid-Atlantic Council, in drafting the surf clam and quahog FMP, admitted that their efforts were hindered by a lack of sufficient data on the economic impact of the proposed catch limitations.

OTA pointed out in its report areas in which additional or more accurate economic information is needed most urgently: vessel inventories, costs and earnings data, vessel construction costs, demand analysis data, vessel size, employment opportunities, labor force skills, and recreational

fishing benefits. In addition, OTA stated that social data required to determine an optimum yield that takes sociocultural factors into account is almost nonexistent. OTA stated that NMFS collects little data about the fishing fleet and no information about fishing effort or any other kind of data on social and political institutions or economic performance.

Plans to improve data

NMFS recognizes that there are uncertainties in data collection and that problems exist with the data generated and the use of that data. NMFS officials have been working on improving their biological/stock assessment data. Presently, they are attempting to update and improve their 5-year program development plan for their Marine Resources Monitoring, Assessment, and Prediction Program, which is aimed at developing a nationwide fishery resources assessment system and bringing the system to an operational status. For fiscal years 1977 and 1978, NMFS' biological research budget was about $28 million and $32 million, respectively. The projected and proposed biological budget for fiscal year 1979 is about $35 million.

As for social and economic data, NMFS officials are developing plans to (1) identify data needs, (2) determine what data is currently available, (3) establish a data locator system so that available data is readily accessible, and (4) establish programs within NMFS to develop needed data which is currently not available. Specifically, the Assistant Administrator for Fisheries approved in August 1978 a set of recommendations to establish a 5-year program which will accomplish such plans.

NMFS' social and economic research budget for fiscal years 1977 and 1978 was about $5 million for each year. In an attempt to build up and improve its social and economic data, NMFS has requested a budget of over $7 million for fiscal year 1979.

PUBLIC INVOLVEMENT, UNDERSTANDING, AND ACCEPTANCE IS LIMITED

Limited public involvement, understanding, and acceptance of FMPs hinder the effectiveness of fisheries management. Council procedures often make it difficult for fishermen to participate in council meetings, and fishermen's limited understanding of plans diminishes their participation and support of management efforts.

Public involvement is vital to the fishery management plan development process. It allows various fishery interest groups to voice their concerns and provide ideas. While various services are provided to encourage public input to plan development, we found that the level of public involvement is often limited.

Basis for public involvement

Section 302(h)(3) of the act states that each council shall:

> "* * * conduct public hearings, at appropriate times and in appropriate locations * * * so as to allow all interested persons an opportunity to be heard in the development of fishery management plans and amendments to such plans. (sic) and with respect to the administration and implementation of this Act * * *."

The act also gives interested persons a period of not less than 45 days to submit written comments on management plans or amendments and any implementing regulations. The councils also comply with these requirements.

In addition to the above provisions for public involvement, the council is also required to follow the provisions of the Federal Advisory Committee Act. This act requires that all council, committee, and panel meetings be open to the public with certain exceptions. This provision is designed to ensure open meetings and public access to council-generated information.

To summarize, public involvement is possible through

--representation on the council and advisory panels,

--public meetings and hearings, and

--written comments to proposed plans or regulations published for comments.

Factors inhibiting public input and support

Although council representation is generally adequate to represent the various interests, other areas of public involvement need improvement. Fishermen in some councils have found that council procedures often made it difficult for them to participate in council meetings. The most often cited reasons why fishermen found it difficult to attend meetings were

--inconvenient and expensive locations,

--cost involved in not fishing while attending meetings, and

--meetings were not well publicized.

As an example, the North Pacific Council schedules public meetings monthly and also has a 2-hour testimony session. The fishermen we contacted said that it is difficult to participate in council meetings. Most meetings have been in Anchorage, and fishermen say that attendance at meetings would cost them time and money.

Fishermen's limited understanding of plans diminishes their participation and support of management efforts. The plans often do not explain clearly why certain actions were taken and others rejected. We found that often fishermen consider plans too technical and do not agree with the scientific and technical data upon which they are based. As a result, the plans and accompanying regulations are not well received and supported. As an example, fishermen have criticized the New England groundfish plan as being inadequate and have not supported its implementation.

DEVELOPING, APPROVING, AND IMPLEMENTING FMPs IS TIME CONSUMING

A problem which has hindered the act's effectiveness is that developing, approving, and implementing FMPs is a time-consuming process. According to NMFS, this is not only a problem of time, but also of perception. Many fishermen are either not familiar with fisheries management or are used to the way it has been done by the States--on a day-to-day basis.

The FMP development and approval process involves four phases:

--Presubmission.

--Discussion paper.

--Draft environmental impact statement/FMP.

--Final environmental impact statement/FMP.

During the presubmission phase, the council prepares the FMP. Additionally, the councils, with assistance from the NMFS Regional Office, prepare an environmental impact

statement and an economic impact analysis. The economic impact analysis is required by an Executive order that agencies prepare regulatory analysis of regulations which are both significant and are expected to have major economic consequences. The environmental impact statement, on the other hand, is required by the National Environmental Policy Act (NEPA) of 1969 which requires, among other things, that all Federal Government agencies shall include in every recommendation or report on proposals for legislation and other major Federal actions, which significantly affect the quality of the environment, a detailed statement on the environmental impact of the proposed action.

The discussion paper phase involves transmittal of documents from the council to NMFS. The draft environmental impact statement is reviewed by the Department of Commerce's Environmental Work Group to see if it meets departmental policies. If the proposed draft environmental impact statement is adequate, the council will be notified that it can begin printing the draft environmental impact statement/FMP.

The draft environmental impact statement/FMP phase, or third phase, marks the beginning of the NEPA procedures, allows the Secretary of Commerce an opportunity to offer any advance comments, and allots time for public hearings. This phase includes an intensive NMFS review to see if the FMP is consistent with the act.

The fourth and final phase, the final environmental impact statement/FMP phase, includes two separate actions. First, the NEPA procedures are concluded by making the final environmental impact statement/FMP available for public review (involves a 30-day "cooling off" period). Second, the Secretary of Commerce is required to approve or disapprove the FMP within 60 days after the plan is received. If the FMP is approved, the review process is completed. However, if the FMP is partially or completely disapproved, the council has 45 days to resubmit it with suggested corrections.

To implement the FMP after secretarial approval, the council or NMFS prepares proposed regulations. Ideally the requlations should be developed correspondingly witn the final environmental impact statement/FMP. NMFS is drafting model FMP regulations to assist those who must write regulations and to provide a basis for uniform codification.

There is no deadline for preparation of fishery management plans and no nationwide priority for the preparation of

such plans. For example, there is no set time frame for the presubmission phase. Consequently, councils have spent considerable time preparing plans. For example, the Gulf Council has spent over 1-1/2 years developing the shrimp plan, which still has not been forwarded to the Secretary.

Furthermore, NMFS has required that the councils prepare environmental impact statements for all their FMPs. The councils have questioned the need for preparing this document. NMFS is considering ways to speed up the environmental impact statement process through the use of negative declarations or through the use of a generic environmental impact statement which could cover several plans. NMFS is also developing a prototype environmental impact statement/FMP that, by example, suggests reasonable standards for quality and volume of material included.

Delays in development and implementation of FMPs have also been caused by lengthy management review and approval processes and time-consuming compliance reviews with other applicable laws and administrative orders. The act states that the Secretary of Commerce should review an FMP within 60 days after it is submitted by the council. However, the northern anchovy plan, the Alaska groundfish plan, and the tanner crab plan took about 120 days, or twice the allotted time, for secretarial review.

NMFS has instituted an advance, informal review of and comment on draft FMPs by its field and headquarters representatives. However, NMFS officials informed us that because of limited staff they have not been able to aid the councils by contributing input to the FMP development process as much as they would like. This has contributed to delays in plan approval once the plans are submitted to NMFS headquarters for secretarial review.

The North Pacific Council has experienced serious delays in implementing its two initial management plans, the Gulf of Alaska groundfish plan and the tanner crab plan. These plans are the first that involve foreign fisheries. Thus, many foreign, Department of State related problems needed to be resolved. According to NMFS officials, a basic problem with the Alaska groundfish plan was that it was to be implementd in midyear, replacing an existing preliminary management plan. Foreigners claimed that changes would have been in violation of international agreements. As with the tanner crab plan, NMFS officials said that a major problem was the concern over an international issue with the Japanese. NMFS questioned the council decisions on the plan which adversely affected foreign fishermen.

Delays have also stemmed from the problem of a legal issue of inseason adjustments. 1/ The issue is how does one make inseason adjustments within the scope of the act. Under the approved Gulf of Alaska groundfish plan and the tanner crab plan, the NMFS Regional Director could make certain inseason adjustments, such as close an area to fishing, if he determined that certain conditions specified in the two FMPs existed. An essential aspect of this provision is that inseason actions could be taken quickly without the need to amend the FMP in the interest of facilitating fishery management.

The National Oceanic and Atmospheric Administration's Office of General Counsel reviewed the legal issue raised by the inseason adjustment provision and concluded that this provision is consistent with the Fishery Conservation and Management Act. Regulations to implement the Secretary's adjustment actions were promulgated pursuant to section 305(c) of the act. The actions themselves, however, are subject to a 45-day public comment period which limits any quick inseason adjustments.

Currently, under the Fishery Act the only way inseason adjustments can be made quickly is under the emergency regulation provisions of section 305(e) of the Fisheries Act. To invoke these provisions, the Secretary of Commerce must find that an emergency exists involving a fishery resource. These provisions have been used in several instances to amend the New England Groundfish Plan. The North Pacific Council believes that additional flexibility is needed to make inseason adjustments without having to use the emergency amendment procedures. In considering the need for additional inseason adjustment flexibility, Commerce and NMFS officials should balance the potential benefits to fishery resource management derived from such adjustments against the public participation safeguards built into the current legislation.

JURISDICTIONAL PROBLEMS

An effective system of fisheries management has traditionally been hampered by the multiplicity of jurisdictions. The Fishery Act provides for establishment of a 200-mile

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1/The adjustment of an FMP during the period which it covers; for example, changing fish quotas.

Fishery Conservation Zone within which the United States assumes exclusive fishery management authority and, accordingly, provides for effective management of fishery stocks predominantly in the Fishery Conservation Zone. However, many important species within 3 miles of the shore lack unified management.

Approximately 77 percent of the species of fish and shellfish listed in the Fishery Statistics of the United States for 1975 are harvestd by U.S. commercial and recreational fishermen predominantly within the 3-mile territorial sea. Authority to manage these species belongs to the respective coastal States. Since many species spawn or migrate across State lines, jurisdiction is fragmented. Shrimp, for example, migrate between State waters where State fisheries are governed by different laws. Texas and Louisiana, the two largest States in shrimp production, have widely varying laws. Louisiana Gulf waters are not closed, while Texas Gulf waters are closed from 45 to 77 days a year. Shrimp taken in Louisiana during the first part of the fall season are subject to a requirement or count that allows no more than 58 headless shrimp per pound. Those caught during the last 36 days are not subject to a count. Texas shrimp taken anytime during the fall season are subject to a count of 65 headless or 39 heads-on shrimp per pound.

Furthermore, numerous coastal species such as sea herring, menhaden, and striped bass are found not only in the territorial sea but also in the Fishery Conservation Zone. Consequently, management of these species is potentially subject to differing regulations and management practices.

The Federal authority to regulate fisheries under the Fishery Act does not include the territorial sea except when a fishery management plan is in effect in the Fishery Conservation Zone and the fishing in that fishery is "predominantly" in the Fishery Conservation Zone. In such cases, if some action or inaction by a State is detrimental to implementation of the plan, the Secretary of Commerce may preempt the State. Otherwise, State authority prevails.

A precise interpretation of "predominantly" as used in the Fishery Act has not been established. Predominant fishing activity could involve such measures as the weight of the catch, the number of fish, the value of the fish, the number of vessels, or other criteria. Therefore, any fish stock that habitually is fished both inside and outside the 3-mile limit is potentially subject to negotiation to establish the Secretary of Commerce's jurisdiction.

In terms of regulations and enforcement capability, observers believe the States' territorial seas can represent major loopholes in fisheries management. In April 1977 the NMFS Director stated that in reference to the jurisdictional problems, "there is a need to overcome this duplication and conflict of authority, and to provide an integrated program for all U.S. marine fisheries."

While the Coast Guard and NMFS have been able to adequately enforce foreign fishing regulations, enforcement of domestic plans has been more difficult. The importance of providing consistent management has been demonstrated in the implementation of the New England groundfish plan. State support of and willingness to support the plan varies widely. As an example, the State of Maine does not agree with the groundfish plan and has not enforced the provisions within its 3-mile territory. Some fishermen are claiming that their catches of New England groundfish which exceed the FMP quota are caught within the 3-mile State territory rather than the Fishery Conservation Zone. This quite effectively circumvents Federal regulations by forcing the Coast Guard and NMFS to prove the fish were caught outside the State's waters. Enforcement officials said heavy surveillance is needed to document where the boats are fishing. Limited enforcement resources constrain the level of surveillance possible. Therefore, enforcement of the plan is difficult and its effectiveness is hindered. Enforcement of domestic FMPs will become an even more critical problem as additional FMPs are implemented.

LONG-RANGE PLANNING IS LIMITED

NMFS and the councils need to give more consideration to long-range planning in developing FMPs. Generally, FMPs prepared by the councils have covered only 1 calendar year and have generally not contained specific long-term biological, social, or economic goals for development and conservation of a fishery.

Perhaps the most basic issue in marine fisheries management is compromising between the goal of rebuilding fish stocks and fishermen's desires to maximize their catch and income each year. Some believe the act's overriding goal is conservation (rebuilding fish stocks). Others believe revitalizing the fishing industry is equally important and that income in the industry should not be adversely affected by conservation measures. Striking an equitable balance is complicated.

To assure effective and equitable fisheries management, NMFS and the councils need to give more consideration to long-range planning. FMPs do not necessarily have to be based on a calendar year but rather could cover one or more fishing seasons. In addition, specific long-term as well as short-term biological, social, and economic goals should be included in FMPs. Such goals could then be used as specific measures of an FMP's effectiveness.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The Fishery Conservation and Management Act established a unique system of fisheries management. The NMFS, the regional councils, and the States have worked together to establish the management organization mandated by the act. The impact of this organization is already apparent in reducing foreign fishing.

In addition, the councils have made progress through the development of FMPs to manage domestic fishing. Consequently, NMFS and the councils are working toward insuring conservation and realizing the full potential of the Nation's fishery resources.

Specific accomplishments made in implementing the act include:

--Establishment of the eight regional fishery management councils.

--Implementation of a system to manage foreign fishing.

--Development, approval, and implementation of some FMPs and continuing progress toward developing additional FMPs.

--Reduction in fishing demands on domestic stocks.

While the act and the above progress have established the United States as a leader in fisheries management, improvements are needed to fully accomplish the goals of the act. Specific problems hindering the act's effectiveness include:

--Limited biological and socioeconomic data upon which to base FMPs.

--Limited public involvement, understanding, and acceptance.

--Time-consuming process to develop and approve plans.

--Jurisdictional problems.

--Limited long-range planning.

The councils and NMFS recognize some of these problems and are working toward solutions and improvements. For example, plans to provide necessary biological, social, and economic data have been approved by the Assistant Administrator for Fisheries. Suggestions are being developed and considered to streamline the development and approval process. Furthermore, a number of councils are considering ways to improve public participation.

RECOMMENDATIONS

While efforts have been made to improve implementation of the act, we believe that additional efforts are needed. We recommend that the Secretary of Commerce:

--Support NMFS' biological, social, and economic data collection plans to assure that the data necessary for effective fisheries management is provided.

--Monitor the extent to which jurisdictional problems impede FMP implementation and, through NMFS and the councils, work with the States to enforce FMPs. If cooperative efforts with the States are ineffective, the Secretary should use the preemptive authority or propose additional legislation to extend Federal fisheries management over the territorial sea.

We also recommend that the Secretary of Commerce direct the Assistant Administrator for Fisheries to:

--Encourage councils to publicize and conduct meetings on FMPs at more convenient locations and to clearly explain in each FMP why some actions were taken and others rejected.

--Speed up the FMP development process by providing needed guidance on FMP requirements to the councils; promptly reviewing draft FMPs; working with councils to develop implementing regulations concurrently with final FMPs; and, where feasible, using negative or generic environmental impact statements.

--Assist the councils in developing long-range plans for fisheries management which include measurable long-range, in addition to short-range, biological, social, and economic goals.

AGENCY COMMENTS

NOAA/NMFS officials concurred with our conclusions and recommendations and said that our study is perceptive and helpful. They informed us that they are working toward improving not only their biological data base but also their management tools to develop information on the interrelationships of various species. They agreed that their economic data base is limited and their social information is almost nonexistent. They also said that they are considering ways to improve public involvement and education, such as writing executive summaries to the FMPs in layman's language and using the Sea Grant Advisory Service. 1/ In addition, NMFS officials said that they have looked into many options to streamline the FMP development process, such as building flexibility into the plans to provide for inseason adjustments and developing multiyear and multispecies plans.

In regard to jurisdictional problems, NMFS officials noted that the FMPs will require extensive State cooperation to be successful and that there is no simple solution to this problem. Officials pointed out that enforcement of domestic FMPs is a particularly difficult problem and will become even more critical as additional FMPs are implemented. Finally, in response to our recommendation on long-range planning, NMFS officials said that in preparation of their 1981 budget, they instructed their regional scientific centers to identify future needs and develop quantifiable objectives for long-term in addition to short-term fishery management goals.

1/The Sea Grant Advisory Service is a program, funded by the National Oceanic and Atmospheric Administration, to promote effective use of the sea and its resources.

APPENDIX I

PROGRESS AND PROBLEMS

OF THE

GULF FISHERY MANAGEMENT COUNCIL

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CHAPTER 1

INTRODUCTION AND PROGRESS OF THE COUNCIL

This appendix deals with progress made and problems encountered by the Gulf of Mexico Fishery Management Council located in Tampa, Florida.

FORMATION OF THE COUNCIL

The Secretary of Commerce established the Gulf of Mexico Fishery Management Council on July 21, 1976. The council has authority over fisheries in the Gulf of Mexico seaward of the territorial seas of Texas, Louisiana, Mississippi, Alabama, and Florida as far as the 200-mile limit.

In the 12 months ended August 1978, the council met 10 times. The meetings were held in Tampa, Key West, Panama City, and Kissimmee, Florida; Mobile, Alabama; Biloxi, Mississippi; New Orleans, Louisiana; and Dallas and Brownsville, Texas. The council's home office is Tampa, Florida, site of two of the meetings.

The Scientific and Statistical Committee came into being on April 12, 1977, and the advisory panels were set up 1 year later on April 11, 1978. At present there are advisory panels for stone crab, billfish, shrimp, groundfish, reef fish, migratory pelagics, coastal herrings, spiny lobster, and coral.

The council appointed an executive director in February 1977. A fishery biologist and a fishery economist, who reported in April and May 1977, respectively, brought the technical staff up to present strength. The council has asked for another technical staff position, but at August 30, 1978, the National Marine Fisheries Service had not acted on the request. An administrative officer and three permanent clerical assistants complete the present council staff.

ORGANIZATION OF THE GULF COUNCIL

The council is comprised of two types of committees: one to handle administrative chores, and the other to keep the council posted on problems encountered by contractors in developing fishery management plans for the various species. The first type deals with matters such as personnel, selection of members for advisory panels and the scientific and statistical committee, public information, budgets, and the like. The second type, known as species management committees,

are set up for all FMPs in process. In addition, two committees required by law assist the council in making deciions about problems relating to fisheries in the Gulf. They are the scientific and statistical committee and advisory panels for the species for which the council sees fit to generate an FMP. Members are selected by the council from the scientific community for the scientific and statistical committee and mainly from fishermen, processors, and dealers familiar with the particular species on which the council seeks advice for the advisory panel.

The Gulf Council has elected to operate with a minimum technical staff of three specialists, and it employs consulting firms to develop FMPs. According to the chairman, the council adopted this policy because the members believed that although the council would need a large staff of highly qualified personnel to develop the initial FMP in-house for each specie, at the end of 3 years the need for this large staff would disappear as existing FMPs required less and less staff time to keep them current. Another consideration was the fact that technical personnel of the type required are hard to find and attract for a short period.

PLANS UNDER DEVELOPMENT

Plans scheduled together with target dates and names of contractors responsible for the plans are set out in the following schedule.

Tentative Completion Schedule
for Gulf Council FMPs

	Contractor or developer	Council draft FMP Initiation date	Council draft FMP Completion date	Council draft FMP Delivery date	Secretarial review Public hearings	Secretarial review Becomes law
Stone crab (note a)	NMFS/GC	5/16/78	8/15/78	8/15/78	10/78	2/79
Groundfish (note a)	GC/NMFS	10/18/77	11/78	12/78	2/79	11/79
Reef fish	FL Sea Gt.	11/01/77	10/31/78	11/30/78	1/79	10/79
Shrimp	LSU	11/01/77	10/31/78	12/31/78	3/79	11/79
Coastal pelagics	Centaur	6/19/78	1/31/79	2/28/79	5/79	01/80
Sharks	ESE	6/19/78	4/18/78	5/19/79	7/79	03/80
Coral	CNA	10/02/78	7/31/79	8/31/79	10/79	07/80
Spiny lobster	Centaur	8/01/78	4/30/79	5/31/79	7/79	04/80
Coastal herrings (note a)		10/15/78	4/30/79	b/5/30/79		

a/Approximate dates.

b/Council decision on continuation of FMP development.

GC--Gulf of Mexico Fishery Management Council.
FL Sea Gt.--Florida Sea Grant.
LSU--Louisiana State University.
Centaur--Centaur Management Consultants, Inc.
ESE--Environmental Science and Engineering, Inc.
CNA--Center for Natural Areas.

ALLOCATION OF STAFF TIME

There are no records to show how members of the council's technical staff spend their time. The executive director said he spends a good deal of his time seeing that council members get what they need before council meetings. He also attends a number of advisory panel meetings and makes preparations for and attends all meetings of the council and the scientific and statistical committee. Where bids are required, he prepares requests for proposals and participates with other technical council staff members in evaluating bids received and ranking them for consideration by the council. He sees that the scientific and statistical committee and the cognizant advisory panel each do the same.

The other technical staff members track FMPs in process and prepare summaries of their evaluations for the council. In the period September 1977 through August 1978, the staff biologist spent about 60 working days attending meetings of

various kinds and preparing summaries of committee meetings for council members. The rest of his time was spent answering council queries and reading and digesting written material generated by the teams working on FMPs. His principal function, he said, is to see that the council puts in the FMP what the contractor agreed to deliver under terms of his contract. The staff economist has been engaged mainly in analyzing economic data for all FMPs underway and writing the economic portion of the stone crab FMP since he joined the council staff in May 1977.

DECISIONMAKING PROCESS

The council chairman regards the council as a quasi-governmental decisionmaking body. So far there has been no conflict with NMFS about who has final say in management of Gulf fisheries, and he forsees no problems in this regard when the council sends FMPs to NMFS for review and conversion into Federal regulations. NMFS support to the Gulf Council, he said, has been good, and it is making progress toward remedying deficiencies in data. Such things take time and money.

According to the executive director, the council has no long-range policies on discarding fish, incidental catch, limited entry, and other such matters. The council deals with problem areas as they arise.

To assist in making decisions, the council gets advice from the scientific and statistical committee, cognizant advisory panels, the council staff, and the pertinent management committee. These groups evaluate data, scientific rigor, and reasonableness of goals.

The council's primary task is to develop FMPs for the various fisheries in the Gulf. The council selects consultants to develop a draft FMP then uses the scientific and statistical committee to make a peer review of the consultant's work. Advisory panels solicit opinions on the draft from processors, commercial fishermen, and sport fishermen knowledgeable about the particular fishery.

The first step of a plan is to select a contractor. The council staff formulates specifications and presents them to the council for approval. Next, the staff prepares a request for proposal based on the specifications approved by the council and advertises for bids. Before the council acts, members of the scientific and statistical committee, the advisory panel for the species in question, and the council's technical staff each rate bidders numerically. Factors

considered are experience and training of contractor personnel, methodology to be used on the project, and bid price. The advisory panel does not get the bid prices but has all the other written material sent in by the bidders. The council executive director attends all meetings where ranking of contractors is discussed and answers questions from council members about rankings by the staff, the scientific and statistical committee, and the advisory panel. The three rankings go to the proper species management committee of the council, which presents the results of the rankings along with management committee recommendations. Council members consider the rankings and either vote on the award or defer action until they get further information.

The task force set up by the contractor to develop an FMP generates a series of rough drafts outlining general-to-specific plan objectives, management options to accomplish these objectives, and computations of maximum sustainable yield (MSY) and optimum yield (OY). Designated members of the scientific and statistical committee review material in drafts prepared by the task force, check computations of MSY and OY, and present their evaluation of the plan in its various stages to the council. Concurrently, the task force presents the plan at several stages of completion to the appropriate advisory panel. The council clerical staff takes minutes of the meetings, and the technical staff member assigned to monitor the plan prepares brief summaries of panel reactions to the evolving FMPs and recommendations of panel members on the various objectives and management options.

Reports of the scientific and statistical committee and the advisory panel reach the full council through the cognizant species management committee, a steering committee made up of council members. The management committee considers the report; makes its own analysis of the preliminary drafts of the FMP; and reports its findings and recommendations to the full council, where progress of the contractor's task force is considered and evaluated. In the last stages of completion, when the FMP begins to assume something like its final form, the species management committee and, through it, the full council, will assess the plan's objectives and management options that have been distilled from the many options the task force has considered. At this stage the council will deal directly with the task force and cast the draft into final form for presentation to the Secretary of Commerce.

CHAPTER 2

COUNCIL REPRESENTATION

The Gulf Council has 17 voting and 4 nonvoting members. Following is a summary of the voting members' major interests in the fishing industry. Many of them had one or more secondary interests not reflected here.

Interest	Number
Shrimp fleet owner and procesor	2
Menhaden processors	2
Groundfish processor	1
Charter boat operators and recreational fisherman	3
Lobbyists representing fishery trade associations	2
Biologist	1
State regulatory agency representatives	5
Federal regulatory agency representative (NMFS)	1
Total	17

The voting members include the principal State official having regulatory power over marine fisheries as appointed by the Governor of each of the five States represented by the council. State appointees are mandated by the Fishery Conservation and Management Act and fill an important role as liaisons between the council and the States. These members, usually represented at meetings by designees from their State conservation groups, provide input for the FMPs from the States' points of view. At the same time, they keep their home governments informed of the council's activities. Hopefully, this communication during FMP development will make State acceptance of the FMPs easier to obtain.

The four nonvoting members on the council represent the Coast Guard, the Department of State, the Gulf States Marine Fisheries Commission, and the U.S. Fish and Wildlife Service.

The fishermen we interviewed who knew of the council disagreed as to whether independent fishermen were represented on the council. Generally, those who were active in trade associations said their interests were represented by the two council members who were lobbyists for fishery organizations and by the advisory panels. Others felt an independent fisherman with no outside source of income should be on the council to speak for them. However, they admitted that such a person could not afford to take the time away from his fishing activities to attend the meetings.

The chairman of the Gulf Council, the executive director of the council staff, and the Southeast Regional Director of NMFS, all believe that the interest of the fisherman is served by the advisory panels, which have a review function in regard to contract awards and specific FMPs.

For each FMP under development, the Gulf Council has a 10- to 20-member advisory subpanel. The council expects that these panels will provide input into the FMPs. Various interests in the advisory group as a whole may be summarized as follows:

Commercial fishing interests	77
Recreational fishing interests	48
Consumers	9
State conservation groups	4
Academic groups	4
Other State groups	2
NMFS	1
Other Federal groups	1
Total	146

Following is a more detailed summary of the representation provided on six of the major subpanels. Because many of the members are involved in more than one facet of the industry and we do not know their primary interest, the numbers in the columns may add up to more than the total membership.

Membership	Shrimp	Spiny lobster	Stone crabs	Reef fish	Coastal migratory pelagics	Ground-fish
Commercial fishermen	4	4	10	3	2	3
Fleet owners	3	-	-	1	2	-
Boat owners	3	-	-	1	-	-
Processors other than canners	5	3	1	2	1	3
Canners	3	-	-	-	-	-
Dealers and distributors	3	3	5	-	-	-
Association representatives and spokesmen	4	-	2	-	1	1
Recreational fishermen and charterboat owners	2	3	1	8	10	1
Scientists	-	-	-	-	-	-
Other	4	4	4	3	3	1
Total	20	12	16	17	18	10

The scientific and statistical committee has eight standing members and four special members for each FMP. As the name implies, they are in scientific and technical disciplines, including oceanography, marine law, biology, population dynamics, statistics, etc. The occupational groups of these committee members are represented below.

Academic	25
State conservation groups	13
NMFS	12
Other Federal groups	3
Other State groups	1
Commercial fishing interests	1
Private laboratories	1
Total	56

CHAPTER 3

PROBLEMS ENCOUNTERED BY THE COUNCIL

PROBLEMS IN COMMUNICATING WITH INDEPENDENT FISHERMEN

The Gulf Council is complying with communications requirements explicitly prescribed by the act. However, significant problems in this area are evident from at least two standpoints. Many fishermen are unaware of the council and/or its functions, and some perceive the council as being detrimental to their welfare. Unless these problems are solved, acceptance and enforcement of the FMPs will be harder to achieve.

Section 302 of the act requires each council to make a public statement of its organization, practices, and procedures. The Gulf Council did so in the September 13, 1977, Federal Register. It also requires each to hold public hearings in the geographic areas concerned for each FMP. The Gulf Council plans to hold hearings on each preliminary plan approved by the Secretary in every Gulf State where the species in question is found.

The council feels that the advisory panels represent all aspects of the fishing industry. While this may provide the council with input from selected individuals representing different interest groups, it is not getting information to many of the individuals that will be affected by FMPs.

NMFS feels that proper two-way communication between the councils and those affected by their decisions is conducive to efficient fishery management. From interviews with different aspects of the industry, we learned that apathy and misunderstanding toward the act exist among independent fishermen. Many had no knowledge of basic concepts of the act, including the council and its activities, and some expressed no desire for this information. In general, it appeared that fishermen belonging to trade organizations had at least heard of the council, though some made no effort to find out what it was all about, while nonmembers had never heard of it.

Several avenues of communication have been suggested. Some people suggested using articles in local newspapers and in trade magazines, while others said fishermen either cannot or will not read them. Several people in Texas said that public service announcements on television would be effective for shrimpers because 95 percent of their boats have television

sets. We talked with three Sea Grant Advisory agents, who agreed that their organization has both the capability and the desire to publicize the council through its county newsletters, because its function is to educate and aid fishermen in matters that affect them.

Educating independent fishermen may be a very difficult job. However, if something is not done to reach them with information on the act and council activities, we believe it will be harder to win their cooperation and enforce the FMPs.

PROBLEMS WITH DATA

The act requires the councils to manage fisheries resources through optimum yield, a management tool that considers all relevant factors. The factors include biologic, economic, social, and environmental considerations. To manage in this fashion requires a body of data that is timely, complete, and reliable.

The act defines OY but gives no specific guidance on how to determine it. The practical difficulty lies in (1) how to quantify all the economic, social, and ecological factors involved in any given fishery and (2) how to apply them to MSY so as to satisfy all the OY objectives.

The goal of the NMFS is to protect and promote marine fisheries resources. To accomplish this goal, NMFS engages in fishery research to gain a better understanding of marine fishery resources.

In this connection, the Southeast Fisheries Center of the NMFS Southeast Region has a mission to provide management information to the Gulf Council for use in developing FMPs.

The first step in the process is to obtain fairly complete biological data on the status of stocks, their life cycles, and the effects of various fishing efforts and environmental changes on fish populations.

Although the center has some biologic data on species present in Gulf fisheries, responsible officials said there are significant data gaps. General type deficiencies include unreliable data on recreational catch; little or no data on catch per unit of effort in many cases; and for some species, no biologic profiles. Examples of species involved are shrimp, migratory coastal pelagics, red snapper, grouper, and billfish. For all these species there is no reliable data for recreational catch. One official believes the recreational

catch for shrimp may run as high as 30 percent of the total catch, and for other species it is significant and increasing from year to year. With regard to white shrimp, biologists do not know where the nursery grounds are located. For migratory pelagics, the MSY for king mackeral and Spanish mackeral is computed using figures extrapolated from 1960 data, which prompted one advisory panel member to say that these MSY figures were questionable and of little use in an FMP. Red snapper and groupers are important species of reef fish, but there is no way to break down the landed catch figures because dealers get the same price for both species and lump them together in landed weight figures. Also, figures the dealers give NMFS on snapper-grouper landings show no size; hence biologists using the figures have no indication that the average size of the two species is going up or down, and thus have no ready indication of the amount of pressure on the fishery. Lastly, NMFS has no data on how long it takes snapper and groupers to grow to a stated size, an important factor in calculating MSY for these two species of reef fish.

The center has no significant body of economic and sociological data on the various Gulf fisheries. This makes it almost impossible for the council to come up with FMPs that will enable it to manage resources in the manner prescribed by the act. The act requires the council to determine MSY from biologic data and then determine OY through a consideration of relevant environmental, social, and economic factors. For the foreseeable future, the center will probably designate OY equal to MSY because the agency does not have the socioeconomic data that will satisfy OY objectives.

The center is attempting to make data stored at various locations in the Southeast Region more readily available and has made some progress in this direction. Heretofore, each of the seven laboratories scattered around the region and the center in Miami had its own data bank and varying degrees of computer processing capability. The center recently leased time on the Civil Service Commission computer at Macon, Georgia, and expects to equip each laboratory and the center with remote terminals tied in with the computer. Eventually, the network will make information in the various data banks and extensive data processing capability immediately accessible to the Gulf Council and other authorized users. The center will then be responsible for managing the resulting data base and guaranteeing the security of sensitive and confidential information in the system.

To alleviate present data deficiencies and prepare for future requirements, both the council and NMFS have taken

some action. The council has sent a list of data needs to NMFS. Items on the list call for research in economical, biological, and sociological areas. NMFS headquarters officials for their part have designed a 5-year plan to collect better socioeconomic data for fishery management. They have also contracted with a consulting firm to survey the recreational aspects of fishing during the coming year. Center personnel propose to test an integrated system of computer modeling for fishery management. The system model, developed at Stanford University, is designed to provide a sensitivity analyses of different management options that center officials hope will assist regional fishery councils in decisionmaking.

A question arises about the merit of attempting to manage fisheries resources with an OY developed from very thin biologic data and little or no economic and sociological data.

According to one council member, speaking as chairman of an advisory panel, FMPs based on even limited data are a start and have merit because they provide a foundation upon which to build. With better data the plans will improve over the years to the point where they will become reliable for conserving and allocating the resources of a particular fishery. Also, the act directs the councils to use the best available data to compute OY and design the various components of an FMP, and the data used in these cases is the best available.

JURISDICTIONAL PROBLEMS

Federal law in the form of FMPs will certainly interact with fisheries laws of the Gulf States; and, where State laws conflict with objectives of the FMPs, they will have to be amended if council management of the fisheries is to be effective.

The Gulf Council is preparing FMPs for species of marine life that spend part of their life cycles in State waters. Hopefully, the States will voluntarily adopt the plans into their legislations because the council does not have the authority to force them to adopt them. Legislators may be unwilling to change State fishery law if their constituents object. This problem has not been experienced by the Gulf Council because it has not implemented an FMP to date. The first plan, for stone crab, is expected to become law in February 1979.

Potential problem areas

Jurisdictional problems can be expected in at least two areas: where laws governing the same species vary among the States, and where two fishery plans overlap.

The shrimp FMP is a good example of a plan for a species that migrates between the Fishery Conservation Zone and State waters governed by differing laws. Shrimp spawn in coastal areas and migrate out to the Gulf. Texas and Louisiana, the two largest States in shrimp production, have varying laws. For example, Louisiana Gulf waters are not closed, while Texas Gulf waters are closed from 45 to 77 days a year. Brown shrimp taken in Louisiana during the first part of the fall season are subject to a 68 headless count. Those caught during the last 36 days are not subject to a count. Texas brown shrimp taken anytime during their fall season are subject to a count of 65 headless or 39 heads-on per pound. Groups representing different aspects of the shrimp industry have strong opposing views on the need to protect small shrimp with count laws. Canners in Louisiana want only the small shrimp, while other processors want the shrimp protected until they reach a size that will bring a higher price. Legislators will receive a lot of pressure from their constitutents to refrain from enacting laws contrary to their interests.

Problems may also arise in areas where two plans overlap. The southern Florida west coast is already involved in a serious controversy between stone crabbers and shrimpers. (See p. 47.) Recently, the Gulf Council developed a recommendation to submit to the State of Florida to resolve the situation, but State legislative action is still required to enforce it.

Council's approach to the States

The Southeast Region Director for NMFS, also a voting member on the Gulf Council, believes States will respond favorably to FMPs backed by logic and sound data. The council, he said, should approach the States with an admission that it has no jurisdiction in State waters, with council plans for the Fishery Conservation Zone, and with predictions of what will happen if the States adopt or do not adopt the plans.

The Gulf Council Chairman agrees. He favors the "soft" approach to the States backed up with good data.

A State designee to the Gulf Council, who is an authority on shrimp and a long-time official of the State conservation group, believes that the ideas expressed above are optimistic, if not naive. They sound good but may not work in practice. His experience has been that legislators respond to the desires of their particular constituents, not to what appeals to logic.

Another designee feels State opposition will be minimized due to State participation on the council. Each Gulf Coast State has representatives to express the States' views and keep their governments informed of council activities. The States will go along with the FMPs because they had input during their development.

CHAPTER 4

EFFECT OF 200-MILE LIMIT

Except for the red snapper-grouper fishery, it was not possible to establish with certainty that the 200-mile limit had any discernable effect on U.S. fisheries in the Gulf of Mexico.

A large shrimp processor in the eastern Gulf said that extended jurisdiction made no difference to him, because what he could not buy from U.S. shrimpers, he could buy from Mexican and South American sources. Shrimp processors in the western Gulf said essentially the same thing. Fishermen we interviewed in the eastern Gulf had not noticed any effect but did say they had seen American shrimp boats with Mexican numbers in the area. According to fishermen in the western Gulf, there were more shrimp boats operating off the Louisiana and Texas coasts than the year before, and some of them were boats that formerly fished in Mexican waters. They did say that part of the increase was due to new people coming into shrimp fishing because the catch had been good in recent years and rumor had it that shrimpers were making a lot of money in a short time. Because no figures are available on the number of shrimp boats active in the Fishery Conservation Zone either now or in preceding years, we could not verify these statements.

A complaint of shrimpers operating out of Brownsville, Texas, was that in prior years when fishing was not good in Texas and Louisiana waters they simply went south to Mexico, something they can no longer do. However, treaty negotiations between the United States and Mexico for fishing rights in Mexican waters have so many ramifications that it is impossible to say that the extended U.S. jurisdiction had any bearing either on the treaty the United States signed with Mexico or attempts to negotiate a new treaty.

There were no foreign fisheries for shrimp or any other species except groupers within the 200-mile limit before March 1, 1976, when the act took effect. In 1975 the Cuban catch for red snapper-groupers off the west coast of Florida was approximately 4 million pounds, or approximately 16 percent of the total catch of 24.5 million pounds.

CHAPTER 5

POSITIVE RESULTS ACHIEVED BY THE COUNCIL

It is still too early to assess the council's management of fisheries through FMPs and resulting regulations. The first Gulf FMP is not scheduled to become law until February 1979. However, there have been some early results that are encouraging and possibly a sign of better things to come.

In recent years sport and commercial fishermen have been at odds. Sport fishermen complained that commercial use of gill nets and long lines were depleting stocks of king mackerel and billfish. Commercial fishermen, on the other hand, claimed that sports fishermen receive preferential treatment because they are wealthier than commerical fishermen as a group and have more political influence. In advisory panels convened for billfish and kingfish, commercial fishermen and sport fishermen exchanged information that showed there was not as much reason for conflict as the two groups had supposed. For example, the commercial fishermen use spotter planes to get Spanish mackerel, a species considerably smaller than large, full-grown king mackerel that are the target of sport fishermen. It seems that the large king mackerel do not school and would tear up the purse seine that commercial fishermen use to catch the smaller Spanish mackerel. The commercial fishermen pointed out that losing a purse seine would be expensive because the net itself is expensive, and the crew would lose time fitting a new seine with consequent reduced fishing time and reduced catch.

Another case involved a serious controversy between stone crabbers and shrimpers on the west coast of Florida. Both crabbers and shrimpers fished the same waters that were partly in the Fishery Conservation Zone and the Florida territorial sea. Feelings ran high and newspapers reported that the two groups were shooting at one another. It seems that the crab traps tore up the shrimp nets, and the crab traps tangled in the shrimp nets and got pulled away into deep water and lost. The council convened a task force composed of shrimpers and stone crabbers who fished the waters in dispute, and the task force came up with a recommended solution. The recommended solution has been incorporated into the proposed FMP for shrimp.

APPENDIX II

PROGRESS AND PROBLEMS

OF THE

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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CHAPTER 1

INTRODUCTION AND PROGRESS OF THE COUNCIL

INTRODUCTION

The Mid-Atlantic Council encompasses the six States of New York, New Jersey, Pennsylvania, Delaware, Maryland, and Virginia, and has authority over the fisheries in the Atlantic Ocean seaward of the States' territorial seas as far as the 200-mile limit. This area is designated as the Fishery Conservation Zone and begins where the State jurisdiction, termed territorial sea, ends.

ESTABLISHING THE MID-ATLANTIC COUNCIL

The first council meeting was held on September 28, 1976, at Baltimore, Maryland, and was taken up with council organization. By the second meeting in Philadelphia, Pennsylvania, in October 1976, the council began forming advisory committees. At the third meeting at Arlington, Virginia, in November 1976, the council had progressed to processing applications for the executive director position, forming the scientific and statistical committee, and developing a priority list of species to be considered for fishery management.

Two meetings were held in December 1976. The first was on December 2 and pertained to organizational development. The second meeting was a separate council meeting and a joint meeting of the New England and Mid-Atlantic Councils on December 15 and 16. One of the decisions reached at the separate meeting was selection of the executive director. The agenda for the joint meeting included an assessment of council responsibilities regarding such matters as ocean dumping, fish passage facilities, powerplant sites, etc. Also considered at the joint council sessions was the legal liability of the councils. The council has held monthly meetings to continue organizational and plan development activities.

ORGANIZATION OF THE COUNCIL

The Mid-Atlantic Council consists of 19 voting members, including the principal State marine official from each of the six States in the Mid-Atlantic region, the regional director of NMFS, and 12 members appointed by the Secretary of Commerce.

The 12 members appointed by the Secretary are chosen from a list of qualified individuals submitted by the Governor of each of the six States in the Mid-Atlantic Region. The list included not less than three nominees for each applicable vacancy, and their qualifications required knowledge or experience with regard to the management, conservation, recreational, or commercial harvest of the fishery resources in the region. The Secretary is required to select at least one member from each State.

The scientific and statistical committee consists of one sociologist, three economists, and a variety of marine and fishery specialists.

PROGRESS REALIZED BY THE MID-ATLANTIC COUNCIL

The surf clam/ocean quahog plan has been operational since November 1977. This is the first FMP completed by the Mid-Atlantic Council. Three other plans are essentially completed. The mackerel, squid, and butterfish plans are at the point where draft FMPs for 1979 have been forwarded for review to NMFS, Washington.

FMPs for four additional species are in varying stages of development. Their status at July 1978 was as follows:

1. Bluefish--The recreational fishermen are pushing for a bluefish plan. The council expected to have a draft by October 1978. However, NMFS has little data on bluefish because it has never been requested before.

2. Sharks--The council has a rough draft for the plan to be done in conjunction with other councils. A lead council has not been determined yet.

3. Flounder (other than yellowtail or fluke)--There is no time schedule established.

4. Red crab--The Mid-Atlantic Council will probably prepare this plan in conjunction with the New England Council, although the Mid-Atlantic Council has requested NMFS to transfer lead responsibility to it.

The council staff considers the progress of the Mid-Atlantic Council to consist of the following:

--Domestic landings are up.

--The number of foreign fishing vessels within the Fishery Conservation Zone has been severely reduced.

--The surf clam/ocean quahog fishery has been stabilized.

--The mackerel stock has improved.

--Previously, there was no public input to fisheries' management. Now an organized public input has been established through membership on subpanels and testimony at public hearings.

--NMFS is recognizing the importance of public input. It is thinking more of the fishermen and the industry than it did before.

--NMFS is recognizing the importance of the councils' and NMFS' responsibilities for providing data under team effort.

--More people are becoming involved in what is going on. For example, the councils are functioning in an advisory capacity in the Canadian negotiations.

--To some extent, the State Department is thinking more of the fishermen and the industry than it did before. For example, some early State Department proposals to Canada would have been detrimental to the United States fishing industry, but the councils vigorously voiced their opposition and brought changes.

CHAPTER 2

PUBLIC INVOLVEMENT AND UNDERSTANDING

The two mechanisms for public input into FMPs are participating in advisory subpanels and public hearings. The extent of public involvement in the plans is almost in direct proportion to the public's efforts in the subpanel proceedings and in the hearings. As a result, it is incumbent upon fishermen to be knowledgeable of council activities relative to the preparation of FMPs and to keep apprised of the subpanel meetings and the public hearings. Provision has been made for public involvement, but fishermen have been lax in participating in Mid-Atlantic Council activities.

The general laxity on the part of fishermen may be attributable to the fact that they have not been adversely affected by many of the council actions. However, it is felt that their participation will increase when they become threatened, as in the case of limited entry. (See p. 56.)

FACTORS INHIBITING PARTICIPATION

Factors inhibiting fishermen's participation include:

--The council's composition is restrictive.

--Meetings are not well publicized or scheduled in convenient locations.

--Many fishermen are not knowledgeable of the council's role.

--Many fishermen do not understand the FMPs; they concentrate only on the regulations.

--There is a lack of leadership among fishermen; many of them are too independent to organize.

In addition to the fishermen, the small operators, such as packers/processors who are proprietorships, are confronted with the inability to afford the time or expense to attend meetings, since they are scattered over a six-State area in the Mid-Atlantic region. Additional comments follow on these factors inhibiting public participation in meetings and hearings.

Restrictive composition of the council

Many of the fishermen and others in the fishing industry do not agree with the requirement that all council members, except the NMFS and State fishery representatives, must first be named by their Governor. Some fishermen believe that this was intended to exclude them. Accordingly, they are suspicious of council deliberations and conclude that their interests are being ignored.

Meetings not well publicized or scheduled in convenient locations

Council meetings, advisory subpanel meetings, and public hearings are not generally publicized simply because there is no common communication network reaching all interested persons. The two media used by the council to advertise meetings are publication in the Federal Register and advisories issued by the Coast Guard. One method mentioned to improve communications is to have the Coast Guard advertise the meetings when giving weather reports to the fishermen.

Most of the people complaining about meeting sites are usually referring to the subpanel meetings and are those having to travel the farthest. It is difficult to arrange meeting locations suitable to all, but occasionally the locations are poorly selected. Of the three subpanel meetings we attended in Dover, Delaware, two were poorly attended by fishermen who complained about the inconvenience of getting to Dover. The third meeting involving controsersial issues was well attended.

Many people in the public sector criticized the selection of motels-hotels for council meetings. The basis for the criticism is the high rates to stay at these places for interested individuals from the public sector who are not being reimbursed for these travel costs. We discussed this issue with the executive director, who indicated that the council may be leaning toward holding more of their meetings at an airport motel in Philadelphia. The site is reasonably centralized, is convenient for air and highway travel, and has reasonable rates.

Fishermen not knowledgeable of the council's role

We interviewed several fishermen to establish if they were aware of the existence of the Fishery Conservation and Management Act and the role of councils, and the content of

FMPs, and whether they had any input into subpanel meetings and public hearings.

Generally, they know of the law and establishment of the 200-mile Fishery Conservation Zone, but beyond that their level of knowledge of the council varied widely. Varying factors contribute to the extent of fishermen's perception of council functions. For example, one cooperative paid one of its members to attend all council meetings and take an active role as a subpanel member. Members of the cooperative were kept apprised of council actions. Other fishermen spent so much time at sea that they did not participate in council activities.

Fishermen do not understand fishery management plans other than regulations

Many fishermen and others in the public sector do not understand the content of FMPs. They are concerned only with how the fisheries will be regulated. The fishermen complain that the FMPs are too technical for the average person to understand. They say that the marine biology and assessment data is beyond their grasp.

By not being able to comprehend an entire FMP, the fishermen are unable to understand why the fishery is being regulated according to the plan. Since the councils have such limited experience with the format of FMPs, perhaps the FMPs will be simplified as more are developed.

Lack of leadership among fishermen, many of whom are too independent to organize

In our discussions with fishermen, we found them to be divided according to what they fished for or whether they were independents, members of a cooperative, or crews of industry-owned vessels. Although some belong to organizations such as clammer's associations, cooperatives, and labor unions, others are very independent. Many of these individuals look upon the sea as the last frontier, and they do not want to be told when, how, or for what to fish or how many fish they can take. They view other fishermen as their competitors, and as such, refrain from joining together in any undertaking of mutual interest. The individual fisherman spends most of his time at his occupation, and there are few situations where he is required to exchange strategies.

LIMITED ENTRY CONTROVERSY

Limited entry is an example of a case where the fishermen reacted to a council decision. The surf clam/ocean quahog FMP prohibited the entry of additional vessels into the surf clam fishery effective immediately upon the adoption of the plan by the Secretary of Commerce. This moratorium excluded those vessels demonstrated to have been under construction at the time the FMP was adopted, and replacement of any vessel involuntarily leaving the fishery during the time the moratorium is in force. Also excluded were vessels involved in situations where a denial of entry into the surf clam fishery would cause substantial economic hardship.

The clammers complained vehemently that the surf clam regulations prohibit the transfer of a license on the occasion of selling a boat. When the surf clam plan became effective, the active clam vessels were "grandfathered in;" that is, they are the only vessels licensed to land surf clams and ocean quahogs under the FMP. The regulations specified that if a clammer wanted to sell his boat, he could not transfer his license to a new owner. This prohibition severely restricted the salability of a vessel, because a new owner could not use the boat for the purpose for which it was designed and outfitted.

At the July 28, 1978, meeting of the surf clam subpanel, the council executive director stated that the transfer of licenses would be included under the new surf clam plan which has a target date of March 1979.

CHAPTER 3

AVAILABILITY OF BIOLOGICAL AND SOCIOECONOMIC DATA

Fisheries management is hampered by the limits of marine biological information and inadequate socioeconomic data on the industry and fishing communities.

BIOLOGICAL DATA

The NMFS Northeast Laboratories at Woods Hole, Massachusetts, were responsible for the scientific data needed to support the U.S. quotas under International Convention--Northwest Atlantic Fisheries (ICNAF) agreements. During the transition period between the United States' dropping out of ICNAF and the implementation of the Fishery Conservation and Management Act, the need for accumulating biological data was severely reduced. Since the inception of regional fishery management councils, the data requests placed on NMFS have multiplied both in terms of frequency of requests and variation of species.

NMFS had not accumulated biological data for species other than those covered under agreements with the ICNAF. Accordingly, when the council asked NMFS for bluefish assessment, there was no data available simply because bluefish was not included in ICNAF agreements, and the NMFS had no reason to accumulate data for this species. The staff at the Mid-Atlantic Council is reasonably satisfied with NMFS performance in complying with their requests to date, and they recognize that there may be delays in acquiring biological data for the species not covered under ICNAF agreements.

Problems incident to determining fishery assessments, maximum sustainable yield, and optimum yield

Each fishery management plan has to establish the amount of metric tons of the fishery which will be caught by U.S. fishermen and how much surplus will be allocated to foreign fishermen. These two figures are the bottom line of the plan. To reach this plateau, the plan starts with an assessment of the fishery. The assessment determines how many of a particular species of fish exist in the fishery range. It is refined down to maximum sustainable yield, which is the amount of this species that may be caught and still leave the necessary number to allow propagation. The maximum sustainable yield is then refined down to optimum yield, which means the amount of fish which will provide the greatest overall

benefit to the Nation, particularly for food production and recreational opportunities, and which is prescribed as such on the basis of the maximum sustainable yield from such fishery modified by any relevant economic, social, or ecological factor.

Fishery assessment

Section 602.3 of the interim regulations published in the Federal Register, July 18, 1977, lists the contents of fishery management plans. The list includes a description of the stock(s) comprising the management unit. The regulation requires a biological description and the geographic description of the species or group of species comprising the management unit. This includes an assessment and biological condition of the stock(s). The plan should describe the relationship of the stock(s) with fish, animals, or plants, including discussions of relevant food chain and predator-prey relationships.

Since the assessments are the starting point in the process to determine what the U.S. catch will be, the validity of the assessments is constantly questioned. Most of the basic marine-biological statistics used by the Mid-Atlantic Council come from the NMFS Marine Laboratories, Woods Hole.

Fishermen are not convinced that the Marine Laboratories' scientists can determine the population of the respective species of fish based on the way their survey vessels operate and the quality of their sampling techniques. The fishermen have two basic criticisms: (1) that the survey vessels do not know how to locate the places where the fish are most abundant and (2) that the crews on the survey vessels are scientists and not experienced fishermen. They believe that these two conditions result in the sample catch being low and that fish population projections based on these samples are understated.

We discussed the merits of these criticisms with the council staff and were told that the NMFS survey vessels have been sampling according to a grid system. The sample locations are predetermined so that the survey vessel cannot jeopardize the integrity of the sample by arbitrarily seeking more abundant concentrations of fish. This rationale dispels the charge of not knowing where to sample to get the highest count of fish.

The staff believes that if the crew of the survey boats are not as experienced as the commercial fishermen, that does not affect the quality of the sample, because absolute

counts are not important. The comparison is made in relation to prior catches by the survey crew, which are not compared to catches by commercial fishermen in the same area.

SOCIOECONOMIC DATA

The Mid-Atlantic Council staff believes that socioeconomic data is absolutely required in order to incorporate into an FMP the economic impact which the plan would have on a fishery. The standard format for FMPs published in the Federal Register as interim regulations includes the following elements relative to socioeconomic data:

--Description of economic characteristics of the fishery.

--Domestic harvesting sector.

--Domestic processing sector.

--International trade.

--Description of businesses, markets, and organizations associated with the fishery.

--Relationship among harvesting, brokering, and processing sectors.

--Fishery cooperatives or associations.

--Labor organizations.

--Foreign investment.

--Description of social and cultural framework of domestic fishermen and their communities.

--Ethnic character, family structure, and community organization.

--Age and education profiles of fishermen.

--Employment opportunities and unemployment rates.

--Recreational fishing.

--Economic dependence on commercial or marine recreational fishing and related activities.

--Distribution of income within the fishery communities.

--Other.

NMFS has not developed this kind of information because its emphasis has traditionally been on the biological sector. On two occasions the Mid-Atlantic Council has requested NMFS approval to solicit requests for proposals for socioeconomic studies and has been turned down. Recently, an NMFS representative visited the council office, and one of his tasks was to work with the council staff in jointly redefining the statements of work to make the requests for proposals acceptable to NMFS.

The council believes that hiring consultants to conduct an inventory of the socioeconomic characteristics of the fisheries of the Mid-Atlantic region is the most effective method of meeting the requirements of the FMP as specified in the Federal Register.

CHAPTER 4

NEED FOR ADDITIONAL POLICY GUIDANCE

The act established national standards for fishery conservation and management, and the Secretary of Commerce established general guidelines based on the national standards to assist in the development of FMPs. However, there has been and continues to be disagreement between NMFS and the Mid-Atlantic Council on basic policy issues. Accordingly, additional policy guidance is needed if FMPs are to be expeditiously developed and implemented.

INADEQUATE FORMULATION OF POLICY

The failure of NMFS to formulate policy creates confusion and considerable delay in the preparation of FMPs. The Mid-Atlantic Council encountered so many problems with its 1978 mackerel and squid plans that they were recalled and are being reworked as a 1979 plan. Although the Mid-Atlantic Council has been functioning for almost 2 years, NMFS has yet to resolve what we consider to be basic fishery management policies.

An example of the misunderstanding, which the absence of policy creates, surfaced at the August 1978 meeting of the Mid-Atlantic Council. In discussions on the squid, mackerel, and butterfish plans, the Regional Director of NMFS, who is also a voting member of the Mid-Atlantic Council, identified issues which he thought the council should take positions on. The issues include:

1. The fishing year versus the calendar year basis for the FMP.

2. Scheduling reallocations earlier in the year to allow foreign fishermen to take advantage of them.

The question of managing the fisheries on a fishing year basis had not been introduced prior to the council meeting, and certain members questioned why the NMFS representative was challenging the calendar year basis. The NMFS Regional Director said the council could be faced with the prospect of having to start the butterfish plan over again if the plan did not have a mechanism to reallocate fish in a time frame that would be meaningful.

His argument against the calendar year basis was that the law requires notice in the Federal Register before reallocation in order to provide for public comment and possibly a

public hearing. Then, the regulations are changed before the plan becomes final. This is a time-consuming process and basically negates the opportunity to reallocate fish for foreign fishing. The NMFS Regional Director indicated that his comments on the butterfish plan applied to the squid plan because these two species were interrelated in the fishery. However, NMFS has been looking at the squid plan since November 1977, and its previous review comments to the council did not include any reference to using a fishing year time frame.

The chairman of the scientific and statistical committee commented as follows on the prospect of having to withdraw the squid plan:

> "* * * if the fishing year concept for squid is good now, it should have been good last year. At some point we have to get our act together, so that NMFS, Washington, is talking to the Councils and the NMFS Regions, and there is interaction all the way around, so that we don't get this possibility of recall more than once. If we were asked to recall the Squid Plan again, I think I'd have to recommend to the Council that we go to the Secretary and ask for some relief in some way."

The verbal exchange at the August 1978 meeting demonstrates the need for policy guidelines to facilitate the management of the fisheries.

APPENDIX III

PROGRESS AND PROBLEMS

OF THE

NEW ENGLAND FISHERY MANAGEMENT COUNCIL

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CHAPTER 1

INTRODUCTION

This appendix discusses progress and problems of the New England Regional Fisheries Management Council in implementing the Fishery Conservation and Management Act. The council is responsible for preparing fishery management plans for fish stocks off the New England coast.

FISHING--A TRADITIONAL NEW ENGLAND INDUSTRY

Fishing is one of the region's most important industries, with origins that go back to the country's founding. Cod, haddock, and yellowtail flounder are the most important finfish in New England.

In 1977, New England commercial fishermen landed 581 million pounds of fish valued at over $200 million. In relation to the rest of the country, this placed the region fourth in terms of volume and third in value. Commercial groundfish landings in 1977 were about 340 million pounds, valued at more than $86 million, with cod, haddock, and yellowtail flounder accounting for over half of this value.

FISHERY MANAGEMENT BEFORE THE ACT

The New England fisheries have encountered serious problems over the past several years. Before passage of the act, the United States was a member of the International Commission for Northwest Atlantic Fisheries, which was established in 1949. ICNAF's objective was to conserve and develop fish resources; however, it was not effective in controlling the harvesting of fish stocks. Overfishing badly depleted New England fish stocks and some, particularly cod, haddock and yellowtail flounder, have not yet fully recovered. In December 1976, the United States terminated its membership in ICNAF.

Before the 1960s, New England fishermen had little foreign competition. In 1961, however, foreign fleets began fishing off the New England coast, and by 1972 approximately 3,000 foreign vessels representing 23 flags were fishing off the New England coast. Haddock overfishing reached its peak in 1965 when domestic and foreign fleets landed over 150,000 metric tons. Haddock landings then dropped significantly, principally because of stock reductions. From 1972-75, approximately 6,000 metric tons of

haddock were landed annually. U.S. and foreign landings of cod, haddock, and yellowtail flounder caught from 1960-75 are shown on pages 81-83.

CHAPTER 2

ORGANIZATION AND FUNCTIONS OF THE NEW ENGLAND REGIONAL FISHERY MANAGEMENT COUNCIL

The council is responsible for managing the fisheries off the five coastal New England States--Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. The council's jurisdiction extends from 3 to 200 miles seaward of the coastlines of these States. The States exercise control of the area from their coastlines out to 3 miles.

The council's principal responsibility is developing fishing management plans for fish stocks within its jurisdiction. The plans are designed to achieve the optimum yield from fish stocks.

COUNCIL ORGANIZATION

The council has 21 members, 17 voting and 4 nonvoting. Members include State and Federal fishery personnel, commercial fishermen, processors, and vessel owners. The voting members are:

--The principal fishery management official in each State.

--The Regional Director of NMFS.

--Eleven individuals selected by the Secretary of Commerce from lists submitted by the Governors of the five States.

The nonvoting members are:

--The Regional Director of the U.S. Fish and Wildlife Service.

--The Commander of the Atlantic Area Coast Guard District.

--The Executive Director of the Atlantic States Marine Fisheries Commission.

--A representative from the State Department.

The council members were originally appointed in August 1976 and are knowledgeable or experienced in the management, conservation, or harvesting of fishery resources. State and Federal voting members as well as all nonvoting members serve

indefinite terms. The remaining voting members are appointed to the council for 3-year terms with approximately one-third of the terms expiring in August of each year.

The council held its first meeting in October 1976 and normally meets for 2 days approximately every 3 weeks. Through August 31, 1978, the council had met for 72 days.

The council employs a full-time staff to help conduct its daily business and it has established a number of special committees composed of council members to address fishery problem areas. In accordance with the act, the council has also established a scientific and statistical committee and an advisory panel.

Council staff

The council staff consists of nine full-time employees located at its headquarters in Peabody, Massachusetts. The staff's responsibilities include implementing council policies and decisions; assisting in the development of fishery management plans and environmental impact statements; and analyzing the biological, economic, social, and legal implications of alternative management approaches.

Council committees

The council has formed 19 special committees to deal with specific management issues and problems dealing with various fish species. The committees are composed of from four to seven council members that work in groups and then present their conclusion to the entire council.

Scientific and statistical committee

The scientific and statistical committee assists in the development, collection, and evaluation of statistical biological, economic, social, and other scientific information necessary to develop a fishery management plan. This committee includes marine biologists, scientists, and economists.

Advisory panel

An advisory panel has been formed to assist the council. The panel advises the council on specific management problems and the probable impact of various management strategies that the council is considering. It also provides a means of communication between the fishing community and the council.

The panel is composed of over 100 fishermen and other individuals knowledgeable and interested in the conservation and management of fish. Additionally, the panel includes people from all five States and is designed to provide a forum for industry, consumer, and recreational viewpoints.

COUNCIL FUNCTIONS

As stated previously, the council's principal function is preparing fishery management plans. Other responsibilities include conducting public hearings on management plans, reviewing and revising assessments of fishery stock levels, preparing comments on applications for foreign fishing permits, and preparing and submitting prescribed reports to the Secretary of Commerce.

The council is required to submit management plans to the Secretary of Commerce for approval. Generally, a management plan describes the problems of a fishery and recommends solutions and the probable impact of those solutions. The council also proposes regulations to implement the plan. Within 60 days after receipt of a plan, the Secretary is supposed to review and either approve or disapprove the plan. If approved, the Secretary issues implementing regulations. If, however, the Secretary has problems with the plan, it must be returned to the council along with notification of the reasons why it was not approved. The council then has 45 days to resubmit the plan. In the event the council is unable to develop an acceptable approach in this time frame, the Secretary has the authority to prepare and implement an alternate plan.

Developing management plans

A fishery management plan generally includes conservation and management measures consistent with national standards described in the act. The purpose of the plan is to allow a level of fishing that achieves the optimum yield from fish stocks. To accomplish this the plan may require fishing permits; limit fishing zones or seasons; establish catch quotas; specify types of fishing gear, vessels, or equipment; or restrict access to the fishery. Plans also contain a description of the fishery, including vessels, gear, species location, costs, potential revenues, recreational interests, and foreign fishing. Additionally, the plan describes the present and projected future fish stock levels.

Implementing plans

There are two methods for implementing a fishery management plan: a normal and an emergency procedure. Under the normal procedure, it usually takes from 230 to 270 days and a preliminary draft plan is submitted to NMFS before the planned implementing regulations are approved and issued.

In the event that the Secretary of Commerce determines that a particular fishery resource is endangered, the above procedure can be bypassed and emergency action taken. Emergency regulations for a plan can be immediately implemented through publication in the Federal Register. Public hearings and environmental assessments are not required. Although such regulations are only effective for a maximum of 45 days, the Secretary does have authority to extend them an additional 45 days.

CHAPTER 3

COUNCIL PROGRESS

During its relatively short 2-year existence, the New England Regional Fishery Management Council has

--established priorities for developing management plans,

--completed two management plans (groundfish and herring) and made substantial progress in completing two other plans (silverhake and scallops),

--begun to identify and develop data needed to manage fisheries, and

--coordinated and cooperated with NMFS and the Mid-Atlantic Council.

COUNCIL PRIORITIES AND STATUS OF MANAGEMENT PLANS

The council has established priorities for developing FMPs for various species. A groundfish plan has been completed and implemented, but because of numerous changes, it is being rewritten and may include more than the present three species of cod, haddock, and yellowtail flounder.

The council has also completed a herring management plan which has been forwarded to the Secretary but it has not been approved yet. The council is requesting emergency regulations for the herring plan because if the fall 1978 catch is large, the impact on the next year's herring would be endangered.

The silverhake and scallop management plans have been completed and are awaiting comment. As the schedule shows, they should be forwarded to the Secretary for approval before the end of the year. The status of the council's fishery management plans as of October 1978 is shown below:

Plan subject	Estimated completion date	Estimated percent completed	Other participants
Groundfish (completion revision)		Mid-1979	
Herring	8/78	100	
Scallop	11/78	80	Mid-Atlantic
Silverhake	11/78	75	Consultants
Pollock	2/79	5-10	
Ocean perch	3/79	5-10	
Hake	3/79	5-10	
Lobster	10/79		State/Federal
Red crab	3/79	2	NMFS/consultants

INFORMATION NEEDS ARE BEING IDENTIFIED

The council and NMFS are identifying the socioeconomic and biological information needed to effectively manage New England's marine fisheries. Very little social and economic data is available, and marine biological information for many fish species is limited.

In New England, NMFS's marine research program is administered by the Northeast Fisheries Center from its Woods Hole, Massachusetts, headquarters. Several other NMFS laboratories around New England participate in the program. NMFS is currently developing a computerized information system to support the fisheries management process. The council and NMFS are working together to include its management information needs in this system.

The council uses marine biological information available in the Northeast Fisheries Center computer for fisheries management. However, the format of the center's data was not suitable for the type of analysis done by the council staff. Accordingly, the council contracted to have parts of the center's data base reformulated to better support the council's analytical requirements.

The council has contracted with the University of Maine and the University of Rhode Island. Under the University of Maine contract, economic data on New England fisheries is being furnished to the council. Under the University of Rhode Island contract, socioeconomic data on New England fisheries and fishing communities is being provided. Council members and staff acknowledge that this data is incomplete but it is the best available. The council is working with both universities to better define its social and economic information needs.

Problems related to lack of fisheries management information are discussed on page 74.

COUNCIL RELATIONS WITH NMFS AND OTHER COUNCILS

Communication between the New England Council and NMFS was a problem during the council's early life. Council members said that initially NMFS wanted to control the council, as evidenced by changes to management plans and regulations promulgated without its approval or knowledge. Council members told us that they learned of these changes through the news media. According to the act, if the Secretary disapproves a submitted plan, it must be returned to the council for its reconsideration with the Secretary's comments. However, according to some council members, the groundfish plan was sometimes changed and implemented and they were merely advised of these changes after the fact. The council's executive director stated efforts were made to advise the council members of these changes.

The management concepts established by the act are new, and both NFMS and the council are learning to cooperate with one another. NMFS is now committed to close cooperation with the council to insure effective implementation of the act, and according to council members, relations have greatly improved.

The New England Regional Fishery Management Council and the Mid-Atlantic Regional Fishery Management Council have established and maintained a continuing relationship. Cooperation, according to council members and staff, is good. Representatives from each council attend meetings of the other and joint meetings are held periodically. This cooperation is needed because some fish species inhabit the waters within the jurisdiction of both councils and agreements must be reached to coordinate management.

CHAPTER 4

PROBLEMS IN MANAGING NEW ENGLAND'S MARINE FISHERIES

Although the council has, in a relatively short period, made progress, many serious obstacles to effective fisheries management remain--the most serious being the difficulty in convincing traditionally independent New England fishermen that a management program is needed. Fishermen believe that there are plenty of fish and resent any regulatory attempts, especially those which adversely affect their incomes.

In addition to this overriding issue, the council must concurrently contend with

--inadequate management information,

--questions regarding the objectivity of the regulatory process,

--a complex management process,

--unrealistic and frequently changing regulations, and

--enforcement problems.

CONSERVATION VS. UNLIMITED FISHING

The major marine fisheries management issue is, and will continue to be, reconciling the goal of rebuilding fish stocks with fishermen's desires to maximize their annual catch. Most New England fishermen looked on passage of the act as a panacea. With removal of the large foreign fishing fleets from traditional waters, the domestic fishermen would be free to harvest at will as they had in the past. There was little recognition of the possibility that massive foreign harvestings of fish stocks--including cod and haddock, which are two of the most valuable domestic finfish--would require regulation of domestic fishing efforts to prevent depletion.

The situation was and continues to be further exacerbated by the fact that, in most cases, it is impossible to develop complete scientific proof of fishery conditions or to determine precisely how much fish can be harvested annually without depleting the stock. Fishery biologists are only able to develop estimates of the situation which have not been particularly convincing to U.S. fishermen.

The groundfish regulations in New England have been changed several times. This has also added to the problem. Each time established quotas are exceeded and the fishermen are threatened with closure, they vociferously protest and the quotas are increased. This only serves to strengthen their conviction that the quotas established by the council are unrealistic.

DATA NEEDED TO MANAGE FISHERIES IS INADEQUATE

Fisheries management is hampered by the limits of marine biological information and a lack of socioeconomic data. Although marine biologists have gathered a great deal of information on fish stocks and the interdependence of various species, in most cases precise data is not obtainable. In addition, very little is known regarding the social and economic effects of fishing managment decisions on the industry and fishing communities.

Biological data not available

NMFS is the council's primary source of information on the size and age distribution of fish stocks, life cycles, and the importance of various harvesting levels on stock size. Such information is essential to the development of appropriate fishery management plans. Marine biologists, however, are unable to develop precise data, even for species such as cod and haddock, which are better understood than others. Their assessments are, in effect, estimates based on the best available information gathered from statistical analysis of commercial catch reports and research crew findings. These estimates, it should be noted, are subject to wide variations. For example, in the case of haddock, NMFS scientists indicated their assessments can vary by plus or minus 25 percent and for lesser known species would undoubtedly be higher.

Natural variables also affect stock size. These include predation, disease, water salinity, temperature, and ocean currents. NMFS scientists cite wide swings in haddock recruitment--fish added to the stock by the annual reproductive cycle--to illustrate nature's powerful effects on the size of a fish stock. Recent haddock recruitment obtained from the Northeast Fisheries Center, NMFS, is shown below.

	Estimated annual haddock recruitment (000,000 omitted)
1975	169
1976	10
1977	2

Since fish stock size projections are imprecise, the council is often criticized and second-guessed by fishermen. The fishing industry has questioned the reliability of the groundfish assessments and the catch quotas derived from them. Fishermen argue that in view of these imprecise assessments, they should be allowed to fish with no restrictions.

Inadequate social and economic data

Although essential to effective management, much socioeconomic information is lacking. Little is known regarding the numbers of vessels actively fishing for groundfish or the extent that recreational fishing impacts on these species. Further, additional socioeconomic research is required on fishing communities and the ability of the industry to harvest, process, and market currently underutilized species.

Council and NMFS officials said they do not know how many fishermen make a living from groundfish. This is important because the total allowable catch of groundfish allocated to commercial fishermen is based on a per boat limit. Without information as to the number of vessels harvesting groundfish, the council and NMFS have no way of knowing what effects per boat catch limits will produce.

Data on the level of recreational fishing activity and the resulting catch is also incomplete. There is virtually no control of the recreational catch.

Although the council is required to consider the social and economic impact of its management decisions on fishing communities, little research has been done in this area. The council's scientific and statistical committee has advised the council on management information needed to meet the requirements of the act; however, considerable research remains to be done before the council will have an adequate data base. Further, periodic research will also be needed to monitor the impact of fishery management policies on fishing communities.

Another area requiring improved research deals with underutilized species. Although promoting the use of such species is a council goal, there is very little information regarding the industry's capability to harvest, process, and market underutilized fish stocks and the impact such redirection of effort would have on operating costs and income.

OBJECTIVITY OF THE REGULATORY PROCESS

Although it is too early to make a fair assessment, industry domination of the council and its public meetings has raised questions regarding the council's objectivity.

The composition of the council, exclusive of State and Federal representatives, is heavily weighted toward persons employed in the fishing industry. Environmentalists, scientists, and consumer groups are noticeably absent.

Public participation at council meetings has likewise been unbalanced. There has been little conservationist or consumer participation. Fishermen, for the most part, have dominated the proceedings especially at those where quotas or other controls were the main topics discussed.

MANAGEMENT PROCESS IS TIME CONSUMING

A number of council members and staff advised us that the normal procedure for implementing management plans is overly time consuming and not conducive to effective fishery management. Currently the process averages 230 to 270 days to approve and issue the plan and implementing regulations. While recognizing that the Secretary of Commerce can issue emergency regulations in cases where a particular species is determined to be endangered, such a course preempts the public hearing process and is viewed as unilateral Government intervention.

According to council members and staff, the time required to implement management plans under the normal procedure must be reduced. In this regard, they indicated that the requirement for an environmental impact statement should be eliminated. Environmental impact is considered by the council and NMFS in preparing management plans and is also one of the standards the Secretary of Commerce applies in reviewing and approving plans. Eliminating the need to prepare environmental impact statements would reduce the time required to implement a management plan.

UNREALISTIC AND FREQUENTLY CHANGING REGULATIONS

The council must contend with the difficulties inherent in developing realistic regulations to manage groundfish which are caught together. Efforts must be made to reduce the need to constantly revise regulations, a situation which adversely affects council credibility, confuses fishermen, and makes enforcement extremely difficult.

For a time, catching cod or haddock, even as an incidental bycatch, was prohibited. Cod or haddock inadvertently caught while trawling for other fish had to be thrown back. This mandatory discard policy raised questions about the conservation effects of this strategy and was later replaced by a no-discard policy. However, this put fishermen in a dilemma since by inadvertently catching cod or haddock they were violating the regulations, but they could not discard these fish because that too would be a violation. This policy received adverse media publicity and we were told that this type of management fostered a general disrespect for the regulations. To avoid prosecution, fishermen simply report that the "illegal" cod or haddock were caught in State waters.

The groundfish plan has had to be revised on numerous occassions. (See p. 84.) In an attempt to control the amount of groundfish being harvested, initial regulations established annual quotas. However, the rate at which fish were being caught made it obvious within a short period that the quotas would be exceeded. To avoid closure and consequent adverse economic effects, the council made frequent revisions to the quotas. The annual quotas were increased and replaced by quarterly quotas which were similarly increased and subsequently replaced by weekly limits. These were also exceeded and had to be reduced to such a low level that it was unprofitable to fish--in effect a closure. On October 1, 1978, emergency groundfish regulations were published that revised the weekly quotas and allowed resumption of fishing.

DOMESTIC ENFORCEMENT PROBLEMS

The current approach to enforcement of fishery management regulations is not particularly effective. While enforcement of foreign fishing is satisfactory, domestic enforcement is much more difficult and less effective. In addition to this problem, several others adversely affect the enforcement situation, including

--inconsistent enforcement,

--fragmented jurisdiction, and

--delays in processing violations.

Domestic enforcement not effective

As stated above, numerous changes to the groundfish regulations make the groundfish management plan virtually unenforceable. Additionally, the current approach to domestic enforcement is inherently difficult, given the ocean's vast area, the large number and mobility of vessels, and the variety of species that are caught together. In view of these factors, effective surveillance at sea would entail a significant increase in resources, and even then enforcement would still be difficult.

As the term "200-mile limit" implies, there is a large area that is fished off New England's coast. The most common method of fishing is trawling with various sized nets, depending on the species being fished. Groundfish regulations require a net mesh size of 5-1/8" to assure that fish below a certain size are not caught. The Coast Guard, which is responsible for enforcing net mesh size regulations at sea, told us that if more than one size net is allowed onboard, it is virtually impossible to enforce these regulations. Regulations presently allow several size nets onboard, and council members do not want to restrict fishermen to one net since this would limit fishing.

Also, some fishermen ignore the quotas and land as many fish as they can. These fishermen then say that these fish were caught within the State 3-mile limit. To disprove this contention the vessel has to be boarded before it enters State waters and the catch examined. However, this is virtually impossible to do at present staffing levels, and fishermen who do this go undetected.

Many groundfish species are caught together, most notably, cod and haddock. When a fisherman trawls for haddock, cod will also be caught. This presents an enforcement problem when fishing for one of these species is not allowed. This occurred recently when the Gulf of Maine was closed to cod fishing. Fishermen who trawled for haddock caught cod. Because of the no-discard policy which was in effect, the cod was then landed and to avoid penalties fishermen would say that the fish were caught in the State jurisdictional area which was not closed for cod.

State jurisdictional problems are discussed on page 80.

Inconsistent enforcement

Many fishermen have complained that enforcement of fishery regulations is inconsistent. They allege that NMFS efforts for the most part have centered on Gloucester--where the agency's regional headquarters is located--while other ports, such as New Bedford, which harbor large fishing fleets receive lesser attention. They also indicated that smaller ports throughout the entire region receive little or no coverage. Such ports afford those fishermen who choose to violate regulations a safe haven to offload their illegal hauls with virtually no risk of discovery.

A recent Department of Transportation internal audit report cited the Coast Guard for similar inconsistencies in its enforcement program--specifically in the 3- to 12-mile offshore area. The report noted that during the period between March 1977 and March 1978, the Coast Guard had made no patrols in this zone, which is actively fished. Coast Guard officials agreed with the findings of the report and indicated they would take corrective action.

Fragmented jurisdiction

State responsibility for enforcing fishing quotas and closures in the jurisdictional area represents an enforcement loophole. Fishermen employ this loophole to circumvent quotas established by the council and included in fishery management plans. Although the act encourages States to implement fishing management plans in this zone and requires that the plans conform to council plans governing activity in the area from 3 to 200 miles seaward, States generally have not developed plans. Moreover, some States are reluctant to enforce the council plan in their jurisdictional area. Some States consider the council plans unfair; others contend that they lack the resources necessary to enforce council plans. As a result, there is currently little regulation in the 0- to 3-mile zone and fishermen who exceed their alloted quota of selected species can claim that the excess was caught within this zone, a relatively common practice.

Delays in processing violators

Many council members advised us that fishermen who are caught violating regulations are not promptly penalized, and enforcement officials cited this as encouraging violation by breeding disrespect for the law. Most industry personnel we contacted also supported strong enforcement and prompt application of penalties. They stated that without such action, the regulation process cannot be effective.

The previously mentioned Department of Transportation audit report (see p. 80) also refers to this problem. The report stated that for the period March 1, 1977, to May 31, 1978, under the act a total of 156 fishermen were assessed about $1.5 million in penalties for various violations in waters under the jurisdiction of the First Coast Guard District--New England. However, the report pointed out that only three of these cases have been settled and only $1,000 in fines has been collected.

USA and Foreign Landings (metric tons) for Haddock in the Gulf of Maine, Georges Bank, and Southern New England Expressed as Relative Percentages of the Total Catch, 1960-1975

Year	USA landings	Percent of total	Foreign landings	Percent of total	Grand total
1960	45341	99	460	1	45801
1961	51681	100	189	0	51876
1962	54412	92	4702	8	59118
1963	48892	82	10743	18	59635
1964	51895	75	17644	25	69539
1965	57027	37	97698	53	154725
1966	57510	45	69588	55	127098
1967	39659	70	17330	30	56989
1968	28914	65	15616	35	44530
1969	18892	76	6085	24	24977
1970	9874	77	2990	23	12864
1971	8508	70	3668	30	12176
1972	4779	72	1891	28	6670
1973	3289	56	2603	44	5892
1974	3018	59	2103	41	5121
1975	5168	78	1439	22	6607

U.S.A. and Foreign and Total Landings (metric tons) of Cod
for the Gulf of Maine and Southern New England
Stocks Expressed as Relative Percentages of the Total Catch 1960-75

	Gulf of Maine					Georges Bank and Southern New England					
Year	USA landings	Percent of total	Foreign landings	Percent of total	Total	USA landings	Percent of total	Foreign landings	Percent of total	Total	Total landings
1960	3,400	99	29	1	3,429	10,390	100	20	0	10,410	13,839
1961	3,200	99	18	1	3,218	13,996	98	280	2	14,276	17,494
1962	3,000	97	83	3	3,083	15,231	66	7,850	34	23,081	26,164
1963	2,600	96	103	4	2,703	13,903	52	13,050	48	26,953	29,656
1964	3,200	99	25	1	3,225	12,324	49	12,841	51	25,165	28,390
1965	3,780	96	148	4	3,928	11,410	30	26,923	70	38,333	42,261
1966	4,008	91	384	9	4,392	11,794	22	41,069	78	52,863	57,255
1967	5,676	95	297	5	5,973	12,742	35	23,592	65	36,334	32,307
1968	6,360	99	61	1	6,421	14,967	35	27,790	65	42,757	49,178
1969	8,157	96	327	4	8,484	16,356	44	21,068	56	37,424	45,908
1970	7,812	95	449	5	8,261	14,535	58	10,674	42	25,209	33,470
1971	7,380	96	282	4	7,662	15,795	57	11,900	43	27,695	35,357
1972	6,776	98	141	2	6,917	13,140	53	11,490	47	24,630	31,547
1973	6,069	99	77	1	6,146	15,933	56	12,607	44	28,540	34,686
1974	7,639	98	125	2	7,764	17,870	67	8,822	33	26,692	34,456
1975	9,252	99	110	1	9,362	15,329	64	8,667	36	23,996	33,358

APPENDIX III

USA and Foreign Landings (metric tons) for Yellowtail Flounder in the Gulf of Maine, Georges Bank, and Southern New England expressed as Relative Percentages of the Total Catch, 1960-75

Year	USA landings	Percent of total	Foreign landings	Percent of total	Grand total
1960	19.4	100	-	0	-
1961	25.1	100	-	0	-
1962	31.4	100	-	0	-
1963	48.9	99	0.3	1	49.2
1964	53.0	100	-	0	53.0
1965	48.9	96	2.2	4	51.0
1966	40.6	98	1.0	2	41.6
1967	44.5	91	4.2	9	48.7
1968	46.4	90	5.3	10	51.7
1969	42.0	67	20.7	33	62.7
1970	46.7	94	2.9	6	49.6
1971	36.4	96	1.7	4	38.1
1972	36.0	87	5.3	13	41.3
1973	27.6	98	0.5	2	28.1
1974	30.0	96	1.3	4	31.3
1975	20.7	99.5	0.05	0	20.8

The Regulatory History of the New England/Mid-Atlantic Groundfishery, March 15, 1977 to October 1, 1978

Federal Register Notice	Action	Comments	Effective date
March 14, 1977 (FR p. 13998)	Emergency regulations	NOAA approval of council FMP and implementation under emergency rules for 45 days.	March 15, 1977
April 29, 1977 (FR p. 21784)	Extension of emergency regulations		April 1, 1977
June 10, 1977 (FR p. 29876)	Final regulations	Implementation of FMP and subsequent amendments as final regulations.	June 13, 1977
July 1977	Closure of the directed commercial cod fishery in 5Y.	U.S. commercial allocation for 1977 reached.	July 8, 1977
August 1977 (Press Release)	Closure of the directed commercial cod fishery in 5Z/SA6.	U.S. share of 20,000 MT OY for 1977 reached. Incidental fishery permitted to continue.	August 22, 1977
November 9, 1977 (FR p.)	Emergency mendment to regulations.	Increase in OYs for cod, haddock and yellowtail to meet emergency in industry.	November 3, 1977
Dec. 20, 1977 (P.R. NMFS)	Closure of commercial groundfish fisheries in FCZ.	Emergency regulations of Nov. 3 expired. Original quotas already taken.	Dec. 23-30, 1977
Dec. 30, 1977 (FR p. 65186)	Emergency regulations	Amendment of final regualtions (June 10) to extend them from Jan. 1, 1978-Feb. 14, 1978.	Jan. 1-Feb. 14, 1978
Feb. 13, 1978 (FR p. 6094)	Extension of emergency regulations.		Feb. 15-Mar. 31, 1978
March 1, 1978 (FR p. 8282)	Closure of directed commercial cod fishery in 5Z/SA6 and 5Y	50 percent of 1st quarter cod quotas taken.	Mar. 1-31, 1978
March 17, 1978 (FR p. 11247)	Closure of commercial by-catch fishery for cod in 5Z/SA6.	Total quarterly cod quota taken in 5Z/SA6.	Mar. 19-31, 1978
March 31, 1978 (FR p. 13578)	Interim emergency regulations	NOAA approval of council ammendment to FMP.	April 1, 1978
April 10, 1978 (FR p. 14968)	Interim emergency amendment to regulations.	Change of the cod fishery from an open directed fishery to a limited fishery.	April 13, 1978
April 24, 1978 (FR p. 17861)	Interim emergency amendment to regulations.	Changes in definitions in vessel classes and the introduction of weekly rather than daily landing restrictions for cod and haddock.	April 30, 1978
May 3, 1978 (FR p. 19060)	Revision of quarterly quotas.	1st quarter catches of cod, haddock and yellowtail exceeded quotas. Overage deducted from remaining quotas.	May 3, 1978
May 5, 1978 (FR p. 19429)	Amendment to landing restrictions.	40 percent of 2nd quarter allocations of cod, haddock and yellowtail taken. Lowering of landing restrictions.	May 7, 1978
June 26, 1978 (FR p. 27548)	Amendment to landing restrictions.	Further downward adjustments in landing restrictions to allow vessel classes to harvest on an annual basis their historical shares of cod and haddock.	July 2, 1978
June 30, 1978 (FR p. 28503)	Final regulations.	Implementation of interim emergency regulations of March 31, 1978 with subsequent amendments as final regulations.	July 1, 1978
July 19, 1978 (FR 31015)	Emergency amendments to regulations.	Addition of a no discard rule, new minimum mesh size, increases in OYs for haddock, cod 5Y, 1 percent incidental catch of cod, or haddock during closures by vessels with small mesh nets.	July 19- Aug 1, 1978
July 21, 1978 (FR p. 31341)	Amendment to regulations including landing restrictions.	Assignment of annual allocations for vessel groups. Adjustment of weekly per vessel catch limitations.	July 23, 1978
July 27, 1978	Closure of cod fishery in 5Y for vessels 61-125 CRT and fixed gear	Vessels in these gear/size classes have taken their annual allocations.	August 5, 1978
August 10, 1978 (FR p. 35488)	Closure of all commercial cod fishing in 5Y.	Annual commercial cod quota for 5y exceeded.	August 16, 1978
Sept. 1, 1978 (FR p. 39108)	Extension of emergency regulations.	Emergency amendments to final regulations of July 19 extended for another 45 days.	Aug. 30-Oct. 14, 1978
Sept. 18, 1978 (FR p. 41405)	Closure of commercial cod fishing in 5Z/SA6 for vessels 61-125 CRT.	Vessels in this class have taken their annual quota.	Sept. 17, 1978
Sept. 21, 1978 (FR p. 42764)	Amendment to landing restrictions.	Revision of yellowtail flounder per vessel landing restrictions of July 23.	Sept. 17, 1978
Sept. 23, 1978 (Press Release)	Establishing FMP on new fishing year basis.	Implementation of existing regualtions for fishing year Oct. 1-Sept. 30.	Oct. 1, 1978

APPENDIX IV

PROGRESS AND PROBLEMS

OF THE

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

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CHAPTER 1

PROGRESS OF THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

The North Pacific Fishery Management Council, headquartered in Anchorage, Alaska, is one of eight regional councils established by the Fishery Conservation and Management Act of 1976. The council is responsible for fisheries management matters from beyond Alaska's territorial seas (3 miles) to the 200-mile limit.

ESTABLISHMENT OF ORGANIZATIONAL STRUCTURE

Beginning with its first meeting in October 1976, the council took the following steps to implement the act: it established a 10-member scientific and statistical committee and a 25-member advisory panel. The council also designated lead agencies for fishery management plan development teams. As of August 18, 1978, the council had also established a 7-member staff.

COUNCIL INTERACTION WITH OTHER FISHERY MANAGEMENT ORGANIZATIONS

The council maintains a working relationship with NMFS and the Alaska Department of Fish and Game (ADF&G). The council also works with other regional councils, the Pacific Marine Fisheries Commission, and international fishery management organizations.

Department of Commerce

As required by the act, the director of the Alaska NMFS regional office is a council member. In addition, staff from the NMFS regional office and the NMFS Northwest and Alaska Fisheries Center serve on the scientific and statistical committee and management plan development teams. Also, a regional attorney in Alaska from the National Oceanic and Atmospheric Administration (NOAA) provides legal support to the council.

The Secretary of Commerce also prepared preliminary management plans for fisheries where foreign nations applied for fishing permits. For Alaska, NMFS developed five preliminary management plans. These plans manage foreign fishing in U.S. waters off Alaska and are not applicable to domestic fishing. The five plans are:

--Gulf of Alaska trawl fishery.

--Sablefish of the Bering Sea and Northeastern Pacific Ocean.

--Trawl and herring gillnet fishery of the Bering Sea and Aleutian Islands.

--King and tanner crabs of the Eastern Bering Sea.

--Snail fishery of the Eastern Bering Sea.

State fisheries agencies

Three State agencies are involved in fishery management in Alaska. Historically, ADF&G managed the Alaska domestic commercial fisheries. The ADF&G commissioner is a council member, and ADF&G staff serve on several council groups, including the scientific and statistical committee and plan development teams. ADF&G prepared economic impact statements for the Gulf of Alaska groundfish and the tanner crab plans. It is also working on several research contracts for the council.

The Alaska Board of Fisheries develops regulations for Alaska domestic commercial fisheries. Board members serve on the council and the council's advisory panel. In addition, a council staff member serves as a nonvoting member of the board.

The Alaska Commercial Fisheries Entry Commission restricts the number of fishermen entering Alaska's commercial fisheries. According to an ADF&G official, the commission is actively limiting entry to the commercial salmon fishery. Commission members are working with council members in preparing the council's salmon troll plan.

Other regional councils

According to the executive director, all councils receive the NMFS Monthly Council Memorandum, which summarizes activity at all regional councils and the minutes of their meetings. In addition, council representatives from the eight councils meet and correspond on various matters.

The council works closely with the Pacific Fishery Management Council in Portland, Oregon. Some council, scientific and statistical committee, advisory panel, and management plan development team members also serve on Pacific Fishery Management Council organizations. Four council

members are Pacific Fishery Management Council members. The Washington Department of Fisheries director is a voting member on both councils. A representative from the Alaska Governor's office is a voting member on the council and a nonvoting member on the Pacific Fishery Management Council. The representative from the U.S. Department of State and the executive director of the Pacific Marine Fisheries Commission are nonvoting members on both councils.

A scientific and statistical committee member stated that there is an interchange of work on management plans involving both councils. The council plans to work with the Pacific Fishery Management Council in developing that council's comprehensive salmon management plan.

Pacific Marine Fishery Commission

The Pacific Marine Fishery Commission's executive director is a nonvoting member of both the council and the Pacific Fishery Management Council. The commission seeks to promote wise management, development, and use of fisheries that are of mutual concern to the States of Alaska, Washington, Oregon, California, and Idaho. The commission is developing background information on the inland aspects of salmon management for the Pacific Fishery Management Council's comprehensive salmon management plan.

International organizations

As part of its overall responsibilities, the council comments on foreign fishing applications. The council must identify in its plans amounts available for foreign fishing after it determines domestic allocations. Foreign fishing is permitted in the Fishery Conservation Zone if there is an international fishery agreement between the United States and the foreign nation and where the foreign nation agrees to comply with the terms of the act. According to the executive director, governing international fishery agreements exist between the United States and all major nations that fish in Alaska--Japan, Korea, Russia, Poland, Mexico, and Taiwan--excluding Canada.

According to the assistant executive director, halibut fishing is managed by the International Pacific Halibut Convention between the United States and Canada. The convention terminates on April 1, 1979. Two members of the council act as consultants in negotiations between the United States and Canada to continue the convention. An International Pacific Fishery Convention also exists between the United States, Canada, and Japan governing high-seas salmon fishing.

PRIORITIES AND STATUS OF FISHERY MANAGEMENT PLANS

One of the council's major responsibilities is to develop fishery management plans, which the Secretary of Commerce must review and approve. In October 1976, the council named the lead agencies to prepare some of its plans. Designated lead agency responsibilities were given to either NMFS or ADF&G. Generally, the agency with the greatest fishery data base was named the lead agency. The council established ADF&G as the lead agency for preparing the tanner crab, king crab, dungeness crab, scallop, and shrimp management plans. NMFS was named lead agency for preparing the groundfish plan, which includes black cod, herring (including Bering Sea herring), and snail management plans. The council elected not to name a lead agency for the halibut plan.

The council's management plan schedule is based on several criteria. According to two scientific and statistical committee officials, priority management plans include overfished fisheries, fisheries involving conflicts between foreign and domestic fishermen, and fisheries that are primarily beyond the 3-mile State jurisdiction.

The council has 15 fishery management plans in various stages of development or awaiting implementation. The council developed, and the Secretary of Commerce approved, two management plans--the Gulf of Alaska groundfish plan and the commercial tanner crab fishery off the coast of Alaska plan. As of August 18, 1978, the Secretary of Commerce had not implemented either plan.

The council is developing, or plans to develop, fishery management plans for the remaining 13 fisheries. According to the executive director, the following schedule shows the status of these plans as of August 18, 1978. (See p. 104 for a discussion of the implementation problems the council encountered with the Gulf of Alaska groundfish and commercial tanner crab plans.)

Fishery	Status	Target dates: Begin Secretary's review	Target dates: Final regulations
Halibut	First draft will be presented to council in August 1978.	a/12/15/78	4/1/79
Troll salmon	b/Council approved draft for public hearings.	12/15/78	4/15/79
King crab	First draft being prepared.	4/15/79	8/15/79
Bering Sea groundfish	Council approved draft scheduled for public hearings.	3/15/79	9/15/79
Bering Sea herring	First draft being prepared.	5/15/79	9/15/79
Bering Sea shrimp	Team and leader appointed; team has met once.	6/15/79	10/15/79
Bering Sea clams	Team and leader appointed.	8/15/79	12/15/79
Scallops	Plan development work to begin in 1979.	Not scheduled	
Shrimp	Plan development work to begin in 1980.	Not scheduled	
Dungeness crab	Plan development work to begin in 1981.	Not scheduled	
Snails	Plan development work to begin in 1982.	Not scheduled	
Coral	Plan development work to begin in 1983.	Not scheduled	
Ocean salmon (high seas)	Plan development work not scheduled.	Not scheduled	

a/If negotiations between the United States and Canada result in a new International Pacific Halibut Convention, the council will discontinue work on its plan. If not, fishery management is needed and the plan will be implemented on Apr. 1, 1979.

b/In Dec. 1977 the council approved a plan for the Secretary of Commerce's review, but it withdrew the plan in Feb. 1978 because of problems NOAA's Office of General Counsel identified.

CHAPTER 2

ORGANIZATION OF THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

Members of the council, the scientific and statistical committee, the advisory panel, and the management plan development teams are selected from several governmental agencies, the fishing industry, non-fishing-related industry, recreational fishermen, and universities. These organizational elements assist in developing fishery management plans. A disagreement exists, however, over the adequacy of consumer representation in the council organization.

COUNCIL MEMBERSHIP

As required by the act, the council has 15 members--11 voting and 4 nonvoting. The act requires that 7 of the 11 voting members be appointed by the Secretary of Commerce from recommendations received from the Governors of Alaska and Washington. Of these seven members, five are appointed from the State of Alaska and two from Washington. As prescribed by the act, the remaining four voting members are the principal State marine fisheries officials from Alaska, Washington, and Oregon and the Alaska Regional Director, NMFS. The four nonvoting council members include three Federal officials and the executive director of the Pacific Marine Fisheries Commission in Portland, Oregon.

As of August 18, 1978, the council was composed of:

--Commissioner, ADF&G.

--Director, Oregon Department of Fish and Wildlife.

--Director, Washington Department of Fisheries.

--Regional Director, Alaska Region, NMFS.

--Executive Director, Pacific Marine Fishery Commission. 1/

--Alaska Area Director, U.S. Fish and Wildlife Service. 1/

--Commander, 17th U.S. Coast Guard District. 1/

1/Nonvoting members.

--Director, Institute for Marine Studies, University of Washington.

--Two Alaska commercial fishermen.

--One representative from the U.S. Department of State. 1/

--One State senator from Alaska.

--One representative from the Office of the Governor, State of Alaska.

--One retired fishing association manager from Washington.

--One Alaska businessman.

Council subcommittees

The council established 13 subcommittees to accomplish certain tasks. Membership in these subcommittees comprises council members and individuals from the scientific and statistical committee, the advisory panel, and noncouncil organization representatives. According to the executive director, a subcommittee is active only when needed and its members serve no particular term. Five subcommittees were established to work with plan development teams to provide guidance during the drafting of fishery management plans. Other subcommittee tasks include providing advice on financial matters and representing the council as consultants to international fishing negotiations between the United States and Canada.

Council staff

The council has seven staff members:

--Executive director.

--Assistant executive director.

--Staff assistant/writer.

--Administrative officer.

--Executive secretary.

--Two clerk-typists.

1/Nonvoting members.

The council intends to hire an additional staff writer to help write environmental impact statements and fishery management plans.

Contracted responsibilities

In developing fishery management plans, the council primarily obtains scientific data from published reports and papers of participating State and Federal agencies, universities, and other relevant data sources. Also, people from some of these data sources are members of the council's advisory groups. However, when necessary, the council has contracted with several groups, including State agencies, universities, and a consulting firm, to provide research data or improve existing data needed for management plans. Examples of the council's research contracts include a biological research contract with ADF&G and a socioeconomic research contract with a consulting firm to provide information for the Bering Sea herring plan.

SCIENTIFIC AND STATISTICAL COMMITTEE

The North Pacific Fishery Management Council's executive director said the council selected scientific and statistical committee members by using such criteria as

--people with different scientific disciplines,

--people from different areas,

--people knowledgeable in various fisheries, and when possible,

--people that could provide manpower resources from their respective agencies when needed.

As of July 1978, the scientific and statistical committee was comprised of ten members, as follows:

--Director, Northwest and Alaska Fisheries Center, NMFS.

--Acting Dean, College of Fisheries, University of Washington.

--Director, Alaska Sea Grant Program, University of Alaska.

--Two deputy commissioners, ADF&G

--Chief fisheries scientist, ADF&G.

--One professor of Marine Studies and Public Affairs, Institute for Marine Studies, University of Washington.

--Assistant Regional Supervisor, Marine Region, Oregon Department of Fish and Wildlife.

--One fisheries biologist, Washington Department of Fisheries.

--One professor of economics, Institute of Social, Economic and Government Research, University of Alaska.

Scientific and statistical committee duties include helping the council perform its functions by

--identifying the scientific information needed for developing fishery management plans and designating plan development team members,

--providing expert scientific and technical advice while developing fishery management plans, and

--reviewing fishery management plans for their scientific validity and making recommendations based upon this review.

Of four scientific and statistical committee members interviewed, all generally believe that their committee plays an integral part in the plan development process. Two scientific and statistical committee members--the Director of Northwest and Alaska Fisheries Center, NMFS, and the Acting Dean, College of Fisheries, University of Washington--also serve on the Pacific Fishery Management Council's scientific and statistical committee.

MANAGEMENT PLAN DEVELOPMENT TEAMS

The council's management plan development teams are responsible to the council for developing draft fishery management plans. The council approves team members after the scientific and statistical committee nominates the members. As of July 1978, the council had 9 teams ranging in size from 3 to 12 members. These teams are developing or have developed fishery management plans for the following fisheries: 1/

1/The Secretary has approved but has not implemented the tanner crab plan and the Gulf of Alaska groundfish plan.

--Gulf of Alaska groundfish.

--Tanner crab.

--King crab.

--Ocean salmon.

--Bering Sea shrimp.

--Bering Sea clams.

--Bering Sea groundfish.

--Bering Sea herring.

--Halibut.

Management plan teams include primarily representatives from the ADF&G and NMFS. The council also assigns advisory panel members to work with most plan development teams. Advisory panel members can provide plan development teams with information from various fishing industry groups and associations.

ADVISORY PANEL

The North Pacific Fishery Management Council established one advisory panel to provide advice on how fishery management plans will affect fishermen and processors.

According to a council member who served on the council's subcommittee which nominated advisory panel members, the council used the following criteria to select advisory panel members:

--Expertise in the fishing industry.

--Geographical representation.

--Cultural representation of Native Alaskans.

According to the executive director, as of July 1978 the advisory panel included

--nine commercial fishermen;

--six representatives from various associations representing fishermen, marketing, processors, and plant laborers; 1/

--three processors;

--three subsistance fishermen; 2/

--one sports fisherman;

--one special assistant to the Governor of Alaska;

--one international law professor; and

--one land-law examiner, Bureau of Land Management, who is also considered a consumer representative.

Of the nine commercial fishermen, three fish in only one fishery, two others fish in two fisheries, and four fish in three or more fisheries. Most crab fishermen on the advisory panel fish for tanner crab in the spring, king crab in the fall, and salmon in the summer. Nineteen of the 25 advisory panel members live in Alaska. Six members are also Alaska Natives.

Several advisory panel members interviewed stated either that their group played an integral part in the plan development process or that their views as individuals were considered in council decisions. According to one panel member, the council sometimes asks those members dissenting from the advisory panel report to submit minority reports.

CONTROVERSY OVER THE ADEQUACY OF CONSUMER REPRESENTATION

According to the executive director and two advisory panel members, the council recognizes only one individual--an advisory panel member--as representing consumer interests. Two advisory panel members believed that a need exists for more consumer representation in the council organization. One scientific and statistical committee member believed that consumer concerns were expressed by other council members.

1/Does not include one representative of a fisherman's association who is considered primarily a commercial fisherman.

2/This group consists of Native Alaskans who fish more for consumption purposes than for a commercial livelihood.

Another advisory panel member believed that consumer representation is adequate.

In July 1978 the council considered appointing an additional consumer representative to the advisory panel--someone in the business of retailing fish products. The council decided, however, that representation was satisfactory and did not appoint an additional consumer representative. According to the advisory panel member considered to represent consumer interests, her role is not clear, and the council has not provided her with guidance as to what role a consumer advocate should play. She prepared a working statement to use as a guideline for reviewing fishery management plans, which she submitted to the advisory panel. Despite her efforts, she does not believe fishery management plans adequately address consumer issues.

DEVELOPING NORTH PACIFIC FISHERY MANAGEMENT PLANS

Development of a fishery management plan generally begins when the council identifies the fishery management units requiring management plans and approves the establishment of plan development teams and the designation of lead agencies. Generally, the advisory panel establishes a subpanel, usually consisting of two members, to work with the plan teams. Each team develops plan objectives after receiving guidance from the council. The council then chooses the objectives it believes are proper.

Each team then develops a draft plan containing management strategies for achieving council-approved objectives and submits this to the council. The advisory panel and the scientific and statistical committee review the draft plan. Each group reports the results of its review to the council, and the public is also invited to comment on the draft plan at council meetings.

All or part of the plan development process may be repeated until the council has an acceptable plan, at which point it is subjected to public hearings. After considering the public comments, the council determines the management strategy to be used and approves the plan. The plan is then forwarded to the Secretary for final approval.

CHAPTER 3

NEED TO IMPROVE PUBLIC AWARENESS, INVOLVEMENT, AND UNDERSTANDING OF COUNCIL ACTIVITIES

Although the council has tried to increase public involvement and understanding, the implications and management concepts of the act still confuse some fishermen. Fishermen believe that council procedures make participating in council actions difficult.

Also, State of Alaska officials are concerned about the absence of any implemented management plan. These concerns include how plans will function; the State's role in managing fisheries having fishery management plans; and whether the State, NMFS, or the council will be the fisherman's information source after fishery management plans are implemented.

PUBLIC PARTICIPATION AT COUNCIL MEETINGS

Generally the council schedules monthly meetings. Between October 1976 and July 1978, the council held 17 monthly meetings. Fifteen of the 17 council meetings were held in Anchorage, Alaska. Council meeting sites were selected on the basis of convenience to all council meeting participants and applicability of subject matter to a particular area. For example, the August 1977 meeting was held in Kodiak, Alaska, and coincided with public hearings in Kodiak on the tanner crab and Gulf of Alaska groundfish plans. According to Department of Commerce regulations, the council can hold meetings only in Alaska. The executive director questioned this criterion since many fishermen from Washington State fish in the waters off Alaska.

Council meetings have lasted from 1 to 4 days but have mostly been 2-day sessions. The public is invited to meetings, but the general public can testify only if the council requests information or schedules a time period specifically for public comments. As many as 15 speakers have testified at the council's meetings.

The council has scheduled closed sessions to discuss matters relating to international negotiations. However, according to the executive director, the council is attempting to discontinue any closed sessions so that all council meetings are open to the public.

The scientific and statistical committee and the advisory panel meet the day before council meetings to discuss

the agenda items. These meetings are also open to the public.

PUBLIC PARTICIPATION AT PUBLIC HEARINGS

The council also holds public hearings on draft fishery management plans. According to the executive director, the council considers five criteria in selecting public hearing sites:

--Areas of concentration of fishermen's residences.

--Communities where the plan will be used.

--Transportation.

--Availability of accommodations.

--Cost.

As of August 1978, the council held public hearings on three plans--the Gulf of Alaska groundfish plan, the tanner crab plan, and the Coast of Alaska commercial troll fishery plan. Joint hearings on the Gulf of Alaska groundfish and tanner crab plans were held in four Alaska locations and one in Seattle, Washington. One hundred persons attended the Kodiak hearings. Commercial troll fishery hearings were held in five southeast Alaska locations.

COUNCIL ACTIVITIES TO INFORM THE PUBLIC

The council notifies the public of council meetings and hearings through the Federal Register and council-issued press releases. According to the executive director, the council also sends to over 700 individuals newsletters summarizing council actions during monthly meetings and providing information on future meetings.

COMPARISON OF THE COUNCIL AND STATE OF ALASKA SYSTEMS FOR PUBLIC INPUT

Several of those we contacted, including fishermen and State officials, compared the council's system of public participation with the State of Alaska's system. They cited differences in the practicality of the public, particularly fishermen, participating in each system. They believed active fishermen could more easily participate in the State

system since the State has fewer, but longer, meetings than the council. They also noted that fishermen are more apathetic about participating in council activities because there are no implemented management plans and the council is not a real decisionmaking body.

Differences between public participation systems

The State of Alaska maintains over 50 local advisory committees throughout the State that hold meetings for public discussion of proposed regulations. The Board of Fisheries formulates the commercial fishery regulations and the ADF&G manages the State's commercial fisheries using the adopted regulations. ADF&G has offices throughout the State where fishermen can obtain management decision information.

The Board of Fisheries meets twice a year, and its meetings last from 10 to 12 days. Several fishermen interviewed believe this system was better than monthly council meetings because fishermen are too active fishing to be able to attend council meetings every month.

Many commercial fishermen are actively harvesting more than one fishery. Six commercial fishermen on the council's advisory panel are active in two or more fisheries. Alaska crab fishermen harvest tanner crabs in the spring and king crab in the fall. Therefore, by attending council meetings fishermen may lose money by not fishing.

The low attendance of fishermen on the council's advisory panel suggests the general problems fishermen have in attending council meetings. The attendance of the fishermen on the advisory panel has been worse than that of the nonfishermen on the advisory panel. As of July 1978, the average attendance of the eight commercial fishermen who have been on the panel since December 1976 has been 7 out of 16 meetings. As a group, their attendance is poor compared to that of the six trade association members on the advisory panel who attended an average of 13 of the 16 meetings. An advisory panel member suggested, however, that if the subject is important enough, fishermen will stop fishing and participate in council meetings.

Fishermen's and State officials' perspectives on management decisions

According to the Chairman, State Board of Fisheries, who is a commercial fisherman, since no management plans have

been implemented, some fishermen believe there is no active Federal management of domestic fisheries. Some believe the act merely removed foreign fishing within the 200-mile boundary.

State officials also expressed concern about how management plans will operate and what part the State will play in managing the plans. One ADF&G regional supervisor questioned whether NMFS Alaska regional director decisions on inseason management will be challenged if they appear to be a "rubber-stamping" of State officials' recommendations. ADF&G officials also questioned where fishermen could get answers when they have problems with a fishery management plan. Under State management, the fishermen can go to the local ADF&G office and obtain information on their management decisions. These officials did not know whether the State, NMFS, or the council would be the fishermen's best source of information on implemented fishery management plans.

CHAPTER 4

TIME-CONSUMING PROCESS TO DEVELOP, APPROVE, AND IMPLEMENT FISHERY MANAGEMENT PLANS

The council experienced difficulties in developing and obtaining the Secretary's approval and implementation of fishery management plans. The council believes the director, NMFS Alaska region, needs authority to quickly adjust fishery management plans in season to assure proper management of the fisheries. The council made this a provision in its plans and this provision, among others, has delayed implementation of council plans.

Inadequate data bases also hamper development, approval, and implementation of management plans. In addition, the council has had difficulty in obtaining sufficient regional flexibility in plan management. Moreover, council officials believe that compliance with other legislative requirements is unnecessary and duplicates fishery management plans.

DELAYS IN IMPLEMENTING FISHERY MANAGEMENT PLANS

As of August 18, 1978, the Secretary approved two council-prepared fishery management plans--the groundfish plan and the tanner crab plan. According to the council's executive director, the council expected the plans to be implemented in January 1978. He said the council approved the plans in sufficient time for the Secretary of Commerce to review the plans and have them implemented by January 1978.

The council experienced delays in obtaining the Secretary's approval of the two plans and getting them implemented. Although the Secretary ultimately approved both plans, the Secretary has had problems with the implementing regulations. The council does not agree with the changes made by the Secretary to the council-developed implementing regulations. As of August 18, 1978, neither plan had been implemented.

Gulf of Alaska groundfish plan

Historically, Alaska groundfish were harvested by foreign fishermen. The groundfish fishery, however, is a developing domestic fishery and is being promoted by the council. In October 1976 the council authorized that a fishery management plan for the Gulf of Alaska groundfish fishery be developed. The council submitted the proposed plan for public hearings in August 1977. The council adopted the plan in September 1977 after the hearings. A summary of key events follows.

Gulf of Alaska Groundfish Plan

Event	Date
Public review of plan	July-Aug. 1977
Council approval	Sept. 1977
Plan forwarded to the Secretary of Commerce	Oct. 1977
Secretary of Commerce approval	Feb. 1978

As of August 18, 1978, the Secretary had not implemented the plan.

Secretary exceeds the review period

According to section 304(a) of the act, the Secretary of Commerce shall approve, disapprove, or partially disapprove any fishery management plan or amendment within 60 days after receiving it. If the plan is not approved, the Secretary must provide the council with a written explanation of segments needing improvement. The council then revises the plan or amendment for resubmission to the Secretary. While the Secretary did not approve the groundfish plan until February 24, 1978, 130 calendar days after receiving it, the Secretary identified problems with the plan between October 1977 and February 1978 but elected to request changes to the plan informally.

According to an NMFS fishery management plan coordinator, the plan will replace an existing preliminary management plan developed by NMFS. According to this NMFS official, since the new fishery management plan will lower foreign catch allocations, foreign fishermen claim the new plan violates governing international fishery agreements. In January 1978 the Deputy Administrator, NOAA, said at a council meeting that the Secretary requested changes in the plan's optimum yield. The NOAA official stated, however, that the requested changes would not cause the plan to be disapproved. The Secretary requested that the 1978 sablefish (black cod) optimum yield be increased from 10,000 metric tons to 15,000 metric tons because, according to Department of Commerce officials, 15,000 metric tons was more appropriate. The council agreed to increase the optimum yield to 13,000 metric tons and prescribed fishing gear limitations for foreign fishermen.

Unresolved issues prevent plan implementation

Although the Secretary approved the groundfish plan in February 1978, unresolved issues prevent implementing it. In May 1978 the NMFS Acting Assistant Director for Fisheries Management stated that NMFS was at an impasse with the Department of State over the amount of groundfish allocated to foreign fishermen. He said NMFS faces a choice of breaching "other applicable law," not implementing the plan, or again asking the council to amend the plan.

As of July 1978, eight unresolved issues were preventing the plan's implementation. Two major problems, according to NMFS, were the allocation to foreign fishermen and the director's, NMFS Alaska region, authority to quickly prescribe inseason fisheries management. According to the executive director, the council is highly frustrated over delays in implementing the plan.

Tanner crab plan

In October 1976 the council authorized that a fishery management plan for the tanner crab off the coast of Alaska be developed. The council approved a draft plan in June 1977, and public hearings were held on the plan in August 1977. The council reviewed the public comments and in September 1977 adopted a plan for secretarial review. Secretarial review began on October 19, 1977.

Secretary exceeds the review period

The council and NOAA disagreed over the Secretary's review period for the tanner crab plan. NOAA's Acting Administrator for Fisheries said that because the council made substantial revisions to the plan after submission, a new 60-day review period began in December 1977. In January 1978 a council member challenged the revised review period. He noted that the Secretary did not officially notify the council of a revision to the groundfish plan review period even though the Secretary had similiar criticisms of the groundfish plan. NOAA's Deputy Administrator said part of the problem with the new review period was "the change in personnel in NOAA." In April 1978 the Secretary approved the plan, 137 calendar days after the revised review period started in December 1977.

Establishing the foreign fishing allocation for tanner crab caused a delay in plan approval. In January 1978 NOAA's Deputy Administrator and NOAA's Acting Assistant Administrator for Fisheries questioned the council's 15,000 metric ton

tanner crab foreign fishery allocation north of 58 degrees north latitude in the Bering Sea. The council allocated all tanner crab south of 58 degrees north latitude in the Bering Sea to domestic fishermen. Although harvestable tanner crab above that boundary line were estimated to be more than 15,000 metric tons, the council believes that a foreign allocation greater than 15,000 metric tons would lower the price of domestically caught tanner crab. NOAA's Deputy Administrator said the plan did not provide sufficient evidence to justify limiting foreign allocation to 15,000 metric tons.

The council said the plan was based on the best available data. In February 1978 the council sent the Secretary of Commerce a document, "Development of OY [optimum yield] and TALFF [total allowable level of foreign fishing] for Tanner Crab North of 58 Degrees North in the Bering Sea," to substantiate the council's proposed foreign allocation. The council's executive director stated that

> "Hard data on the interrelationships of shellfish markets and the effect that an increased catch would have on U.S. crab industry is simply not available."

In March 1978 the Director, NMFS Alaska region, said that hard quantifiable data is not available to support the council decision on the foreign allocation. The best information available was informed opinions of people knowledgeable about the fishery and its markets. He said that the plan clearly shows "how the Council struggled to arrive at the best optimum yield as they perceived it." Despite the lack of data, he agreed with the council's foreign allocation proposal and recommended that the Secretary approve the plan.

Council disagreement over regulation changes

The council developed proposed regulations and submitted them to the Secretary. The Secretary revised the regulations and published them in the Federal Register without further council review. The council's advisory panel criticized the proposed regulations the Secretary published. In May 1978 the council designated a committee to review the published regulations. The scientific and statistical committee, advisory panel, and the council also reviewed the published regulations. In June 1978 the council changed the proposed regulations back to the way they were originally submitted to the Secretary.

Unresolved issues prevent plan implementation

Despite the Secretary's approval of the tanner crab plan in April 1978, NOAA's Acting Assistant Administrator for Fisheries stated that there were "many unresolved and difficult issues yet to be addressed." He cited numerous problems, including collecting more economic and sociological data and using the full potential of the tanner crab resource. As of August 18, 1978, the plan had not been implemented and no implementation date had been scheduled.

EXECUTIVE DIRECTOR'S STATEMENTS ON DELAYS IN IMPLEMENTING THE COUNCIL'S PLANS

In June 1978 the council's executive director summarized the council's experience with the Secretary's review process. He said that "NOAA's record of coordination and cooperation with the Council in implementing management plans and requested changes to regulations and PMPs [Preliminary Management Plans] has been dismal." The council's advisory panel endorsed this statement.

The executive director also stated:

> "The Council developed a schedule for plan development and has managed to meet all of our self-imposed deadlines. The delays have come directly from the Central Office of NMFS/NOAA. Unless we can streamline the review, approval and implementation process, it will not be possible to manage the resources off Alaska on a real time basis. Data used in the plans will be two years old and actual regulatory changes will be so far behind events that seasons will be over and resources depleted before they are implemented, if the past record is any sample of what we can expect."

COUNCIL RECOMMENDS MORE ONGOING REVIEW OF FISHERY MANAGEMENT PLANS ON A REGIONAL LEVEL

In June 1978, a council subcommittee made several recommendations for hastening secretarial review of plans and implementing regulations. The subcommittee believed that the major review of fishery management plans and regulations should be done on a regional level. The subcommittee said that

"Review, both regional and on the Washington level, but particularly on the regional level, should be a continuous ongoing effort during the development of a fishery management plan, beginning with its first publication for public review and comment, and continuing through development to its forwarding to the Secretary as a Council recommendation."

The subcommittee also recommended that the Secretary should publish regionally developed regulations as the proposed rules when the Secretary published the approved plan. The subcommittee believed that the required review period should serve for all interested parties, including the Secretary. The subcommittee believes these recommendations would eliminate the problem of having regulations rewritten by the Secretary without involvement by the council.

NMFS officials informed us that they now have a plan coordinator who will act as a liaison between the council and the Secretary. The coordinator will coordinate the plan among review groups in NMFS and NOAA. This plan coordinator has responsibility for all fishery management plans for the three Pacific Coast councils. NMFS believes the plan coordinator will help reduce coordination problems between the Secretary and the council.

Need for regional flexibility in plan management

The council believes a need exists for regional decision-making authority for inseason fisheries management. According to the executive director, this authority will enable the regional director to make timely responses for effective fishery management. The State of Alaska currently has such authority in emergencies.

An ADF&G Deputy Commissioner also believes a need exists for a Federal regional authority for making inseason adjustments. However, the Secretary has not determined how inseason adjustments should be made.

As is stated on page 106, the question is an unresolved issue preventing implementation of the groundfish plan.

A scientific and statistical committee member said that seasonal adjustments may be required due to the variability of fish stocks. He stated that optimum yield should not be fixed for an entire fishing season. He said it may need to be revised due to changes in the fishery. In addition,

inseason adjustments need to be made quickly. For example, the chairman of the Alaska Board of Fisheries stated that some shrimp fisheries are harvested in a short period of time; therefore, slow action in making a management decision could result in overharvesting.

The Secretary also delayed in making needed changes to management plans. In May 1978 the council requested that the preliminary management plans for the Gulf of Alaska sablefish and trawl fisheries be amended immediately. The council attempted to close parts of southeast Alaska fishing to foreigners to protect domestic sablefish fishermen. The council's action was in response to testimony by U.S. fishermen at the May 1978 council meeting. The Secretary did not implement the amendment until July 1978. The responsible NMFS official said that the amendment was approved as quickly as possible by waiving procedural provisions of the Administrative Procedure Act and the National Environmental Policy Act of 1969.

The council believed the May 1978 amendments were critical because they would have provided

> "* * * protection for the U.S. sablefish fishery until the FMP [fishery management plan] for the Gulf of Alaska Groundfish Fishery is implemented. They are the same provisions as obtained in the FMP for this fishery printed in the Federal Register on April 21, 1978.
>
> "Based on the FMP submitted to you by the Council on October 17, 1977, but not yet implemented, many American fishermen have geared up for sablefish, investing heavily in gear and foregoing other fisheries. Because the FMP has been unduly delayed, they continue to find the grounds preempted by or lose substantial amounts of gear to foreign fishermen."

In June 1978, while the Secretary was deciding whether to implement the amendment, some Japanese fishermen voluntarily complied with the council's request.

NEED TO IMPROVE DATA BASES FOR MANAGEMENT DECISIONS

The council's experience in developing the tanner crab plan and getting the plan approved indicates a need for better data bases. Optimum yield requires the council to consider not only biological factors but also economic and social factors in fishery management decisions.

According to a scientific and statistical committee member, much biological data is available to the council. He added, however, that even more biological data is needed. He also said that time is needed to accumulate biological information. Some fish may take 5 years to run through their life cycle, according to another scientific and statistical committee member.

The council also needs better economic and social data bases. One scientific and statistical committee member said there are few fishery economists in Alaska. According to this scientific and statistical committee member, the council needs to develop fishery trends so that models can be developed to predict effects of different management strategies. Deficiencies in economic data are demonstrated by the council's difficulties in supporting the 15,000-metric-ton foreign allocation for tanner crab. In this case, the council did not have adequate quantifiable data showing the effects of foreign-caught tanner crab on the domestically caught tanner crab market.

The council recognizes these data deficiencies and has issued various contracts in an attempt to improve data bases. For example, the council issued two contracts to obtain information for use in developing the herring plan. It has also entered into a contract to provide more accurate and timely catch information through ADF&G's computerized fisheries information system. These contracts are generally short-term efforts for obtaining specific data for developing management plans. The council has clearly indicated that more responsive data, including regional economic and social data, is needed to help the council make its management decisions.

COUNCIL CONCERN OVER POTENTIAL LACK OF FLEXIBILITY OF THE FEDERAL ADVISORY COMMITTEE ACT

The executive director expressed concern over the lack of flexibility for timely response due to Federal Advisory Committee Act requirements. The implementing regulations for the Federal Advisory Committee Act require that all meetings be open to the public and notice published at least 20 days in advance in the Federal Register. Before forwarding information for publication in the Federal Register, the Director, NMFS, must be notified 45 days in advance of any meetings or segments of meetings that the council plans to close to the public. During changing fishery conditions, delays in implementing management decisions can adversely affect some fisheries.

The assistant executive director believed that the council has met the intent of the Federal Advisory Committee Act through its news releases and newsletter. However, the council still publishes notification of meetings and hearings in the Federal Register.

COUNCIL CONCERN OVER THE NEED TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT

The council questioned the need for preparing environmental impact statements. According to the Chairman, scientific and statistical committee, meeting the requirements of the Fishery Conservation and Management Act of 1976 should fulfill environmental impact statement requirements. Although preparing an environmental impact statement is a Federal agency responsiblity, the council hired a staff writer to develop it.

In June 1978 a council subcommittee suggested the following alternatives to the present National Environmental Policy Act of 1969 requirements:

--Amend the Fishery Conservation and Management Act of 1976 to remove management plans entirely from National Environmental Policy Act of 1969 controls on the basis that the act was structured to provide adequate public review, comment, and protection.

--If the National Environmental Policy Act of 1969 is to apply, confine its application to natural environmental impacts and thereby increase the frequency of findings of negative impact.

QUESTIONS ON THE NEED FOR ECONOMIC IMPACT STATEMENTS

Although NMFS is responsible for the economic impact statements, an NMFS official questioned the need for such statements, since neither of the council's first two fishery management plans, two of the larger Alaska fisheries, caused any major economic impact. According to the assistant executive director, the plans already address economic questions. An ADF&G economist prepared the draft statements for the groundfish and tanner crab plans since the NMFS Alaska region does not have an economist.

APPENDIX V

PROGRESS AND PROBLEMS

OF THE

PACIFIC FISHERY MANAGEMENT COUNCIL

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CHAPTER 1

PROGRESS OF THE PACIFIC FISHERY MANAGEMENT COUNCIL

The Pacific Fishery Management Council held its first meeting in October 1976. Since its initial meeting the council rapidly put into place an organizational structure to respond to assigned responsibilities. Statements of organization, practices, and procedures for various council entities were prepared. In addition, the council established objectives and priorities for its operations.

COUNCIL ORGANIZATION

During the initial council meetings in 1976, the council established organizational entities to achieve assigned responsibilities. The council generally has monthly meetings. As of August 1978, 19 meetings have been held since the first council meeting in October 1976. The council had the following organizational elements in June 1978:

- Council--18 members.
- Council staff--7 full-time, plus 1 under contract and 1 part-time secretary.
- Scientific and Statistical Committee--11 members.
- Fishery Management Plan Development Teams--8 teams.
- Advisory Subpanels--8 advisory subpanels corresponding to each plan development team.
- Moratorium Task Force (to consider a limit on the number of vessels participating in the ocean salmon fishery) --14 members.
- Task Force on Anadromous Salmonid Environmental Problems --6 members.

The council also formed various temporary subcommittees to perform short-term tasks.

COUNCIL INTERACTION WITH OTHER FISHERY MANAGEMENT ORGANIZATIONS

The Pacific Fishery Management Council coordinates its activities with several other fishery management organizations. These include the National Marine Fisheries Service regional offices in Seattle, Washington, and Terminal Island, California; the North Pacific Fishery Management Council in Anchorage, Alaska; the Pacific Marine Fisheries Commission in Portland, Oregon; and fishery officials in the various States within the council's jurisdiction. Council activities are also

coordinated with the Western Pacific Fishery Management Council, the International Pacific Salmon Fisheries Commission, the Fisheries Service of Canada, and the treaty Indian tribes and tribal organizations.

National Marine Fisheries Service

The Northwest regional office of the NMFS provides direct support to the council in developing and implementing fishery management plans. As provided in the act, the regional director of NMFS is a member of the council. Staff from the NMFS regional office and the NMFS Northwest and Alaska Fisheries Center are members of various council organizations, including the scientific and statistical committee and management plan development teams.

North Pacific Fishery Management Council

The Pacific Fishery Management Council and North Pacific Fishery Management Council have joint member States--Washington and Oregon. Significant numbers of salmon originating in Washington, Oregon, and Idaho rivers are harvested by commercial troll fishermen off the Alaska coast. The Pacific Fishery Management Council recognizes the management problems caused by the migratory range of salmon stocks. The council established as one of its objectives in the 1978 ocean salmon management plan achieving, for the long term, coordination with both Canada and the North Pacific Fishery Management Council in the development of a coastwide salmon management plan.

Coordination between the two councils occurs primarily through individuals serving as members of both councils and other organizational groups of both councils, such as the scientific and statistical committee, advisory panels, and management plan development teams. Four individuals serve as members of both councils, and two persons serve on both councils' scientific and statistical committees. In addition, the two councils have an advisory panel member and a plan development team member working for both councils.

Pacific Marine Fisheries Commission

The Executive Director of the Pacific Marine Fisheries Commission is a nonvoting member of both the North Pacific Fishery Management Council and Pacific Fishery Management Council. The commission seeks to promote the wide management, development, and use of fisheries which are of mutual

concern to the States of Alaska, Washington, Oregon, California, and Idaho. In 1976, in anticipation of the needs of the Pacific Fishery Management Council, the commission developed background for an ocean salmon management plan for chinook and coho off the coasts of Washington, Oregon, and California. This work provided the foundation for the council's 1977 ocean salmon management plan. In 1977 the commission began development of information on inland aspects of salmon management for use by the council in the formulation of the comprehensive salmon management plan. The commission performs a variety of other functions which are supportive of the needs of both councils.

State fishery officials

The council also maintains a close working relationship with State fishery officials in Alaska, Washington, Oregon, California, and Idaho. State officials serve as members of the council, scientific and statistical committee, management plan development teams, and other council organizations.

PRIORITIES AND STATUS OF FISHERY MANAGEMENT PLANS

Initial fishery management plan priorities, according to council officials, were the development of management plans for the salmon and anchovy fisheries. Development of all other fishery management plans was considered secondary.

The salmon fisheries are perhaps one of the most complex and controversial fisheries. When the council was formed, the salmon fisheries were already in a chaotic condition. The council faced problems demanding immediate attention. A council member stated these pressures were

--the need to increase ocean escapement of salmon for spawning purposes to certain inland streams,

--court ordered requirements to satisfy treaty obligations to Columbia River and Puget Sound Indian tribes, and

--the need to meet court mandated requirements without destroying other (non-Indian) fisheries operating on inland waters.

The council chairman emphasized the problems facing the council. He said:

"It was clear that either the Council could act with some urgency to assist in resolving these problems or the courts would do it on their own with possibly a much greater consequence than might result from a rational planning process. It was also clear that it would be impossible to collect and assemble all of the data necessary for a comprehensive plan in the few months we had to prepare a plan for the 1977 season."

Accordingly, the council developed an ocean salmon plan for the management of troll and recreational fisheries for the 1977 fishing season. The council elected to submit the same plan, with some modification, for the 1978 ocean troll and recreational salmon fisheries. The council, however, is still committed to develop a comprehensive salmon management plan for both ocean and inland, or inside, fisheries. As of July 1978, the comprehensive plan is in process and is scheduled to be implemented for the 1980 fishing season.

Since the council initiated operations, three fishery management plans have been approved by the council and sent to the Secretary of Commerce for adoption and implementation. The three plans are the 1977 and 1978 fishery management plans for commercial and recreational salmon fisheries off the coasts of Washington, Oregon, and California and the comprehensive northern anchovy plan. The Secretary of Commerce approved all three plans. As of July 1978, both salmon plans had been implemented, while regulations were being developed to implement the anchovy plan.

Eight other fishery management plans are in various stages of development. The following schedule summarizes the status and key target dates for five of the eight plans.

Management plan	Status	Target dates as of July 1978: Council approval	Target dates as of July 1978: Final regulations
Squid	Plan development schedule being revised.	Not established	Not established
Comprehensive salmon	Plan objectives and outline awaiting council review.	Not established	Not established
Pink shrimp	First draft being prepared.	4/79	9/79
Dungeness crab	First draft being prepared.	7/79	12/79
Groundfish	First draft being prepared.	6/79	1/80

Management plans for three other fisheries are in preliminary organizational stages. The billfish plan is being prepared jointly by the council and the Western Pacific Fishery Management Council located in Hawaii. The council has approved objectives for a jack mackerel plan. In July 1978 the council decided to start developing a Pacific herring plan.

PENDING LITIGATION

The council's 1977 and 1978 fishery management plans for ocean salmon fisheries off the coasts of Washington, Oregon, and California are being challenged by commercial fishermen engaged in these fisheries. The fishermen, unhappy about reductions in their allocated catches, sued the Secretary of Commerce, claiming that the plans did not comply with the act and the Secretary's guidelines and that the regulations implementing the plans were invalid. Among other things, the fishermen alleged that

--the plans allowed illegal foreign fishing for salmon,

--the plans were not consistent with national standards contained in the act,

--the plans did not satisfy the act's requirements for the contents of FMPs, and

--implementing the plans through emergency regulations was not legally appropriate.

This law suit is now pending before the United States District Court for the Western District of Washington.

CHAPTER 2

ORGANIZATIONAL STRUCTURE OF THE PACIFIC FISHERY MANAGEMENT COUNCIL

Many organizational elements assist the Pacific Fishery Management Council to accomplish its responsibilities assigned by the Fishery Conservation and Management Act of 1976. These elements include a scientific and statistical committee, fishery management plan development teams, advisory subpanels, and council staff.

Generally, individuals serving on the scientific and statistical committee and the fishery management plan development teams are Federal and State fisheries officials. Advisory subpanel members include commercial and sport fishermen, charterboat operators, fish processors, Indian representatives, and consumers.

COUNCIL

In compliance with the act, the council has 13 voting and 5 nonvoting members. Eight of the 13 voting members are selected by the Secretary of Commerce from a list of candidates submitted by the Governors of Washington, Oregon, California, and Idaho. The five other voting members consist of the principal State official with marine fishery management responsibility in the States of Washington, Oregon, California, and Idaho, and the Northwest Regional Director of the National Marine Fisheries Service. The five nonvoting members of the council include the Northwest Regional Director of the U.S. Fish and Wildlife Service, the Pacific Area Commander of the U.S. Coast Guard, the Executive Director of the Pacific Marine Fisheries Commission, a representative of the U.S. Department of State, and a representative appointed by the Governor of Alaska. A summary of the membership of the council (as of June 1978) follows:

--Northwest Regional Director, NMFS.

--Regional Director (region X), U.S. Fish and Wildlife Service. 1/

--Pacific Area Commander, U.S. Coast Guard. 1/

1/Nonvoting member.

--Director, Washington Department of Fisheries.

--Director, Oregon Department of Fish and Wildlife.

--Director, California Department of Fish and Game.

--Director, Idaho Department of Fish and Game.

--Director, International Fisheries and External Affairs, Office of the Governor, State of Alaska. 1/

--Executive Director, Pacific Marine Fisheries Commission. 1/

--Three fishing industry representatives, including one trawler, one processor, and one fishermen's union representative.

--Two sports fishermen.

--One economist.

--One State legislator.

--One retired State fisheries official.

Five council members also serve on the North Pacific Fishery Management Council in Anchorage, Alaska.

COUNCIL STAFF

The council staff is responsible for administering and conducting the council's operations. Its functions include preparing budgets, financial management, procurement, coordinating planning efforts, liaison between council committees or advisory panels and fishery planning teams, maintaining council records, correspondence, and preparing required council reports. As of July 1978, the council staff consisted of seven full-time employees:

--Executive director.

--Executive assistant.

--Administrative officer.

1/Nonvoting member.

--Two staff officers.

--Two administrative clerks.

According to the executive director, the two staff officers assist in coordinating the development of fishery management plans. An additional person, under contract with the council, is coordinating the development of a comprehensive salmon management plan.

SCIENTIFIC AND STATISTICAL COMMITTEE

In October and November 1976, the council approved the scientific and statistical committee's composition and appointed members to it. In addition to those duties described in the act, the council instructed the committee to

--identify scientists required for the development of management plans and recommend and/or designate resources for management plan teams and

--review various fishery management plans and advise the council on the scientific contents of these plans.

The committee generally meets monthly, with all meetings open to the public. The council maintains minutes of the committee's meetings. Most committee meetings involve discussions of draft fishery management plans and recommendations to the council and the management plan development teams.

The council decided that the committee should comprise scientists of national reputation, drawn from Federal and State fisheries agencies, academic institutions, and other sources. Committee members are appointed by the council for a 2-year term. The council emphasized that the committee should have a multidisciplinary background. As of June 1978, the 11-member committee was comprised of:

--The Director, Northwest and Alaska Fisheries Center, NMFS.

--The Director, Southwest Fisheries Center, NMFS.

--Four State fisheries officials from Washington, Oregon, California, and Idaho.

--Three fisheries biologists.

--One economist.

--One attorney.

As of June 1978, committee membership has not changed since 1976. The Director, Northwest and Alaska Fisheries Center, NMFS, and one fisheries biologist also serve on the scientific and statistical committee of the North Pacific Fishery Management Council.

According to the council chairman, the Federal and State officials were nominated from their respective agencies, while the biologists, economist, and attorney were recommended by various council members. The council must approve all individuals nominated to the committee.

MANAGEMENT PLAN DEVELOPMENT TEAMS

To implement its responsibility for preparing fishery management plans, the council appointed plan development teams to be directly responsible for developing fishery management plans. Generally, each team comprises State and Federal fisheries officials and representatives from universities in Washington, Oregon, or California. Team members are nominated by the scientific and statistical committee and confirmed by the council. Team members have no definite term of duty. In nominating team members the committee considers what type of fishery expertise is needed and the best team composition. Team members have a background in fisheries biology or economics.

As of June 1978, the council had eight management plan teams to develop management plans for the following fisheries--anchovy, billfish, dungeness crab, groundfish, jack mackerel, pink shrimp, salmon, and squid. Team size ranged from three to six members. Two team members serve on three different planning teams and four other team members serve on two different teams.

According to a council official, a team is usually composed of a fishery official from each State having an interest in the particular fishery. In addition, an economist from either the National Marine Fisheries Service or an academic institution is appointed to each team.

In developing fishery management plans, each team is responsible for:

--Carrying out tasks assigned by the council to assemble and analyze relevant biological, statistical, economic,

and other data for the purpose of organizing alternative approaches to the management of fisheries.

--Maintaining, throughout the above process, reciprocal interaction with the appropriate advisory panel and the scientific and statistical committee.

--Submitting for council decision draft fishery management plans in the form of a scientific array of alternative approaches to management development.

In addition, team members are expected to seek additional expertise as needed from outside consultants and other means. Each team is expected to consult frequently with all interested parties, including fishermen.

ADVISORY PANEL

During its October 1976 meeting, the council decided to establish a series of advisory panels, known as subpanels, for each fishery for which a management plan would be developed. The council desired separate, fishery related advisory subpanels instead of a single multifishery panel, since individual panels can provide better input into plan development.

Advisory subpanels offer advice to the council on matters contained in fishery management plans, particularly regarding

--the capacity and the extent to which U.S. fishing vessels will harvest the resources considered in fishery management plans,

--the effect of fishery management plans on local economics and social structures.

--potential conflicts between user groups of a particular fishery, and

--enforcement problems.

Panel members attend many council meetings to advise the council on particular fisheries with specific emphasis on social and economic matters.

As of June 1978, eight advisory subpanels were operating at the council. The size and composition of each subpanel is as follows:

Subpanel	Number of members	Affiliation
Anchovy	8	1 Dealer 1 sport fisherman 1 labor official 1 processor 1 charterboat operator 1 harvester 1 air and water quality official 1 bait hauler
Dungeness crab	7	3 commercial fishermen 1 processor 1 Indian representative 1 sportsman 1 consumer
Pink shrimp	4	2 commercial fishermen 1 processor 1 consumer
Squid	5	2 commercial fishermen 1 processor 1 sportsman 1 consumer
Billfish	4	2 commercial fishermen 1 processor 1 recreational fisherman
Jack mackerel	8	1 dealer 1 sport fisherman 1 labor official 1 processor 1 charterboat operator 1 harvester 1 air and water quality official 1 bait hauler
Groundfish and sablefish	13	3 trawlers 2 pot fishermen 2 charterboat operators 2 processors 2 sport fishermen 1 Indian representative 1 consumer

Subpanel	Number of members	Affiliation
Salmon	24	5 sport fishermen 4 Indian representatives 4 troll fishermen 3 charterboat operators 3 processors 2 gillnet fishermen 1 purse seine fisherman 1 aquaculture industry representative 1 consumer

The salmon advisory subpanel has the largest number of members because of the controversial nature of the fishery and the large number of affected parties. The council chairman said that the council prefers to obtain the various views of subpanel members rather than consensus subpanel opinions.

According to the council chairman, advisory subpanel members are chosen on the basis of familiarity to council members and from recommendations made by various interest groups. The council solicits nominations from fishing interest groups after the council determines the composition and size of each advisory subpanel. Each subpanel member, according to the advisory panel charter, should be knowledgeable or experienced in the management, conservation, or harvest of fisheries under the council's jurisdiction. In addition, the membership should reflect geographic distribution, industry and other user groups, and economic and social organizations in the council's geographical area of responsibility. Subpanel members have been appointed by the council for a 2-year term.

OTHER COUNCIL ORGANIZATIONS

In December 1977, the council established two task forces to analyze problems associated with developing the comprehensive salmon management plan. The council created a moratorium task force to study and report on the issues of limiting the number of ocean commercial vessels and charterboats fishing for salmon. The council chairman appointed 14 members to the task force. As of June 1978, the moratorium task force had the following members:

--3 commercial troll fishermen.

--3 charterboat operators.

--3 State fisheries officials from Washington, Oregon, and California.

--1 sports fisherman.

--1 net fisherman.

--1 Oregon State legislator.

--1 Official, Northwest Regional Office, NMFS.

--1 Official, Regional Counsel, Northwest region, NOAA.

The council also created a task force to study and report on environmental problems encountered in the production and harvest of salmon in inside waters. In addition, the task force is concerned with enhancing the natural habitat of salmon. Six Federal and State fisheries officials comprise the task force. The composition includes one State fisheries official from Washington, Oregon, California, and Idaho; one NMFS official; and one U.S. Fish and Wildlife Service official. None of these officials serve on any other council organization.

CONCERN OVER THE ADEQUACY OF COUNCIL REPRESENTATION

Various fishing industry organizations expressed the need for greater industry representation on the council. Representatives of these groups stated that

--many members of the council have no experience in the fishing industry;

--Indian representation is needed on the council; and

--representation of other segments of the fishing industry, such as charterboat operators, should be increased.

The council chairman believed the present composition of the council adequately represents a good mix of fishing industry groups. He believed that increasing the level of industry representation would impair the council's objectivity.

CHAPTER 3

PUBLIC AWARENESS AND INVOLVEMENT--A VITAL PART OF COUNCIL ACTIVITIES

Public involvement is a vital part of the fishery management plan development process. It allows various fishery interest groups to voice their concerns and provide ideas. Allowance for this input, however, is often time consuming and may hinder timely development of management plans. Associated with public involvement is the duty of the council to keep the public well informed of the council's activities.

PUBLIC PARTICIPATION AT COUNCIL MEETINGS

Since the council first met in October 1976 through August 1978, 19 council meetings have been held. All council meetings are open to the public. However, portions of meetings are sometimes closed because of national security reasons when discussing international fishing matters.

The following qualifier was included in many of the council meeting minutes:

> "This meeting of the Council is to conduct business and not to collect public testimony; however, people having information to contribute pertinent to issues being considered by the Council will be recognized from the audience."

According to the council chairman, all council meetings have had participation from interested persons. In August 1978 the council added a 1-hour public comment period. Reasons given included the need for a public comment period, which was expressed during congressional oversight hearings; to lessen public interruptions during the remainder of the council meeting; and to allow an orderly presentation of comments.

PUBLIC PARTICIPATION AT HEARINGS

For each of the 1977 and 1978 ocean salmon plans, the council held six public hearings on the final draft, with at least one hearing conducted in a city of each State under the council's jurisdiction. For each of the plans, two hearings were conducted in California, two in Oregon, and one each in Idaho and Washington. According to the

council's executive director, hearings were held in coastal fishing communities to maximize input from commercial fishermen.

About 750 people attended the six public hearings on the 1978 draft plan; 150 people testified. In addition to comments received at public hearings, the council received written comments on the draft. The council received about 200 letters on the 1977 plan and about 150 letters concerning the 1978 plan.

The council included as an appendix to each plan only the most negative critical comments of all the oral or written comments received and the council responses.

COUNCIL ACTIVITIES TO INFORM THE PUBLIC

The council uses various means to inform the public of council activities. These include distributing a monthly newsletter, publishing news releases to the press, and distributing draft and final plans upon request. In addition, notices of council meetings and public hearings are published and council meeting transcripts are available.

The council's monthly newsletter is distributed upon request to any individual. As of July 1978, the newsletter was distributed to about 1,300 persons. The newsletter summarizes actions taken by the council during monthly meetings.

In addition, the council issues news releases on items of general interest to about 70 newspapers, television, and radio stations. These media people also receive the monthly newsletter. Based on this information, several fisherman periodicals also print information on council activities.

As of March 1978, the council's mailing list for both draft and final ocean salmon plans totaled 1,546 people.

COUNCIL CONCERN OVER POTENTIAL DELAYS BY THE FEDERAL ADVISORY COMMITTEE ACT

Several council members expressed concern over the Federal Advisory Committee Act requirements. The act requires that all meetings of the council and associated committees and panels be published at least 20 days in advance in the Federal Register. Before forwarding information for publication in the Federal Register, the Director, NMFS, must be notified 45

days in advance of any meetings or segments of meetings that the council would like to have closed to the public. One council member believes it is extremely difficult to carry out business in a timely manner, particularly if an emergency situation arises. He stated there is a need for some type of emergency procedure to permit the council to meet on short notice. He also questioned whether the Federal Register is an effective means for communicating council activities to the public.

The council chairman also stated the need for more flexibility in scheduling council and council-related meetings. Another council member viewed the council as more of a planning body, rather than an advisory body, that should not be entirely under the act's requirements.

PUBLIC CONCERN OVER LOCATION OF COUNCIL MEETINGS

The council received complaints from the public on the locations of monthly council meetings. The majority of the 19 meetings held through August 1978 have been at larger cities, such as Seattle, Washington; Boise, Idaho; Portland, Oregon; and Los Angeles, San Diego, and San Francisco, California. Fishermen complain that these locations are not readily accessible or convenient. They would like to see more meetings scheduled at coastal fishing communities.

The council's executive director said that council meetings are scheduled in the most readily accessible cities in each of the four member States to reduce travel costs of participants and because there is a lack of adequate conference facilities in the coastal communities. He said the council is aware of the complaints over council meeting locations. He added that the council plans to hold future council meetings in coastal communities. Past council meetings were held at the coastal communities of Coos Bay, Oregon, and Monterey and Eureka, California.

CHAPTER 4

INADEQUACIES OF DATA BASES FRUSTRATE DEVELOPMENT AND IMPLEMENTATION OF MANAGEMENT PLANS

Delays in developing and implementing fishery management plans have been caused in part by inadequate fishery data bases. Although there is a large base of biological data, passage of the Fishery Conservation and Management Act created the need to significantly increase economic and social data bases applicable to fisheries management.

EXPANSION NEEDED IN TRADITIONAL BIOLOGICAL DATA

Fisheries management has traditionally been based on biological considerations. As a result, biological data is perhaps more sophisticated and research concepts are better understood than those for economic or social information.

Even though much biological data has been accumulated, new and different types of scientific data are needed. Inadequacies in current scientific data bases concern many council officials, fishermen, and others. The council's scientific and statistical committee has often declared its concern over inadequate scientific evidence to evaluate alternative management measures for the 1977 and 1978 ocean salmon management plans. For example, in December 1977 the committee told the council that insufficient information was available to demonstrate the effectiveness of a 28-inch minimum size limit for chinook south of Cape Falcon, Oregon. The council recognizes certain data base problems in the salmon fisheries and has taken steps to increase the data base. To resolve some of these problems, the council contracted for various research studies to obtain additional data to develop a comprehensive salmon plan.

THE BEST SCIENTIFIC INFORMATION AVAILABLE MUST BE USED FOR MANAGEMENT DECISIONS

Effective implementation of the act will require a new level of understanding about fishing resources and the fishing industry. Although the act does not define the relative weight of each factor used to compute optimum yield, the relative importance of economic, social, and ecological factors varies by fishery. Council officials believe that having

flexibility to consider economic and social factors is important.

Controversy over the adequacy of data bases

Along with development, analysis, and use of data bases, the act specifies that "Conservation and management measures shall be based upon the best scientific information available." Considerable controversy surrounds the adequacy of the data used as a basis for the council's decisions concerning certain sections of the ocean salmon management plans. Various affected groups have challenged the basis for council approved management measures in the 1977 and 1978 ocean salmon management plans. In response to these challenges, the council chairman said:

> "* * *the Council had to respond to pressing conservation needs and judicial allocation decisions immediately, on the basis of the best information available. The 1977 and 1978 plans are responses to this urgency."

In recommending approval of the 1977 ocean salmon plan, the Director, NMFS, stressed that certain issues receive greater consideration in 1978, including the strengthening of economic and sociological aspects. The need for greater economic and social data was again emphasized in NOAA decision documents concerning the 1978 ocean salmon plan. In February 1978, the Acting Administrator for Fisheries, NOAA, pointed out that, as with the 1977 FMP, there are gaps in the 1978 FMP in the socioeconomic and habitat data.

Most council members believe that although more data is needed for all fisheries, current available scientific data supports the proposed policies set forth in the fishery management plans. However, the council plans to include additional social, economic, and habitat data in the comprehensive salmon management plan scheduled to be implemented in 1980.

Greater need for economic data

The greater consideration of economic and other social dimensions required by the act's optimum yield concept places a new demand on fisheries managers. Additional social, economic, and ecological data is necessary for such purposes as

--determining optimum yield,

--projecting the domestic catch and capacity to catch fish,

--promoting efficiency in the harvest sector of the fisheries industry,

--understanding and managing the impact of foreign fishing and imports of fish to the U.S. markets, and

--determining overall benefits to recreational fishing.

We discussed the present status and need for additional economic and social data with members of the council, scientific and statistical committee, and management plan development team members. The salmon plan development team economist said that the team does not yet know what economic information is needed. He said that although the act requires that each fishery management plan contain a description of the fishery, including the number of vessels, no reliable coastwide data is available on the number of fishing boats, as well as catch statistics. He added that coastwide data must be complete and its quality improved before effective economic analyses can be performed. He said that the following economic data is needed:

--Consistent fishery catch data (catch amounts presently are reported in terms of either pounds, number of fish, or catch value).

--Locations of fish catches.

--Days of fishing effort.

--Capital and operating costs of commercial fishermen.

--Fishermen's income from all fisheries as well as nonfishing income alternatives.

Council officials warned, however, that economic research can be expensive and that one must carefully weigh the cost of information against its probable use and effects. They said that because of the act's broad mandate to obtain any relevant economic, social, or ecological data, a clear specification of relevant objectives to be achieved must be present.

Data bases needed for noneconomic factors

Besides the need to develop better economic data, fisheries management also needs information from other data

areas. The act also requires that relevant social and ecological factors be considered in determining optimum yield. Social data on fishermen and the communities in which they live are almost totally absent from information data bases.

As prescribed by the act, regional councils will need to know the effect of management measures on social factors to properly determine fishery policies. Fisheries management can affect community factors, such as the economic livelihood of fishing crews and cooperatives; community employment levels; values and goals of community populations; and social problems, like alcoholism, delinquency, and crime. An understanding must also be obtained of coastal fishermen's ability to adapt to changes in fisheries management and to use innovative and sophisticated fishing equipment.

NEED FOR A COASTWIDE DATA MANAGEMENT SYSTEM

Presently, the responsibility for collecting economic information about U.S. fisheries is left almost entirely to the Federal Government, as carried out by the National Marine Fisheries Service. No comprehensive regional collection programs exist to augment the Federal information base.

An effective coastwide data base is necessary to develop and continually assess management measures for coastwide fishery management plans, such as the council's 1977 and 1978 ocean salmon plans. No such data base currently exists. A coastwide data management system has received added impetus from the needs of the council in developing the ocean salmon plans. The council found the data base particularly inadequate to assess fishing effort and harvests in the waters off the coast of one State by fishing vessels licensed in another State.

The NMFS is funding a Pacific Marine Fisheries Commission's project to coordinate coastwide data. As soon as data compatibility problems are resolved among the three coastal States, the commission plans to produce coastwide data files for 1974, 1975, and 1976.

CHAPTER 5

TIME-CONSUMING DELAYS CAN SLOW MANAGEMENT PLAN IMPLEMENTATION

Lengthy management plan review and time-consuming compliance reviews can delay developing and implementing fishery management plans. Furthermore, a nationwide priority system or deadlines for preparing fishery management plans do not exist. Together, these items hinder the timeliness and flexibility of management plans to respond to changing fishing conditions.

LENGTHY MANAGEMENT PLAN REVIEW

Substantial delays in the approval process can severely affect a plan's timeliness for the current fishing season as well as the timeliness of data used as the basis for a council's decisions.

We found that, once the council adopts a fishery management plan, the Secretary of Commerce can take considerable time to approve the plan. The council adopted the northern anchovy plan in March 1978, but the Secretary did not approve the plan until July 1978. The Secretary approved the plan 108 days after receiving it in March 1978, according to the council's executive assistant. In May 1978, about 60 days after the Secretary received the plan, the Assistant Administrator for Fisheries, NMFS, extended the 60-day secretarial review period to allow the council to approve council-proposed modifications to the plan. These changes involved estimates of the expected annual domestic catch and procedures to announce optimum yield and total allowable catch for foreign fishermen. The NMFS management plan coordinator said the delay in approving the plan was also partially due to the need for NMFS and the Department of the Interior to determine whether the proposed plan would jeopardize the continued existence of the brown pelican, an endangered species. The northern anchovy is a major component of the pelican's diet.

Council officials served on a subcommittee of the North Pacific Fishery Management Council to discuss ways of improving the development and implementation of management plans. The subcommittee developed several recommendations:

--"The major review of management plans and regulations should be done on a regional level. Once a plan goes forward to the Central office it should be reviewed only for compliance with the

national standards as set forth in the FCMA [Fishery Conservation and Management Act] and and other applicable law."

--"The regulations to implement an FMP [Fishery Management Plan] should be developed on a regional basis * * *. They should go forward either with or immediately after the plan goes to the Secretary as a Council recommendation * * *."

The council's scientific and statistical committee commented that the NMFS schedule for fishery management plan implementation is unworkable. The committee said:

"The length of time scheduled for Federal review of a plan makes it impossible for the Council to use information obtained from the current fishing season in preparing a plan for the next season."

TIME-CONSUMING COMPLIANCE REVIEWS

In developing management plans, the council must comply with provisions of the National Environmental Policy Act requiring environmental impact statements and Executive Order 11821 prescribing guidelines for economic impact statements.

Preparation of environmental impact statements

After consulting the Council on Environmental Quality, NMFS concluded that fishery management plans are subject to the requirements of the National Environmental Policy Act for preparing environmental impact statements on major Federal actions. As a result, each fishery management plan developed by the council's management plan development teams is also accompanied by an environmental impact statement. According to the council chairman, the statement is normally prepared by a member of the team concurrently with the management plan.

A council member estimates that complying with NEPA requirements adds about 1-1/4 months to the management plan development process. Although preparing an environmental statement does not significantly delay management plan development, the council believes that requirement is unnecessary and duplicative. Some council members believe that the guidelines for preparing management plans inherently satisfies NEPA requirements. They state that NEPA requirements should not apply since the act is environmentally sound in requiring the conservation and management of fisheries. A North Pacific

Fishery Management Council subcommittee that includes council members suggested several ways to eliminate or modify the NEPA requirement. The subcommittee proposed:

> "* * * (a) Amend the FCMA [Fishery Conservation and Management Act] to remove management plans entirely from NEPA controls on the basis that the FCMA has been structured to provide adequate public review, comment, and protection. (b) If NEPA is to apply, confine its application to natural environmental impacts and thereby increase the frequency of negative impact finding (finding of no significant impact)."

Preparation of economic impact statements

A council member believes that preparing economic impact statements for each fishery management plan, similar to the requirement to prepare environmental impact statements, is unnecessary and duplicative. Executive Orders 11821 and 11949, OMB Circular A-107, and a Department of Commerce Administrative Order require that economic impact statements be prepared for evaluating the implications of Government rules and regulations. If an economic statement is not required, an analysis indicating the basis for a negative determination must be prepared.

Within the Department of Commerce, responsibility for preparing fisheries-related economic impact statements is delegated to NMFS. According to a council official, the management plan development teams' economists have prepared such statements. He said the statements are prepared concurrently with the development of the fishery management plan.

CHAPTER 6

EFFECTS OF THE COUNCIL'S SALMON PLAN OBJECTIVES ON VARIOUS FISHERIES

Due to an urgent need in 1977 to increase the ocean escapement of salmon to inland waters, the council developed a plan to control ocean salmon fisheries. Greater ocean escapement was needed to increase spawning of severely depressed chinook stocks and to recognize Federal court decisions allowing treaty Indians an opportunity to catch 50 percent of the allowable fishery harvest.

The 1978 ocean salmon plan is the second interim plan that the council developed to manage the salmon fisheries off the coasts of Washington, Oregon, and California. The 1978 plan superceded the management plan adopted for the 1977 fishing season. As of July 1978, the council planned to use the 1978 plan for regulating the 1979 fishing season, since a comprehensive salmon fishery management plan will not be completed for implementation until the 1980 fishing season.

PLAN OBJECTIVES AND THEIR EFFECTS ON VARIOUS SALMON FISHERIES

The 1977 and 1978 plans were to ensure that conservation and court mandated allocation requirements for Washington and Columbia River system salmon stocks were met. These plans had the following objectives:

--Maintain optimum spawning stock escapements.

--Reduce fishery-caused mortalities other than for fish landed.

--Help fulfill Indian treaty obligations.

--Provide all ocean and inland water fisheries the continuing opportunity to harvest salmon.

--Recognize the importance of certain economic, sociological, and cultural values.

--Maximize the poundage yield of commercially caught chinook and coho, as modified by consumer quality preferences.

--Recognize that the optimum value for the recreational fishery does not necessarily require harvesting only mature fish.

--Achieve, for the long term, coordination with Canada and the North Pacific Fishery Management Council in developing coastwide salmon management plans.

Using the average catch experienced during the 5-year period 1971-1975, the council predicted the effect of the 1977 and 1978 plans on various fisheries.

Preliminary available data indicates that the troll catch in 1977 off Washington and the Columbia River (the area of major impact of the 1977 management plan) was 78 percent of the 1971 to 1975 average coho catch and 88 percent of the 1971 to 1975 average for chinook. Using catch and price estimates, income for Washington coastal trollers during 1977 is estimated to be slightly over $10 million compared to $6.4 million during 1975 and a record high of $13.8 million during 1976. For the 1978 plan the council estimated the following effects:

--Ocean fishing effort on Canadian, Puget Sound, Oregon coastal, and California stocks would decrease minimally.

--The chinook commercial troll catch poundage off the coast of Washington and the mouth of the Columbia River would decrease up to 25 percent.

--The coho commercial troll catch poundage off the coast of Washington and the mouth of the Columbia River would decrease about 15 percent.

--The number of sport coho caught north of Cape Falcon, Oregon, would increase about 9 percent.

--The number of sport chinook caught north of Cape Falcon, Oregon, would decrease about 24 percent. The average size of fish caught would increase by 1-1/2 pounds.

In developing these projections, the council assumed that the fishing rate of the coho and chinook commercial troll fisheries would not increase and that the reductions in catch would be offset by increases in fish size and value. The primary ocean salmon fisheries include commercial trollers, charterboat operators, recreational fishermen, and certain treaty Indian fisheries. Inside fisheries, those fisheries

found on inland salt water areas (such as Puget Sound) and freshwater areas (such as the Columbia River), include purse seiners, gillnetters, Indians, and recreational fishermen.

The council used a computer model to analyze the anticipated effects of the 1978 ocean salmon plan. Data analyzed included growth rates; maturation schedules; natural and fishing related mortality rates; and catch distribution and fishing rates by time, fishery, and geographic area. From this analysis the council estimated the following effects on coastal and inside chinook and coho State of Washington fisheries:

Species	Increase or decrease (-) in pounds to be caught by State of Washington fisheries					
	Commercial		Sport	Columbia River	Wash. coastal	Net effect
	Wash. coastal troll	Puget Sound				
	(000 omitted)					
Chinook	-900	-	-300	1,400	200	400
Coho	-800	400	500	100	200	400

The council anticipated little change in 1978 for fisheries off the coasts of Oregon and California. Overall, the council estimated that the Washington fisheries' net annual catches would increase 400,000 pounds for both the chinook and coho. The council also estimated that the Canadian fisheries total catch would increase about 300,000 pounds annually.

BASIS FOR FISHERY ALLOCATIONS

Balancing equities between competing salmon fisheries is not only complex, but it involves a controversial decision process. Even when decisions are made on fishery allocations, the complexity of interacting variables, such as fishing effort, fishing patterns, and escapements to spawning grounds in any single year, inhibits realizing the estimated effects on salmon fisheries.

Moreover, accurate and complete catch records are often not available until after a fishing season. Current technology prevents scientists from accurately determining ocean fishing rates while the salmon fishing seasons are still open. In addition, a high or low fishing rate for chinook does not correlate with a similar fishing rate for coho during a given season.

Both the 1977 and 1978 ocean salmon plans deviated from the biologically determined maximum sustainable yield of salmon stocks to reflect relevant economic, social, and other factors as required by the act. In both plans, the council used the following three factors to justify the reduced ocean fishery allocations, allowing more salmon to escape to inside fisheries and spawning waters.

--Reduce ocean catches of depleted fish stocks.

--Legal rulings that require certain fishing opportunities for treaty Indians.

--Reduce the adverse effects of past conservation restrictions on inside fisheries.

According to the council, current technology and inadequate data prevent all justification factors from being quantified. Instead, final fishery allocations are based on professional judgment and experience of the management plan development team, as modified by comments from the scientific and statistical committee, the salmon advisory subpanel, public testimony, and council members. Judgment and analysis are especially important because of inadequate quantifiable information on certain social factors and the absence of any Federal guidance on how one factor should be weighed against other relevant factors.

CONTROVERSY OVER THE COUNCIL'S FISHERY ALLOCATION DECISIONS

Due to the variability of salmon, annual salmon runs cannot be accurately predicted in advance. As a result, the council must consider many competing interests and management goals when assessing the equitability of the various fisheries.

Commercial troll fishermen are perhaps the most vocal critics of council decisions. Many trollers believe that the council's salmon plans discriminate against them. These fishermen are particularly concerned about the cutback of commercial troll fishing opportunities and the increase of salmon for ocean sport fishermen and inside fisheries. The trollers believe the ocean salmon plans violate the act's national fishery conservation and management standards prohibiting discrimination against fishery groups. The national standards state, in part:

> "If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably

> calculated to promote conservation; and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges."

The trollers believe that they have been discriminated against because the council restricted their opportunity to catch salmon. They believe the council unreasonably favored inside fisheries, including treaty Indians, at the expense of commercial ocean trollers. As a result, the trollers believe they will suffer severe economic and social hardships.

The council's actions changed the ocean trollers' fishing opportunities from what they were during the last 20 years. From 1957 to 1975, troll fishery operating rules remained essentially the same. However, the council's introduction of regulatory constraints drastically changed the trollers' operating rules. In contrast to the troll fishery, most regulatory controls in the past 20 years involved commercial net fishermen operating on inland waters.

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