FRAMEWORK AMENDMENT FOR MANAGING THE OCEAN SALMON FISHERIES OFF THE COASTS OF WASHINGTON, OREGON, AND CALIFORNIA COMMENCING IN 1985

An Amendment of the "Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California Commencing in 1978".

Pacific Fishery Management Council
526 SW Mill Street
Portland, Oregon 97201

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EXECUTIVE SUMMARY

I. INTRODUCTION

The regulations implementing the "Proposed Framework Plan for Managing and Ocean Salmon Fisheries off the Coasts of Washington, Oregon, and California Commencing in 1985" amend the Pacific Council's 1978 Salmon Plan to incorporate a flexible framework for setting pre-season and in-season management measures without the need for a plan amendment. Under this Framework Amendment, certain principles and measures are fixed to provide a long-term management system, which cannot be be altered without a plan amendment. Other measures are flexible and are determined before and/or during each season according to procedures specified in this document. The schedule for pre-season modification of the regulations is shortened under this Framework Amendment, and requires approximately 60 days from initiation of a resource status report to implementation of regulatory changes. The framework provisions for annual adjustments, both pre-season and in-season are summarized below. More detail concerning this framework mechanism and the rationale for the various components of it are presented in Chapter 3.

II. ANNUAL CHANGES TO MANAGEMENT SPECIFICATIONS

A. General.

1. The Secretary will establish or adjust management specifications annually for the commercial, recreational, and treaty Indian fisheries by publishing a Federal Register notice under §661.24. Regulations implementing the 1983 amendment to the fishery management plan for the Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California (48 FR 45263) will remain in effect until modified by regulations implementing this Framework Amendment. Regulations implementing this Framework Amendment will be comprised of two Subparts to Part 661 of the Code of Federal Regulations. Subpart A will contain regulations implementing the fixed elements of the Framework Amendment and, when published, will supercede immediately Subpart A of the 1983 regulations. Subpart B will contain blank tables which are intended to implement the flexible elements of the Framework Amendment but not until they are developed during the pre-season process which will occur each year after the Framework Amendment is approved. Consequently, Subpart B of the 1983 regulations will not be superceded until publication of the pre-season regulations established in the first year after the Framework Amendment is approved. Thereafter, regulations implemented during the pre-season process each year will remain in effect until modified by subsequent pre-season regulations.

   Of course, emergency regulations promulgated pursuant to §305(e) of the MFCMA may be promulgated at any time to modify or supercede either Subpart A or B of Part 661 of the Code of Federal Regulations.

2. Following, to the extent practicable, the schedule established in this Executive Summary, the Council will make an annual recommendation to the Secretary if it determines that a management specification should be modified or abolished. The recommendation will include a description of the proposed change, the need and justification for the change, and a discussion of the probable impacts resulting from the change.

3. The Secretary will accept or reject the recommendation of the Council. If a recommendation is rejected, the Secretary will inform the Council so that it may reconsider. Until the Secretary accepts the Council's recommendations, the previous year's management specifications remain effective.

B. Contents of Annual Specifications.

Annual management specifications may include allowable ocean harvest levels, allocations, management boundaries and zones, minimum length restrictions, recreational daily bag limits, fishing gear restrictions, quotas, seasons, and selective fisheries.

C. Schedule for Establishing or Adjusting Annual Management Specifications.

The approximate schedule of events leading to the Secretary's annual management specifications is indicated below.

APPROXIMATE DATE	EVENT
First Week of March	The Pacific Fishery Management Council (Council) publishes a Federal Register notice announcing availability of documents, dates and locations of the two Council meetings to follow, dates and locations of public hearings, and the complete schedule for determining proposed and final management measures.
Second week of March	A report by the Council's Salmon Plan Development Team (Team) recommending specific management measures for the upcoming season is distributed to the Council, its advisors, and the public.
Third week of March	The Team report is reviewed at a joint meeting of the Council's Scientific and Statistical Committee, Salmon Plan Development Team, and Salmon Advisory Subpanel.
Third week of March	The Council meets to act on proposed management measures.
Last week of March	A report by the Council's Team analyzing the impacts of the proposed annual management measures is distributed to the Council, its advisors, and the public.

First week of April	Public hearings.
Mid-April	The Council meets to adopt its final annual recommendations and submit them to the Secretary.
First week of May	Notice of Secretarial decision and final annual actions are published in the Federal Register.
May 15	Close of public comment period.

D. Procedures for Establishing and Adjusting Annual Management Measures.

1. Allowable ocean harvest levels and quotas.

(a) Coho south of Leadbetter Point (Oregon Production Index Area).

A pre-season estimate will be made each year of the coho stock size in the Oregon Production Index Area (OPI) using the OPI abundance predictor (jack index and an independent estimate of the private hatchery catch contribution). The number of three-year-old adult coho in the OPI area for a given year will be predicted by the number of two-year-old jack coho returning to selected facilities the prior year using the most updated relationship of jacks to adults. A separate estimate will be made of the private hatchery origin fish contributing to the ocean catch in the OPI area based on the number of smolts released, recent average survival rate, and expected harvest rate (based on recent observed rate) as follows:

Number of smolts released
x Estimated survival rate

x Estimated harvest rate of private hatchery fish associated with the harvest rate appropriate for the other OPI stocks

= Expected catch of private hatchery coho

The total coho abundance in the OPI area will be determined by the sum of adults predicted by the OPI jack index and the expected private hatchery catch. The total allowable ocean coho harvest for the OPI area will be determined by subtracting the OPI ocean escapement goal from the total stock size estimate for the OPI area. The total allowable ocean harvest for the OPI area will then be partitioned based on recent historical averages (and observed distribution patterns of private hatchery fish) into two areas: from Leadbetter Point to Cape Falcon, Oregon; and from Cape Falcon to the U.S./Mexico border. The harvest may be partitioned further into specific subareas. The total allowable harvest as well as the allowable harvest in individual subareas may be modified to address conservation needs of Oregon coastal and Washington coastal coho.

(b) Coho north of Cape Falcon. Pre-season abundance forecasts will be made for each stock based upon the best available forecasting techniques and consistent with forecasts made to establish pre-season management plans for fisheries inside state waters. The Washington Department of Fisheries/National Bureau of Standards (WDF/NBS) model will be adjusted to expected abundance levels by stocks. WDF/NBS model fishing rates will be adjusted to reflect anticipated regulations and exploitation rates associated with fisheries in Canada, Washington, Oregon, and California. Adult terminal run sizes will be estimated in the absence of prior interceptions by fishermen subject to treaty Indian allocation requirements for management units with treaty obligations using the WDF/NBS model. Treaty Indian and non-Indian harvest shares will be computed for each appropriate stock. The non-Indian troll and recreational quotas north of Cape Falcon will be computed with the WDF/NBS model based upon providing sufficient escapement from the ocean to provide for spawning escapement objectives and treaty shares of the weakest stocks. Separate quotas may be established for subareas within the area north of Cape Falcon. The allowable harvest in the area from Cape Falcon to Leadbetter Point will be established to address a blend of OPI and Washington state coho management considerations. Specific provisions for non-Indian fishery needs inside state waters may be built into the quota(s). Ocean coho quotas will be defined as either the maximum total allowable harvest of all stocks which will be estimated prior to the fishing season using the WDF/NBS model, based on the maximum allowable harvest impact on weak stocks, or, if tools to monitor the actual catch of the weak stock(s) in-season become available, as the maximum allowable ocean harvest of the weak stock(s) only.

(c) California chinook. Chinook abundance will be estimated relative to the previous year or to an average by examining factors including but not limited to relative ocean abundance of two-year- and three-year-old chinook in the previous year, ocean escapements of two-year- and three-year-olds in key river systems in the previous year, magnitude of brood year escapements and hatchery releases, expected change in survival of hatchery fish due to changes in hatchery practices (e.g., time and location of release), and environmental factors (such as abundance of forage, floods, and droughts). When a relative measure of expected chinook abundance is obtained, past management plans and their impact on escapements will be analyzed by simulation modeling to determine the appropriate harvest to meet the desired level of escapement for a given four-year ocean management period. The appropriate season which would likely produce that harvest then will be estimated after analysis of expected fishing effort. For fall chinook salmon, the end of the season will be set at the time when most maturing fish have left the ocean in order to avoid shaker problems and to increase poundage yield by allowing all immature fish to grow and be harvested in the following year.

(d) Oregon coastal chinook south of Cape Falcon. A relative measure of stock abundance will be derived based on factors including, but not limited to, brood year escapement levels contributing to a given year's fishery, catch levels in prior years, ocean assessment of two-year- and three-year-old chinook in previous years, relative age composition in prior years, environmental conditions, and hatchery production levels, or changes in hatchery practices, which might affect production. Information from prior years' fisheries will be reviewed to provide a calibration between past ocean management and resultant escapement. Past seasons will be reviewed in terms of season length, catch, fishing effort, relative stocks abundance, and escapement level to determine relationships among catch levels, stock abundance, and spawning escapement. Based on established escapement goals and the factors outlined above, an appropriate level of harvest will be determined for any given year's fishery. This desired catch level will be translated into a specific season structure based on the pattern of harvest over time, area distribution of catch, age structure of the population by time and area, expected redistribution of catch and effort following season adjustments in any given time period or area, and management objectives for other chinook and coho stocks. The maximum season length off the Oregon coast will encompass the period from May 1 to October 31. Seasons will be adjusted by time and area to maximize the harvest of mature fish of desired stocks while meeting escapement objectives. If additional restrictions are required to reduce mortality of immature chinook salmon, closures may be implemented during the period from September 15 through October 31.

(e) Chinook north of Cape Falcon. Pre-season abundance forecasts will be made for as many stocks in the unit as possible based upon the best available forecasting techniques and consistent with forecasts made to establish pre-season management plans for inside fisheries. Recent year catch, effort, and escapement levels will be used to estimate expected harvest under proposed regulations. When important viable stocks are known to be depressed, appropriate season and/or quotas may be developed using general indicators of relative abundance. Quotas may be apportioned to fishing periods and subareas in response to differential impacts upon stocks of concern. As acceptable monitoring tools are developed to estimate the actual harvest of specific stock(s), a quota will be identified for a specific stock(s) rather than the total chinook harvest of all stocks. Each fishery will be managed in-season to ensure that the quota is not exceeded.

2. Allocation of ocean harvest levels.

(a) Coho and chinook from U.S./Canada border to Cape Falcon.

(i) Allocation of coho and chinook salmon north of Cape Falcon, Oregon will be based on the following schedule:

Allowable Annual Non-Treaty Ocean Coho Harvest (thousands of fish)	COHO HARVEST PERCENTAGE*		CHINOOK HARVEST PERCENTAGE*	
	Commercial Percentage	Recreational Percentage	Commercial Percentage	Recreational Percentage
≥ 1500	69	31	54	46
1400	69	31	54	46
1300	69	31	54	46
1200	67	33	54	46
1100	64	36	54	46
1000	61	39	54	46
900	58	42	54	46
800	55	45	54	46
700	52	48	54	46
600	49	51	54	46
500	46	54	55.5	44.5
400	43	57	57	43
300	40	60	58.5	41.5
200	37	63	60	40
100	34	66	61.5	38.5
0	31	69	63	37

* For allowable coho harvests between the numbers shown, the allocations will be interpolated linearly. Species substitutions made at ocean harvest levels between 0 and 600,000 coho are intended to approximate an exchange ratio of four coho to one chinook, assuming a chinook harvest level of 182,000.

(ii) Total allowable ocean harvest will be maximized to the extent possible consistent with treaty obligations, state fishery needs, and spawning requirements.

(iii) If total allowable non-treaty ocean catch of coho for the area is less than 600,000, species substitution (chinook and coho) may be used to minimize hardship to either troll or recreational fisheries. Chinook equivalency for species substitution will be based upon an exchange ratio of four coho to one chinook. In no event will species substitution exceed 25 percent of the allocations tabulated above.

(iv) The percentages presented above are averages for the entire area between Cape Falcon and the U.S./Canada border. These percentages may be varied by major subareas if there is need to do so to protect the weak stocks. In all cases, each major subarea, i.e. north of Leadbetter Point and south of Leadbetter Point, will retain at least 50 percent of the allocation that would have been established in the absence of transfer.

(b) Coho south of Cape Falcon.

(i) Allocation of coho salmon south of Cape Falcon, Oregon will be based on the following schedule:

Allowable ocean harvest (thousands of fish)	COMMERCIAL		RECREATIONAL	
	Number (thousands)	Percentage*	Number (thousands)	Percentage*
≥ 2500	2150.0	86.0	350.0	14.0
2400	2056.8	85.7	343.2	14.3
2300	1964.2	85.4	335.8	14.6
2200	1874.4	85.2	325.6	14.8
2100	1780.8	84.8	319.2	15.2
2000	1690.0	84.5	310.0	15.5
1900	1597.9	84.1	302.1	15.9
1800	1506.6	83.7	293.4	16.3
1700	1416.1	83.3	283.9	16.7
1600	1324.8	82.8	275.2	17.2
1500	1234.5	82.3	265.5	17.7
1400	1145.2	81.8	254.8	18.2
1300	1056.0	81.2	244.0	18.8
1200	966.0	80.5	234.0	19.5
1100	876.7	79.7	223.3	20.3
1000	788.0	78.8	212.0	21.2
900	699.3	77.7	200.7	22.3
800	612.0	76.5	188.0	23.5
700	525.7	75.1	174.3	24.9
600	430.0	71.7	170.0	28.3
500	330.0	66.0	170.0	34.0
400	230.0	57.5	170.0	42.5
300	130.0	43.3	170.0	85.0
200	30.0	15.0	170.0	85.0
≤ 100	**	**	100.0	100.0

* For allowable coho harvests of 700,000 and above, the allocations shall be interpolated linearly between the numbers shown.

** Incidental coho allowance associated with directed chinook fishery would be deducted from recreational catch. Incidental allowance could be in the form of estimated hooking mortality or actual landing allowance.

(ii) If the total allowable ocean harvest of coho is below 700,000, deviations from the above schedule may be made to minimize hardship to either troll or recreational fisheries, by establishing subarea quotas; establishing directed all-salmon-except-coho fisheries with incidental coho allowances; and using other modifications in management measures which control relative impacts of troll and recreational gear on specific viable natural stocks.

(iii) Allowable harvest south of Cape Falcon may be divided and portions assigned to subareas based on considerations including but not limited to controlling ocean harvest impacts on depressed, viable natural stocks within acceptable maximum allowable levels; stock abundance; allocation considerations; stock specific impacts; relative abundance of the salmon species in the fishery; escapement goals; and maximizing harvest potential.

3. Management boundaries and zones.

Management boundaries and zones will be established or adjusted as necessary to achieve a conservation purpose. A conservation purpose protects a fish stock, simplifies management of a fishery, or promotes wise use of fishery resources by, for example, separating fish stocks, facilitating enforcement, separating conflicting fishing activities, or facilitating harvest opportunities. Management boundaries and zones will be described by geographical references, coordinates (latitude and longitude), LORAN readings, depth contours, distance from shore, or similar criteria.

4. Minimum harvest lengths.

The minimum harvest lengths for commercial fishing in §661.20(c) and for recreational fishing in §661.21(c) of the regulations are subject to change upon a demonstration that a useful purpose will be served. For example, an increase in minimum size for commercially-caught salmon may be necessary for conservation or may provide a greater poundage and monetary yield from the fishery while not substantially increasing hooking mortality. The removal of a minimum size for the recreational fishery may prevent wastage of fish and outweigh the detrimental impacts of harvesting immature fish.

5. Recreational daily bag limit.

Recreational daily bag limits for each fishing area will be set equal to one, two, or three salmon of some combination of species. The recreational daily bag limit for each fishing area will be set to maximize the length of the fishing season consistent with the allowable level of harvest in the area.

6. Fishing gear restrictions.

Gear restrictions for commercial fishing in §661.20 and for recreational fishing in §661.21 of the regulations may be established or changed upon a demonstration that a useful purpose will be served. For example, gear restrictions may be imposed or modified to facilitate enforcement, reduce hooking mortality, or reduce gear expenses for fishermen.

7. Seasons.

(a) In general. Seasons for commercial fishing in §661.20 and seasons for recreational fishing in §661.21 of the regulations will be established or modified taking into account allowable ocean harvest levels (and quotas), allocations between the commercial and recreational fisheries, and the estimated amount of effort required to catch the available fish based on past seasons.

(b) Seasons are subject to in-season adjustment according to procedures described in this Executive Summary.

(c) Commercial seasons.

(i) No commercial fishery will open prior to May 1.

(ii) No commercial coho fishery north of the Oregon/California border will open prior to July 1.

(iii) No commercial chinook or coho fishery will extend after October 31.

(iv) Commercial seasons will be established or modified taking into account shaker wastage, size and poundage of fish caught, effort shifts between fishing areas, and protection of depressed stocks present in the fishing areas.

(v) All-species seasons will be established to permit the maximum allowable harvest of pink and sockeye salmon without exceeding allowable chinook and/or coho harvest levels and within conservation and allocation constraints of the pink and sockeye stocks.

(d) Recreational seasons.

(i) No recreational fishery north of the Oregon/California border will open prior to May 1.

(ii) No recreational fishery off California for chinook or coho will open before the Saturday closest to February 15 nor extend after the Sunday closest to November 15.

(iii) If feasible, recreational seasons will be established or modified to encompass Memorial Day and/or Labor Day weekends, and to avoid the need for in-season closures.

8. Quotas.

(a) Quotas for commercial and recreational fishing in §661.22 of the regulations may be modified as necessary to ensure that allowable ocean harvests are not exceeded.

(b) Quotas are subject to in-season adjustment according to the procedures in this Executive Summary.

(c) Quotas may be used in conjunction with seasons established according to the procedures in this Executive Summary.

9. Selective fisheries.

In addition to the all-species seasons and the all-species-except-coho seasons established for the commercial and recreational fisheries, selective coho-only, chinook-only, or pink-only fisheries may be established if harvestable fish of the target species are available; harvest of incidental species will not exceed allowable levels; proven, documented selective gear exists; significant wastage of incidental species will not occur; and the selective fishery will occur in an acceptable time and area where wastage can be minimized and target stocks are maximally available.

10. Treaty Indian fishing.

(a) The Secretary will establish or modify treaty Indian fishing seasons and/or fixed or adjustable quotas, size limits, gear restrictions, and area restrictions based on proposals from affected tribes as recommended by the Council or in response to federal court proceedings.

(b) The combined treaty Indian fishing seasons will not be longer than necessary to harvest the allowable treaty Indian catch, which is the total treaty harvest that would occur if the tribes chose to take their total entitlement of the weakest stock in the fishery management area, assuming this level of harvest did not create conservation or allocation problems on other stocks.

(c) Any fixed or adjustable quotas established will be consistent with established treaty rights and will not exceed the harvest that would occur if the entire treaty entitlement to the weakest run was taken by treaty Indian fisheries in the fishery management area.

(d) If adjustable quotas are established for treaty Indian fishing, they may be subject to in-season adjustment under the notice procedures specified at §661.25 for unanticipated coho hooking mortality occurring during the season, catches in treaty Indian fisheries inconsistent with those anticipated under federal regulations, or for need to redistribute quotas to ensure attainment of an overall quota.

III. IN-SEASON CHANGES TO MANAGEMENT MEASURES

A. General procedures.

1. In the course of its annual determination of whether management specifications should be modified for the season, the Council also will determine which one or more, if any, of the in-season actions

enumerated below should be employed to modify management measures during the season and will recommend same to the Secretary for implementation.

2. For those actions below, which the Council determines will be employed during the season, the following procedures will be followed:

   (a) Prior to taking any in-season action the Regional Director will consult with the Chairman of the Council and the appropriate State Directors.

   (b) As the actions are taken by the Secretary, the Regional Director will compile in aggregate form all data and other information relevent to the action being taken and shall make them available for public review during normal office hours at the Northwest Regional Office, National Marine Fisheries Service, 7600 Sand Point Way NE, Seattle, Washington 98115.

   (c) In-season actions will be published by a notice in the Federal Register. In addition, the Regional Director and the Council will publish notice of the in-season action in local and regional news media.

   (d) If the Secretary determines, for a good cause, that a notice must be issued without affording a prior opportunity for public comment, public comments on the notice will be received by the Secretary for a period of 15 days after the effective date of the notice.

B. Changes to quotas and/or fishing seasons.

1. Private hatchery contributions. The estimated contributions of private hatchery coho to coho quotas for the current year will be established during the pre-season process of annually adjusting the regulations. During the season the Regional Director will review the estimated contributions of private hatchery coho, taking into account coded-wire tag and/or scale analysis data gathered during the season. If the contribution of private hatchery coho varies from the pre-season estimates, the Secretary may modify the coho quota(s) and/or season(s) accordingly by publishing a Federal Register notice.

2. Coho hooking mortality. Approximately halfway through each regularly scheduled all-species season, the Regional Director will estimate the number of coho salmon that will be hooked and released during the all species season(s), and the Secretary may modify the commercial coho quota(s) and/or season(s) accordingly by publishing a Federal Register notice.

3. Revised abundance estimates. During the season the Regional Director will monitor the actual abundance of coho compared to the pre-season abundance estimates. If it appears that actual conditions of abundance and distribution of salmon, and of fishing effort and catches, differ from conditions anticipated prior to the all-species season in the pertinent management area, the Secretary may modify the estimate

of coho abundance and any related quota(s) and/or season(s) accordingly by publishing a Federal Register notice. Any in-season modification of coho abundance estimates and related quotas and/or seasons will be consistent with ocean escapement goals, conservation of the salmon resource, any adjudicated Indian fishing rights, and the ocean allocation scheme in the framework plan. In determining whether coho abundance and quotas and/or seasons should be revised the Regional Director will consider:

(a) The number of participants, level and distribution of fishing effort, and coho salmon catches of the commercial and recreational fisheries compared to data from the same management area for similar time periods in prior years;

(b) Variations between pre-season abundance estimates for the same area and abundance estimates as of the same date in prior years;

(c) Data from marked-fish recoveries, including analysis of recoveries of coho salmon with implanted coded-wire tags; and

(d) Any other scientific information relevant to the abundance and distribution of coho stocks, total fishing effort, and catches that is available.

4. Catches in the territorial sea. The Regional Director will monitor salmon catches in the territorial sea (0-3 nautical miles) seaward of Washington, Oregon, and California. If the Regional Director determines that salmon catches have occurred in the territorial sea or a portion thereof which were not accounted for when the federal quota(s) and/or season(s) was established and which may cause the federal quota(s) or the anticipated catch during the federal season(s) to be exceeded, the Secretary may reduce the federal quota(s) or shorten the federal season(s) accordingly by publishing a Federal Register notice.

C. Redistribution of quotas.

The Secretary may redistribute a portion of one or more of the quotas during the season by publishing a Federal Register notice, if the Regional Director determines that:

1. Redistribution between the commercial and recreational fisheries, or between areas in the same fishery, will increase the likelihood that an overall quota for a species will be achieved;

2. Redistribution is consistent with ocean escapement goals, conservation of the salmon resource, and any adjudicated Indian fishing rights; and

3. The redistribution is consistent with the ocean allocation scheme in the framework plan.

D. Boundary modifications.

The Secretary may modify one or more of the boundaries establishing fishery management areas during the season by publishing a Federal Register notice, if the Regional Director determines that one of the following circumstances exists, and the boundary modification is consistent with ocean escapement goals, conservation of the salmon resource, and any adjudicated Indian fishing rights and the ocean allocation scheme in the framework plan:

1. A quota for one species will be reached before a quota for a different species in the same area, and the likelihood that the two quotas will be reached at or near the same time will be increased by modifying existing boundaries.

2. Attainment of a quota is jeopardized by an unanticipated shift in the location of the stocks or fishery to which it applies.

E. Recreational daily bag limit.

The Secretary may modify one or more of the daily bag limits during the season by publishing a Federal Register notice. Any such modification will be based on consideration of the following factors and will be consistent with ocean escapement goals, conservation of the salmon resource and any adjudicated Indian fishing rights and the ocean allocation scheme in the framework plan.

1. Predicted sizes of salmon runs.
2. Apparent actual sizes of salmon runs.
3. Recreational quota for the area.
4. Amount of recreational and commercial catch of each species in the area to date.
5. Amount of recreational and commercial fishing effort in the area to date.
6. Estimated average daily catch per fisherman.
7. Predicted recreational fishing effort for the area to the end of the scheduled season.
8. Other factors as appropriate.

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PARTIAL LIST OF ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used in the framework amendment:

Brights	Upper Columbia River fall chinook
CDFG	California Department of Fish and Game
Council	Pacific Fishery Management Council
CZMA	Coastal Zone Management Act. The principal objectives of this Act are to encourage and assist states in developing coastal zone management programs, to coordinate state activities and to safeguard the regional and national interests in the coastal zone. It requires that any Federal activity (currently including fishery management regulations) directly affecting the coastal zone of a state be consistent with that state's approved coastal zone management program, since activities taking place beyond the territorial sea may impact the coastal zone.
DOC	U.S. Department of Commerce. Parent organization of National Marine Fisheries Service.
DSEIS	Draft Supplemental Environmental Impact Statement. See EIS.
EIS	Environmental Impact Statement. Environmental impact statements are required for all fishery management plans as well as significant amendments to existing plans. The purpose of an EIS is to assure that the fishery management plan gives appropriate consideration to environmental values, in order to prevent harm to the environment. Also see NEPA.
EO 12291	Executive Order 12291. The purpose of this executive order is to ensure that administrative decisions are based on adequate information concerning the need for and consequences of government action, and that regulatory action is not undertaken unless the potential benefits to society from the regulation outweigh the potential costs to society.
EPA	Environmental Protection Agency
FCZ	Fishery Conservation Zone. The area from 3-200 miles offshore, established by the MFCMA.
FMP	Fishery Management Plan. The Magnuson Fishery Conservation and Management Act provided that each Council shall "prepare and submit to the Secretary (of Commerce) a fishery management plan with respect to each fishery within its geographical area of authority and, from time to time, such amendments to each such plan as are necessary." Among the necessary components of such plans are the conservation and management measures applicable to foreign and domestic fishing, necessary and appropriate for the conservation and management of the fishery, and consistent with seven national standards, the other provisions of the Magnuson Act, and any other applicable law.

IDFG — Idaho Department of Fish and Game

IPSFC — International Pacific Salmon Fisheries Commission. The "Sockeye Commission" (located in New Westminister, B.C.) was created in 1930 by the Convention for the Protection, Preservation and Extension of the Sockeye Salmon Fishery of the Fraser River. Its original purpose was to investigate the causes for the post-1913 decline of the Fraser River sockeye salmon fishery. The Sockeye Commission made regulatory proposals for the first time in 1946 (1) to ensure an adequate escapement of salmon to the spawning grounds; and (2) to divide the allowable catch equally between the fishermen of the two member countries (United States and Canada). The Protocol to the Convention was later amended to cover pink salmon in Convention waters. Each National Section is composed of three commissioners.

MFCMA — Magnuson Fishery Conservation and Management Act, or "Magnuson Act." The Fishery Conservation and Management Act was renamed the "Magnuson Act" in 1980. The MFCMA established the 200-mile FCZ and the regional fishery management council system.

MMPA — Marine Mammal Protection Act. This Act prohibits directed harvest of marine mammals, although permits for the incidental take of marine mammals while commercial fishing may be issued subject to regulation. With the passage of the Magnuson Fishery Conservation and Management Act, the moratorium on taking marine mammals became effective in the fishery conservation zone and applied to foreign as well as domestic fishing.

NEPA — National Environmental Policy Act. NEPA's basic purpose is to insure that Federal officials weigh and give appropriate consideration to environmental values in policy formulation, decision-making and administrative actions, and that the public is provided adequate opportunity to review and comment on major federal actions. NEPA requires preparation of an Environmental Impact Statement for major federal actions that significantly affect the quality of the human environment.

NMFS — National Marine Fisheries Service. A part of NOAA.

NOAA — National Oceanic and Atmospheric Administration

ODFW — Oregon Department of Fish and Wildlife

OMB — Office of Management and Budget

OPI — Oregon Production Index. The Oregon Production Index is used as a measure of the annual abundance of adult three-year-old coho salmon resulting from production in the Columbia River and Oregon coastal hatcheries and streams. The index itself is simply (1) the combined number of adult coho that can be accounted for within the general area from Ilwaco, Washington to as far south as coho are caught in the troll fishery off California; (2) Oregon coastal hatchery returns; and (3) the in-river gillnet catch, Bonneville Dam counts, and hatchery returns to the Columbia River below Bonneville Dam.

OY	Optimum Yield. The term "optimum," with respect to the yield from a fishery, means the amount of fish (1) which will provide the greatest overall benefit to the nation, with particular reference to food production and recreational opportunities, and (2) which is prescribed as such on the basis of the maximum sustainable yield from such fishery, as modified by relevant economic, social, or ecological factors.
Regional Director	For the purposes of this plan amendment, "Regional Director" means Northwest Regional Director of the National Marine Fisheries Service, Seattle. For fisheries occurring primarily or exclusively in the fishery management area seaward of California, "Regional Director" means the Northwest Regional Director, NMFS in Seattle, Washington, acting in consultation with the Southwest Regional Director, NMFS, in Terminal Island, California.
RFA	Regulatory Flexibility Act, Public Law 96-354. The purpose of this Act is to improve federal rulemaking by creating procedures to analyze the availability of more flexible regulatory approaches for small entities. The process by which federal regulations are developed and adopted is reformed to require agencies to solicit the ideas and comments of small businesses, small organizations, and small governmental jurisdictions to examine the impact of proposed and existing rules on such entities, and to review the continued need for existing rules.
RIR	Regulatory Impact Review. A Regulatory Impact Review is required by the RFA and Executive Order 12291. The RIR examines alternative management measures and their economic impacts. The basic purpose of an RIR is to analyze whether adminstrative decisions are based on adequate information concerning the need for, and consequences of, government action and whether the potential benefits to society from the regulation would outweigh the potential costs to society.
Secretary	Secretary of Commerce. The Secretary of Commerce has responsibility for reviewing, approving (or partially approving or disapproving), and implementing fishery management plans and amendments to such plans. All or part of this responsibility may be delegated to the Assistant Administrator for Fisheries or the Regional Director.
SEIS	Supplemental Environmental Impact Statement. See EIS.
SSC	Scientific and Statistical Committee
State Directors	Directors of the Washington, Oregon and, California, and Idaho state fishery agencies.

Team	Salmon Plan Development Team. The Salmon FMP and its annual amendments have been prepared by this multi-disciplinary Team of scientists.
TALFF	Total Allowable Level of Foreign Fishing. The TALFF is that portion of the optimum yield which will not be harvested by vessels of the United States. There has never been a TALFF for Pacific Coast salmon.
Tule	Bonneville Pool and lower Columbia River hatchery fall chinook.
WDF	Washington Department of Fisheries
WDF/NBS Model	Washington Department of Fisheries/National Bureau of Standards Regulation Analysis Model. The model is an accounting tool which keeps track of a salmon population, or stock, throughout its life history.

This document incorporates the requirements of the fishery management plan (FMP) amendment, supplemental environmental impact statement (SEIS), and regulatory impact review/regulatory flexibility analysis (RIR/RFA) into a single, consolidated document. The listing below will help readers locate sections normally found in an SEIS and RIR/RFA. References are to sections listed in the table of contents.

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1.0 INTRODUCTION

When the Pacific Fishery Management Council (Council) was formed in 1976, it recognized that the salmon resources of Washington, Oregon, Idaho, and California required immediate attention because of conservation and allocation problems. Consequently, the first fishery management plan (FMP) prepared and adopted by the Council dealt with the commercial and recreational fisheries for chinook and coho salmon in the ocean adjacent to these states. That plan was implemented by federal regulations and complementary state regulations which governed ocean salmon fishing in 1977.

The 1977 plan was replaced for the 1978 season. Like its predecessor, the 1978 plan focused on the need for more restrictive measures in the northern area to meet Indian treaty obligations and to protect depressed wild stocks from the Columbia River and Washington coastal streams. The Council's expressed purpose in 1978 was to "fine tune" the 1977 regulations while a more comprehensive plan was being developed to address the salmon resource throughout its range, including consideration of freshwater habitat, production and harvest problems.

Since 1978, the Council has amended the 1978 plan annually to respond to biological changes in expected salmon runs and social and economic factors of the salmon fisheries. In 1979, more quantitative information on salmon stocks coastwide was included in the amendment. The Council explicitly adopted quantitative escapement goals for most major stocks in the 1980 amendment. Another innovation in 1980 was the Council specification of coho allocation goals between commercial and recreational ocean fisheries. In 1981 the Council adopted the first amendment which utilized quotas to attain harvest goals.

Generally, management has tended to become progressively more restrictive with each amendment in response to low run sizes and allocation requirements. In an attempt to control effort, the seasons open to commercial and recreational fishermen have been reduced, and the coastal states have imposed restrictions on the number of commercial salmon licenses issued. The recreational daily bag limit has been reduced from three to two chinook and/or coho. Total coho catch in the ocean has been regulated by quotas since 1981 based on pre-season abundance projections, and chinook quotas were in effect in 1981 for fisheries off California and in 1983 for fisheries north of Cape Falcon. Several different forms of in-season management have been implemented to adjust the length of fishing seasons to meet ocean harvest targets and to adjust daily bag limits in the recreational fishery. All of these management tools, as well as size limits, gear restrictions, and area quotas have been used in the Council's effort to achieve its salmon fishery objectives.

In March 1982, a "Salmon Plan Performance Evaluation" was published (Six 1982) which compared the results of the salmon plan and its amendments with the objectives stated in those plans. During the 1977 through 1980 period examined, the management measures applied to salmon had varying degrees of success. Some stocks met or exceeded the established spawning goals while some important stocks did not reach desired levels. One suspected cause of this mixed success is that the Council's plans have been limited to the ocean harvest phase of the salmon resource and further limited to the ocean off Washington, Oregon, and California.

The Council's long-range goal for the planning process is to develop and have implemented a comprehensive plan for salmon management which would cover the migratory range of important salmon stocks. Such a plan would require coordinated management of ocean harvest from the U.S./Mexico border to Alaska, because salmon from Washington and Oregon are taken in significant numbers by trollers off Alaska and British Columbia. Another dimension necessary to a comprehensive plan is the need to address the freshwater phases of the salmon life cycle. Because the freshwater habitat requirements for salmon can be jeopardized by many competing sources, the control of potentially damaging activities is divided among many authorities and agencies. Achieving a coordinated approach to habitat management among all the interests involved in anadromous fisheries, forestry, hydropower, agriculture, and other watershed uses is a challenge other salmon management authorities have faced for many years. Overnight success for a Council comprehensive plan is not to be expected. Any serious effort to develop a comprehensive salmon plan will require a long-term, substantial commitment of funds and personnel. Management control of the freshwater phase of the salmon resource is beyond the scope of the Council's legal authority.

The final dimension of a comprehensive salmon plan is time. A plan must take a farsighted view of resource management and must determine a course of action to which all parties can adhere for several years without serious deviation. Annual amendments of the 1978 salmon plan are not a suitable course for comprehensive management to follow.

As a step toward a more long-range management regime, the Council has developed this Framework Amendment for managing Pacific Coast salmon. This amendment provides the mechanism to make management adjustments to respond to changes in stock abundance, socio-economic changes and other year-to-year variations in the fishery while increasing the continuity of management between years. Once the Council has this multi-year framework mechanism in effect, personnel and funds can be redirected from developing annual salmon FMP amendments to developing a comprehensive salmon plan.

2.0 PURPOSE OF AND NEED FOR ACTION

2.1 Review of the Annual FMP Amendment Process - Statement of Problem

The Framework Amendment represents the sixth amendment of the 1978 ocean commercial and recreational salmon FMP. The purpose of the first five amendments, which were annual amendments, was to change the ocean commercial and recreational salmon fishing regulations in order to accommodate the annual variations in resource abundance and other fishery conditions.

The annual FMP amendment process is lengthy, complex and costly because it must incorporate the policies and procedures that have been established by applicable Federal law (i.e., Magnuson Act, National Environmental Policy Act, Administrative Procedures Act, Regulatory Flexibility Act, Coastal Zone Management Act, Paperwork Reduction Act), and Executive Orders. Prior to the recent Magnuson Act Amendment, the FMP amendment process required up to 350 days to complete without administrative waivers, exceptions, or emergency regulations. The process for developing, reviewing and implementing annual amendments and regulations for the ocean salmon fisheries took about 105-210 days. Effective fishery management requires that between-season or pre-season changes in the regulations for a fishery be completed in 30 to 90 days and that in-season changes be made in 3 to 30 days from the time current data are available for review to the time regulations are in effect. Even though somewhat abbreviated by the 1983 Magnuson Act amendment, the process of plan amendment is not responsive to the needs of the resource in a timely manner.

The annual amendment process involved several distinct phases. The first phase began in the fall when the Council held its annual "scoping" meeting. The purpose of the scoping meeting was to determine the range or scope of issues to be addressed and to identify the significant issues that are related to the plan amendment. The scoping meeting is a procedural requirement of the National Environmental Policy Act (NEPA) and is preliminary to the development and preparation of an environmental impact statement (EIS) or an environmental assessment (EA). The scoping meeting also allows early public awareness of, and involvement in, the FMP amendment decision-making process.

The second phase of the amendment process was the preparation of the draft amendment, which included the draft supplemental environmental impact statement (DSEIS), required by the NEPA, and the draft regulatory impact review/regulatory flexibility analysis (RIR/RFA), which are required by Executive Order 12291 and the Regulatory Flexibility Act, respectively.

The draft amendment included a review of the effectiveness of the previous season's management regime by comparing actual escapement with the Council's management goals, and presented the range of management alternatives for the upcoming fishing season. Unfortunately, the January draft did not include a specific management recommendation for the upcoming season because the preliminary data needed to make an estimate of resource abundance, especially for coho salmon, was not available. Yet in order to process an annual FMP amendment in the minimum amount of time while fulfilling the above requirements, the Council adopted the draft in early January so that it could be disseminated to the public for review soon thereafter.

As soon as practicable after the January Council meeting, the draft amendment was revised and forwarded to the headquarters of the National Marine Fisheries Service (NMFS) in Washington, D.C. The NMFS reviewed the draft to be certain that it complied with the Magnuson Act and other applicable law.

When the NMFS and NOAA determined that the amendment met the various requirements, they forwarded the draft amendment and environmental assessments to the Environmental Protection Agency (EPA). The EPA then filed a notice at the Office of the Federal Register that announced to the public that a draft SEIS was available for public review and comment.

The public comment period on the draft SEIS and plan amendment has been temporarily reduced in recent years from the forty-five days that is specified in the NEPA. The purpose of reducing the public comment period has been to expedite approval of the final documents, including the draft SEIS, and the draft RIR/RFA. However, the Council on Environmental Quality (CEQ) has permitted the reduction of the public comment period on an emergency basis and has specified that it should not be an annual occurrence. It was determined that this reduction in comment time would not appreciably decrease public input to the decisions because of the other opportunities for public participation in the development and adoption of the documents by the Council in open forum. During the public comment period, a series of public hearings are held in Washington, Idaho, Oregon, and California. After the comment period, the Council meets in open session in mid-March to select its preferred management regime for the upcoming fishing season.

When the Council adopted a package of management measures for the upcoming season at the March meeting, the opening day of the ocean commercial troll fishing season was still four to six weeks in the future. The ocean recreational fisheries north of the California/Oregon border usually do not open until the end of May, eight to ten weeks after the Council has adopted the management measures that will govern the ocean fisheries. The California ocean recreational fishery traditionally opens in mid-February.

The plan amendment was revised to include the Council's recommended management measures, the final SEIS, RIR/RFA, and the proposed regulations, and the combined document was forwarded to the NMFS office in Washington, D.C. There the documents proceeded through the Magnuson Act Secretarial review process and were forwarded to other offices in NOAA, the Department of Commerce (DOC) and the Office of Management and Budget (OMB) for additional reviews. These reviews may take as long as a month or more, even with a much-shortened process of waivers and emergency regulations.

For the past four years, the emergency regulations that implement the salmon plan amendment have not been published until May 1 at the earliest. In some years regulations have not been approved and published until June. A major reason for the delays between the time the Council adopted management measures and the time they were implemented is the number of legal and administrative reviews that occur before the regulations are approved by the Secretary and published in the Federal Register.

The FMP amendment process which was provided by the Magnuson Act Amendment, when coupled with the requirements of other laws, is too slow for effective fishery management. The lengthy implementation schedule makes management

unresponsive to changing situations, frustrates those involved, increases the administrative costs and, at times, places an unreasonable burden on the fishing industry. Fishermen and coastal businesses most directly affected by management decisions are frustrated by uncertainties about when and where fishing will be allowed. Charter operators and attendant industries lose money and future business by scheduling trips which may have to be cancelled when regulations finally are implemented. All fishery participants become irritated when they comment on management options during hearings and those options are significantly modified because of later information on stock abundance. There is an urgent need to find a better way to do business.

Even if the FMP review and implementation process can be shortened somewhat by administrative action, FMPs and major amendments will still require a multi-agency review and decision process that is too lengthy for routine fishery management.

2.2 Description of the Framework (Multi-Year) FMP Process

2.2.1 What is a Framework Plan?

The annual plan amendment process should be replaced by a system that allows the Council to make changes or modifications in the fishing regulations without extending the decision-making process and without the paperwork load created by the amendment process.

Guidelines indicate more timely regulatory actions may be achieved by establishing framework FMPs. Framework FMPs are defined as multi-year management plans, which describe the processes by which each fishery will be managed, including when, how, and within what limits regulatory changes will be made and the ranges of the resulting impacts. Pre-season and in-season adjustments of the regulations then may be made without FMP amendment by implementing the procedures and provisions established in the framework plan. The amendment process can be avoided by building instructions into the framework plan and the original implementing regulations that will enable the Secretary of Commerce to make such changes as are needed from time to time to manage the fishery in accordance with the provisions of the framework FMP. Thus, the Council's Framework Amendment, instead of giving the Secretary a fixed set of management measures to implement for a single season, will establish mechanisms to adjust the management of the fishery to meet changing circumstances over a longer time frame. This may be accomplished through annual adjustments of seasons, quotas, etc., or through in-season changes needed to allow for factors that cannot be precisely anticipated during the pre-season review and adjustment of the fishery. A framework plan will permit continuing management of a fishery, principally on a regional basis.

The framework guidelines do not describe precisely what degree of definition must be written into a framework measure but they do point out that the more specific the instructions in the FMP as to when, how, and what is to be the nature of the changes, the less risk there is that these could be considered arbitrary or capricious. Also, the more specific and complete the instructions, the more acceptable the process will be to the interested public and the clearer the relative roles of the Secretary and the Council in the management of the fishery. On the other hand, guidelines that are too specific can restrict the flexibility in salmon fishery management that is essential.

The framework process must establish the limits and controls within which regulatory adjustments may be made. It must specify fully the processes to be used in making adjustments including the triggering mechanisms, the procedures to be followed, and the actions to be taken. It must encompass the impacts of the full range of management actions that could be implemented over time under the FMP, consistent with the objectives and the management regime selected and future conditions. The SEIS and RIR/RFA should examine anticipated adjustments in as much detail as possible and consider their impacts on the stocks, the affected environment, and small businesses, including fishermen.

2.2.2 Advantages of a Framework Amendment

There are several important advantages of the framework management process as it compares to the annual FMP amendment process. First, the framework process would reduce the annual paperwork burden on the Council, the NMFS and the other Federal agencies that are involved in the regulatory review and implementation process. Instead of preparing draft and final SEISs and RIR/RFAs each year, the Council and the NMFS would issue the Salmon Team's assessment of the conditions for the new fishing season and an analysis of the impacts of the management measures along with the proposed management measures that fit these conditions. The public then would review and comment on the Council's proposals and after the close of the comment period, the Council would recommend management measures to the Secretary.

Second, the amount of time required to modify the salmon fishing regulations on an annual basis would be greatly reduced. As mentioned above, using the annual FMP amendment process, actions must begin in October or November in order to have regulations in place by May of the next year; even then the process is compressed and the fisheries must open under emergency regulations. With a framework process, the Team can complete its report by early March, after the fishery data become available, and the Council should be able to recommend that the Secretary take the required management actions by mid-April, thus reducing the time required to develop, process and adopt management measures for each new season by about five months. In addition, the multi-year aspect of the framework process would eliminate the need to amend the FMP on an annual basis.

Third, the framework process should be less costly than the annual amendment process. Under the annual FMP amendment process, draft and final SEISs and RIR/RFAs are prepared. Then the documents are reviewed by the Council, the NMFS (both at the regional and Washington, D.C. levels), the National Oceanic and Atmospheric Administration (NOAA), the Department of Commerce (DOC), and the Office of Management and Budget (OMB). The framework process would eliminate the cost of preparing an annual SEIS and RIR/RFA and would eliminate the cost of some regulatory reviews beyond the NMFS.

Fourth, the fishery user groups would know many of the management measures at an earlier date and would be able to plan fishing strategies earlier. The uncertainty of what management measures might be adopted by the Council would be reduced because the actual fishery conditions (as reported by the Salmon Team) would determine what changes in the regulations would be necessary. In addition, the user groups and interested public would have a better understanding of the process and procedures to be followed, the ranges within which adjustments could be made, and the basis for those adjustments.

The fifth advantage of the framework process over the annual FMP amendment process is that despite the reduced amount of time to review and adopt the annual fishery management measures, the public still will be able to review and comment on the proposed regulations. Public hearings still will be held on the proposed regulations, but they can be delayed until pre-season estimates of the run sizes and recommended management measures for the upcoming season are available. If it becomes necessary at any time to amend the FMP for future years, the Council could trigger the more lengthy FMP amendment process.

2.2.3 Other Framework Plans

Framework management plans are not an entirely new concept. The trend is for all regional fishery management councils to move toward developing framework plans in order to simplify the regulatory process and make it more efficient and responsive. FMPs that contain at least some framework provisions include:

- Pacific Coast Groundfish - Pacific Fishery Management Council
- Northern Anchovy - Pacific Fishery Management Council
- Surf Clam and Ocean Quahog - Mid-Atlantic Fishery Management Council
- High Seas Salmon off Alaska - North Pacific Fishery Management Council
- Atlantic Mackerel - New England Fishery Management Council
- Western Pacific Spiny Lobster - Western Pacific Fishery Management Council
- Gulf of Alaska Groundfish - North Pacific Fishery Management Council
- Gulf Shrimp - Gulf of Mexico Fishery Management Council

2.3 Alternatives to the Proposed Action

The proposed action of approving this Framework Amendment is one of five alternatives considered by the Council. Each alternative is a different approach to managing salmon stocks. Within each choice, the Council must consider another array of options for seasons, bag limits, boundaries, and other measures before selecting the package of preferred management measures. The discussion below pertains only to the broad question of management strategy, not specific measures. Different options within the framework approach are discussed in Section 3.0.

Alternatives considered included the following:

(1) Status quo or no Framework Amendment;
(2) Framework Amendment with some management measures fixed and others flexible for annual consideration (proposed action adopted by the Council);
(3) Framework Amendment with all measures fixed;
(4) Framework Amendment with all measures flexible; and,
(5) No federal management.

2.3.1 Status Quo

With this alternative, the Council would forego the concept of a Framework Amendment and maintain the existing system which has resulted in an FMP amendment each year since 1978. The Council and NMFS would continue to perform each of the administrative and legal actions that characterize the existing system.

The status quo alternative would not address any of the problems identified in Section 2.1. Since the procedures involved in salmon management need revision to increase efficiency in both time and effort, failure to address the problems is a major shortcoming. The Council believes that the time is appropriate for a pervasive review of the management system based on experience gained since the Magnuson Act was approved in 1976.

This alternative offers no benefits as compared to the proposed action. Instead, many negative effects would continue. Each of the administrative and legal requirements embodied in the existing system would be met in a more efficient manner by the Framework Amendment. Most importantly, all opportunities for public input or analysis that exist in the normal management process would remain in the framework system. In fact, improved efficiency should offer the public greater opportunity for meaningful input in the proposed system. For these reasons, and those stated in Section 2.1, the status quo alternative was not selected as the preferred alternative.

2.3.2 Framework Amendment with Fixed and Flexible Measures

This is the proposed action and the adopted alternative. As discussed in Section 2.2, framework management is a more efficient approach to satisfying all of the separate requirements in the management system. Benefits will accrue when regulatory changes can be made without the need to perform several duplicative and parallel steps required by the annual amendment process. The advantage of having some measures "fixed" by this Framework Amendment while leaving others "flexible" is that the new system will reduce confusion on issues that rarely need adjustment while at the same time concentrate discussion on those measures that need to be reconsidered on a regular basis. The resulting combination of fixed and flexible issues should yield a much more efficient management system. The decision process for flexible measures is described in this amendment.

This alternative addresses the problems identified in Section 2.1. The benefits as compared to the status quo alternative are significant--time should be saved in developing the annual regulations, decisions should be reached earlier, and public involvement will not be compromised.

2.3.3 Framework Amendment with All Measures Fixed

This alternative is a variation of the proposed action. The framework approach would be used but all measures would be fixed in a manner such that annual reconsideration of issues, such as bag limits, would not be necessary. On the surface this approach appears to be very effective in eliminating any need for annual action by the Council, thereby saving money and establishing a permanent management system. However, the system could prove

counterproductive if unforeseen circumstances related to stock health, harvest, effort, socio-economic factors or other factors necessitate alteration of one or more measures. Since it is very difficult to forecast all possible scenarios, fixing each measure almost surely will necessitate a plan amendment. Flexibility on issues likely to need reconsideration at some later day could eventually save more time and effort than a fixed system.

As stated, the benefits of this alternative in reduced Council efforts could easily collapse to yield a system similar to or even worse than the status quo, requiring the full amendment process. Those fears have led the Council to not select this alternative as its preferred choice, in favor of one with greater flexibility.

2.3.4 Framework Amendment with All Measures Flexible

A second variation of the proposed action would be to leave all measures flexible. Greater flexibility would avoid the problems of fixed management measures. However, having all aspects of an FMP flexible including goals and objectives is tantamount to having no plan at all. There would be nothing fixed to relate management measures that are subject to change each year. There would be no basis for measuring the success of the plan from year to year. Such a plan likely would not meet the requirements of an approvable FMP under the Magnuson Act. There is doubt, too, that all components of the management regime could be considered each year and still meet the abbreviated schedule provided in this amendment. For these reasons, the Council did not prefer this option.

2.3.5 No Federal Management

The fifth alternative is that the Council and Secretary would absolve themselves of management responsibility for salmon in the FCZ. Without Council and federal involvement, management would be left to the States of Washington, Oregon, and California. The disadvantage of a state system is that salmon stocks migrating along the coast could be selectively harvested to the detriment of users closest to spawning grounds. The inability of states to enforce management measures against other than vessels which they register and the lack of a coordinating entity could make meeting treaty Indian obligations and attaining spawning escapement goals difficult. For these reasons, this alternative was not preferred.

3.0 PROPOSED FRAMEWORK PLAN FOR MANAGING THE OCEAN SALMON FISHERIES OFF WASHINGTON, OREGON, AND CALIFORNIA

The evaluation of management alternatives that was presented in the previous drafts of this amendment led the Council to adopt the measures presented below. Alternatives to the various management elements the Council adopted also are discussed where appropriate.

3.1 Management Unit

The management unit in this Framework Amendment is defined as follows:

> "The management unit includes those stocks of salmon and steelhead that are harvested in the fishery conservation zone off the coasts of Washington, Oregon, and California. Exceptions are those stocks which are managed there by another management entity with primary jurisdiction, i.e., the International Pacific Salmon Fisheries Commission in the convention area between 49°N. and 48°N. latitude."

The 1978 FMP describes the stocks of fish comprising the management unit as follows:

> "Chinook and coho salmon (*Oncorhynchus tshawytscha* and *O. kisutch*) are the main species caught in the ocean salmon fisheries operating off Washington, Oregon, and California. The catch of pink salmon (*O. gorbuscha*) in odd-numbered years also is significant."

Principal stocks or stock groupings comprising the management unit and the general ocean area where they occur are described in Table 3.1. Each year specific management measures are implemented that are intended to directly impact some of these stocks in a desired manner. These measures would have an indirect and incidental impact on the other stocks present in the area at the same time.

The components of the management unit for this FMP are the stocks or stock groupings described below. The components shall remain fixed and may be modified only by plan amendment. Because all of the salmon stocks contributing to the ocean fisheries in the Washington, Oregon, and California area are included, there is little need for flexibility in the definition of the management unit. For management purposes, the ocean is divided into areas. These areas are described by certain boundaries in Table 3-1. It is recognized in the section on Management Boundaries (Section 3.8.1) that these boundaries may change and therefore flexibility to change them is incorporated into this Framework Amendment. These changes are likely to be "fine-tuning" adjustments of current boundaries on the basis of new data on stock distribution, for example, the shift of the boundary between California coastal chinook and central valley chinook from Point Arena to Cape Vizcaino during the 1983 fishing season. Such a change does not alter the management unit which is a fixed element in the Framework Amendment. The stocks comprising the management unit remain unchanged.

Table 3-1. Principal stocks or stock groupings comprising the salmon management unit. 1/

	Coho
South of Leadbetter Point (Oregon Production Index)	OPI coho: Columbia River, Oregon coastal, California coastal.
North of Cape Falcon	Columbia River, Washington coastal, Puget Sound, Southern British Columbia.
	Chinook
South of Cape Vizcaino	California Central Valley: Sacramento and San Joaquin fall, late fall, winter and spring.
Cape Vizcaino to Cape Blanco	California coastal and Oregon coastal south of Coos Bay, fall and spring.
Cape Blanco to Cape Falcon	Oregon coastal fall and spring.
North of Cape Falcon	Oregon coastal north of Coos Bay, fall and spring; Upper Columbia fall, spring and summer; lower Columbia fall and spring; Washington coastal fall, spring and summer; Puget Sound summer, fall and spring.
	Pink and Sockeye
North of Cape Falcon	Fraser River, Puget Sound

1/ The geographical management boundaries that denote stock separation are subject to change (see section 3.8.1). The boundaries shown in this table and in the subsequent discussion are those used in 1983.

Objectives for the management unit that will be managed under this Framework Amendment are presented in Section 3.2. For some of the stocks the achievement of those objectives directly associated with the ocean fisheries, is conditioned upon meeting not only the spawning escapement goals, but also upon fulfilling Indian treaty obligations as well as inside non-Indian net and recreational fisheries requirements. The brief discussion of the separate stock components comprising the management unit, which appears below, identifies those stocks where other than ocean management objectives are of significance.

3.1.1. Coho

3.1.1.1. South of Leadbetter Point (Oregon Production Index Area)

Columbia River and Oregon coastal coho are managed together within the framework of the Oregon Production Index (OPI) since these fish are essentially intermixed in the ocean fishery. These coho are important to ocean fisheries off the southern Washington coast as well as to fisheries off the coasts of Oregon and northern California.

The OPI is used as a measure of the annual abundance of adult three-year-old coho salmon resulting from production in the Columbia River and Oregon coastal hatcheries and streams. The index itself is simply the combined number of adult coho that can be accounted for within the general area from Ilwaco, Washington to as far south as coho are found. Currently, it is the sum of (1) ocean sport and troll catches in the ocean south of Leadbetter Point, Washington, regardless of origin; (2) Oregon and California coastal hatchery returns; (3) the Columbia River in-river gillnet catch, (4) Bonneville, Willamette Falls, and North Fork dam counts, and (5) hatchery returns to the Columbia River below Bonneville Dam.

Catches of California coastal coho and returns to California hatcheries are included in the OPI management unit. Most of the California production is from hatcheries which currently produce approximately one million coho smolts annually out of a total hatchery production in the OPI area of 63 million smolts.

Columbia River coho are managed for full utilization of hatchery production, while Oregon coastal stocks are managed to achieve full production from natural spawning. Management objectives for the OPI area must address the following: (1) the need for a viable inside net fishery in the Columbia River; (2) the long-range objective of rebuilding natural stocks of Oregon coastal coho; and (3) impacts on other escapement goals.

3.1.1.2. North of Cape Falcon, Oregon

Management of ocean fisheries for coho north of Cape Falcon is complicated by an overlap with the portion of the OPI area in the vicinity of the Columbia River mouth. Allowable harvests in the area between Leadbetter Point, Washington and Cape Falcon, Oregon will be determined by an annual blend of OPI and Washington coho management considerations including:

1. Controlling ocean harvest impacts on depressed, viable natural stocks within acceptable maximum allowable levels,
2. Stock abundance of stocks of management concern,
3. Stock specific impacts on most critical stocks,
4. Relative abundance in the fishery as between chinook and coho, and
5. Allocation considerations of concern to the Council,
6. Escapement goals.

Coho occuring north of Cape Falcon, Oregon are comprised of a composite of coho stocks originating in Oregon, Washington, and British Columbia. Ocean fisheries on these stocks are regulated on the basis of the regime that meets the management objectives for the weakest stock. Management considerations for the stocks included in this area are summarized as follows:

Columbia River

Columbia River coho are managed primarily for hatchery production. Objectives for these stocks are to obtain adequate escapement to meet production goals; fulfill Indian treaty obligations; and provide for a viable inside net fishery in the Columbia River.

Washington Coastal

Willapa Bay - Coho returns to Willapa Bay streams are managed primarily for hatchery production. A non-Indian net fishery operates in Willapa Bay. Ocean fishery escapement objectives relate to hatchery egg take requirements and inside fishery needs.

Grays Harbor - Coho runs are managed for natural production requirements, although a significant component of hatchery production exists. Treaty Indian and non-Indian net fisheries operate in Grays Harbor along with a non-Indian recreational fishery. Management goals for Grays Harbor coho include providing for natural spawning escapement requirements; meeting treaty Indian allocation requirements; and providing for inside, non-Indian fishery needs.

Quinault - Coho are managed primarily for hatchery production. A treaty Indian net fishery operates in the system and management goals include meeting treaty allocation requirements and hatchery egg take needs.

Queets - Coho are managed primarily for natural production. Ocean fishery escapement objectives are designed to meet natural spawning escapement objectives and treaty Indian allocation requirements. A non-Indian recreational fishery also operates in the Queets system.

Hoh - Coho are managed primarily for natural production. Treaty Indian net and non-Indian recreational fisheries operate in the river system. Management goals include achieving natural spawning escapement and treaty allocation requirements.

Quillayute - Summer and fall-run coho stocks return to this system. Summer coho are predominantly from hatcheries and the Washington Department of Fisheries believes they should be managed primarily for hatchery production. However, the Quileute Tribe and the U.S. Department of the Interior believe that the natural spawners during this time period should be given greater management consideration to ensure the perpetuation and maintenance of native summer coho.

Puget Sound

Puget Sound coho stocks are managed to provide for inside non-Indian fishery needs and to meet treaty allocation requirements. They are managed within several state management areas as follows:

Nooksack/Samish and South Puget Sound Stocks - managed primarily for hatchery production.

Strait of Juan de Fuca, Skagit, Stillaguamish/Snohomish, and Hood Canal Stocks - managed primarily for natural production.

Southern British Columbia

Canadian management intent for southern B.C. coho stocks has not been clearly established. Most production is from natural spawning. Canadian Juan de Fuca Strait net fisheries have been restricted in recent years to protect Fraser River coho stocks but no commensurate management action has been taken with Canadian troll or recreational fisheries.

3.1.2 Chinook

3.1.2.1 South of Cape Vizcaino

The major chinook stocks contributing to this area originate in the central valley rivers, specifically, the Sacramento, Feather, Yuba, and American. Early fall-run chinook are most abundant followed by late-fall, spring, and winter stocks. Chinook hatcheries are located on the upper Sacramento, Feather, American, Mokelumne, and Merced rivers. An artificial spawning channel is located on the upper Sacramento. Hatchery production emphasis is on fall chinook. Considerable overlap of chinook originating in central valley and north California coastal rivers occurs between Point Arena and Cape Vizcaino. Ocean commercial and recreational fisheries operating on central valley chinook are managed to maximize natural production consistent with meeting inland recreational needs.

3.1.2.2 Cape Vizcaino to Cape Blanco

Major chinook stocks contributing to this area originate in streams located along the northern California and southern Oregon coasts.

California coastal chinook stocks include those from the Klamath, Smith, Mad, Eel, and Mattole rivers. The major California chinook run in this area is from the Klamath system, including its major tributary, the Trinity River. Natural production from the Klamath system is primarily fall chinook, but small runs of spring chinook originate in the Salmon and Trinity rivers. State-operated chinook hatcheries are located on the upper Klamath, Trinity, Mad, and Russian rivers.

Oregon coastal chinook stocks contributing to this area originate in rivers from Coos Bay south, including the Coos River system, the Coquille, Sixes, Elk, Rogue, and Chetco rivers.

For California stocks, ocean commercial and recreational fisheries operating in this area are managed to maximize natural production consistent with meeting Indian subsistence needs on the lower Klamath system and recreational needs in inland areas. For Oregon stocks, ocean fisheries in this area are managed to achieve full production of natural spawning areas.

3.1.2.3 Cape Blanco to Cape Falcon

Chinook stocks managed in this area primarily originate in Oregon coastal rivers located north of Coos Bay, although fish from Oregon coastal rivers from Coos Bay south also contribute to this area. Stocks originating north of Coos Bay also are harvested by ocean fisheries off Washington, British Columbia, and Alaska. Oregon coastal chinook salmon are managed to achieve full production from natural spawning areas.

3.1.2.4 Cape Falcon to United States/Canada Border

Columbia River hatchery fall (tule) chinook presently comprise a majority of the ocean harvest between Cape Falcon, Oregon and the U.S./Canada border. Lower Columbia River (Cowlitz) spring chinook and Oregon coastal fall chinook also contribute to the ocean catch. Several stocks contribute relatively minor numbers to the ocean chinook harvest north of Cape Falcon including upper Columbia River spring/summers and bright falls, Washington coastal falls, Washington coastal spring/summers, Puget Sound falls, and southern British Columbia falls, springs, and summers. This stock composition may change as Columbia River hatchery reprogramming, Lower Snake River Compensation Program, and Pacific Northwest Power Act programs are put into place.

Management of these fisheries/stocks includes controlling ocean impacts on depressed, viable natural stocks within acceptable maximum allowable levels; meeting treaty Indian obligations and providing treaty Indian harvest opportunity above Bonneville Dam; and meeting inside, non-Indian fishery needs.

3.1.3 Washington Ocean Pink Salmon

Washington ocean pink salmon harvests are predominantly of Fraser River origin. Puget Sound-origin pinks represent a minor portion of the ocean harvest although ocean impacts can be significant in relation to the terminal return during years of very low abundance.

The International Pacific Salmon Fisheries Commission (IPSFC) manages fisheries for pink salmon in U.S. Convention waters north of 48° N latitude to meet Fraser River natural spawning escapement and U.S./Canada allocation requirements. The Council manages pinks in that portion of the FCZ which is not in U.S. Convention waters and throughout the entire FCZ when the IPSFC relinquishes control. The State of Washington indirectly controls fishing for pinks by landing laws.

The continuation of fishing for pinks after chinook or coho quotas have been met would conflict with management objectives for these latter species which could be taken incidentally unless specific gear, e.g., blued hooks and flashers, is proven successful in significantly reducing non-target catches or allowances are made to account for these incidental catches in the harvest quotas. Pink salmon management objectives must address meeting natural spawning escapement objectives; allowing ocean pink harvest within fixed constraints of coho harvest ceilings; and providing for treaty allocation requirements.

3.1.4 Washington Ocean Sockeye Fisheries

No significant Washington ocean sockeye harvests have occurred historically in contrast to a recent large Canadian troll sockeye fishery off Vancouver Island. For any future U.S. ocean sockeye fisheries, management objectives would be similar to those outlined above for pink salmon.

3.2 Fishery Management Objectives

3.2.1 Harvest Management

The fishery management objectives that the Council adopted are presented below. The broad objectives to be achieved by the management regimes adopted in future years under the framework mechanism are, with minor changes, the same as those included in the 1983 plan amendment.

1. Establish ocean harvest rates for commercial and recreational fisheries that are consistent with requirements for optimum spawning escapements, treaty obligations, and continuance of established recreational and commercial fisheries within the constraints of meeting conservation and allocation objectives. Achievement of this objective requires that:

    a. Escapements of viable natural spawning stocks of salmon defined in Section 3.5 shall be sufficient to maintain or restore the production of such stocks at optimal levels.

    b. Escapement of hatchery stocks shall be sufficient to achieve production goals established by the management entity or entities with responsibility for establishing goals.

    c. In managing mixed-stock salmon fishing, the level of exploitation that can be sustained by the weakest natural spawning stocks for which specific management objectives have been defined in Section 3.5 will be used by the Council to establish maximum fishing rates.

    d. Harvest allocations of salmon stocks between ocean and inside recreational and commercial fisheries shall be fair and equitable and fishing interests shall equitably share the obligations of fulfilling any treaty or other legal requirements for harvest opportunities.

2. Minimize fishery mortalities for those fish not landed from all ocean salmon fisheries as consistent with optimum yield.

3. Manage and regulate the fisheries so that the optimum yield encompasses the quantity and value of food produced, the recreational value, and the social and economic values of the fisheries.

4. Develop fair and creative approaches to managing fishing effort and evaluate and apply effort management systems as appropriate to achieve these management objectives.

5. Achieve long-term coordination with the member states of the Council, the treaty Indian tribes, Canada, the North Pacific Fishery Management Council, Alaska, and other management entities which are responsible for salmon habitat or production in the development of a coast-wide salmon management plan.

6. Manage consistent with any U.S./Canada salmon treaty.

7. Support the enhancement of salmon stock abundance in fishing effort management programs to facilitate a return to economically viable and socially acceptable commercial, recreational, and tribal seasons.

3.2.2 Habitat and Environment

The management objectives of the Council can be achieved best if the following environmental and production objectives also are pursued by the agencies having environmental control and resource management responsibilities over production and harvest in inside marine and fresh waters. Where feasible, objectives should be consistent with the habitat and production objectives of the inside resource management agencies. However, full responsibility for achievement of these objectives does not lie solely within the jurisdiction of these agencies, but is shared through a complex maze of overlapping, yet related jurisdictions at least as complicated as that which manages the salmon resource. When called upon for input, the Council should be prepared to assist all agencies involved in protection of fish habitat. This assistance likely will occur in the form of endorsement of enhancement programs and in promoting salmon fisheries needs among competing uses for the limited aquatic environment. This is an ongoing program of assistance which should occur as long as the MFCMA exists.

A major problem of concern to the Council, but outside its jurisdiction, is maintaining and maximizing the production potential of the aquatic environment to sustain harvest. This concern has led the Council to endorse several environmental and production objectives which are stated as follows:

3.2.2.1 Environmental Objectives

1. All available or potential natural habitat for anadromous salmonids should be restored or replaced by encouraging management of conflicting uses to assure no obstruction to access, and a maintenance of high standards to protect water quality and quantity for migration, spawning, and rearing of salmon and steelhead.

2. Water of suitable quality and quantity should be allocated for anadromous salmonid uses.

3. Improvement of provisions for safe passage of anadromous salmonids at existing or future obstructions, dams, and pump intakes will be advocated, supported, and, where possible, carried out.

3.2.2.2 Production Objectives

1. Restore and enhance the natural production of salmon to optimal levels.

2. Whenever fish habitat or population losses occur as a result of various development programs or other action, the fishery agencies should actively seek full compensation for these losses under the following guidelines:

   a. Restoration of lost habitat, where possible, or provision of additional facilities for production of fish, at least equal to that lost.

   b. Replacement of losses, where possible, will be by an appropriate stock of the same fish species or by habitat capable of producing the same species that suffered the loss; mitigation or compensation programs will be located in the immediate area of loss, where possible.

   c. Compensation levels will be based on loss of habitat, production, and opportunity to fish. Potential production of the habitat will be considered in measuring needed compensation.

   d. Measures for replacement of runs lost due to construction of water control projects should be completed in advance of, or concurrent with, completion of the project.

3. Maximize the continued production of hatchery stocks consistent with harvest management objectives.

4. In advance of enhancement programs which include increased artificial production of anadromous fish, assess the potential impact on natural salmonid production and avoid negative effects on other stocks.

5. Improve the effectiveness of artificial propagation.

There is no provision in the Framework Amendment for modifying these objectives. An amendment would be required to change the objectives of the FMP.

3.3 Specification of Optimum Yield for the Fishery

The optimum yield (OY) to be achieved from the fisheries for species included in the management unit established under this framework mechanism, is that amount of salmon caught by United States fishermen in the FCZ adjacent to the States of Washington, Oregon, and California, and in the waters (including internal waters) of those States, and Idaho, which will to the greatest extent practicable, fulfill the following:

1. The spawning escapement goals for natural and hatchery stocks, as established by the Council;

2. The obligation to provide for treaty Indian harvest opportunity, as mandated by applicable decisions of the federal courts;

3. The requirements of the Indian fishery for salmon on the Klamath River;

4. The allocation goals between or among ocean fisheries as established by the Council;

5. The allocation goals between ocean and "inside" fisheries conducted by other than treaty Indians, as recommended by the various states and the Council; and

6. Other social/economic objectives of the FMP and its amendments.

Because it is described in general terms, OY will remain constant over the years. What will change from year to year will be the abundance of salmon (and, perhaps, the amount of fishing effort); accordingly, the annual levels of allowable harvests and the allocations of the allowable harvest among groups of fishermen also will change. Thus, each year, as a part of the process for making pre-season adjustments to the regulations, the Secretary will specify the allowable levels of harvest for each species in each ocean fishing area and the allocation of those allowable harvests among the groups of fishermen.

3.4 Capacity and Extent of U.S. Harvest and Processing and Allowable Level of Foreign Fishing

It is expected that the capacity and extent of U.S. harvest and processing under regulations established with the framework mechanism will remain the same as that experienced since 1978 under the FMP and its amendments. At the highest conceivable level of recent-past, present, or expected future abundance, the total allowable harvest of salmon stocks can be fully taken by U.S. fisheries. There is no recent record of processors in the PFMC area refusing fish from fishermen because of inadequate processing capacity. Because shore-based processors can fully utilize all the salmon that can be harvested in marine waters, joint venture processing (JVP) is fixed in this amendment as zero.

In view of the adequacy of the domestic fisheries to harvest the highest conceivable level of abundance, the total allowable level of foreign fishing (TALFF) also is fixed in this amendment as zero. The United States allowed Canadian fishing in U.S. waters under a reciprocal agreement until 1978. Negotiations between the two governments are continuing to seek a resolution of all transboundary salmon issues. These negotiations are aimed at stabilizing and reducing where possible, the interception of salmon originating from one country by fishermen of the other. No U.S./Canada reciprocal salmon fishing is contemplated in the foreseeable future.

Because U.S. harvest capacity so greatly exceeds abundance, it is expected that TALFF will remain zero even under the highest conceivable level of abundance of stocks managed under this Framework Amendment, and thus there is no reason or purpose to calculate TALFF each year.

3.5 Escapement Goals

Escapement goals and management objectives for the various California, Oregon, Idaho, and Washington salmon stocks in the management unit are summarized in Table 3-2. Spawning escapement goals (or, in certain instances, ocean escapement goals) are expressed either as single numbers, a range of numbers, progressive rebuilding schedules, or fixed procedures, i.e., procedures established by the U.S. District Court relative to stocks involving treaty fishing obligations.

Table 3-2. Summary of management goals for stocks in the salmon management unit.

System	Spawning [a] Escapement Goal	Management Objectives: Other	Management Objectives: Rebuilding Schedule
California Central Valley Fall Chinook Adults			
Total Sacramento [b]	Range of 122,000 to 180,000 for natural and hatchery	Provide for inside recreational fishery	As determined by the state [c] for components of the system
Klamath Fall Chinook	97,500 natural 17,500 hatchery	Provide for inside Indian subsistence and recreational fishery	Achieve in-river run sizes (natural and hatchery combined) as follows: 1983-86 68,900 1987-90 82,700 1991-94 99,200 1995-98 115,000+ [d]
Oregon Coastal Chinook	150-200,000 natural	Meet hatchery requirements	None
South Coast	not yet established		
North Coast	not yet established		
Columbia River Chinook		Manage consistent with U.S./Canada treaty if ratified; meet treaty Indian obligations and provide fish to inside non-Indian fisheries and meet hatchery requirements	The Council recognizes that certain factors at work such as (1) the implementation of the Pacific Northwest Electric Power Planning and Conservation Act, (2) the conclusion and ratification of a U.S./Canada salmon treaty, (3) renegotiation among the parties of a plan for allocation of in-river harvests of Columbia River salmon, could lead to improved status of depressed Columbia River stocks. This will require reassessment and perhaps changes in ocean and spawning escapement goals for the Columbia River as improvements are realized. Estimates of the magnitude of these changes are not possible at this time. It is recognized that current management practices which prevent directed ocean fisheries on up-river chinook stocks will be required until substantial improvements occur.
Upper-River Fall	40,000 bright adults above McNary Dam	" "	
Upper-River Summer	80,000 adults above above Bonneville		
Upper-River Spring	100-120,000 adults above Bonneville		
Lower-River Fall	Meet hatchery requirements	Provide for inside net and recreational fisheries	
Lower-River Spring (Willamette)	30,000-35,000	" "	
Washington Coastal Fall Chinook	[e] [f]	Meet treaty allocation requirements and inside non-Indian needs	None
Washington Coastal Spring/ Summer Chinook	[e] [f]	" "	None
Puget Sound Chinook	[e] [f]	Meet treaty allocation requirements and provide fish to inside non-Indian fisheries	None
Columbia River and Oregon Coastal Coho	575,000 OPI ocean escapement 200,000 adult natural coastal spawning escapement	Provide for Columbia River treaty obligations, and inside non-Indian harvest opportunities, and hatchery requirements	Achieve escapement of natural spawning stocks as follows: 1983 Cycle 1: — Cycle 2: 140,000 Cycle 3: — 1984 Cycle 1: — Cycle 2: — Cycle 3: 135,000 1985 Cycle 1: 175,000 Cycle 2: — Cycle 3: — 1986 Cycle 1: — Cycle 2: 170,000 Cycle 3: — 1987 Cycle 1: — Cycle 2: — Cycle 3: 200,000 1988 Cycle 1: 200,000 Cycle 2: — Cycle 3: — 1989 Cycle 1: — Cycle 2: 200,000 Cycle 3: —

Annual natural spawning escapement goal estimates and total escapement objectives are made by the Washington Department of Fisheries and treaty tribes in status reports and distributed for public review under the provisions of U.S. v. Washington and subsequent U.S. District Court orders. After agreement to these goals is reached by the parties in this litigation, ocean fishery escapement objectives are established for each river, or region of origin, which include provisions for providing treaty allocation requirements and inside, non-Indian fishery needs.

3.5.2 Chinook

3.5.2.1 California Chinook

Escapement goals for California chinook, shown in Table 3-2, are for fall run fish. Significant populations of late fall, spring, and winter chinook also occur in the upper Sacramento River (above Feather River), but escapement goals for ocean management purposes have not been established for these stocks.

The Central Valley (Sacramento and San Joaquin Rivers) and Klamath River long-term spawning escapement goals were established in 1977 and 1978 respectively, based on averages of previous years' run sizes. The following base periods were used: Sacramento River 1953-1960, San Joaquin River 1972-1977, and Klamath River early 1960's (circa 1963). In 1980 the Central Valley goals were adjusted to address adults only and to separate hatchery and natural goals. Hatchery goals for Central Valley and Klamath River chinook are based on mitigation requirements or hatchery capacities, whichever is higher.

Sacramento River Fall Chinook

The Council considered three alternative management goals for Sacramento River fall chinook before it adopted Option 3.

Option 1: Achieve a spawning escapement goal of 99,000 natural and 9,000 hatchery chinook of upper Sacramento River origin by 1988 given average environmental conditions and contingent upon solving the problems associated with the Red Bluff Diversion Dam. A specific schedule to achieve the goal is not included in this option.

Option 2: Achieve an average 20 percent increase in spawning escapement every four years until the long-term goal of 99,000 natural spawning chinook is attained, contingent upon solving the problems at the Red Bluff Diversion Dam. The rebuilding schedule listed below is expressed as spawning escapement except for a small in-river harvest.

1983-86	65,800
1987-90	79,000
1991-94	94,800
1995-98	99,000

The following goals would be components of Options 1 and 2 for the upper Sacramento:

	Spawning Escapement Goal		Other
Lower Sacramento			
Feather River	27,000 5,000	natural hatchery	Provide for inside recreational fishery
Yuba River (see below) Suboption a:	20,000	natural	Provide for inside recreational fishery
Suboption b:	10,000	natural	
American River	24,000 6,000	natural and hatchery	Provide for inside recreational fishery

Yuba River Fall Chinook

The Council considered two fall chinook spawning escapement goal options for the Yuba River. The 20,000 spawner goal (Suboption a) used by the state and the Council in recent years was set in 1979 at a level considerably higher than the river run sizes preceding that year. This higher escapement goal was based on recently increased flows from New Ballards Bar Dam. California Department of Fish and Game (CDFG) officials believe these higher flows have not improved production in the Yuba River, because the flows have been provided at times that are not beneficial to salmon. The higher flows soon will be reduced after diversion facilities are completed. Consequently, CDFG recommends the natural spawning escapement goal for the Yuba River be set at 10,000 fish (suboption b) which is the 1971-81 average.

Option 3 (adopted by the Council): Achieve a single river spawning escapement goal range of 122,000 to 180,000 Sacramento River chinook. Within this range annual escapements can be expected to vary. Separate goals for the upper and lower Sacramento stocks are not established. The California Department of Fish and Game has provided the following information on state distribution goals and the rationale for this option:

California Department of Fish and Game Distribution Goals for Sacramento River Fall Chinook Salmon 1/

Upper-River:	Natural	99,000
	Hatchery	9,000
Total Upper-River		108,000
Lower-River:		
Feather -	Natural	27,000
	Hatchery	5,000
Yuba -	Natural	10,000
American -	Natural	24,000
	Hatchery	6,000
Total Lower-River		72,000
Total Sacramento		180,000

1/ Distribution goals will not be used as a basis for ocean management. These will be used as management goals by agencies having in-river management responsibilities. Until passage problems at the Red Bluff Diversion Dam are corrected, the up-river distribution goals are not expected to be achieved.

Rationale for Single Sacramento River System Goal Expressed as a Range

Management of ocean fisheries by the PFMC is limited to the management of ocean harvest. Presently there are no techniques for selective management of different stocks of Sacramento River fall chinook salmon. Ocean harvest management only can provide for a target ocean escapement of Sacramento River fall chinook. Once the fish have entered the river, distribution of fish within the system is dependent on factors such as water flow, habitat, water quality, fish passage barriers, and hatchery practices. It is likely that future increases in water development, increased water export, and stream channelization will reduce the production capacity of portions of the Sacramento River system. Mitigating for these losses may necessitate increasing production in other portions of the system.

The only portion of the system currently not meeting escapement goals is the upper Sacramento River. Lower Sacramento River 1979-82 escapements have averaged 138 percent (99,700) of the new CDFG lower-river goal of 72,000 and 122 percent of the recent state goal of 82,000 chinook.

Fish passage and water quality problems are largely responsible for the upper-river spawning escapement shortfall. Since upper-river fall chinook cannot be selectively managed in the ocean fisheries, attainment of present upper-river escapement goals by reducing ocean harvest would necessitate reducing harvest of abundant lower-river stocks, thereby increasing lower-river escapement

still higher over escapement goals. As an example, based on the team analysis, the restrictive USFWS proposal for managing Sacramento stocks in 1983 would have resulted in 92,000 and 193,000 adult fall chinook returning to the Upper and Lower Sacramento River systems, respectively. In 1984, returns would be even higher because two year classes would be impacted by the regulations rather than one, resulting in 130,000 and 271,000 returning to the Upper and Lower Sacramento, respectively. Since the lower-river spawning escapement goal is 72,000 salmon, restrictive regulations designed to meet upper-river goals would result in gross over-escapement into the lower-river.

For these reasons, an interim spawning escapement goal range for the Sacramento River is established until such times as the problems caused by the Red Bluff Diversion Dam are rectified, and the full production of salmon in the Upper Sacramento River can be realized. For the period 1979 to 1983, Upper Sacramento fall chinook runs have fallen from 81,700 to 51,500 adult chinook. The rate of decline appears to be slowing and will likely stabilize at about 50,000 adults. Therefore, the lower end of the aggregated Sacramento River goal range of 122,000 adult chinook is based on 50,000 upper-river adult chinook and 72,000 lower-river adult chinook.

Rationale for Combined Sacramento Hatchery and Natural Escapement Goal

Escapement data for the Sacramento River are grouped into four production units. Salmon stocks in three of these production units, the American River, Feather River, and upper Sacramento River, are enhanced by mitigation hatcheries.

The separation of hatchery and natural fish in these units is artificial. Returns to hatcheries on the American and Feather rivers have exceeded hatchery capacities in recent years. Once capacity is reached, the ladders are closed and fish that would have returned to the hatchery remain in the river and are counted as natural spawners. Also, naturally-produced salmon commonly return to the hatchery, thus becoming hatchery fish. In 1982 Coleman Hatchery took 7,200 fish in excess of its goal and greatly exceeded hatchery capacity. Had these fish not been taken, they would have become natural spawners.

The distinction between natural and hatchery stocks has become lost in these portions of the river. Natural spawners are those that spawn in the wild regardless of their origin. The only major tributary with a truly natural run is the Yuba River. Runs in this river have been remarkably stable from 1971-81, averaging about 10,000 adults. The run increased sharply in 1982 to 23,000. The stability of the Yuba River escapement suggests that present and past management practices have not reduced the productivity of natural stocks.

San Joaquin River Escapement

The San Joaquin River system is degraded severely due to water development and pollution. Increases in water transport out of the Delta will further jeopardize the continuation of these runs.

San Joaquin escapement cannot be selectively managed in the ocean. Ocean management for Sacramento River chinook within the escapement range adopted will provide adequate escapement of San Joaquin stocks to achieve spawning requirements.

Klamath River Fall Chinook

The Council adopted a rebuilding schedule for Klamath River fall chinook which extends the time beyond 1988 that the long-term escapement goal will be met. Under this rebuilding schedule, Klamath escapements will be increased by an average of 20 percent every four years until the long-term goal is met.

Goals for the Klamath River are expressed as in-river escapement until in-river Indian and recreational harvest allocations are established. Once these harvest allocations are agreed upon, spawning escapement goals will be set.

The rebuilding schedule is to achieve the following in-river run sizes (natural and hatchery combined) for the Klamath River:

1983-86	68,900
1987-90	82,700
1991-94	99,200
1995-98	115,000+ 1/

1/ The long-term escapement goal of 115,000 chinook is spawning escapement to which in-river harvest must be added to calculate the ocean escapement goal.

The Klamath River escapement goal may be adjusted in the future upon evaluation of habitat quality, spawner success, and contribution of natural spawning stocks. Also, if in the future an allocation for Indian harvest is set at a level that, when combined with recreational needs and the spawning escapement goal, would require an in-river escapement goal that would result in underutilization of other stocks in the ocean, the escapement goal may be reevaluated. Such changes would be made by an amendment to the FMP.

3.5.2.2 Oregon Coastal Chinook

Oregon coastal natural chinook stocks remain in a generally favorable status, showing upward trends in spawning escapement since 1952. With some exceptions these stocks have stabilized at optimal spawning levels in recent years.

The management objective for Oregon coastal chinook is to achieve the natural spawning escapement goal of 150,000 to 200,000 adult fish. This escapement goal is equivalent to peak spawning ground index counts of 60 to 90 adults per mile, including both spring and fall chinook. The Oregon Department of Fish and Wildlife currently is refining its coastal chinook escapement goals as part of a chinook plan development process. An outcome of the planning process will be separate escapement goals for spring and fall runs as well as northern and southern coastal stocks. When developed and adopted by the Council, these separate goals, because they are a refinement of current goals and not a change in goals, will become a part of the Framework Amendment without need for further plan amendment.

3.5.2.3 North of Cape Falcon Chinook

The majority of the ocean chinook harvest north of Cape Falcon is comprised of Bonneville Pool falls and lower Columbia River falls and springs (Cowlitz), all primarily of hatchery-origin. Hatchery production escapement goals of these stocks are established according to long-range production programs and/or mitigation requirements associated with displaced natural stocks. Low, incidental harvest of several naturally-produced stocks occurs in fisheries within this area, including upper Columbia River falls (brights), summers, springs, and certain Washington coastal and Puget Sound stocks.

Spawning escapement goals for upper Columbia River stocks have been established (Table 3-2). The spawning escapement goal of up-river natural fall chinook (brights) is 40,000 adults past McNary Dam. The escapement goal for up-river summers has been listed as 80,000 adults above Bonneville Dam, and was established prior to the last phase of Columbia River dam production. Annual escapement objectives for Washington coastal chinook stocks are established through procedures of the U.S. District Court.

As noted in Table 3-2, ocean and spawning escapement goals for Columbia River stocks may need to be changed to reflect recommendations forthcoming from other programs such as the Columbia Basin Fish and Wildlife Program of the Northwest Power Planning Council (NPPC). It is further acknowledged that the first increments of new production returning to the Columbia as a result of the NPPC Program should go to spawning escapement as established by the fish and wildlife agencies and tribes. Production in excess of that needed to meet the agreed upon rebuilding schedule shall be allocated for harvest.

3.6 Procedures for Determining Allowable Ocean Harvests

Determination of allowable harvest of salmon in ocean fisheries is a process designed to meet the objectives delineated in Section 3.2. The procedure is complicated by natural variability in annual abundance and the high degree of mixing in ocean fisheries of species and stocks having specific long-term management goals. Depending upon ability to accurately estimate stock-specific impacts of ocean fisheries, either pre-season or in-season, allowable harvest may be expressed in terms of season regulations expected to achieve a certain optimum harvest level or in terms of a particular number of fish.

Restriction of the fishery by time and area is presently the principal means of achieving allowable harvest objectives when techniques for accurately predicting abundance are unavailable. Application of this management practice carries the risk of overfishing due to unexpectedly high levels of effort or availability. The fishery is characterized by large potential for effort response from latent gear or transferred effort from closed times and areas. The availability of fish to particular gear depends upon a variety of environmental factors and behavior of fish stocks.

Techniques for pre-season estimation of abundance in the ocean are available for particular stocks or stock groups of coho while accurate pre-season measures of chinook stock abundance have not been fully developed. Differences in technique development are generally ascribed to the relative complexity in

chinook versus coho life history regarding such characteristics as age composition and maturity. While pre-season projection techniques are for the most part unavailable for chinook, considerable optimism is held for further development of tools such as genetic stock identification for in-season monitoring of stock-specific impacts.

Allowable harvest in terms of numbers of fish may be regulated through imposition of stock-specific limits or by more generalized limitations on total catch in a particular fishery. The critical criteria for determination of a stock-specific limit may be abundance of the weakest stock for which management is defined. In application, however, given the state of pre-season stock assessment abilities, stock- and species-specific quotas can result in higher than desirable harvest rates on runs weaker than anticipated and lower than desirable rates on stronger than anticipated runs.

Quotas do not represent guaranteed harvests but rather the maximum allowable harvest of the species or stock for which management is most critically defined, including all other stocks or species harvested in association with achievement of that objective. Depressed viable natural stocks may represent a relatively small proportion of the total ocean harvest in a particular area. Under these conditions the Council, using the best available techniques, determines the maximum ocean harvest impact on individual weak stocks which could be allowed while providing some level of harvest opportunity on stronger natural and hatchery stocks.

Procedures for determining allowable ocean harvest vary by species and fishery complexity. The purpose of this Framework Amendment is to describe procedures currently used and to present conditions under which these procedures may be modified. This will allow the public to better understand how allowable harvest is to be estimated in future seasons.

Though procedures are not expected to change greatly over time, specific changes brought about by improvement in forecasting techniques or outside/inside allocation procedures due to treaty or user sharing revisions are anticipated by this framework mechanism so that they may be adopted without formal amendment. Any change made in procedures will be described along with the rationale for changes during the pre-season regulatory process described in Section 3.11.

3.6.1. Coho

3.6.1.1 South of Leadbetter Point Coho (Oregon Production Index Area)

A pre-season estimate will be made each year of the coho stock size in the OPI area using the OPI abundance predictor (jack index and an independent estimate of the private hatchery catch contribution). The number of three-year-old adult coho in the OPI area for a given year will be predicted by the number of two-year-old jack coho returning to selected facilities the prior year using the most updated relationship of jacks to adults.

A separate estimate will be made of the private hatchery origin fish contributing to the ocean catch in the OPI area based on the number of smolts released, recent average survival rate and expected harvest rate (based on recent observed rate). Since 1979, private hatchery production of coho has become a

significant part of adult coho in the OPI area. Because private hatchery practices differ from those at public hatcheries, the same methods cannot be used to predict adult production. The majority of private hatchery juveniles are reared quickly to smolt size and released in the spring of their first year of life, or about a year before the smolts at public hatcheries. The returns from releases of "accelerated" private hatchery smolts do not produce jacks, but return entirely as two-year-old adults. They do, however, spend about the same amount of time in the ocean as public hatchery coho. Because none return as jacks, there is no pre-season indication of survival.

Therefore, an estimate of expected catch of private hatchery coho in the OPI area will be made using estimates of survival and harvest rates of recent years applied to the smolt releases of the previous year as follows:

Expected catch of private hatchery coho	=	Number of smolts released	x	Estimated survival rate	x	Estimated harvest rate of private hatchery fish associated with the harvest rate appropriate for the other OPI stocks

The total coho abundance in the OPI area will be determined by the sum of adults predicted by the OPI jack index and the expected private hatchery catch.

The total allowable ocean coho harvest for the OPI area will be determined by subtracting the OPI ocean escapement goal from the total stock size estimate for the OPI area. The total allowable ocean harvest for the OPI area will then be partitioned into two areas: from Leadbetter Point to Cape Falcon, Oregon; and from Cape Falcon to the U.S./Mexico border. The harvest may be partitioned further into specific subareas. The total allowable harvest as well as the allowable harvest in individual subareas may be modified to address conservation needs of Oregon coastal and Washington coastal coho. For example, the allowable harvest in the Columbia river mouth area may be reduced to protect Washington natural coastal stocks or the allowable harvest south of Cape Falcon may be reduced to protect Oregon natural coastal stocks.

The expected harvest of OPI (public) fish can be apportioned to these three areas on the basis of recent historical averages, but there is merit in leaving the precise apportionment flexible in the Framework Amendment. The Council may want to redistribute the catch within the OPI area in future years, for instance, to minimize impacts on Oregon wild coastal coho and maximize harvest of Columbia River hatchery coho. Such reapportionment would be determined by recent coded-wire tag data on the distribution of coho stocks and on estimates of individual stock strength.

The expected harvest of private hatchery fish will be apportioned to each area based on the distribution pattern observed in recent years. Private hatchery catch contributions may be adjustable in-season (see Section 3.12) based on analysis of scale samples and/or coded-wire tags. The allowable harvest of public fish will be a fixed component and will not be adjusted in-season until such time as reliable in-season stock abundance updating procedures have been developed.

In the future, the OPI may be refined by adding different components, such as coastal wild and private hatchery fish, in which case it would change from an index to an absolute measure of coho abundance. Changes in harvest patterns and modifications in hatchery practices and stock utilization can alter jack/adult relationships and revision of the data base will be needed periodically to maintain the accuracy of the stock size predictor.

3.6.1.2 North of Cape Falcon Coho

Spawning escapement objectives are given in Section 3.5 or are established for natural and hatchery stocks with procedures set by U.S. District Court. Objectives for the following stocks are identified in Section 3.1.1:

- Oregon coastal
- Columbia River early
- Columbia River late
- Willapa Bay
- Grays Harbor
- Quinault
- Queets
- Hoh
- Quillayute fall
- Quillayute summer
- Strait of Juan de Fuca
- Nooksack/Samish
- Skagit
- Stillaguamish/Snohomish
- South Sound
- Hood Canal
- West Coast Vancouver Island
- North Georgia Strait
- Southeast Coast Vancouver Island
- Fraser River and Vicinity
- Capilano

Southern British Columbia coho

Pre-season abundance forecasts are made for each stock within each management area based upon the best available forecasting techniques and consistent with forecasts made to establish pre-season management plans for inside fisheries. The prediction methodology used in 1983 for the various coho stocks is presented in Table 3-4.

The WDF/NBS model is adjusted to expected abundance levels by stock. Figure 3-1 presents a schematic of the pre-season regulatory analyses process using the model.

WDF/NBS model fishing rates are adjusted to reflect anticipated regulations and exploitation rates associated with fisheries in Canada and Oregon/California.

Adult terminal run sizes are estimated in the absence of prior interceptions by fishermen subject to treaty allocation requirements for management units with treaty obligations using the WDF/NBS model.

Table 3-4. Preliminary pre-season forecasts for coho salmon stocks expected off the Washington Coast in 1983. [a/]

Production area	Coho salmon stock	Type of prediction	Estimated number of adults (X 1,000) Preliminary 1983	Prediction methodology	Prediction base years	Source
California and Oregon Coasts and Columbia River	Same	OPI abundance	1,554.0	Relationship of jack returns to adult production following year	1977-1982	Oregon Department of Fish & Wildlife (ODFW) Technical staff
Oregon Coast	Private aquaculture facilities	Ocean catch contribution south of Leadbetter	103.0	Juvenile to adult survival rate from coded-wire tag experiments	1982	ODFW
Washington Coast	Willapa	Ocean fishery escapement	70.0	Average adult return	1978-1982	Washington Department Fisheries (WDF)
	Grays Harbor	Ocean fishery escapement	(N)56.2	Average return per spawner	1979-1982	WDF
			(H)47.1	Average juvenile to adult survival rate	1979-1982	WDF
	Quinalt	Ocean fishery escapement	(N) 6.0	Average between recent years and Queets recruit per spawner		WDF
			(H) 9.8	Juvenile to adult survival rate trend	1979-1982	Quinault Tribe
	Queets	Ocean fishery escapement	(N) 5.6	Relationship of jack to adult returns	1975-1982	WDF
			(H) 3.2	Average juvenile to adult survival rate	1979-1982	Quinault
	Hoh	Ocean fishery escapement	(N) 2.4	Recruits per spawner from Quillayute		WDF
			(H) 0.6	Average juvenile to adult survival rate	1979-1982	WDF
	Quillayute fall run	Ocean fishery escapement	(N)11.0	Relationship of jack to adult returns	1975-1982	WDF
			(H) 0.9	Relationship of jack to adult returns	1975-1981	WDF
	Quillayute summer run	Ocean fishery escapement	(N) 1.0	Relationship of adult to peak cycle year redd counts	1974-1982	WDF
			(H) 4.2	Relationship of jack to adult returns	1975-1982	WDF

Table 3-4. (continued)

Production area	Coho salmon stock	Type of prediction	Estimated number of adults (X 1,000) Preliminary 1983	Prediction methodology	Prediction base years	Source
Puget Sound	Strait	U.S. Puget Sound net catch plus spawning escapement	54.9[b/]	c/ d/		WDF
	Nooksack-Samish	U.S. Puget Sound net catch plus spawning escapement	159.0[b/]	c/ d/		WDF
	Skagit	U.S. Puget Sound net catch plus spawning escapement	37.4[b/]	c/ d/		WDF
	Stillaguamish-Snohomish	U.S. Puget Sound net catch plus spawning	119.0[b/]	c/ d/		WDF
	South Sound	U.S. Puget Sound net catch plus spawning escapement	472.2[b/]	c/ d/		WDF
	Hood Canal	U.S. Puget Sound net catch plus spawning escapement	86.0[b/]			
Southern British Columbia	West Coast Vancouver Island	Spawning escapement	53.8	Cycle-year spawning escapement, stream flows, and weather and environmental conditions	Varied	Canadian Department of Fisheries and Oceans "1982 Salmon Expectations"
	North Georgia Strait	Spawning escapement	122.2	Cycle-year spawning escapement, stream flows, and weather and environmental	Varied	Canadian Department of Fisheries and Oceans "1982 Salmon Expectations"
	Southeast Vancouver	Spawning escapement	61.8	Cycle-year spawning escapement, stream flows, and weather and environmental conditions	Varied	Canadian Department of Fisheries and Oceans "1983 Salmon Expectations"
	Fraser River and vacinity	Spawning escapement	50.5	Cycle-year spawning escapement, stream flows, and weather and environmental conditions	Varied	Canadian Department of Fisheries and Oceans, "1983 Salmon Expectations"
	Capilano early	Spawning escapement	23.0			

a/ Puget Sound forecasts do not include potential increases resulting from ocean regulatory controls implemented since 1978. Remainder of ocean fishery escapement forecasts are actual expectations given recent fishery conditions.
b/ Total natural plus hatchery prediction.
c/ Natural prediction: Relationship of summer stream flows and adult returns 2 years later; 1965-1978 base years.
d/ Hatchery production: Average juvenile to adult survival rates; 1973-1977 base years.

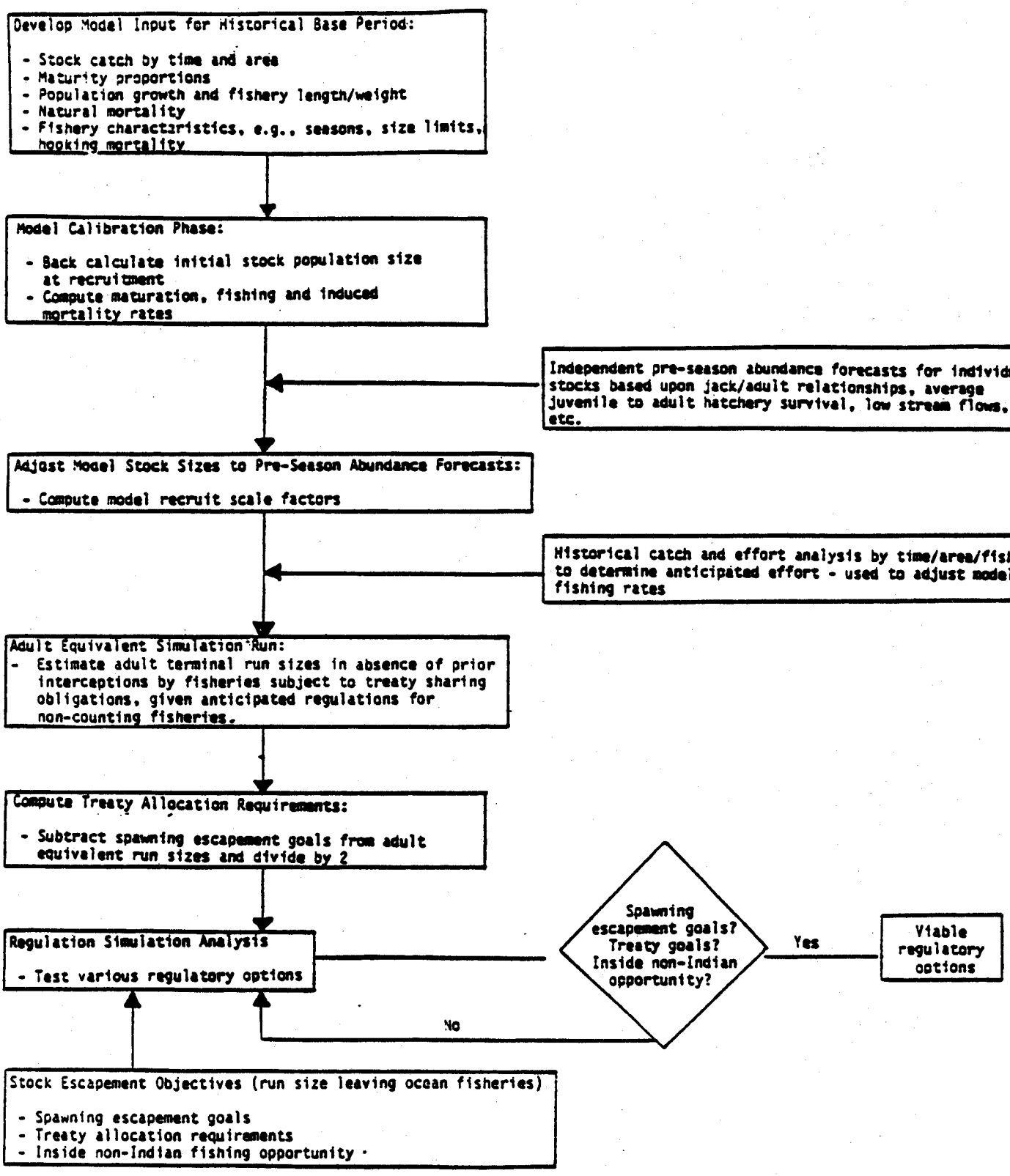

Figure 3-1 Schematic and pre-season ocean fishery regulatory analysis, utilizing the WDF/NBS Catch Regulation Analysis model.

Treaty Indian and non-Indian harvest shares are computed for each appropriate stock.

The non-Indian troll and recreational quotas north of Cape Falcon, would be computed with the WDF/NBS model based upon providing sufficient escapement from ocean to provide for spawning escapement objectives and treaty shares of the weakest stocks. Separate quotas may be established for subareas within the area north of Cape Falcon to meet management objectives of the plan. The allowable harvest in the area from Cape Falcon, to Leadbetter Point, will be established to address a blend of OPI and Washington coho management considerations. Specific provisions for inside non-Indian fishery needs could be built into the quota(s). In 1980, for example, the pre-season ocean coho quota north of Cape Falcon was based on meeting Puget Sound spawning escapement goals, treaty allocation requirements and providing an inside non-Indian harvest opportunity of 200,000 Puget Sound-origin coho.

Since 1980, coho harvest rates have been reduced off the Washington coast to the extent that increased inside, non-Indian coho harvest opportunity has been provided for in the Columbia River, Willapa Bay, Grays Harbor, and Puget Sound.

The total harvest quota does not represent a guaranteed catch, but a maximum allowable catch. The non-Indian quota would be allocated to troll and recreational users based upon allocation guidelines specified in Section 3.7.

Ocean coho quotas in 1980-1983 were defined as the maximum total coho harvest of all stocks which could be allowed and still meet spawning escapement goals and treaty allocation requirements for the weakest stocks. In other words, the pre-season quotas established represented an estimate of the maximum allowable harvest of a weak stock plus the expected harvest of all other stocks in the area, given certain expectations of run sizes and ocean fishery patterns. Since the in-season catch of the weak stock could not be monitored with existing tools, the total harvest quota was developed. A high probability exists for management error using this system unless sufficient safeguards are incorporated, since individual stock abundance may vary from pre-season expectations.

Ocean coho quotas will be defined in one of two ways:

1. Given current in-season monitoring capabilities, the quota will represent the maximum total allowable harvest of all stocks which will be estimated prior to the fishing season using the WDF/NBS model, based on the maximum allowable harvest impact on weak stocks.

2. If tools to monitor the actual catch of the weak stock(s) in-season become available, an alternative would be to define the quota as the maximum allowable ocean harvest of the weak stock(s) only. Each fishery would be managed in-season to ensure that the quota is not exceeded. The total harvest would be a function of abundance of other coho stocks in relation to the weak stock(s) unit(s). Under this system, a total allowable harvest would be defined only for the weak stock(s) and not for all stocks in the area. Tools to monitor the actual catches of the weakest stock(s) in-season, such as electrophoresis, are currently being developed and may be operational within the next two to three years.

While the Council currently has not defined or adopted ocean mixed-stock harvest criteria, such criteria are being developed pursuant to court order (United States v. Washington). Any mixed-stock harvest criteria endorsed by the U.S. District Court, and deemed appropriate for the ocean fisheries, will be incorporated into this plan during the pre-season regulatory process, without need for a plan amendment.

Maximum allowable ocean harvest impacts on depressed stocks could be defined by considering the following:

a. The first priority need would be to maintain specific important natural stocks as viable natural production units.

b. Under this constraint, a fixed percentage maximum impact on the individual stock's in-river return or spawning escapement or a formula for varying the magnitude of the maximum impact on a depressed stock depending on the proportion of the ocean harvest which represents stocks with conservation needs (i.e., as the proportion of stocks needing protection in the total harvest increases, the maximum allowable ocean impact on any individual stock decreases).

3.6.2 Chinook

3.6.2.1 California Chinook

A reliable indicator of ocean abundance of maturing California chinook stocks currently does not exist, because early life survival rates and age-specific maturity rates are highly variable for natural and hatchery stocks. While forecasting techniques are not currently available to produce an accurate number for allowable ocean harvest, it is possible to predict chinook abundance in a relative sense compared to the previous year or to an average by examining certain factors. These include, but are not limited to the following:

1. relative ocean abundance of two-year- and three-year-old chinook in the previous year

2. ocean escapements of two-year- and three-year-olds in key river systems in the previous year

3. magnitude of brood year escapements and hatchery releases

4. expected change in survival of hatchery fish due to changes in hatchery practices (e.g., time and location of release)

5. environmental factors (e.g., abundance of forage, floods, droughts, etc.)

Once a relative measure of expected chinook abundance is obtained, past management plans and their impact on escapements are analyzed by simulation modeling to determine the appropriate harvest to meet the desired level of escapement for a given four-year ocean management period. The appropriate season which would likely produce that harvest then is estimated after

analysis of expected fishing effort. For fall chinook salmon, the end of the season should be set at the time when most maturing fish have left the ocean. This would reduce shaker problems and increase poundage yield by allowing all immature fish to grow and be harvested in the following year.

In California, Klamath and Sacramento fall chinook stocks enter the rivers from mid-August through mid-September, with most entering by September 1. Other California fall chinook stocks enter coastal rivers and streams through November. In the central valley, other significant chinook stocks enter the rivers from September through January.

An example of how the process would work is given below:

1. Chinook abundance is predicted to be nearly the same as the previous four-year ocean management period.

2. Regulations of the previous four-year period resulted in catches that produced an ocean escapement 20 percent above or below the desired level.

3. The allowable harvest in the coming four-year period is increased or reduced by an appropriate percentage over the last season.

4. The opening of the fishing season is adjusted appropriately to arrive at the allowable harvest after evaluating expected fishing effort; the season closing date is fixed at August 31 or September 30, depending on stock composition.

3.6.2.2 Oregon Coastal Chinook South of Cape Falcon

At present, no precise method exists for predicting stock size abundance of Oregon coastal chinook stocks south of Cape Falcon. However, several factors are considered in concert to provide a relative measure of stock abundance expected in any given year's fishery. These factors include the following:

1. Brood year escapement levels contributing to a given year's fishery,
2. Catch levels in prior years,
3. Ocean assessment of two-year- and three-year-old chinook in previous years,
4. Relative age composition in prior years,
5. Environmental conditions,
6. Hatchery production levels, or changes in hatchery practices, which might affect production.

Information from prior years' fisheries are reviewed to provide a calibration between past ocean management and resultant escapement. Past seasons are reviewed in terms of season length, catch, fishing effort, relative stock abundance, and escapement level to determine relationships among catch levels, stock abundance, and spawning escapement.

Based on established escapement goals and the factors outlined above, an appropriate level of harvest will be determined for any given year's fishery. This desired catch level will be translated into a specific season structure based on the following:

1. Pattern of harvest over time.
2. Area distribution of catch.
3. Age structure of the population by time and area.
4. Expected redistribution of catch and effort following season adjustments in any given time period or area.
5. Management objectives for other chinook and coho stocks.

The maximum season length for the Oregon Coast will encompass the period from May 1 to October 31. Seasons will be adjusted by time and area to maximize the harvest of mature fish of desired stocks while meeting escapement objectives. If additional restrictions are required to reduce mortality of immature chinook salmon, closures would be implemented during the period from September 15 through October 31.

Management objectives for other salmon stocks may constrain the levels of harvest, seasons, and areas of harvest for Oregon coastal chinook stocks. For example, in years of low coho abundance, it may be necessary to implement chinook-only seasons to adequately utilize the allowable harvest of Oregon chinook stocks. These chinook-only seasons would be implemented consistent with selective fisheries criteria in Section 3.8.5.3. Closures of fisheries from mid-June to mid-July to protect coho salmon may be necessary.

3.6.2.3 North of Cape Falcon Chinook

For the area north of Cape Falcon, allowable levels of ocean chinook harvest may or may not be explicitly incorporated into regulatory measures. From 1979 through 1982, all-species seasons managed on the basis of coho quotas indirectly limited ocean chinook catch to levels which constrained impacts on depressed natural stocks within acceptable limits (depressed stocks are defined as stocks for which escapement goals are not achievable through Pacific Council action). In 1983, chinook quotas were developed for this area based on average catch levels due to the establishment of a chinook directed fishery implemented in response to low levels of allowable coho harvest.

Lacking reliable run size predictions for relevant chinook stocks, recent year catch, effort, and escapement levels will be used to estimate expected harvest under proposed regulations. When important viable stocks are known to be depressed, appropriate seasons and/or quotas may be developed using general indicators of relative abundance. Quotas may be apportioned to fishing periods and subareas in response to differential impacts upon stocks of concern.

Chinook quotas were adopted in 1981 for California fisheries and, in 1983, for fisheries north of Cape Falcon. Direct controls of ocean chinook harvests have also been used in southeast Alaska by the North Pacific Fishery Management Council and the Alaska Board of Fisheries. While current ability to estimate chinook run strength is limited, quotas provide a direct means of controlling chinook harvest and provide an alternative to conservative time/area closures. Quota procedures for the area north of Cape Falcon are outlined below.

Spawning and hatchery escapement goals are established for particular chinook stocks which potentially contribute to harvest in this area, including the following:

- California
- Oregon coastal fall
- Oregon coastal spring
- Upper Columbia River spring
- Upper Columbia River summer
- Upper Columbia River natural fall (brights)
- Bonneville Pool and lower Columbia River hatchery fall (tules)
- Washington coastal spring/summer
- Washington coastal fall
- Puget Sound
- Souther British Columbia

by region of origin

Pre-season abundance forecasts are made for as many stocks in the unit as possible based upon the best available forecasting techniques and consistent with forecasts made to establish pre-season management plans for inside fisheries. Current methods include (a) general examination of brood year strengths for natural stocks, e.g., California, Oregon coastal, and Puget Sound stocks, and (b) statistical relationships between returns of various age groups and subsequent returns of the same brood year in the following year including trends in jack returns (Columbia River falls and Washington coastal stocks).

When sufficient and reliable pre-season abundance forecasts are available, stock input data for key natural stocks such as upper Columbia River natural falls (brights) are incorporated into the WDF/NBS model. The model is adjusted to expected abundance levels by stock.

WDF/NBS model fishing rates are adjusted to reflect anticipated regulations and exploitation rates associated with fisheries in Canada and south of Cape Falcon, Oregon.

Stock management needs for key natural stocks (e.g., up-river brights) are identified by comparing ocean fishery escapement objectives (spawning escapement goals plus inside treaty Indian and non-Indian fishery requirements) to predicted terminal area adult returns for each stock assuming the previous year's ocean fishery regulatory controls and patterns. Further regulatory analysis is aimed at quantifying increases or decreases warranted in the ocean chinook harvest ceilings, based on the needs of the most restrictive stock(s).

Using the best techniques available, an attempt is made to minimize incidental catches of depressed natural stocks in the ocean fisheries by adjusting quotas or seasons based upon one or more of the following considerations:

1. Fixed maximum catch of all stocks assuming that this amount equates to a maximum harvest of specific depressed stocks (e.g., 1983 chinook quota off Washington);

2. Fixed maximum percentage of the spawning escapement for particular stocks or production units; or

3. Variable maximum impact depending on the proportion of the ocean harvest which represents stocks with conservation needs (i.e., as the proportion of stocks needing protection in the total harvest increases, the maximum allowable ocean impact on any individual stock decreases).

The procedure for determining allowable ocean harvest for the area north of Cape Falcon will vary according to (1) the status of stock abundance relative to established escapement objectives (depressed or healthy); and (2) the availability of accurate in-season monitoring capabilities.

When predicted terminal area returns exceed ocean fishery escapement goals for all stocks within the management area, the stock(s) with the least difference between the predicted return and the escapement objective is identified. The WDF/NBS model is used to estimate the percentage increase in ocean chinook harvest of this stock which could be accommodated while still meeting the ocean fishery escapement objective. The quota is defined by applying this percentage increase to the most appropriate three-year average total chinook harvest. The three years would be chosen by the Salmon Plan Management Team to most closely resemble overall expectations of stock abundance and fishery patterns.

When predicted terminal area returns are less than ocean fishery escapement goals for one or more stocks, allowable chinook harvest will be determined utilizing mixed-stock considerations discussed above. Considering variable maximum impact as described in this section, the proportion of the total chinook harvest representing stocks needing protection is calculated (utilizing previous year's regulatory and fishery conditions and current abundance estimates.) This proportion equates to a maximum allowable impact on the adult terminal run and/or spawning escapement for the weak stock(s). An alternative would be to use a fixed percentage maximum impact. The WDF/NBS model would be used to estimate the quota on the weak stock which does not exceed the maximum allowable impact. The percentage decrease in ocean harvest of these stocks necessary to achieve the allowable harvest is computed and applied to the most appropriate 3-year average total chinook harvest to estimate the total chinook quota. Again, the three years used would be selected by the Salmon Plan Management Team to most closely reflect current overall stock size expectations and fishery patterns.

As acceptable in-season monitoring tools are developed to estimate the actual harvest of weak stock(s), the quota will be identified for a weak stock(s) rather than the total chinook harvest of all stocks. Each fishery would be managed in-season to ensure that the quota was not exceeded. The total harvest would be a function of abundance of other chinook stocks in relation to the weak stock(s). The quota would be quantified for the weak stock(s) only and not for the all stock catch.

3.7 Allocation of Ocean Harvest

Several of the Council's management objectives fall under the general category of allocation. Allocation is required when the number of fish is not adequate to satisfy the perceived needs of the various user groups, to divide the catch between (non-Indian) ocean and inside fisheries and between ocean fisheries, and to provide treaty Indian fishing opportunity. The Council has addressed the question of allocation between ocean and inside fisheries and between ocean troll and recreational fisheries by stating its objective to "Establish ocean harvest rates for commercial and recreational fisheries that are consistent with...continuance of established recreational and commercial fisheries."

In allocating the resource between ocean and inside fisheries, the Council considers both in-river harvest and spawning escapement needs. The magnitude of in-river harvest is determined by the states in a variety of ways, depending upon the management area. Some levels of in-river harvests are designed to achieve specific in-river treaty Indian allocation requirements, while others are established to allow for non-Indian harvests of historic magnitudes.

3.7.1 Non-Indian Ocean Fisheries

Prior to 1981, before quotas were made a part of the management scheme, allocation of the ocean harvest between troll and recreational users was addressed only indirectly through selection of season (time/area closures), size limits and gear restriction measures. Beginning in 1981 and continuing through 1984, when quotas became a part of the management scheme, allocation was treated more directly by dividing the total ocean harvest quota, where they existed, between the ocean troll and recreational fisheries.

3.7.1.1 Allocation Options Proposed for the Framework Plan

The basis for allocation between ocean fisheries has become more complex and controversial in recent years with low runs and an increasing number of fishermen. The Council sought public comment on the issue of allocation during the process of developing the Framework Amendment. The following options were considered before the Council adopted Option 5 for the area north of Cape Falcon, Oregon and Option 3 for the area south of Cape Falcon.

U.S./Canada Border to Cape Falcon - Coho/Chinook

Option 1:

The coho and chinook allocation plan for this area would be based on the following criteria to be applied annually during the pre-season modification of management measures:

1. The primary objective would be maximization of total allowable ocean catch to the extent possible, consistent with treaty obligations, inside fishery needs, and spawning requirements.

2. Ocean catch patterns during the base period 1967-78.

3. If deviations from these historic allocations are necessary because runs are above or below abundance levels during the base period or to avoid undue hardship in troll or recreational fisheries, the Council may:

   a. establish subarea quotas (e.g., transferring allowable catch to subareas);

   b. provide for substitution (e.g., giving the recreational fisheries more of the coho and the commercial fisheries more of the chinook based upon a Council-determined exchange rate considering relative values and weights);

   c. provide for other modifications in management measures which take into account relative impacts of troll and recreational gear on viable natural (controlling) stocks.

In no event shall deviations in the percentages allocated to recreational or troll fisheries for the combined species be greater or less than the highest or lowest percentage allocation which occurred during the base period (1967-78). The extreme ratios under this option would be 63-49 percent troll and 51-37 percent recreational.

Option 2:

The allocation plan would be based on the following criteria to be applied annually during pre-season modification of the management measures:

1. Allocation of coho will be based on the historic catch pattern for the period between 1968-78, considering variations in relative abundance, as follows:

Allowable Ocean Harvest (millions of fish)	Commercial Percentage	Recreational Percentage
1.5	63	37
1.4 - 1.5	62	38
1.3 - 1.4	60	40
1.2 - 1.3	58	42
>1.1 - 1.2	56	44
>1.0 - 1.1	54	46
>.9 - 1.0	51	49
≤.9	50	50

2. If total allowable ocean harvest of coho is 900,000 or below, deviation from the established allocation of 50 percent for the commercial fishery and 50 percent for the recreational fishery will be considered if it can be shown that the total allowable ocean harvest can be increased and economic hardship (as defined at that time by the Council) can be reduced, or avoided by giving a higher percentage to either user group. Allocation percentages under these circumstances shall be determined by the Council considering:

   a. Establishment of subarea quotas (e.g., transferring allowable catch to subareas);

   b. Species substitution (e.g., giving the recreational fisheries more of the coho and the commercial fisheries more of the chinook based upon a Council-determined exchange rate considering relative values and weights);

   c. Other modifications in management measures which take into account relative impacts of troll and recreational gear on viable natural (controlling) stocks.

   Within the allocations established, the catch shall be maximized to the extent possible, consistent with treaty obligations, inside fishery needs, and spawning requirements. In no event shall deviations reduce the catch of either group below 25 percent of the allowable ocean harvest. The extreme ratios under this option would be 75-25 percent for both the commercial and recreational fisheries.

3. For chinook, allocation is a separate issue only when chinook quotas are established. When chinook quotas are established, allocation will be based on the 1971-75 average percentages of total ocean catch (1974-75 data only for Oregon north of Cape Falcon) which are 54 percent troll and 46 percent recreational. Deviations from these historic percentages cannot be made without plan amendment or emergency action, except in conjunction with using species substitution in setting the coho allocation (see 2.b. above).

   The 1971-75 base period for allocating chinook was selected because it is the base period used for comparisons in the previous FMP analyses and it avoids the impacts of the change in the sport chinook size limit in 1976 and the troll chinook size limit in 1977.

The 1968-78 base period used in both Options 1 and 2, to determine historic catch patterns for coho, was selected because this is a period of relatively stable catches by both types of gear. It was a period reflecting a reasonably consistent relationship between the two gear types based on total catch. Also, the period is prior to the impact of greatly reduced catches resulting from Council action.

Option 3: (Coho only)

Allocations shall be established based on historic sharing of the ocean harvest between troll and recreational fisheries during the 1971-75 base period. This would allocate 60 percent to the troll fishery and 40 percent to the recreational fishery, subject to change only by plan amendment.

The 1971-75 base period is used here because it is the base period used for allocation by the Council in prior years of management under the salmon FMP.

Option 4:

The allocation plan for this area would be based on the following criteria to be applied annually during the pre-season modification of management measures:

1. Allocation will be based on historic coho harvest for the period 1967-78 considering variations in relative abundance, interpolated for a range of allowable ocean harvest as follows:

Allowable Non-Treaty Ocean Coho Harvest (thousands of fish)	Coho Harvest Percentage*		Chinook Harvest Percentages**	
	Commercial Percentage	Recreational Percentage	Commercial Percentage	Recreational Percentage
> 1,500	(>945) 63	(>555) 37	(98) 54	(84) 46
> 1,400 - 1,500	(899) 62	(551) 38	(98) 54	(84) 46
> 1,300 - 1,400	(810) 60	(540) 40	(98) 54	(84) 46
> 1,200 - 1,300	(725) 58	(525) 42	(98) 54	(84) 46
> 1,100 - 1,200	(644) 56	(506) 44	(98) 54	(84) 46
> 1,000 - 1,100	(567) 54	(483) 46	(98) 54	(84) 46
> 900 - 1,000	(484) 51	(466) 49	(98) 54	(84) 46
> 800 - 900	(425) 50	(425) 50	(98) 54	(84) 46
> 700 - 800	(368) 49	(382) 51	(98) 54	(84) 46
> 600 - 700	(318) 49	(332) 51	(98) 54	(84) 46
> 500 - 600	(250)45.5	(300)54.5	102.875 (4.875 + 54)	79.125 (-4,875 + 46)
> 400 - 500	(150)33.3	(300)66.7	115.625 (17.625 + 54)	66.375 (-17.625 + 46)
> 300 - 400	(50)14.3	(300)85.7	128.375 (30.375 + 54)	53.625 (-30.375 + 46)

* Numbers in parentheses refer to numbers of coho and chinook salmon (in thousands) that would be available to each fishery at various levels of allowable coho harvest. Mid-point of the range of coho allowable ocean harvest was used for calculation in determining these numbers. Chinook numbers for purposes of illustration are based on the assumption that the total allowable harvest of chinook will be about 10 percent lower than 1983, or 182,000 fish. Species substitutions made at ocean harvest levels between 300,000 and 600,000 coho are based on an exchange ratio of four coho to one chinook.

** In cases of low chinook abundance, the Council may be required to deviate from coho and chinook trades suggested by the above schedule. In such events, the Council shall seek to maximize the total ocean harvest, recognize the need of the troll fleet to obtain the highest total possible poundage, and the need for the recreational fleet to achieve maximum time on the water.

2. At all levels of coho harvest above a non-treaty harvest of 300,000 fish, trollers in the area will receive at least 49 percent of the total allowable catch of coho or enough chinook equivalents over and above the historical (1971-75 base) 54 percent of the total allowable ocean harvest of chinook for the area, to equal 49 percent of the allowable harvest of coho.

   Chinook equivalency for species substitution will be determined annually by the Council and will be based upon an exchange ratio calculated from relative average values and sizes of chinook and coho in the area the past two years. The Council shall make every effort to establish seasons and gear requirements and to provide incidental catch levels which provide troll and recreational fleets a reasonable opportunity to catch the available harvest.

3. Except at levels of total non-treaty harvest below 300,000, the recreational fishery will always receive at least 300,000 coho. This means that when the total allowable non-treaty ocean catch of coho is 300,000-500,000, the numbers of coho available to the trollers will be low and the number of chinook substituted for coho to the trollers will increase. At levels of harvest below 300,000, catches will be so small, it is very likely troll fleets will be limited to incidental harvest of coho. Conversely, when chinook are at comparatively low abundance and when species trades occur, recreational fleets may be limited to incidental harvest of chinook.

4. The numbers or percentages presented above are averages for the entire area between Cape Falcon and the U.S./Canada border. These percentages can be varied by subareas if there is need to do so to protect weak stocks. These deviations will be held to the minimum necessary to protect the stocks.

5. If the total allowable non-treaty ocean catch for the area can be increased by restricting one or both fisheries more in some subareas than in others, the minimum average percentages applying for the total area under those circumstances will be determined from the table above based on the initial estimated total allowable catch prior to the increase brought about by area or fishery substitution.

Option 5: (Council Adopted Coho/Chinook Plan Proposed by Ocean Fishermen)

This option was developed and agreed to by both commercial and recreational fishermen from the area.

The allocation plan for this area is to be based on the following criteria to be applied annually during the pre-season modification of management measures:

1. Allocation will be based on the following schedule which establishes allocations on the the basis of variances in relative abundance.

Allowable Non-Treaty Ocean Coho Harvest (thousands of fish)	Coho Harvest Percentages *		Chinook Harvest Percentages *	
	Commercial Percentage	Recreational Percentage	Commercial Percentage	Recreational Percentage
≥ 1500	69	31	54	46
1400	69	31	54	46
1300	69	31	54	46
1200	67	33	54	46
1100	64	36	54	46
1000	61	39	54	46
900	58	42	54	46
800	55	45	54	46
700	52	48	54	46
600	49	51	54	46
500	46	54	55.5	44.5
400	43	57	57	43
300	40	60	58.5	41.5
200	37	63	60	40
100	34	66	61.5	38.5
0	31	69	63	37

*For allowable coho harvests between the numbers shown, the allocations shall be interpolated linearly. Species substitutions made at ocean harvest levels between 0 and 600,000 coho are intended to approximate an exchange ratio of four coho to one chinook, assuming a chinook harvest level of 182,000.

2. The Council shall seek to maximize total allowable ocean harvest to the extent possible and subject to the following provisions. Allocations shall be consistent with treaty obligations, inside fishery requirements and spawning escapement needs.

3. If total allowable non-treaty ocean catch of coho for the area is less than 600,000, the Council may use species substitution (chinook and coho) to minimize hardship to either troll or recreational fisheries. Chinook equivalency for species substitution will be based upon an exchange ratio of four coho to one chinook. The Council shall make every effort to establish seasons and gear requirements which provide troll and recreational fleets a reasonable opportunity to catch the available harvest. In no event shall species substitution exceed 25 percent of the allocations tabulated above.

4. The percentages presented above are averages for the entire area between Cape Falcon and the U.S./Canada border. These percentages can be varied by major sub-areas if there is need to do so to protect the weak stocks. These deviations will be avoided where possible and will be held to the minimum necessary to protect the stocks. In all cases, each major subarea (for example north of Leadbetter and south of Leadbetter) shall retain at least 50 percent of the allocation that would have been established in the absence of transfer.

South of Cape Falcon: (Coho)

The following options were considered for allocation of coho from Cape Falcon to the Oregon/California border. No options were proposed to allocate chinook south of Cape Falcon. The Council adopted Option 3.

Option 1: Allocations shall be established according to the following criteria:

Allocation of allowable ocean harvests of coho will be based on the historic catch pattern for the period 1962-78, considering variations in relative abundance, as follows:

Allowable Ocean Harvest (millions of fish)	Commercial [a/] Percentage	Recreational [a/] Percentage
>2.5	85	15
>2.0 - 2.5	84	16
>1.5 - 2.0	83	17
>1.0 - 1.5	81	19
>.75 - 1.0	79	21
>.5 - .75	76	24
≤.5	74	26

a/ Percentages include California catches.

Option 2: Allocation percentages will be based on the historical catch pattern for the period 1962-78; however, allocation percentages will be calculated excluding California catches. This concept was utilized by the Council in 1982 and 1983.

Allowable Ocean Harvest (millions of fish)	Commercial a/ Percentage	Recreational a/ Percentage
>2.5	83	17
>2.0-2.5	82	18
>1.5-2.0	81	19
>1.0-1.5	79	21
>.75-1.0	76	24
>.5-.75	73	27
≤.5	71	29

a/ Percentages exclude California catches.

The 1962-78 base period used in both Options 1 and 2 encompasses the period of increased fishing effort and significant contributions of hatchery fish to the catch. Also it is prior to the impact of greatly reduced catches resulting from Council actions.

Option 3: (Council Adopted)

The allocation of allowable ocean harvest of coho salmon for 700,000 fish and above, south of Cape Falcon, will be based on the historic catch pattern for the period 1966-78. Allocation percentages will be calculated, including California catches. The 1966-78 base period used encompasses the period of increased fishing effort and significant contribution of hatchery fish to the catch. Also, it is prior to the period of increasing regulation which altered historic allocation patterns. The allocations for a range of allowable ocean harvest of coho are as follows:

	Allowable ocean harvest of coho (thousands of fish)	Commercial		Recreational	
		Number (thousands)	Percentage a/	Number (thousands)	Percentage a/
≥	2500	2150.0	86.0	350.0	14.0
	2400	2056.8	85.7	343.2	14.3
	2300	1964.2	85.4	335.8	14.6
	2200	1874.4	85.2	325.6	14.8
	2100	1780.8	84.8	319.2	15.2
	2000	1690.0	84.5	310.0	15.5
	1900	1597.9	84.1	302.1	15.9
	1800	1506.6	83.7	293.4	16.3
	1700	1416.1	83.3	283.9	16.7
	1600	1324.8	82.8	275.2	17.2
	1500	1234.5	82.3	265.5	17.7
	1400	1145.2	81.8	254.8	18.2
	1300	1056.0	81.2	244.0	18.8
	1200	966.0	80.5	234.0	19.5
	1100	876.7	79.7	223.3	20.3
	1000	788.0	78.8	212.0	21.2
	900	699.3	77.7	200.7	22.3
	800	612.0	76.5	188.0	23.5
	700	525.7	75.1	174.3	24.9
	600	430.0	71.7	170.0	28.3
	500	330.0	66.0	170.0	34.0
	400	230.0	57.5	170.0	42.5
	300	130.0	43.3	170.0	85.0
	200	30.0	15.0	170.0	85.0
≤	100	b/	b/	100.0	approx.100.0

a/ For allowable coho harvests of 700,000 and above, the allocations shall be interpolated linearly between the numbers shown.

b/ Incidental coho allowance associated with directed chinook fishery would be deducted from recreational catch. Incidental allowance could be in the form of estimated hooking mortality or actual landing allowance.

If total allowable ocean harvest of coho is below 700,000, deviation from the established 1966-78 allocation principle may be considered to minimize hardship to either troll or recreational fisheries. Allocation percentages under these circumstances shall be determined by the Council considering the following criteria:

1. Establishment of subarea quotas (e.g., transferring allowable catch to subareas.)

2. Directed chinook-only fisheries with incidental coho allowances.

3. Other modifications in management measures which take into account relative impacts of troll and recreational gear on viable natural (controlling) stocks.

Within the allocations established, the catch shall be maximized, to the extent possible, consistent with inside fishery needs and spawning requirements. At catch levels below 170,000, the total allocation of coho will be shifted to the recreational fishery except for an incidental coho allowance for the troll fishery associated with directed chinook-only fisheries which would be programmed to minimize impacts on coho. The incidental coho allowance could be in the form of an estimated hooking mortality or an actual landing allowance.

The total allowable ocean harvest for the OPI area will be partitioned into two major areas: (1) from Leadbetter Point to Cape Falcon, and (2) south of Cape Falcon. The allowable harvest south of Cape Falcon may be further partitioned into subareas to meet management objectives of the plan.

Allowable harvests for subareas south of Cape Falcon will be determined by an annual blend of management considerations including:

1. Controlling ocean harvest impacts on depressed, viable natural stocks within acceptable maximum allowable levels, as determined by the Council's guidelines,

2. Stock abundance,

3. Allocation considerations of concern to the Council,

4. Stock specific impacts within a species,

5. Relative abundance of chinook and coho in the fishery,

6. Escapement goals, and

7. Maximizing harvest potential.

Troll coho quotas may be developed from the Oregon/California border to the management boundary separating Sacramento and Klamath River chinook stocks, or for other subareas south of Cape Falcon consistent with the above criteria. California recreational catches of coho would be included in the recreational quota south of Cape Falcon, but the area south of the Oregon/California border would not close when the quota is met. Beyond this, no specific allocation between troll and recreational fisheries is proposed for California.

3.7.2 Indian Fisheries

3.7.2.1 California

Currently, Indians residing on the Klamath River have a right to fish for salmon for subsistence and ceremonial purposes. Commercial fishing is not now allowed on the river. Such a fishery could affect the total allowable ocean harvest to be shared between ocean troll and recreational fishermen.

3.7.2.2 Columbia River

"A Plan for Managing Fisheries on Stocks Originating from the Columbia River and its Tributaries above Bonneville Dam" (pages 16-20 of the 1978 FMP) went into effect in February 1977. The parties to the agreement are the United States, the States of Oregon and Washington, and four Columbia River Indian tribes--Warm Springs, Yakima, Nez Perce, and Umatilla.

The purpose of this "5-year plan" is to maintain, perpetuate, and enhance anadromous fish and other fish stocks originating in the Columbia River and tributaries above Bonneville Dam, to ensure that the Tribes are accorded the opportunity for their fair share of harvest, and to provide for a fair share of the harvest by nontreaty user groups.

The plan was originally envisioned to be renegotiated by the end of a five-year period. Some of the parties believe the plan is no longer in effect while others believe it was extended indefinitely. In any event, the U.S. District Court has ordered the parties to renegotiate a new plan, and discussions between the parties are currently in progress.

3.7.2.3 U.S. v. Washington Area

Treaty Indians have a legal entitlement to the opportunity to take up to 50 percent of the harvestable surplus of stocks originating within the U.S. v. Washington case area or which pass through their usual and accustomed fishing sites. The treaty Indian troll harvest which would occur if the tribes chose to take their total 50 percent share of the weakest stock in the ocean, is computed with WDF/NBS model, assuming this level of harvest did not create conservation or allocation problems on other stocks. A quota may be established in accordance with the objectives of the relevant treaty tribes concerning allocation of the treaty Indian share to ocean and inside fisheries. The total quota does not represent a guaranteed ocean harvest, but a maximum allowable catch.

The requirement for the opportunity to take up to 50 percent of the harvestable surplus determines the treaty shares available to the inside/outside Indian and all-citizen fisheries. Ocean coho harvest ceilings off the Washington coast for treaty Indians and all-citizen fisheries are independent within the constraints that (1) where feasible, conservation needs of all stocks must be met; (2) neither group precludes the other from the opportunity to harvest its share; and (3) allocation schemes may be established to specify outside/inside sharing for various stocks.

3.8 Ocean Salmon Harvest Controls

A number of management controls are available to manage the ocean fisheries each season, once the allowable ocean harvests and the basis for allocation among user groups have been determined. Among these are management boundaries, seasons, quotas, minimum harvest lengths, fishing gear restrictions, and recreational daily bag limits. Provision for the application of these management measures in a framework management scheme can take two forms. One or all of these measures can be fixed in the framework mechanism. This means that their use in management from year to year cannot be changed without a plan amendment. Conversely, one or all of these measures can be flexible, which means that their application from year to year, or perhaps even within a given season, can vary depending on the needs of the fishery and the resource. The Council assumes these ocean harvest controls also apply to territorial seas or any other areas in state waters specifically designated in the annual regulations.

The advantage of fixing the harvest controls in the framework mechanism are several. It narrows the number of decisions that must be made every year in the pre-season and in-season regulatory processes. It reduces uncertainty for fishermen so that they will know in advance of any season whether any control measures will be modified. They also will know well in advance what the fixed control measures will be so it will facilitate their planning.

There also are disadvantages to fixing management measures in the Framework Amendment. The more management measures that are fixed, the less flexibility there is in managing the fisheries, the less responsive the management regime can be to changing conditions, and the more conservative it must be to assure that unanticipated factors will not result in overfishing. The more control measures that are fixed in the plan, the higher the probability that an amendment will be necessary as unpredictable conditions occur.

Natural fluctuations in salmon abundance require that annual fishing periods, quotas, and bag limits be designed for the conditions of each year; what is suitable one year probably will not be suitable the next. New information on the fisheries and salmon stocks also may require other adjustments to the management measures. For example, new information on the distribution of salmon stocks in the ocean may show that a management boundary now used to separate salmon stocks is misplaced and needs to be moved. Also, conditions during a fishing season are likely to differ from that expected before the fisheries started; they may differ so much as to require in-season adjustments to the regulations. For example, OPI quotas may need to be adjusted during the season for a greater-than-expected contribution of private hatchery fish. All of the above could be accommodated by making the harvest controls flexible in the framework mechanism.

Each of the measures that have been applied to manage ocean salmon fisheries since 1977 under MFCMA is evaluated below with respect to whether it should be fixed or flexible. The Council adopted a recommended course of action for each. For those measures that are proposed to remain flexible, attempts have been made to define the limits of the flexibility and the procedures for exercising the flexibility.

3.8.1 Management Boundaries and Management Zones

In addition to the international geographic boundaries between the United States and Canada, and between the United States and Mexico, various management boundaries have been used in managing the ocean salmon fisheries since 1977 (Table 3-5).

Table 3-5 demonstrates that management boundaries established by the Council have varied from year to year, although there has always been a management boundary to separate Columbia River chinook from those to the south (Cape Falcon during 1978-83 and Tillamook Head in 1977). California has been subdivided in five of the seven years using Tomales Point in 1977 and 1978, Cape Vizcaino in 1980 and 1983, and Point Arena in 1982. The purpose of this subdivision was to separate Klamath River chinook from those of the Sacramento River system. Oregon south of Cape Falcon has been subdivided in four of the seven years at Cape Blanco. The purpose of this subdivision has been generally to identify the northernmost occurrences of Klamath River chinook. Cape Sebastian also was used once as a dividing line for chinook stocks.

Table 3-5. Summary of management area boundaries used to manage ocean salmon fisheries, 1977-83.

Management Subarea Boundary		Year in Effect						
		1977	1978	1979	1980	1981	1982	1983
Carroll Island	48°00'18"N lat.							X
Queets River	47°31'42"N lat.							X
Point Grenville Light	47°18'19"N lat.	X	X					
Point Brown	46°55'42"N lat.							X
Leadbetter Point	46°38'10"N lat.						X	
Klipsan Beach	46°28'12"N lat.							X
North Head	46°18'00"N lat.							X
Columbia River (CZ) a/	46°14'24"N lat.							X
South Jetty (SFZ) b/	46°14'06"N lat.							X
Columbia River Lightship Buoy (SFZ) b/	46°11'06"N lat.							X
Tillamook Head Lighthouse	45°56'02"N lat.	X						
Cape Falcon	45°46'00"N lat.		X	X	X	X	X	X
Cape Kiwanda	45°13'12"N lat.							X
Cape Perpetua	44°18'00"N lat.							X
Heceta Head	44°08'18"N lat.							X
Cape Blanco	42°50'20"N lat.				X	X	X	X
Rogue River (SFZ) b/	42°25'18"N lat.							X
Cape Sebastian	42°19'26"N lat.					X		
OR-CA Border	42°00'00"N lat.	X	X	X	X	X	X	X
Klamath River (CZ) a/	41°32'48"N lat.							X
Cape Vizcaino	39°43'30"N lat.				X			X
Point Arena	39°00'00"N lat.						X	
Tomales Pt.-No. Tip	38°14'27"N lat.	X	X					

a/ Conservation Zone

b/ Special Fishery Zone

The area north of Cape Falcon has been subdivided in four of the seven years. The primary purpose of this subdivision has been to separate OPI coho from Washington coastal and Puget Sound coho.

To provide the necessary flexibility in setting regulations, the following additional management boundaries not previously chosen by the Council may be among those considered:

Cape Alava, Washington	48°10'00"N lat.
Split Rock, Washington	47°24'28"N lat.
Cape Shoalwater, Washington	46°44'06"N lat.
Cascade Head, Oregon	45°04'00"N lat.
Point Delgada, California	40°01'24"N lat.

Also, there was need to establish small conservation zones and special fishery areas in 1983.

Location of the management boundaries, conservation zones, and special fishery areas used in managing the ocean salmon fisheries since 1977, and to be considered in managing under the provisions of the Framework Amendment, are shown in Figure 3.2.

Even though it is not expected that management boundaries will change frequently, the Council decided that they should be flexible in the framework process, so that the Council and the Secretary can respond to the needs and requirements of the fisheries and the stocks, and to new information as it becomes available. Flexibility to establish new or discontinue use of management zones also is preferred to give the Council or Secretary the ability to focus ocean fishing on healthy stocks and provide additional protection to depressed stocks.

Whenever the Council determines that a new management boundary or management zone should be established or an existing management boundary should be moved or abolished, the Council will recommend that the Secretary make appropriate changes to the regulations. The Council then will submit to the Secretary a description of the proposed change, the need and justification for the change, and a discussion of the probable impacts resulting from the change.

The justification must demonstrate that the proposed change of existing management boundaries or management zones serves a conservation purpose and that any proposed boundary or zone would be recognizable by fishermen and enforcement agents. A conservation purpose is one that protects a fish stock, simplifies management of a fishery, or results in the wise use of the resources. For example, management boundaries and management zones can be used to separate fish stocks, facilitate enforcement of regulations, separate conflicting fishing activities, or facilitate harvest opportunities. To be recognizable, a management boundary or management zone must be described by geographical coordinates (e.g., latitude and longitude), LORAN readings, depth contours, distance from shore, or similar criteria.

Management boundaries and management zones for each season will be established during the pre-season regulatory process. Management boundaries and zones may also be modified during the fishing season. See Section 3.12 for a discussion of the criteria that will be used if a management boundary is to be modified during the fishing season.

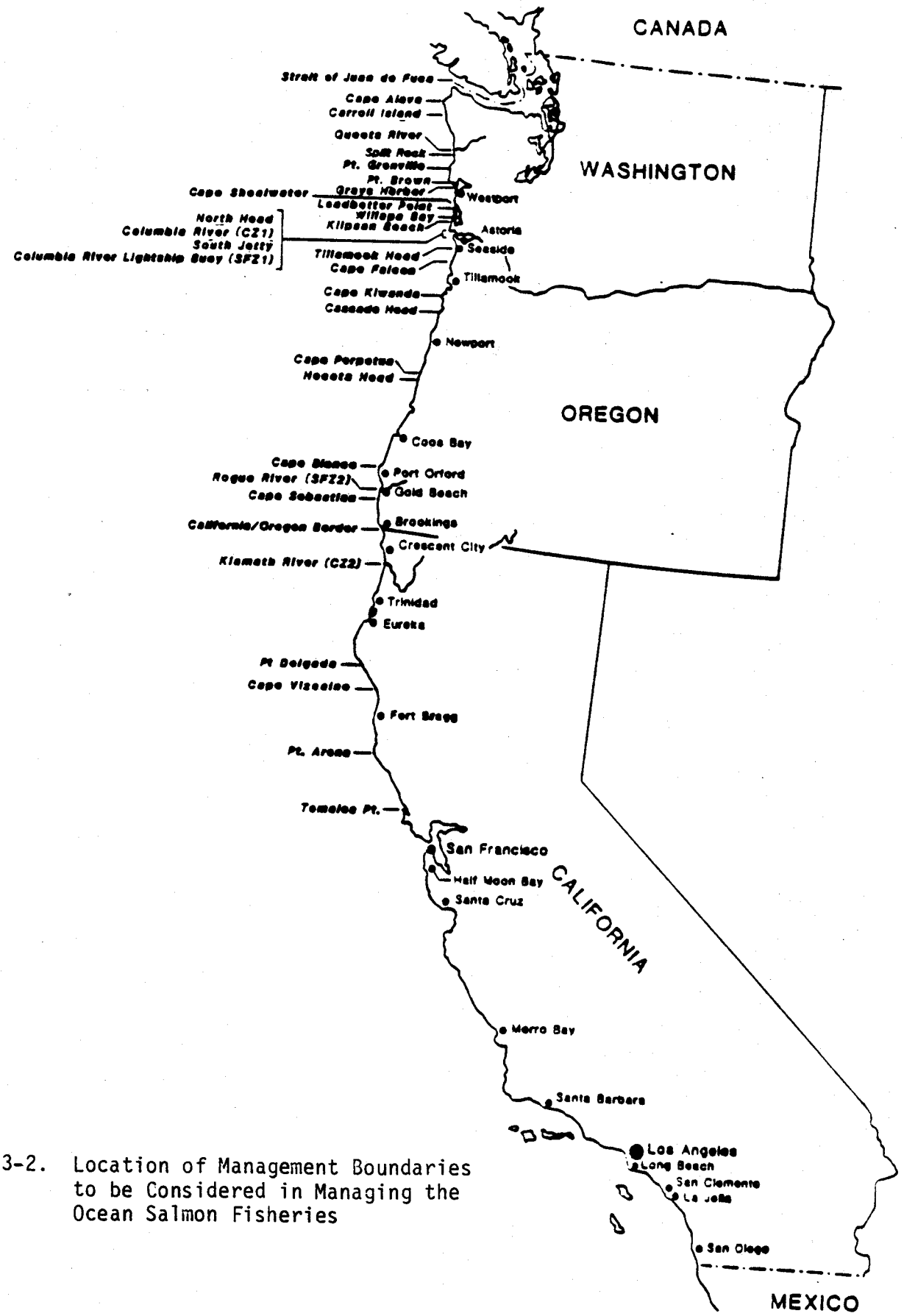

Figure 3-2. Location of Management Boundaries to be Considered in Managing the Ocean Salmon Fisheries

3.8.2. Minimum Harvest Lengths for Ocean Commercial and Recreational Fisheries

Since MFCMA management of the ocean salmon fisheries began in 1977, size limits for non-treaty ocean fisheries have remained unchanged from year to year for the troll fishery, but have had a few changes for the recreational fishery (Table 3-6).

For the 1981 season only the coho minimum size off Washington for the recreational fishery was increased from 16 to 20 inches. Another variation occurred in the area from Cape Falcon (Tillamook Head in 1977) to the California/Oregon border, where there was no minimum size for either chinook or coho in 1977, 1982, and 1983. In those years, anglers had to retain the first two salmon taken, regardless of size.

Table 3-6. Summary of minimum lengths in effect for each non-treaty fishing area for managing the ocean salmon fisheries, 1977-83.

Management Subarea and Species	Year in Effect 1977	1978	1979	1980	1981	1982	1983
	(Minimum length in inches)						
Commercial Fishery							
U.S./Canada Border to Cape Falcon[a]							
Chinook	28	28	28	28	28	28	28
Coho	16	16	16	16	16	16	16
Cape Falcon to Oregon/California Border							
Chinook	26	26	26	26	26	26	26
Coho	16	16	16	16	16	16	16
Oregon/California Border to U.S./Mexico Border							
Chinook	26	26	26	26	26	26	26
Coho	22	22	22	22	22	22	22
Recreational Fishery							
U.S./Canada Border to Cape Falcon[a]							
Chinook	24	24	24	24	24	24	24
Coho	16	16	16	16	16/20[b]	16	16
Cape Falcon to Oregon/California Border							
Chinook	None[c]	22	22	22	22	None [c]	None [c]
Coho	None[c]	16	16	16	16	None [c]	None [c]
Oregon/California Border to U.S./Mexico Border							
Chinook	22[d]	22[d]	22[d]	22[d]	22 [d]	22 [d]	22 [d]
Coho	22[d]	22[d]	22[d]	22[d]	22 [d]	22 [d]	22 [d]

[a] In 1977, the boundary was Tillamook Head instead of Cape Falcon.

[b] 20" off Washington; 16" off Oregon, north of Cape Falcon.

[c] Anglers must retain first two salmon taken.

[d] Except that one chinook or coho salmon per day may be less than 22 inches but not less than 20 inches.

In view of the uniformity that has existed since 1977 and the apparent satisfaction that the size restrictions are adequate, there seems little reason why minimum-size restrictions should not be fixed in the Framework Amendment. However, some managers and fishermen believe that the concept of retaining the first two fish regardless of size that was tested in the area between Cape Falcon to the California/Oregon border in 1982 and 1983 has merit and should be evaluated with possible further application in that subarea and others in the future. Also, the 28-inch minimum size restriction for commercial chinook in the area north of Cape Falcon remains a contentious issue--even though it is based on age and maturity data--as long as this same restriction is not adopted by Canadians for the same stocks.

For these reasons, the Council decided to maintain flexibility in setting minimum size restrictions during the pre-season regulatory process, even though it is expected that changes will occur infrequently. There is no provision for changing size limits during the season.

Whenever the Council believes that an existing minimum size for retained fish should be changed, it will recommend that the Secretary modify the regulations appropriately. The recommendation will consist of a description of the proposed change, the need and justification for the change, and any probable impacts resulting from the change.

The justification must demonstrate that the proposed change in minimum size serves a useful purpose. For example, it should demonstrate that an increase in minimum size for commercially-caught salmon is necessary for conservation or will provide a greater poundage and monetary yield from the fishery while not substantially increasing hooking mortality; or it should demonstrate that the removal of a minimum size for the recreational fishery will prevent wastage of fish and outweighs the detrimental impacts of harvesting immature fish.

Minimum harvest lengths for ocean commercial and recreational fisheries will be subject to change each year during the pre-season regulatory process.

3.8.3 Recreational Daily Bag Limit

Daily bag limits for the recreational fisheries during the seven-year period that the ocean salmon fisheries have been managed by an FMP have generally moved from three salmon to two salmon, except for some accommodation for an additional catch of pink salmon in odd years off Washington (Table 3-7). The daily bag limit is regarded as a useful management measure to be used to control the number of fish caught by anglers, while at the same time extending the length of their seasons. For this reason, the setting of the daily bag limit has been left flexible (within limits) in the framework mechanism to be set during the pre-season regulatory process.

The daily recreational bag limits for each fishing area will be established at the time the fishing seasons and quotas are set. The daily bag limits will be set equal to one, two, or three salmon of some combination of species depending on the levels of allowable ocean harvests, the lengths of the recreational fishing seasons, and the predicted amount of fishing effort.

Table 3-7. Summary of daily bag limits used to manage the ocean recreational salmon fishery, 1977-83.

Management Subarea	Year in Effect 1977	1978	1979	1980	1981	1982	1983
U.S./Canada Border to Cape Falcon [a]	3	3	3 [b]	3 [c]	2 [d]	2	2 [e]
Cape Falcon to Oregon/California Border	3	3	2	3 [c]	2	2	2 [e]
Oregon/California Border to U.S./Mexico Border	3	3	2	2	2	2	2

[a] In 1977, Tillamook Head was the boundary rather than Cape Falcon.
[b] No more than 2 of which shall be chinook or coho salmon.
[c] In-season provisions of the regulations provided for reduction to two salmon.
[d] Except that three salmon, only two of which may be chinook or coho, could be taken and retained (possessed) per day while recreationally fishing in the area between the mouth of the Queets Rivers (47°31 42"N. lat) and the U.S./Canada border.
[e] In-season provisions of the regulations provided for reduction to one salmon if necessary to extend the season through Labor Day.

In summary, for every fishing area, the level of allowable ocean harvest will be determined for the recreational fishery; next, the fishing season will be set to be as long as practicable, including the Memorial Day and/or Labor Day weekends if feasible, consistent with the allowable level of harvest; and, bag limits will be simultaneously set to accommodate that fishing season. In years of low salmon abundance, the season will be short and the bag limit will be low; in years of high salmon abundance, the season will be long and the bag limits will be high.

The Council will recommend to the Secretary what daily recreational bag limit for each fishing area will be specified. The Council will submit to the Secretary a description of the proposed bag limit for each fishing area, the justification for those bag limits, and the probable impacts resulting from those bag limits. The justification must include consideration of the predicted run sizes, allowable ocean harvest, predicted amount of recreational fishing effort, and recommended recreational fishing seasons.

The bag limits also may be changed during a fishing season within the range specified above. This degree of flexibility is warranted for this management measure, particularly because of its usefulness in adjusting catches to meet allocation requirements and to increase time on the water for the recreational fishery. The changes would be made by the in-season management procedures described in Section 3.12.

3.8.4 Fishing Gear Restrictions

There have been few changes in the definitions of and restrictions on terminal gear in the commercial and recreational salmon fisheries since 1977. The basic gear regulations essentially are those that were in effect by state regulation prior to the first salmon FMP in 1977. Wordings of both definitions and regulations have been changed to clarify their meaning; otherwise the fishing gear regulations have been changed only slightly.

The requirement of single, barbless hooks to minimize hooking mortality in some areas and during some troll seasons has been the main departure from the pre-1977 state gear regulations. Restrictions to whole bait and large salmon plugs during special chinook-only seasons have been another minor change from pre-1977 regulations, but have been fairly consistent during the chinook-only seasons from 1977-83. Bare blued hooks were used with mixed results in 1983 during a pink-only troll fishery off northern Washington.

Even though it is expected that gear requirements for both the commercial and recreational fisheries will remain relatively unchanged in the foreseeable future, there is merit to maintaining flexibility in the Framework Amendment for these management measures. There appears to be increased support for broader application of barbless hooks to reduce hooking mortalities. If this is eventually to be recommended by the Council in the future, the framework mechanism should accommodate this change. Otherwise, a plan amendment would be required. Therefore, the Council decided that gear restrictions may be changed annually during the pre-season regulatory process, but not during a given season.

When the Council determines that the restrictions on fishing gear should be changed, it will recommend that the Secretary make the appropriate changes to the regulations. The recommendation will consist of the proposed changes, the justification for the changes, and the probable impacts resulting from the changes. The justification must show that the recommended changes will serve one or more useful purposes while being consistent with the goals of the plan. For example, changes could be made to facilitate enforcement, reduce hooking mortality, or reduce gear expenses for fishermen.

The gear specifications and restrictions that have been in place are as follows:

3.8.4.1 Commercial

- Commercial troll fisheries have been limited in Oregon and Washington to fixed gear; i.e., lines have to be fastened to a spool or receptacle on the boat and these or the line itself cannot be disengaged from the boat during the fishing operation. In California, lines have not been required to be fixed to the vessel. In 1983, the number of lines per vessel was limited to six during some seasons south of Cape Blanco and all seasons off California.

- During some chinook fishing seasons, usually when no coho salmon could be retained, terminal gear was restricted to whole, natural bait with hooks equal to or larger than 6/0, or to salmon plugs equal to or larger than 5" in length (6" north of Cape Falcon in 1983 during July). Barbless hooks have been required to reduce non-retainable, fishery-related mortalities in some seasons, areas, and gear types.

- All use of nets has been prohibited, prior to and under MFCMA, except that landing nets used to bring fish aboard a vessel after they are hooked have been allowed.

- In 1983, gear was restricted to bare blued hooks and flashers in the August season for sockeye and pink salmon north of Carroll Island.

3.8.4.2 Recreational

- Off Oregon and Washington, only conventional angling tackle, consisting of rod, reel, line, and bait or lure has been permitted. Hand lines are permitted off California.

- In fishing areas off Washington and Oregon, salmon anglers have been limited to one rod per fishermen. There have been no limits on numbers of rods or lines off California.

- Recreational gear had to be held by hand during the "playing" of the fish in all areas.

- California salmon anglers could not use weights of more than 4 pounds attached directly to the fishing line.

- In 1978-83, terminal gear for the recreational fishery in all areas was limited to one artificial lure or natural bait with a maximum of four hooks on the bait or lure per fishing line.

3.8.5 Seasons and Quotas

For each management area or subarea, the Council has the option of managing the commercial and recreational fisheries for either coho or chinook using the following methods: (1) fixed quotas and seasons; (2) adjustable quotas and seasons; and (3) seasons only.

Management under MFCMA of non-treaty ocean fisheries since 1977 has made use of all of these methods (Tables 3-8 through 3-11). Fixed seasons were used in the early years (1977 through 1979) with no provisions for in-season modifications. The 1980 amendment had provisions for in-season assessment of coho abundance and modifications, as necessary, to the seasons and catch limits to provide adequate escapement for spawning, to meet treaty Indian allocation requirements, or to maintain the historic harvest ratio between commercial and recreational fisheries. For the first time in 1981, coho quotas were established for the ocean fisheries. These coho quotas were subject to in-season modifications based on the reassessment of coho abundance during the season. Quotas were also in effect for the chinook fisheries off California in 1981 and north of Cape Falcon in 1983.

In 1982 quotas were applied to coho fisheries only, and were not subject to modification based on in-season assessment of abundance. They were subject to adjustment only for revised estimates of the contribution to the fisheries of private hatchery coho and for unanticipated hooking mortality.

Table 3-8. Actual commercial troll seasons and quotas by area, 1977-82 (FCZ Only).

Year / Subarea	Seasons: All Except Coho	Seasons: All Species	Days: All Except Coho	Days: All Species	Days: Total	Pre-season Quota (Adjusted Quota): Coho	Pre-season Quota (Adjusted Quota): Chinook
1977							
A. U.S./Canada Border to Pt. Grenville, WA	May 1-June 14	July 1-Sept. 15	45	77	122		
B. Pt. Grenville, WA to Tillamook Head, OR	May 1-June 14	July 1- Oct. 31	45	101	146		
C. Tillamook Head, OR to OR/CA Border	May 1-June 14	June 15-Oct. 31	45	139	184		
D. OR/CA Border to Tomales Point, CA	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
E. Tomales Point, CA to U.S./Mexico Border	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
1978							
A. U.S./Canada Border to Pt. Grenville, WA	May 1-June 14	July 1-Sept. 15	45	77	122		
B. Pt. Grenville, WA to Cape Falcon, OR	May 1-June 14	July 1-Oct. 31	45	123	168		
C. Cape Falcon, OR to OR/CA Border	May 1-June 14	June 15-Oct. 31	45	139	184		
D. OR/CA Border to Tomales Pt., CA	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
E. Tomales Pt., CA to U.S./Mexico Border	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
1979							
A. U.S./Canada Border to Cape Falcon, OR	May 1-May 31	July 1-24; Aug. 4-31	31	52	83		
B. Cape Falcon, OR to OR/CA Border	May 1-May 31; Sept. 4-Oct. 31	July 1-Sept. 15	89	77	166		
C. OR/CA Border to U.S./Mexico Border	May 1-May 23	May 24-June 15; July 1-Sept. 30	23	115	138		
1980							
A. U.S./Canada Border to Cape Falcon, OR	May 1-May 31	July 15-Sept. 8 a/	31	56	87		
B. Cape Falcon, OR to Cape Blanco, OR	May 1-May 31; June 16-30; Sept. 9-Oct 31	July 15-Sept. 8	99	56	155		
C. Cape Blanco, OR to OR/CA Border	May 1-31; Sept. 9-Oct. 31	July 15-Sept. 8	84	56	140		
D. OR/CA Border to Cape Vizcaino, CA	May 1-May 15	May 16-31; July 16-Sept. 30	15	93	108		
E. Cape Vizcaino, CA to U.S./Mexico Border	May 1-May 15	May 16-31; July 1-Sept. 30	15	108	123		
1981							
A. U.S./Canada Border to Cape Falcon, OR	May 1-May 31	July 15-Aug. 21	31	38	69	372,000	
B. Cape Falcon, OR to OR/CA Border	May 1-May 31; Aug. 21-Oct. 31	July 1-Aug. 21	72 b/	52	124	548,000 c/	
C. OR/CA Border to U.S./Mexico Border	May 1-May 15	May 16-May 31; July 1-Sept. 30	15	108	123	None d/	565,000 e/
1982							
A. U.S./Canada Border to Leadbetter Pt., WA	May 1-May 31	July 15-July 30	31	16	47	204,000	
B. Leadbetter Pt., WA to Cape Falcon, OR	May 1-May 31	July 1-July 8	31	8	39	89,000 (75,000)	
C. Cape Falcon, OR to Cape Blanco, OR	May 1-June 15						
D. Cape Blanco, OR to OR/CA Border	July 13-Oct. 31 May 1-June 8	July 1-July 12	157	12	169	488,000	
E. OR/CA Border to Pt. Arena, CA f/	July 13-Oct. 31 May 1-May 15	July 1-July 12 May 16-June 8	150 15	12 116	162 131		
F. Pt. Arena, CA to U.S./Mexico Border f/	May 1-May 15	July 1-Sept. 30 May 16-June 15				None d/	
		July 1-Sept. 30	15	123	138	None d/	

a/ The part of Subarea A between Leadbetter Pt., WA and the U.S./Canada Border closed Aug. 25.
b/ A portion of Subarea B (Cape Sebastian to the Oregon/California Border) closed on Aug. 21st when the commercial troll coho quota was reached. The area between Cape Sebastian and Cape Falcon remained open for all species except coho.
c/ OPI commercial troll coho quota for the area south of Cape Falcon, Oregon, including California.
d/ Coho landed in California counted toward the OPI coho quota.
e/ 300,000 chinook quota for the area north of Pt. Arena and 265,000 chinook quota for the area south of Pt. Arena.
f/ These areas opened under the authority of the 1980 regulations with the dividing line at Cape Vizcaino. On June 1, 1982, the management boundary separating Subarea E and F was changed to Pt. Arena.

Table 3-9. Council-adopted commercial troll seasons, zone restrictions, and quotas by area, 1983 (0-200 miles)

AREAS AND OPEN SEASONS	SPECIES	ZONE RESTRICTIONS	PRE-SEASON QUOTA COHO [a]	PRE-SEASON QUOTA CHINOOK
U.S./CANADA BORDER TO CAPE FALCON				
May 1 - May 31	All except coho	Conservation zone 1 at Columbia River mouth is closed		95,000 in May and July season combined [d]
July 1 - earliest of (1) coho, or (2) chinook quota, or (3) July 31	All except that sockeye and pink salmon may not be retained north of Carroll Island. No more than one coho may be retained for each two chinook retained.	Conservation zone 1 at Columbia River mouth is closed	20,000 in July season [b]	
U.S./CANADA BORDER TO CARROLL ISLAND				
Aug. 7 - Aug. 20 only	Sockeye and pink salmon only			
COLUMBIA RIVER TO CAPE FALCON				
Aug. 10 - earliest of (1) coho quota, or (2) chinook quota, or (3) Sept. 8	All	Waters outside special fishery zone 1 located south of Columbia River mouth are closed; open 0-10 miles only	144,000 [b] special fishery zone 1	19,000 [d]
CAPE FALCON TO CAPE BLANCO				
May 1 - May 31	All except coho			
June 1 - June 15	All except coho			
Sept. 5 - Oct. 31	All except coho			
CAPE FALCON TO CAPE KIWANDA				
Aug 1 - coho quota	All			
Coho quota - Sept. 4	All except coho			
CAPE KIWANDA TO HECETA HEAD				
July 1 - coho quota	All		254,000 [c] Cape Falcon to Heceta Head	
Aug. 1 - earlier of (1) coho quota, or (2) Sept. 4	All			
If a coho quota closure occurs prior to Sept. 4, from the time of closure until Sept. 4	All except coho		297,000 [c] Cape Kiwanda to OR/CA Border	
HECETA HEAD TO CAPE BLANCO				
July 1 - coho quota	All			
Coho quota - Sept. 4	All except coho	If a coho quota closure occurs prior to Aug. 1, waters north of Heceta Head to Cape Perpetua are open until Aug. 1		

Table 3-9. (continued)

AREAS AND OPEN SEASONS	SPECIES	ZONE RESTRICTIONS	PRE-SEASON QUOTA COHO a/	CHINOOK
CAPE BLANCO TO OR/CA BORDER				
May 16 - May 31	All except coho			
June 1 - June 15	All except coho			
July 1 - coho quota	All			
Coho quota - Aug. 31	All except coho			
Sept. 1 - Sept. 15	All except coho	Only waters inside special fishery zone 2 at Rogue River mouth are open (12 x 24 mile rectangle)		
Oct. 1 - Oct. 31	All except coho			
OR/CA BORDER TO CAPE VIZCAINO				
May 16 - May 31	All except coho			
June 1 - June 15	All until coho quota is reached, then all except coho		71,000 OR/CA Border to Cape Vizcaino, including Ft. Bragg landings	
July 1 - Aug. 31	All until coho quota is reached, then all except coho	Conservation zone 2 at Klamath River mouth is closed Aug. 1 - Aug. 31 (12 mile square)		
CAPE VIZCAINO TO U.S./MEXICO BORDER				
May 1 - May 31	All except coho			
June 1 - June 15	All			
July 1 - Sept. 30	All			

a/ Coho quotas are subject to adjustments based on in-season evaluations of private hatchery contributions.

b/ If the 20,000 coho commercial quota is exceeded in the July season, the excess will be deducted from the 144,000 commercial troll quota for the August season in special fishery zone 2. If the coho quota for the July season is not reached, the remainder will be added to the coho quota for the August season.

c/ Coho salmon caught between Cape Kiwanda and Heceta Head will count first toward the coho quota established for Cape Kiwanda-OR/CA border, and when that quota is reached, then toward the coho quota established for Cape Falcon-Heceta Head.

d/ If the 95,000 chinook commercial quota is not reached during the May and July seasons, the balance will be added to the 19,000 chinook commercial quota for the August season in special fishery zone 1.

Table 3-10. Actual ocean recreational salmon fishing seasons and quotas by area, 1977-82 (FCZ Only).

Year / Subarea	Seasons: All Except Coho	Seasons: All Species	Total Days	Pre-season Quota (Adjusted Quota): Coho	Pre-season Quota (Adjusted Quota): Chinook
1977					
A. U.S./Canada Border to Pt. Grenville, WA		Apr. 30-Oct. 1 a/	185		
B. Pt. Grenville, WA to Tillamook Head, OR		Apr. 30-Oct. 1 a/	185		
C. Tillamook Head, OR to OR/CA Border		Apr. 30-Oct. 1	185		
D. OR/CA Border to Tomales Point, CA		All Year	365		
E. Tomales Point, CA to U.S./Mexico Border		Feb. 12-Nov. 13	275		
1978					
A. U.S./Canada Border to Pt. Grenville, WA		Apr. 29-Oct. 31	186		
B. Pt. Grenville, WA to Cape Falcon, OR		Apr. 29-Oct. 31	186		
C. Cape Falcon, OR to OR/CA Border		Apr. 29-Oct. 31	186		
D. OR/CA Border to Tomales Pt., CA		All Year	365		
E. Tomales Pt., CA to U.S./Mexico Border		Feb. 18-Nov. 12	268		
1979					
A. U.S./Canada Border to Cape Falcon, OR		May 12-Sept. 16 b/	128		
B. Cape Falcon, OR to OR/CA Border		May 12-Sept. 16	128		
C. OR/CA Border to U.S./Mexico Border		Feb. 17-Oct. 14	240		
1980					
A. U.S./Canada Border to Cape Falcon, OR		May 10-Sept. 1 c/	115		
B. Cape Falcon, OR to Cape Blanco, OR	Sept. 2-Oct. 31	May 10-Sept. 1	155		
C. Cape Blanco, OR to OR/CA Border	Sept. 2-Oct. 31	May 10-Sept. 1	155		
D. OR/CA Border to Cape Vizcaino, CA		Feb. 16-Oct. 13	241		
E. Cape Vizcaino, CA to U.S./Mexico Border		Feb. 16-Oct. 13	241		
1981					
A. U.S./Canada Border to Cape Falcon, OR		May 23-Aug. 26	96	248,000	
B. Cape Falcon, OR to OR/CA Border	Sept. 21-Oct. 31 d/	May 15-Aug. 29 e/	107	224,000 f/	
C. OR/CA Border to U.S./Mexico Border		Feb. 14-Nov. 15	275	None g/	130,000 h/
1982					
A. U.S./Canada Border to Leadbetter Pt., WA	May 29-June 11	June 12-Aug. 19	83	115,000	
B. Leadbetter Pt., WA to Cape Falcon, OR		June 12-July 25	44	100,000 (94,000)	
C. Cape Falcon, OR to Cape Blanco, OR		June 12-July 21	40		
D. Cape Blanco, OR to OR/CA Border	July 22-Oct. 31	May 29-July 21	40	114,000	
E. OR/CA Border to Pt. Arena, CA i/		Feb. 13-Nov. 14	275	None g/	
F. Pt. Arena, CA to U.S./Mexico Border i/		Feb. 13-Nov. 14	275	None g/	

a/ Washington state waters (0-3 miles offshore) closed Oct. 9.
b/ Washington state waters (0-3 miles offshore) closed Sept. 3. Oregon state waters south of Cape Falcon closed Sept. 3 to coho only.
c/ FCZ waters from Leadbetter Point, WA to the U.S./Canada Border closed Aug. 25. The area between Leadbetter Point and Cape Falcon closed Sept. 1.
d/ Only in that part of Subarea B between the Oregon/California Border and Cape Blanco, Oregon.
e/ Daily bag limit increased from 2 fish (any species) to 3 fish (any species) on Aug. 14, 1981.
f/ For the entire area south of Cape Falcon, including California (Subarea C).
g/ Coho salmon caught in Subareas E and F counted toward the coho quota for Subareas C and D.
h/ 15,000 for that part of Subarea C north of Point Arena and 115,000 for that part of Subarea C south of Pt. Arena.
i/ These areas opened under the authority of the 1980 regulations with the dividing line at Cape Vizcaino. On June 1, 1982, the management boundary separating Subarea E and Subarea F was changed to Point Arena.

Table 3-11. Council-adopted ocean recreational salmon fishing seasons, zone restrictions, and quotas by area, 1983 (0-200 miles).

AREAS AND OPEN SEASONS	SPECIES	ZONE RESTRICTIONS 0-3 MILES	3-6 MILES	6-200 MILES	PRE-SEASON QUOTAS COHO	CHINOOK
U.S./CANADA BORDER TO QUEETS RIVER:						
July 1 - July 29	All	open	closed	closed		
July 30 - Sept. 11	All	open	open	open		
QUEETS RIVERS TO PT. BROWN:						
					129,000	59,000 c/
May 28 - June 17	All except coho	open	open	closed		
June 18 - July 29	All	open	open	closed	U.S./Canada Border to Leadbetter Pt.	U.S./Canada Border to Klipsan Beach
PT. BROWN TO KLIPSAN BEACH:						
May 28 - June 17	All except coho	open	open	closed		
June 18 - July 29	All	open	open	closed		
July 30 - Sept. 11	All	open	open	open		
KLIPSAN BEACH TO NORTH HEAD:						
June 18 - July 29	All	open	open	closed	189,000 a/	29,000 c/
July 30 - Aug. 15	All	open	open	open	Leadbetter Pt. to Cape Falcon	Klipsan Beach to Cape Falcon
NORTH HEAD TO SOUTH JETTY:						
July 30 - Aug. 15	All	open	open	open		
SOUTH JETTY TO CAPE FALCON:						
June 18 - July 29	All					
1. From South Jetty south to 46°06'00" N. lat. (approximately 5 miles south of the Columbia Lighthouse Buoy)		open	closed	closed		
2. South of 46°06'00" to Cape Falcon	All					
July 30 - Aug. 15	All	open	open	closed		
Aug. 16 - Sept. 11	All	open	open	open		
		Only waters inside special fishery zone 1 located south of Columbia River mouth are open (0-10 miles)				
CAPE FALCON TO CAPE BLANCO:						
					196,000 a/ b/	
June 18 - Sept. 18	All	open	open	open	Cape Falcon to U.S./Mexico Border	
CAPE BLANCO TO OR/CA BORDER:						
May 28 - coho quota	All	open	open	open		
Coho quota - Oct. 31	All except coho	open	open	open		
OR/CA BORDER TO U.S./MEXICO BORDER:						
Saturday nearest Feb. 15 (1983: Feb. 12) to Sunday nearest Nov. 15 (1983: Nov. 13)	All	open	open	open		

a/ Coho quotas south of Leadbetter Pt. are subject to adjustments based on in-season evaluations of private hatchery contributions.

b/ Coho taken in the recreational fishery between the OR/CA border and the U.S./Mexico border are included in this quota, but if the quota is reached, only the area between Cape Falcon and the OR/CA border will close.

c/ These quotas are subject to reallocation as follows:

It is apparent from Tables 3-8 through 3-11 that the use of fixed and adjustable quotas and seasons has varied considerably during the period 1977-83. This variation has resulted from a number of factors, including the condition of the stocks, amount of effort, and condition of other fisheries that serve as alternative opportunities for fishermen. The state of the art in predicting the allowable harvests, the conversion of these to seasons, quotas or a combination of both, and the capability of adjusting these limits in-season also are factors to be considered. There appears to have been a definite trend since 1977 toward the use of quotas in managing the fisheries. Based on experience to date, it would appear that the use of quotas will continue and could increase in the future.

3.8.5.1 Preferred Course of Action

Because of the need to use both seasons and quotas, depending on the circumstances, the Council decided to make the decision regarding seasons and quotas annually during the pre-season regulatory process, subject to the limits specified below.

Fishing seasons and quotas also may be modified during the season. See Section 3.12 for a discussion of the criteria that will be used if either a quota or a fishing season is modified during the fishing season.

3.8.5.2 Procedures for Calculating Seasons

Seasons will be calculated using the total allowable ocean harvest determined by procedures described in Section 3.6, and further allocated to the commercial and recreational fishery in accordance with the allocation plan presented in Section 3.7, and after consideration of the estimated amount of effort required to catch the available fish, based on past seasons.

Until stocks have been substantially rebuilt and the long-term escapement goals have been met, the following limitations will guide Council decisions on establishing seasons:

1. No commercial fishing season will open prior to May 1.
2. No recreational fishery season north of the Oregon/California border will open prior to May 1.
3. No commercial coho fishery north of the Oregon/California border will open prior to July 1.
4. No commercial chinook or coho season will extend after October 31.
5. No recreational fishery off California for chinook or coho will open before the Saturday closest to February 15 nor extend after the Sunday closest to November 15.

Within these constraints, recreational seasons will be established with the goal of encompassing Memorial Day and/or Labor Day weekends in the season if feasible. Opening dates will be adjusted to provide reasonable assurance that the recreational fishery can have a continuous fishery, minimizing the possibility of an in-season closure.

Criteria used to establish commercial seasons, in addition to the estimated allowable ocean harvests (Section 3.6), the allocation plan (Section 3.7), and the expected effort during the season, will be: (1) shaker wastage; (2) size, poundage, and value of fish caught; (3) effort shifts between fishing areas; (4) harvest of pink salmon in odd-numbered years; and (5) protection for weak stocks when they frequent the fishing areas at various times of the year.

3.8.5.3 Selective Fisheries

In addition to the all-species seasons and the all-species-except-coho seasons established for the commercial and recreational fisheries, selective coho-only, chinook-only, or pink-only fisheries will be considered by the Council during the pre-season regulatory process based on the following guidelines:

A. Harvestable fish of target species available?

NO: A selective fishery is not justified.
YES: A selective fishery may be justified.

B. Will harvest of incidental species exceed allowable levels determined in management plan?

NO: A selective fishery may be justified.
YES: A selective fishery is not justified.

C. Proven, documented selective gear exists?

NO: Only experimental, limited (10-boat) fishery should be considered with specific experimental design and complete monitoring --if selective potential exists.
YES: A selective "commercial" (full-fleet) fishery may be justified.

D. Will significant wastage of incidental species occur?

NO: A selective fishery may be justified.
YES: A selective fishery could be justified only if: (a) no alternative harvest opportunity exists for the target species; and (b) a written economic analysis demonstrates the landed value of target species harvest exceeds the potential landed value of the wasted species.

E. Will the selective fishery occur in an acceptable time and area (i.e., where wastage can be minimized and target stocks are maximally available)?

NO: A selective fishery is not justified.
YES: A selective fishery may be justified.

3.8.5.4 Procedures for Calculating Quotas

Quotas will be based on the total allowable ocean harvest in Section 3.6 and the allocation plan in Section 3.7.

To the extent adjustable quotas are used, they may be subject to some or all of the following in-season adjustments:

1. For coho, private hatchery contribution to the ocean fisheries in the OPI area.

2. Unanticipated loss of shakers (undersized fish or unauthorized fish of another species that have to be returned to the water) during the season. (Adjustment for coho hooking mortality during any all-salmon-except-coho season will be made when the quotas are established.)

3. Any catches that take place in the fisheries in territorial waters that are inconsistent with federal regulations in the FCZ.

4. If ability to update in-season stock abundance is developed in the future, adjustments to total allowable harvest could be made where appropriate.

5. Ability to redistribute quotas between subareas depending on performance toward catching the overall quota in the area.

Changes in the quotas as a result of the in-season adjustment process will be avoided unless the changes are of such magnitude that they are scientifically valid as determined by the Team and Council, given the precision of the original estimates.

The basis for determining the private hatchery contribution in (1) above will be either coded-wire tag analysis or analysis of scale patterns, whichever is determined by the Team to be more accurate, or any other method that may become more accurate as determined by the Team and Council.

In reference to (4) and (5) above, if reliable techniques become available for making in-season estimates of stock abundance, and provision is made in any season for its use, a determination of techniques to be applied will be made by the Council and discussed during the pre-season regulatory process.

3.8.5.5 Procedures for Regulating Ocean Harvests of Pink and Sockeye

1. All-species seasons will be planned such that harvest of pink and sockeye salmon can be maximized without exceeding allowable harvests of chinook and/or coho quotas and within conservation and allocation constraints of the pink and sockeye stocks.

2. Selective fisheries for pink and sockeye will be considered under the guidelines for selective fisheries presented in Section 3.8.5.3, and allocation constraints of the pink and sockeye stocks.

3.8.6 Other Harvest Controls

3.8.6.1 Treaty Indian Ocean Fishing

Since 1977 the Council has adopted special measures for the treaty Indian ocean troll fisheries off the Washington Coast. The Makah, Quileute, Hoh, and Quinault tribes are entitled by federal judicial determination to exercise their treaty rights in certain ocean areas. From 1977 to 1981 the troll season adopted for these tribes in these areas was May 1 through October 31 (Table 3-12).

Table 3-12. Treaty Indian troll fishing seasons and size limits, 1977-83.

Year		Makah Tribe [a]	Quileute and Hoh Tribes [b]	Quinault Tribe [c]
1977	Season	May 1-Oct. 31	[d]	[d]
	Size limit	[d]	[d]	[d]
1978	Season	May 1-Oct. 31	May 1-Oct. 31	May 1-Oct. 31
	Size limit	[d]	[d]	[d]
1979	Season	May 1-Oct. 31	May 1-Oct. 31	May 1-Oct. 31
	Size limit	[d]	[d]	[d]
1980	Season	May 1-Oct. 31	May 1-Oct. 31	May 1-Oct. 31
	Size limit	[d]	[d]	
1981	Season	May 1-Oct. 31	May 1-Oct. 31	May 1-Oct. 31
	Size limit	Chinook: 24" Coho: 16"	[d]	[d]
1982	Season	May 1-Oct. 31	May 1-Sept. 7 [e]	May 1-Sept. 7 [e]
	Size limit	Chinook: 24" Coho: 16"	Chinook: 26" Coho: 16"	Chinook: 26" Coho: 16"
1983	Season	May 1-Oct. 31	May 1-Sept. 15	May 1-Sept. 15
	Size limit	Chinook: 24" Coho: 16"	Chinook: 26" [f] Coho: 16"	Chinook: 26" [f] Coho: 16"

[a] Makah tribal ocean fishing area is defined as north of 48°02'15"N.
[b] Quileute and Hoh tribal ocean fishing area is defined as south of 48°02'15"N and north of 47°31'42"N.
[c] Quinault tribal ocean fishing area is defined as south of 47°40'06"N. and north of 46°53'03"N.
[d] Regulations were the same as for the all-citizen commercial fishery.
[e] Treaty Indian fishing was prohibited in six-mile radius around mouths of Queets and Hoh rivers when the area was closed to salmon fishing by non-Indian fishermen.
[f] A daily limit of two chinook salmon between 24 inches and 26 inches was allowed for ceremonial and subsistence purposes.

1. Seasons

Given that the traditional tribal ocean season has changed in recent years and because it is largely up to the tribes to recommend annual ocean management measures applicable to their ocean fishery, a flexible mechanism for setting fishing seasons is proposed so that desired changes can be made in the future without the need for plan amendment.

The treaty Indian troll season will be established based upon input from the affected tribes, but would not be longer than that required to harvest the maximum allowable treaty Indian ocean catch. The maximum allowable treaty Indian ocean catch will be computed as the total treaty harvest that would occur if the tribes chose to take their total entitlement of the weakest stock in the ocean, assuming this level of harvest did not create conservation or allocation problems on other stocks.

2. Quotas

Fixed or adjustable quotas by area, season or species may be employed in the regulation of treaty Indian ocean fisheries, provided that such quotas are consistent with established treaty rights. The maximum size of quotas shall not exceed the harvest that would result if the entire treaty entitlement to the weakest run were to be taken by treaty ocean fisheries. Any quota established does not represent a guaranteed ocean harvest, but a maximum ceiling on catch.

To the extent adjustable quotas are used, they may be subject to some or all of the following in-season adjustments:

(a) Unanticipated shaker loss during the season.

(b) Catches by treaty ocean fisheries that are inconsistent with federal regulations in the FCZ.

(c) If an ability to update in-season stock abundance is developed in the future, adjustments to quotas could be made where appropriate.

(d) Ability to redistribute quotas between subareas depending upon performance toward catching the overall quota for treaty ocean fisheries in the area.

Procedures for the above in-season adjustments will be made in accordance with in-season management procedures outlined in Section 3.12 of this amendment.

Changes in the quotas as a result of in-season adjustment process will be avoided unless the changes are of such magnitude that they are scientifically valid as determined by the Team and Council, given the precision of the original estimates.

3. Areas

Current tribal ocean fishing areas in the FCZ (subject to change by court order) are as follows:

Makah
north of 48°02'15"N to the U.S./Canada border

Hoh
south of 47°54'18" and north of 47°21'00"

Quileute
south of 48°07'36"N and north of 47°31'42"N

Quinault
south of 47°40'06"N and north of 46°54'03"N

Area restrictions may be employed in the regulation of treaty ocean fisheries, consistent with established treaty rights. For example, in 1982 treaty fishing was prohibited within a six-mile radius around the Queets and Hoh River mouths when the area was closed to non-treaty salmon fishing.

4. Size Limits and Gear Restrictions

Regulations for size limits and gear restrictions for treaty ocean fisheries will be based on recommendations of the affected treaty tribes.

The above treaty Indian ocean salmon fishing regulations will be established annually during the pre-season regulatory process. The affected tribes will propose annual treaty Indian ocean fishing regulations at the March meeting of the Council. After a review of the proposals, the Council will adopt treaty Indian regulations along with non-treaty ocean fishing regulations for submission to the Secretary of Commerce at the April Council meeting.

3.8.6.2 Net Prohibition

No person shall use nets to fish for salmon in the FCZ except that a hand-held net may be used to bring hooked salmon on board a vessel.

3.8.6.3 Prohibition on Removal of Salmon Heads

No person shall remove the head of any salmon caught in the FCZ, nor possess a salmon with the head removed if that salmon has been marked by removal of the adipose fin to indicate that a coded-wire tag has been implanted in the head of the fish.

3.8.6.4 Steelhead Prohibition

Persons other than Indians with judicially-declared rights to do so may not take and retain, or possess any steelhead within the FCZ.

3.8.6.5 Prohibition on Use of Commercial Troll Fishing Gear for Recreational Fishing

No person while on a fishing vessel with troll fishing gear on board shall engage in recreational fishing for salmon.

3.8.6.6 Experimental Fisheries

The Council may recommend that the Secretary allow experimental fisheries in the FCZ for research purposes that are proposed by the Council, federal government, state government, or treaty Indian tribes having usual and accustomed fishing grounds in the FCZ.

The Secretary may not allow any recommended experimental fishery unless he determines that the purpose, design, and administration of the experimental fishery are consistent with the goals and objectives of the Council's fishery management plan, the national standards of the MFCMA, and other applicable law. Each vessel that participates in an approved experimental fishery will be required to carry aboard the vessel the letter of approval, with specifications and qualifications (if any), issued and signed by the Regional Director of NMFS.

3.8.6.7 Scientific Research

This plan neither inhibits nor prevents any scientific research in the FCZ by a scientific research vessel. The Secretary will acknowledge any notification he receives about scientific research on salmon being conducted by a research vessel. The Regional Director of NMFS will issue to the operator/master of that vessel a letter of acknowledgment, containing information on the purpose and scope (locations and schedules) of the activities. Further, the Regional Director will transmit copies of such letters to the Council and to state and federal fishery and enforcement agencies to ensure that all concerned parties are aware of the research activities.

3.9 Data Needs, Data Collection Methods, and Reporting Requirements

3.9.1 General

Successful management of the salmon fisheries requires considerable information on the fish stocks, the amount of effort for each fishery, the harvests by each fishery, the timing of those harvests, and other biological, social, and economic factors. Much of the information must come from the ocean fisheries; other must come from inside fisheries, hatcheries, and spawning grounds. Some of this information needs to be collected and analyzed daily, whereas other types need to be collected and analyzed less frequently, maybe only once a year. In general, the information can be divided into that needed for in-season management and that needed for annual and long-term management. The methods for reporting, collecting, analyzing, and distributing information can be divided similarly.

3.9.2 In-season Management

3.9.2.1 Data Needs

Managers require certain information about the fisheries during the season if they are to control the harvests to meet established goals. For example, they need to know how many coho or chinook have been harvested by the commercial, Indian, and recreational ocean fisheries if they are to ensure that enough of each run escapes the ocean fisheries to meet allocations to inside fisheries and spawning escapement goals. They also need to know what the catches and effort have been so they can determine if the actual runs are larger or smaller than expected or if the amount of fishing effort is more or less than expected. If conditions differ substantially from those expected, it may be necessary to modify the fishing seasons, quotas, or other management measures. The following the information is useful for in-season management:

a. harvest of each species by each fishery in each fishing area by day and by cumulative total;

b. number of troll day boats and trip boats fishing;

c. estimated average daily catch for both day and trip boats;

d. distribution and movement of fishing effort;

e. average daily catch for recreational fishery;

f. estimates of expected troll fishing effort for the remainder of the season;

g. information on the contribution of various fish stocks, determined from recovered coded-wire tags, scales, or other means.

3.9.2.2 Methods for Obtaining In-season Data

In-season management requires updating information on the fisheries daily. Thus, data will be collected by sampling the landings, aerial surveys, and telephone interviews. Much of the data will be entered into the WDF Anadromous Fish Catch Record System (AFCRS) but because of the need for rapid analysis and availability of the data, many management decisions may need to be made even before the data enters the system.

In general, data necessary for in-season management will be gathered by one or more of the following methods. Flights over the fishing grounds will be used to obtain information on the distribution, amount and type of commercial fishing effort. Data on the current harvests by commercial and Indian ocean fishermen will be obtained by telephoning selected (key) fish buyers and by sampling the commercial landings on a daily basis. Data on the current effort of, and harvests by, the recreational fisheries will be obtained by daily fish tickets or by telephoning selected charterboat and boat rental operators and by sampling landings at selected ports. Analyses of fish scales, recovered fish tags, and other methods will provide information on the composition of the stocks being harvested.

3.9.3 Annual and Long-Term Management

3.9.3.1 Data Needs

In addition to the data used for in-season management, a considerable amount of information is used for setting the broad measures for managing the fishery, evaluating the success of the previous year's management, and evaluating the effectiveness of the plan in achieving the long-term goals. The following additional data are used for annual and long-term management:

a. monthly and annual harvests of each species by each ocean fishery and by fishing area (or port of landing);

b. monthly and annual harvests of each species by inside commercial, treaty Indian, subsistence, and recreational fisheries;

c. monthly and annual amounts of fishing effort, by fishery and fishing area;

d. returns of each species to hatcheries and other artificial production facilities;

e. spawning escapements and jack returns for wild stocks;

f. contribution of stocks to the various fisheries (from tag returns, fish scales, or other methods);

g. average price paid per pound to fishermen, by species, by month, and by state;

h. differences between actual and predicted run sizes;

i. differences between spawning escapement and spawning goals by species, by run;

j. comparison of harvests by treaty Indians and other fishermen with respect to legal mandates on allocations;

k. incidental catches of salmon by joint-venture and foreign trawlers;

l. contribution of the fisheries to the local economy;

m. length and weight data;

n. age composition;

o. maturity data;

p. timing of runs;

q. distribition of stocks.

In addition, counts at dams and information on smolt migration also would be helpful.

3.9.3.2 Methods for Obtaining Annual and Long-Term Data

In addition to those methods used for collecting data for in-season management, the longer term data will be collected by the use of (a) fish tickets (receipts a fish buyer completes upon purchasing fish from a commercial fisherman), (b) log books kept by commercial fishermen and submitted to the state fishery management agencies at the end of the season, and (c) punch cards completed by a recreational fisherman each time he catches a fish to show location, date, and species and submitted to the state agency, either when the whole card is completed or at the end of the season.

The local fishery management authorities (states, Indian tribes) will collect the necessary catch and effort data and will provide the Secretary with statistical summaries adequate for management. The local management authorities, in cooperation with the National Marine Fisheries Service, will continue the ongoing program of collecting and analyzing data from salmon processors.

Data on spawning escapements and jack returns to public and private hatcheries, other artificial production facilities, and natural spawning grounds will be collected by the accepted methods now being used by those authorities. The methods used to collect these data should be identified and available to the public.

3.9.4 Reporting Requirements

This plan authorizes the local management authorities to determine the specific reporting requirements for those groups of fishermen under their control and to collect that information under existing state data-collection provisions. No additional catch or effort reports will be required of fishermen or processors as long as the data collection and reporting systems operated by the local authorities continue to provide the Secretary with statistical information adequate for management.

3.10 Schedule and Procedures for Analyzing the Framework Amendment's Effectiveness

To effectively manage the salmon fisheries, the Council must monitor the status of the resource and the fisheries harvesting that resource to make sure that the goals and objectives of the plan are being met. Fishery resources vary from year to year depending on environmental factors, and fisheries vary from year to year depending on social and economic factors. The plan must be flexible enough to accommodate regulatory changes that will allow the Council to achieve its biological, social, and economic goals.

Annually the Council's Salmon Team will review the previous season's commercial, recreational, and treaty Indian fisheries and will evaluate the performance of the plan with respect to achievement of the Framework Amendment's management objectives (Section 3.2). Consideration will be given by the team to the following areas:

1. Allowable harvests
2. Escapement goals, natural and hatchery
3. Mixed stocks management
4. Treaty Indian harvest opportunities
5. Klamath River Indian subsistence requirements
6. Allocation goals
7. Mortality factors
8. Achievement of optimum yield
9. Effort management systems
10. Coordination with all management entities
11. Consistency with treaties
12. Comparison with previous seasons
13. Protection and improvement of environment
14. Restoration and enhancement of production

Other factors which may be considered include a summary of progress made and predictions of expected progress in reaching the goals of the FMP. This evaluation will be submitted annually for review by the Salmon Advisory Subpanel, SSC, and the Council.

Certain principles are fixed in this Framework Amendment, including the management unit, management objectives, the basis for allocation between ocean commercial and recreational fisheries, and the escapement goals which are subject to change only in unusual circumstances. The Council will review these principles annually and, if changes are required, will institute a plan amendment. However, it is expected that these principles will remain unchanged for several years.

3.11 Schedule and Procedures for Pre-season Modification of the Regulations

The process for establishing annual or pre-season management measures under the Framework Amendment will involve the same people and will follow much the same sequence of events as under the present plan amendment process. The major difference is that the process will be shortened in that some of the documents, i.e., the supplemental environmental impact statement (SEIS), the regulatory impact review/regulatory flexibility analysis (RIR/RFA), and certain parts of the amendment document, will no longer be prepared annually. Also, the Salmon Management Team can wait to prepare its report until all of the data are available, thus eliminating the need to discuss an excessively broad range of options as presented in the past.

The process and schedule for setting the pre-season regulations will be approximately as follows:

Approximate Date	Action
First week of March	Notice published in the Federal Register announcing the availability of Team and Council documents, the dates and location of the two Council meetings, the dates and locations of the public hearings, and publishing the complete schedule for determining proposed and final modifications to the management measures.
Second week of March	Team report distributed to Council, advisors, and public. The report will include all pertinent data from the previous season and pre-season predictions of run sizes. Based on the procedures and management principles established in the Framework Amendment, the report will recommend the management measures required for each fishery for the upcoming season.
Third week of March	Joint meeting of Scientific and Statistical Committee, Salmon Plan Development Team, and Salmon Advisory Subpanel held to review Team report.
Third or Fourth week of March	Two- or three-day Council meeting to propose annual management measures.
Last week of March	Team impact analysis of proposed Council management measures distributed to Council, advisors, and public.
First week of April	Public hearings held.
Mid-April	Council meeting to adopt final annual management measures.
First week of May	Final notice of Secretary of Commerce decision and final management measures in Federal Register.
May 15	Close of public comment period.

The actions by the Secretary after receiving the pre-season regulatory modification recommendations from the Council will be limited to accepting or rejecting in total the Council's recommendations. If the Secretary rejects such recommendations he will so advise the Council as soon as possible of such action along with his basis for rejection, so that the Council can reconsider. Until such time as the Council and the Secretary can agree upon modifications to be made for the upcoming season, the previous year's regulations will remain in effect. This procedure does not prevent the Secretary from exercising his authority under Sections 304(c) or 305(e) of the Magnuson Act and issuing emergency regulations as appropriate for the upcoming season.

Pre-season actions by the Secretary, following the above procedures and schedule, would be limited to the following:

1. Specify the annual abundance, total allowable harvest and allowable ocean harvest.

2. Allocate ocean harvest to commercial and recreational fishermen and to treaty Indian ocean fishermen where applicable.

3. Review ocean salmon harvest control mechanism from previous year and make changes as required in:

   a. Management area boundaries
   b. Minimum harvest lengths
   c. Recreational daily bag limits
   d. Gear requirements (i.e., barbless hooks, etc.)
   e. Seasons and/or quotas
   f. Ocean regulations for treaty Indian fishermen
   g. In-season actions and procedures to be employed during the upcoming season

Because the harvest control measures and restrictions remain in place until modified, superceded, or rescinded, changes in all of the items listed in 3 above may not be necessary every year. When no change is required, intent not to change will be explicitly stated in pre-season decision documents.

The Council recognizes that the decisions to be made in the pre-season process require some discretion on its part and on the part of the Secretary. Most of these procedures cannot be translated into "formulas" that would completely remove the use of judgment and allow an automatic adjustment to be made, such as the reaching of a fixed quota which automatically triggers a closure. Therefore, this Framework Amendment retains a significant element of public input in the pre-season decision-making process, and the schedule is longer than would otherwise be necessary. The amount of public input is equivalent to that provided under the annual amendment process, and the quality of public input will be enhanced because the Team reports will have complete data, and because the document that is sent to the hearing process will include a preliminary preferred course of action, which will allow the public to focus their comments. The public may provide input at several junctures during the pre-season process:

1. When the initial Team report is mailed to the public in March;

2. At the initial Council meeting in March;

3. At public hearings in early April;

4. During the 15-day comment period in late March and early April;

5. At the second Council meeting when the preferred management measures are recommended to the Secretary;

6. During the 15-day comment period following the date of publication of the regulations in early May; and

7. At subsequent Council meetings when progress reports on the fisheries are presented and discussed.

3.12 In-Season Management Actions and Procedures

In-season modifications of the regulations may be necessary under certain conditions in order to fulfill the Council's objectives. Each year during the pre-season process, the Council will determine the in-season actions and procedures to be used during the season. There are five situations that may warrant the Council to modify fishing regulations during the fishing season.

3.12.1 Automatic season closures when the quotas are reached.

The Salmon Plan Development Team will attempt to project the date the quota will be reached in time to avoid exceeding the quota and to allow adequate notice to the fishermen. The State Directors and the Council Chairman will be consulted by the NMFS Regional Director before action is taken to close a fishery. Closures will be coordinated with the states so that the effective time will be the same for FCZ and state waters. A standard closure notice will be used and will specify areas that remain open as well as those to be closed. All closures will be effective at midnight. To the extent possible, a 48-hour notice will be given of any closure. When a quota is reached the Regional Director will issue a notice of closure of the fishery through local news media at the same time that a notice of fishery closure is published in the Federal Register.

3.12.2 Change of Quota(s) and/or Fishing Season(s)

The Council recognizes that current abilities are limited for in-season management actions. In-season adjustments for any given season are appropriate only when the Council determines during the pre-season regulatory process that, one, scientifically valid procedures can be used during the season to take the in-season actions, and two, such adjustments would not increase the risk of not meeting the Council's management objectives.

3.12.2.1 Private hatchery contributions

During the season the Regional Director will review the estimated contributions of private hatchery coho, taking into account coded-wire tag and/or scale analysis data gathered during the season. If the contribution of private hatchery coho varies from the pre-season estimates, the Secretary may modify the coho quotas accordingly by publishing a notice in the Federal Register.

3.12.2.2 Coho hooking mortality

Approximately halfway through each regularly scheduled all species season, the Regional Director will estimate the number of coho salmon that will be hooked and released during the all species season(s). If this number varies from the pre-season estimate significantly, the Secretary may modify the commercial coho quota(s) accordingly, by publishing a notice in the Federal Register.

3.12.2.3 Revised abundance estimates for coho

During the season the Regional Director will monitor the actual abundance of coho compared to the pre-season abundance estimates. If it appears that actual conditions of abundance and distribution of salmon, and of fishing effort and catches, differ from conditions anticipated prior to the all-species season in the pertinent management area, the Secretary may modify the estimate of coho abundance and any related quotas and/or seasons accordingly, by publishing a notice in the Federal Register. Any in-season modification of coho abundance estimates and related quotas will be consistent with ocean escapement goals, conservation of the salmon resource, any adjudicated Indian fishing rights, and the ocean allocation scheme in the framework plan. In determining whether coho abundance and quotas should be reviewed, the Regional Director will consider:

1. The number of participants, level and distribution of fishing effort, and coho salmon catches of the commercial and recreational fisheries compared to data from the same management area for similar time periods in prior years;

2. Variations between pre-season abundance estimates for the same area and abundance estimates as of the same date in prior years;

3. Data from marked-fish recoveries, including analysis of recoveries of coho salmon with implanted coded-wire tags; and

4. Any other scientific information relevent to the abundance and distribution of coho stocks, total fishing effort, and catches that is available.

3.12.2.4 Catches in the territorial sea

The Regional Director will monitor salmon catches in the territorial sea (0-3 nautical miles) seaward of Washington, Oregon, and California. If the Regional Director determines that salmon catches have occurred in the territorial sea or a portion thereof which were not accounted for when the quota and/or seasons were established and which may cause the federal quota and/or allowable harvests to be exceeded, the Secretary may reduce the federal quota(s) and/or seasons accordingly by publishing a notice in the Federal Register.

3.12.3 Redistribution of quotas

In-season actions of this type will not be made in any given season unless the Council has determined during the pre-season regulatory process that there are scientifically valid data and procedures upon which to base their in-season actions.

The Secretary may redistribute or modify a portion of one or more of the quotas and/or fishing seasons during the season by publishing a notice in the Federal Register if the Regional Director determines that:

1. Redistribution between the commercial and recreational fisheries, or between areas in the same fishery, will increase the likelihood that an overall quota or allowable harvest for a species will be achieved;

2. Redistribution is consistent with ocean escapement goals, conservation of the salmon resource, and any adjudicated Indian fishing rights; and

3. The redistribution is consistent with the ocean allocation scheme in the Framework Amendment.

3.12.4 Boundary modifications

In-season actions of this type will not be made in any given season unless the Council has determined during the pre-season regulatory process that there are scientifically valid data and procedures upon which to base their in-season actions.

The Secretary may modify one or more of the boundaries for these areas during the season by publishing a notice in the Federal Register if the Regional Director determines that one of the following circumstances exists, and the boundary modification is consistent with ocean escapement goals, conservation of the salmon resource, any adjudicated Indian fishing rights, and the ocean allocation scheme in the Framework Amendment:

1. A quota for one species will be reached before a quota for a different species in the same area, and the likelihood that the two quotas will be reached at or near the same time will be increased by modifying existing boundaries.

2. Attainment of a quota is jeopardized by an unanticipated shift in the location of the stocks or fishery to which it applies.

3.12.5 Recreational fishing daily bag limits

Modification of the daily bag limit during the season will be accomplished in about the same manner it is set before the season. In determining whether to make in-season changes to the daily bag limit for a fishing area, the Regional Director must consider the predicted sizes of the salmon runs expected to be caught in that fishing area, the apparent actual sizes of those runs, the recreational allocation for that area, the total recreational catch of each species in that area to date, the amount of recreational fishing effort in that area to date, the estimated average daily catch per fisherman, predicted recreational fishing effort for that area during the rest of the season, and any other factors that may be appropriate.

The Secretary may modify the daily bag limit for one or more areas or subareas by publishing a notice in the Federal Register if the Regional Director, after considering the above factors, determines that a modification is consistent with ocean escapement goals, conservation of the salmon resource, any adjudicated Indian fishing rights, and the ocean allocation schemes in the Framework Amendment.

3.12.6 Procedures for In-Season Actions

1. Prior to taking any in-season action the Regional Director will consult with the Chairman fo the Council and the appropriate State Directors.
2. As the actions are taken by the Secretary, the Regional Director will compile in aggregate form all data and other information relevent to the action being taken and shall make them available for public review during normal office hours at the Northwest Regional Office, National Marine Fisheries Service, 7600 Sand Point Way NE, Seattle, Washington 98115.
3. In-season actions will be published by a notice in the Federal Register. In addition, the Regional Director and the Council will publish notice of the in-season action in local and regional news media.
4. If the Secretary determines, for a good cause, that a notice must be issued without affording a prior opportunity for public comment, public comments on the notice will be received by the Secretary for a period of 15 days after the effective date of the notice.

3.13 Schedule and Procedures for Amendment of the FMP

Modifications not covered by this framework mechanism will require either an FMP amendment or emergency Secretarial action. The amendment process, even with reductions in processing time authorized by the recent MFCMA amendment, will require an estimated 240-300 days from the date development of the draft amendment by the Council begins. In order for regulations implementing an amendment to be in place at the beginning of the traditional commercial fishing season (May 1), the Council will need to begin the process by July or August of the previous season. It is not anticipated that amendments will be processed in an accelerated December-to-May schedule and implemented by emergency regulations, as has been done in the past.

The recent Magnuson Act amendment expanded and lengthened the Secretary's authority to promulgate emergency regulations to respond to unanticipated developments. The authority was expanded to include non-resource emergencies and lengthened to two 90-day periods if the appropriate Council concurs. Emergency regulations may be promulgated without an FMP or FMP amendment. Depending upon the level of controversy associated with the action, the Secretary can implement emergency regulations within 20-45 days after receiving a request from a Council.

3.14 Summary

Chapter 3 details a framework mechanism to be incorporated into the Council's 1978 ocean salmon FMP. The provisions of this framework mechanism allow annual adjustment, both pre-season and in-season, of management measures without the need for an annual FMP amendment. Certain principles and measures are fixed to provide a long-term management system, which can not be altered without a plan amendment. Other measures are flexible and are determined annually or during the season according to procedures specified in this chapter. The schedule for pre-season modification of the regulations is shortened under this Framework Amendment, and requires approximately 60 days from the completion of the Salmon Management Team's status of stocks report to implementation of regulatory changes.

The following table lists the management principles and measures contained in this document, and indicates which measures are fixed and which are flexible.

Table 3-13 - Management Principles and Measures Contained in the Framework Amendment and Degree of Flexibility Permitted Without Further Amendment to the FMP.

Management Principles and Measures	Fixed in Framework Plan [a/]	Flexible in Framework Plan [b/]
1. Management unit	X	
2. Management objectives	X	
3. Specifications of OY, DAH, DAP, TALFF		
a. Procedures for estimating	X	
4. Management goals (expressed as number of spawners, a range or a rebuilding schedule)	X [c/]	
5. Calculation of annual abundance, total allowable harvest, and ocean harvest		
a. Procedures		X
b. Annual estimates		X
6. Allocation of ocean harvest to commercial and recreational fishermen and treaty Indians		
a. Basis for allocations	X	
b. Annual allocations		X
7. Ocean salmon harvest controls		
a. Management subarea boundaries		X
b. Minimum harvest lengths		X
c. Recreational daily bag limits		X
d. Fishing gear restrictions		X
e. Seasons and/or quotas		
1. Whether seasons and/or quotas		
(a) Coho		X
(b) Chinook		X
2. Pre-season procedures for calculating seasons and quotas	X [c/]	
3. In-season procedures for adjusting seasons and quotas	X [c/]	
4. Annual seasons and quotas		X
5. Annual adjustments		X
f. Other		X
8. Process for making pre-season modifications	X	
9. Process for in-season adjustments	X	

a/ Subject to change only by plan amendment.

b/ Subject to change annually within limits of principles and procedures in the framework mechanism. Pre-season changes to be made on recommendation of the Council and approval of the Secretary of Commerce. In-season changes to be made by the Secretary of Commerce (or his designee) in consultation with the State Directors and Council Chairman.

c/ Largely fixed but subject to limited specified flexiblity.

4.0 RANGE OF ENVIRONMENTAL IMPACTS

4.1 Affected Environment

The salmon and human environments related to the management unit have been described in detail in earlier documents associated with the Washington, Oregon, and California salmon fishery management plan (FMP). The applicable environment to be considered in relation to this Framework Amendment is that described in those earlier documents. A brief summary of those separate discussions is presented below. Further information on the management unit and the social structure of communities dependent on the fishery are in Section 1.2 of the original EIS released in March 1978. Chapter 5.0 of this document is a review of the social and economic impacts of the Framework Amendment. Subsequent FMP amendments and supplemental EISs, especially Appendices A and B of the 1981 amendment and Chapters I and V of the 1982 and 1983 amendments, update earlier analyses of the salmon and human environments. All of these documents are available from the address listed on the cover sheet of this Framework Amendment.

4.1.1. The Salmon Resource

Stocks of chinook, coho, pink, and sockeye salmon in this management unit occur along the west coast from the U.S./Canada border south to near Point Conception, California, even south to Los Angeles on rare occasions. Chinook and coho constitute the principal targets of the ocean salmon fisheries throughout that range. Most species also support a coastal and inshore fishery as the fish migrate upstream to their spawning grounds. Major runs originate in Puget Sound, the Columbia River system extending into Idaho, the Klamath, and the Sacramento-San Joaquin systems in California and coastal Oregon streams (Figure 4-1).

Recent trends in many of these salmon stocks have been toward lower levels of abundance compared to historic records. Pressures from increased fishing effort and environmental degradation have been implicated as two primary reasons for declining stock size. Hatchery production, which is used heavily to support or even supplant some of the weakest natural runs, may at the same time reduce the genetic complexity and resistance of wild stocks and generate continued fishing pressure. The 1981 amendment quantified declining river habitat along the coast, where destruction of suitable habitat has reached 60 percent of its former level on the Columbia River. Conversely, some of these pressures may be declining. Heightened awareness of pollution problems, improved fish passage facilities, increased hatchery production, and strict allocation regimes have combined to help stem some of the more disasterous situations. In general, trends continue to oscillate downward with the natural amount of annual variability both in individual runs and for the entire resource.

Several runs deserve special mention since they appear to present particularly difficult management problems. Some of these runs coexist at sea or in a stream, thereby confusing attempts to isolate specific cause and effect relationships. Among the more noteworthy problem stocks are:

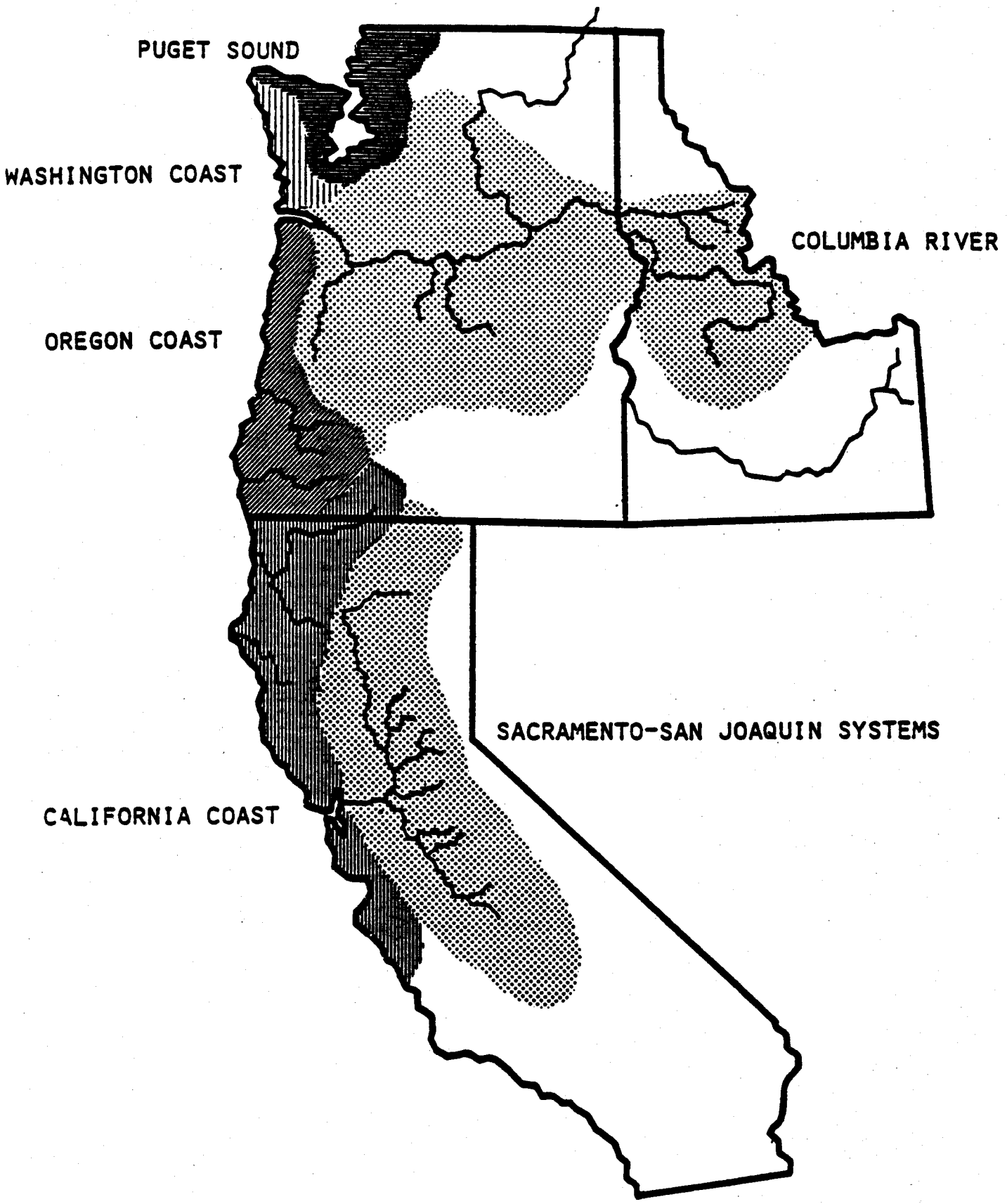

Figure 4-1. Major drainage areas analyzed by PFMC Anadromous Salmonid Environmental Task Force. From the 1981 Salmon Amendment, p. A-2.

- Klamath River chinook stocks and upper Sacramento River chinook stocks that are affected by in-stream habitat alterations and also mingle in the ocean environment off southern Oregon with healthier Oregon chinook stocks
- the mixed stock of Puget Sound coho and Washington coastal coho that cohabit Washington coastal waters, one usually being healthier than the other
- upper Columbia River spring, summer and fall chinook runs which are dramatically affected by downstream migration problems at dams and interception problems off Canada and Alaska

4.1.2. Other Natural Resources

The salmon fisheries in this management unit inhabit oceanic and freshwater areas along much of the west coast and extend into Idaho. Resources other than salmon that could be affected by various aspects of the salmon fisheries include the physical environment and living resources sharing habitat with the different age classes of salmon.

The physical environment includes coastal streams and river systems from central California to Alaska and oceanic waters along the United States and Canada seaward into the north central Pacific Ocean, including Canadian territorial waters and the high seas. Some of the more critical portions of this environment are the freshwater spawning grounds and migration routes. Previous FMP documents, especially Appendix A to the 1981 amendment, have cited the serious problems associated with hydroelectric dam construction and operation. Construction of hydroelectric projects has flooded or blocked access to many areas of productive habitat. Operation of hydroelectric projects has resulted in reduced flows during migration, flow fluctuations in salmon spawning areas, increased turbidity and sedimentation of gravel, and temperature modifications. These major physical changes have completely eliminated many areas from salmon production and have seriously reduced salmon production potential in other areas.

In recognition of the serious effect of hydroelectric dams on salmon freshwater habitat, the Pacific Northwest Electric Power Planning and Conservation Act of 1980 included provisions for fish and wildlife measures within and without the Columbia Basin (see Section 6.2.5.). On November 15, 1982, the Pacific Northwest Electric Power and Conservation Planning Council (Power Planning Council) adopted a Columbia Basin Fish and Wildlife Program to protect, mitigate, and enhance fish and wildlife while assuring an adequate economical and reliable power supply. The program addresses increased survival of migrant juvenile salmonids through flows and bypasses, increased survival of adult migrants, habitat improvements and artificial production, improved coordination of management activities, research and development, and criteria for future hydro development.

In April, 1983, the Power Planning Council adopted a Regional Energy Plan, including measures to protect, mitigate, and enhance fish and wildlife outside the Columbia Basin; i.e., Puget Sound and coastal areas.

Likewise, in recognition of the serious declines in the abundance of upper Sacramento River salmon and steelhead runs, the Director of the California Department of Fish and Game appointed an advisory committee to identify the causes of the decline and to make recommendations for the restoration of those runs.

In July 1983, the Upper Sacramento River Salmon and Steelhead Advisory Committee issued a report about the adverse impacts of the Red Bluff Diversion Dam on the upper Sacramento River salmon and steelhead resource. The advisory committee identified nine major problems that have resulted from the construction of the dam and made recommendations to correct the problems. The committee also concluded that the dam has "...contributed significantly to the alarming decline of the salmon and steelhead resources of the upper Sacramento River." However, the committee noted that while the dam has been a major cause of the decline, it is not the only cause. In that regard, the committee intends to identify other causes of the decline and to make additional recommendations that will lead to the rebuilding of the salmon and steelhead populations of the upper Sacramento River.

Salmon and the salmon fisheries also interact with other species, notably with marine mammals. Marine mammals, particularly seals and sea lions on the west coast, are known to forage on salmon, as well as other fish. Many fishermen point to the natural feeding behavior of marine mammals on oceanic and inshore salmon stocks as one reason for the decline in salmon abundance over the last decade. While it is true that marine mammal populations have generally increased under the protection of the Marine Mammal Protection Act of 1972 (MMPA), it is not possible to attribute a decrease in salmon abundance to this effect alone because of the complexity of the ecosystem interactions.

Marine mammals unquestionably eat salmon which have been caught in nets or lines. The gear robbing problem is especially acute with California sea lions (Zalophus californianus) in some California fisheries, harbor seals (Phoca vitulina) in the Indian fisheries on the Klamath River, and northern or stellar sea lions (Eumetopias jubatus) at various coastal sites. Under the MMPA, commercial fishermen are allowed to protect their gear and catch from marine mammals by harassment, and thereafter lethal means, if necessary. Under present regulations, the fishermen must possess a "certificate of inclusion" in a general taking permit to allow such incidental taking, as well as unintended takings, such as by entanglement of marine mammals in salmon nets. In contrast to authorized activities by fishermen to protect their gear and catch, there are a few incidents of harassment, clubbing, and shooting of marine mammals at large, in violation of the MMPA. NMFS is conducting studies on the ecosystem interactions involving salmon and marine mammals and is sponsoring a study of the marine mammals-fisheries interactions on the Columbia River and adjacent waters.

The affected environment of the salmon fishery also encompasses finfish and shellfish resources which coexist with salmon. Some of the more notable groups include groundfish at sea and other salmonids and shad inshore. The smaller representatives of these resources constitute a large portion of the salmon diet. Salmon also are caught incidentally in the west coast groundfish fishery. The 1983 incidental catch by foreign and joint venture groundfish trawlers was about 4,800 fish (observers report). An additional, unknown number are caught by domestic groundfish trawlers.

4.1.3. The Human Environment

The ocean salmon fisheries in Washington, Oregon, and California affect recreational, commercial, and subsistence participants in coastal communities throughout the management region. The best summaries of this portion of the affected environment are Appendix B to the 1981 FMP amendment, Section 1.2.2 in the original (1978) final EIS and Chapter 5.0 of this Framework Amendment.

The commercial ocean and inside fisheries include both troll (multiple hook-and-line) and net (gillnet, purse seine, and reefnet) fishermen. Trollers are quite mobile, venturing seaward of the entire coast. Non-Indian net fishermen appear to be centralized near the Columbia River, Willapa Bay, Grays Harbor, and Puget Sound. State and federal surveys since 1974 (Table 5-8) show the high level of participation by commercial troll and net vessels.

The salmon harvesting sector also includes ocean and inshore recreational fishermen, often broken down into ocean charter, private ocean sport, and inland sport fisheries. Recent declines in stock abundance and season duration appear to have contributed to reduced charter fleets in Washington, Oregon, and California. Sport fishing activities, which extend into Idaho, are a major contributor to the local economy, as addressed in Section 5.1.

The third group of participants is Indian fishermen. Tribes from Washington, Oregon, California, and Idaho fish for commercial, subsistence and/or ceremonial purposes. Many of the tribal fishing rights and the fishing grounds encompassed by the affected environment have been determined by legal suits that defined historic fishing activities. Indians employ gear mentioned above plus traps, gaffs, and dipnets. Several legal decisions, especially the 1974 U.S. v. Washington decision as modified by the Supreme Court in 1979, have confirmed the treaty rights of many tribes to a share of the fish originating in or passing through usual and accustomed fishing areas.

Management decisions in this amendment also will affect sectors of the fishery that support harvesters and the communities where such people and companies are located. Therefore, the affected environment includes processors, suppliers, marketers, others involved in the shoreside aspects of the fishery and most of the coastal and riverside communities adjacent to the areas shown on Figure 4-1. Section IV of Appendix B to the 1981 FMP amendment described the affected communities. The businesses, markets and organizations associated with the fishery were described in Sections 6.0, 7.0, and 8.0 of the 1978 FMP. Research has shown that fishing communities in the management area tend to use locally-produced goods and thereby multiply the benefits of income generated from fishing. Many towns are dependent on sport and/or commercial fishing and the supporting infrastructure, as discussed in detail in Appendix B of the 1981 amendment.

4.2. Environmental Consequences

This section describes the environmental consequences of the five alternatives, including the adopted alternative, considered as possible courses of action by the Council (See Section 2.3).

Framework Amendment with Fixed and Flexible Measures (Council-Adopted Option)

The adopted option is an attempt to improve and make more timely coordinated management of salmon fisheries in the FCZ. As such, the action is primarily procedural. The proposed action does not actually establish management measures. Rather it establishes a procedural mechanism for setting regulations at the appropriate time each year, based on the latest and best informa-

tion concerning such factors as status of the salmon stocks, the amount of fishing effort expected, and the economic and social condition of the user groups. The optimum procedural mechanism should result in the most effective management thereby resulting in the maximum benefit to the users, the resource, and the nation. The procedural mechanism, although it is not the only determinant of effective and timely management, does greatly impact on it. Therefore, the preferred mechanism should have a more favorable impact than others less optimal, on the ecological, biological, demographic, social, economic, and environmental consequences of management.

The ideal approach to determining the environmental consequences of the adopted course of action, as well as the other alternatives, would be to somehow demonstrate what regulations would be in place each year under each of the procedural options. This, of course, is not possible. It is not possible to determine this far in advance what the situation will be in the first year under this Framework Amendment, much less for years beyond that. For example, the Council was unable to predict the impacts of the 1983 El Nino warm water condition on the 1983 ocean salmon fishery before the fishing regulations were adopted. About all that can be said is that conditions, i.e., status of the runs, the amount of effort, the economic and social needs of communities and user groups, probably will not be greatly different in the next 5 years from those of the past 5 years. That being the premise, the regulations each year during the next several years under an improved procedural mechanism will probably be more timely in response to those conditions than have the regulations of the past several years. The consequences of improved management hopefully will be that the objectives and spawning escapement goals of the FMP will be more nearly met than they have been in the past. The result of this should be positive with respect to the biological condition of the salmon stocks, and the social and economic impacts on the users, the affected communities and the nation, both in the short-term as well as the long-term.

There are no adverse environmental effects which cannot be avoided as a result of the action taken by the Framework Amendment. Neither are there any irreversible or irretrievable commitments of resources from this action.

The following points should be made regarding the consequences of each of the alternatives considered.

Status Quo

It has become increasingly difficult to stay within the accelerated and abbreviated schedule for processing an annual amendment to the FMP and implementing emergency regulations. Regulations the past three years have not been in place until 20 to 60 days after the target date of May 1.

No Federal Management

The Council has effectively served as a coordinating body to resolve problems among the states regarding salmon stocks that migrate across state boundaries. Management measures have been better coordinated to prevent massive shifts in effort. The federal regulations have exerted more effective control over vessels from one state that fish in the FCZ off another state and then return to their home state to land their catches. The public has had more

opportunity for input into management decisions made through the Council process than under state management. The Council and the federal regulations also have served to provide support to the states in buffering some of the political pressures when restrictive regulations were necessary for conservation reasons.

For these reasons, even though federal management might be somewhat more costly and not as timely as state management, the result has been more effective management. Return to state management would be a step backwards in terms of coastwide coordination.

Framework Amendment With All Measures Fixed

If it were possible to design management measures that would remain in effect for more than a single season and still adequately protect the stocks, allocate the resource, and optimally utilize the harvestable surplus, this alternative would be a good one. It is not, however, possible to do that because of changing social, economic, and biological factors. The result of this alternative, therefore, would be to put up with ineffective, outdated regulations until the plan could be amended. Because of the length of time necessary to draft and implement an amendment, the new management regime very likely could be again outdated prior to implementation. The result would be chaos.

Framework Amendment With All Measures Flexible

This alternative appears on the surface to be attractive. The greater the flexibility, the more responsive management should be to the current situation. The problem, however, is one of trying to develop an acceptable framework plan that describes the processes by which each fishery will be managed over a number of years, including when, how, and within what limits particular regulatory changes will be made without some elements of the management regime remaining fixed. Another concern is being able to make decisions regarding all components of the management regime each year, in the abbreviated schedule provided under the framework mechanism for pre-season regulations. The likelihood of the system failing or regulations being delayed are greater under this alternative than under the preferred alternative.

Table 4-1 is a subjective evaluation of the alternatives considered and their impact on achieving effective management.

4.3 Comments and Responses

Two sets of hearings one in March-April, 1983 and the other in October, 1983, were held to discuss the Framework Amendment and the draft SEIS.

Both oral and written comments made during the process of developing and finalizing the amendment and SEIS are summarized below along with responses. Agency comments are presented in Appendix A. Many comments recommended editorial changes and those are not presented below.

Insert Table 4-1 - Subjective rating of alternatives considered and their ability to achieve effective salmon management. (Scale 0 to 5 - 5 being most effective)

4.3.1 Escapement Goals

1. Comment: The Council's adopted rebuilding schedule for chinook salmon of the Klamath River will not prevent overfishing of natural stocks of Klamath River chinook salmon.

Response: The provisions of the Klamath River chinook salmon rebuilding schedule allow for the gradual rebuilding of the chinook stock by 20 percent every four years. This schedule will reduce adverse impacts on the ocean fishery and is intended to bring the Klamath River chinook stock back to a healthy status by 1998.

2. Comment: The Council should adopt Escapement Goal Option 3.

Response: The Council revised and adopted Escapement Goal Option 3 which fixes the escapement goals, escapement ranges and rebuilding schedules for the various Washington, Idaho, Oregon, and California salmon stocks rather than leaving them flexible and subject to annual changes or variations. Option 3 permits the Council to modify the escapement goals without an FMP amendment but only if a comprehensive technical review of existing biological data, approved by the Salmon Plan Development Team and the Council, justifies a modification.

3. Comment: The Council should adopt flexible ocean escapement goals rather than fixed or long-term goals for ocean escapement.

Response: The Council adopted a fixed ocean escapement goal option that included an ability to modify escapement goals only in the rare instance where a comprehensive analysis of existing biological data provided conclusive evidence that a modification of the escapement goal was necessary, such analysis being recommended by the Salmon Team and approved by the Council. The fixed escapement goals enable the Council to minimize the short-term political pressures to modify escapement goals or escapement goal ranges and it provides more long-term stability to the resource and the resource users.

4. Comment: The Council should adopt Escapement Goal Option 3 for the Sacramento River.

Response: The Council adopted an aggregrated range of 122,000 to 180,000 chinook salmon as the escapement goal for the Sacramento River because presently there are no techniques for selective management of the different stocks of chinook salmon that spawn in the upper and lower parts of the river. Ocean harvest management only can provide for a target total ocean escapement of Sacramento River fall chinook salmon. Once the fish have entered the river, distribution of fish within the system is dependent on factors such as water flow, available spawning habitat, water quality, barriers to fish passage, etc. Most of these in-river conditions are beyond the Council's management control or authority.

5. Comment: The Council should not adopt a single escapement goal that combines the different chinook salmon stocks of the Sacramento River.

Response: See Response #4 above.

6. Comment: The Klamath River chinook salmon rebuilding schedule should be shortened to two brood cycles and the in-river escapement goals should be increased to include the harvest of the recreational fishery and the harvest by the Hoopa Valley Indian Tribe.

Response: The Council adopted the fifteen year rebuilding schedule for the chinook salmon of the Klamath River because the long-term escapement goal can not be achieved in less time without placing severe restrictions on the ocean commercial fisheries of southern Oregon and northern California. In addition, the Council and the state fishery management agencies of California and Oregon are committed to maintaining the rebuilding schedule and meeting the 20 percent increases every four years (one brood cycle). The Council did not increase the in-river escapement to reflect in-river harvests because the Council does not have fishery management authority in the Klamath River and because the amount of in-river harvest has not been fixed for the duration of the stock rebuilding schedule.

7. Comment: Concerning Table 3-2, the spawning escapement goal for Puget Sound pink salmon should have footnote "f" (now footnote "e") rather than a specific numerical goal, as it is subject to the same U.S. District Court procedures as coho and chinook.

Response: Although both Puget Sound pink and sockeye salmon are subject to allocation procedures arising from the Boldt Decision, they both have specific numerical escapement goals developed by WDF.

8. Comment: The spawning escapement goal for Fraser River pink and sockeye is not correctly stated in Table 3-2 and should be changed to say that the goals will be those set by the IPSFC or through the U.S./Canada treaty procedures.

Response: Table 3-2 has been changed. Footnote "g" has been expanded to correctly reflect that the goals are currently established by IPSFC and, under proposed terms of the draft U.S./Canada salmon treaty, would be established by Canada.

9. Comment: The description of how spawning escapement goals are established in the U.S. v. Washington Case Area in Section 3.5.1.2 is not correct. Proposed escapement goals are made by both the Washington Department of Fisheries and the treaty Tribes, and any disagreements resolved through the U.S. District Court procedures.

Response: The Council agreed with the comment and Section 3.5.1.2 was corrected.

10. Comment: It should be noted in Section 3.1.1.2 that the native Quillayute summer coho run is viable and management of the Quillayute summer hatchery run must incorporate measures to insure the perpetuation and maintenance of this natural stock.

Response: The Council agreed and the section was revised.

11. Comment: Table 3-4 contains several errors. The sources given for Quinault native coho include the Quinault Nation. However, neither the estimated escapement nor the prediction methodology are based on information provided by the Quinault Nation. The escapement estimate for Quinault hatchery coho was 9,800 rather than 8,900 and for the Queets natural coho spawning escapement rather than ocean escapement was predicted to be 5,600. Errors are also contained in the estimates given for Hoh and Quillayute fall coho.

Response: The escapement estimate and methodology are no longer attributed to the Quinault Nation and the hatchery goal has been changed to 9800. The ocean fishery escapements shown for the Queets, Hoh and Quillayute fall coho are those predicted by the salmon plan team based on 1983 abundance and 1981-82 fishing patterns (see 1983 plan p.D-12). For the Queets, this is identical to the lower end of the 1982 Council adopted escapement range.

12. Comment: Footnote "b", regarding the effects of the Red Bluff Diversion Dam, should be added to the Sacramento River spawning escapement goal in Table 3-2.

Response: The Council agreed and the table was revised.

13. Comment: The interim spawning escapement goal for the Sacramento River chinook should be 122,000 adult salmon.

Response: The Council adopted an interim spawning escapement goal range for Sacramento River chinook of 122,000 to 180,000 adult salmon. Achieving the upper end of the range will be contingent upon solving the in-river passage problems that are associated with the Red Bluff Diversion Dam.

4.3.2 Management Objectives

1. Comment: Harvest management Objective #7 is inconsistent with other management objectives and should be withdrawn as an objective of the Council.

Response: Harvest Management Objective #7 reads "Support the enhancement of salmon stock abundance in fishing effort management programs to facilitate a return to economically viable and socially acceptable commercial, recreational and tribal seasons." This objective was reviewed by the Council and received support from the state fishery management agencies and representatives of the fishing industry. For that reason it was not withdrawn as requested.

2. Comment: "Important natural-spawning stocks" should be defined by the Council in Harvest Management Objective #1(c).

Reponse: The Council revised Harvest Management Objective #1(c) and changed the language noted in the comment to "the weakest natural spawning stocks for which specific management objectives have been defined in the Framework Plan Section 3.5...". The change in wording was recommended by the Washington State Department of Fisheries and adopted unanimously by the Council.

3. Comment: The Washington Department of Fisheries (WDF) recommended revision of the Harvest Managment Objective #1 should be adopted.

Response: The Council unanimously adopted the WDF recommendation for Harvest Management Objective #1 which reads, "Establish ocean harvest rates for commercial and recreational fisheries that are consistent with requirements for optimum spawning escapements, treaty, and other legal obligations and the continuance of established recreational and commercial fisheries within the constraints of meeting conservation and allocation objectives." (WDF language underlined)

4. Comment: The WDF recommended revision of Harvest Management Objective #1(a) should be adopted.

Response: The Council unanimously adopted the WDF recommended revision of Harvest Management Objective #1(a) which reads, "Escapements of viable natural spawning stocks of salmon defined in the Framework Plan shall be sufficient to maintain or restore the production of such stocks at optimal levels." (WDF language underlined)

5. Comment: Delete the phrase "and continuance of established recreational and commercial fisheries" from Harvest Management Objective #1.

Response: The Council chose not to delete the phrase from Harvest Management Objective #1 because the maintenance of the existing commercial and recreational ocean salmon fisheries is a primary fishery management objective of the Council.

4.3.3 Allocation

1. Comments: In the section of the Framework Amendment concerning allocation of ocean harvest, an option for the area south of Cape Falcon, Oregon should be developed similar to the option for the area north of Cape Falcon.

Response: The Council adopted an allocation option for the commercial and recreational coho salmon fisheries south of Cape Falcon, Oregon that was proposed by the Oregon Department of Fish and Wildlife (ODFW). The option was patterned after some of the options developed for the area north of Cape Falcon and includes a range of allowable ocean harvest for both the commercial and recreational fisheries based upon historic harvests and the estimated abundance of coho salmon in the Oregon Production Index (OPI) area.

2. Comment: The allocation scheme should be flexible only to the extent that precise criteria are provided which allow the user groups and the public the opportunity to understand what the allocations will be during any given season and under varying conditions of resource abundance.

Response: The allocation schemes the Council adopted for the ocean commercial and recreational fisheries north and south of Cape Falcon, Oregon include criteria for dividing the allocations between the two fisheries and a schedule of resource abundance that shows what the allocations will be at varying levels of abundance.

3. Comment: The schematic describing adult equivalent determination in Figure 3-1 is not correct in that it considers only Washington ocean interceptions. The position of the treaty Indian Tribes is that all catch within the United States jurisdiction should be included in the allocation between treaty and non-treaty fisheries. To reflect the fact that this issue is being litigated, the language in Figure 3-1 under "Adult Equivalent Simulation Run" should be revised to read "Estimate adult terminal run sizes in the absence of prior interceptions by fisheries subject to treaty sharing obligations given anticipated regulations for non-counting fisheries."

Response: The schematic was changed as suggested.

4. Comment: The second paragraph on page 3-63 should be changed to read as follows: "The treaty Indian fishing season will be determined annually based on input from the affected tribes, but will not be longer than is required to harvest any quota which may be established for the treaty troll fishery. A quota may be established in accordance with the objectives of the relevant treaty tribes and consistent with the treaty rights of each affected tribe. Any quota established will not represent a guaranteed ocean harvest, but a maximum allowable catch."

Response: There is no agreed upon procedure among the affected tribes to annually allocate among the tribes their total entitlement of the weakest stock. Until that is done, the wording suggested cannot be adopted.

4.3.4 Other Issues

1. Comment: The schedule and the procedures for making pre-season modifications of the regulations does not provide adequate time for public review of the Council's proposals.

Response: It is intended that the public will have the same amount of time to review the Council's annual pre-season proposals as it had under the annual FMP amendment process. However, under the framework process public review and comment should be enhanced because the Council reports will have complete stock assessment data and because the document that is sent out for public hearings will include a narrower range of relevant alternative actions than has been possible under the annual amendment process.

2. Comment: The section of the Framework Amendment regarding socio-economic trends and impacts should include a discussion of the season performance of the past fishing year and the estimated pre-season impacts of the proposed regulations.

Response: Because the Framework Amendment establishes a multi-year procedural mechanism for making adjustment to the regulations each year, provision was established and explained in Chapter 5 for annually preparing both a post-season analysis of the performance of the past fishing year and a pre-season analysis of the estimated impacts of the proposed regulations.

3. Comment: The sentence in Section 3.5.2.3 which states, "Low, incidental harvest of several naturally produced stocks occur in fisheries within this area, including upper Columbia River Falls (brights), summers, springs, and certain Washington coastal stocks" should also include Puget Sound stocks.

Response: The Council agreed and the sentence was revised to include Puget Sound stocks.

4. Comment: The WDF/NBS Catch Regulations Analysis Model (see Figure 3-1) should not be a fixed element of the plan. The plan should provide for updating the model or use of a new model based on current scientific information without the need for a plan amendment.

Response: The WDF/NBS Model is not a fixed element of the plan but it is a managment tool that is currently being used because it represents the best catch-regulation analysis model currently available. When a better model is developed or improvements made to the WDF/NBS model the Council will use them.

5. Comment: The parenthetical definition of "depressed stock" at Section 3.6.2.3 is inadequate. Depressed stocks can be protected and, in some cases, restored through harvest controls. Ocean escapement goals for depressed stocks should be adopted and ocean fishing regimes should be based on achievement of those goals.

Response: The Council has not yet adopted specific guidelines for depressed stock management and does not unilaterally manage the ocean fishery only on the basis of the weakest stocks. Consideration for specific depressed stocks is given in the management regime adopted by the Council.

5.0 SOCIAL AND ECONOMIC IMPACTS OF THE FRAMEWORK AMENDMENT

5.1 Analytical Requirements

Analysis of relevant economic and social factors during the formulation of fishery management plans and plan amendments is mandated in important federal legislation. Principal among these are the Magnuson Fishery Conservation and Management Act (MFCMA), the National Environmental Policy Act (NEPA), Regulatory Flexibility Act (RFA) and Executive Order 12291 (E.O. 12291). A brief outline of the objectives, in terms of social and economic considerations, and specific requirements of these congressional acts and the executive order is presented in the sections below.

5.1.1 Magnuson Fishery Conservation and Management Act (MFCMA)

The MFCMA requires that each FMP specify the "optimum yield" from the fishery involved. This means an assessment of alternative approaches to yield the greatest benefit to society. By inference, alternative management strategies have to be evaluated to find the one producing optimum benefits considering impacts on the salmon fishery, the public, and government agencies.

5.1.2 National Environmental Policy Act (NEPA)

Under NEPA, the Pacific Council and NMFS must consider the effects of proposed and alternative actions on the "human environment," which includes social and economic aspects. With respect to this Framework Amendment, this requirement means that alternative management measures and strategies should be evaluated with respect to the impacts on all sectors of the WOC salmon fishery, on related fisheries, on communities in which salmon fishing is important, and on governmental agencies which have to administer and enforce management measures.

5.1.3 Regulatory Flexibility Act

The principal objective of the Regulatory Flexibility Act is to assure that small business entities are not unnecessarily burdened by any new federal regulations and that the differential impact of regulations on small and large business is taken into account. In order to achieve this objective the RFA requires that an analysis of the impacts on small businesses of any proposed regulation be made. Such an analysis must include a rationale for the proposed regulation, an estimate of the number and type of small entities which will be affected and an assessment of the costs imposed on these small businesses by the regulation. Finally, a discussion of alternatives to the proposed rule which could achieve the same objectives and their respective costs should be included.

5.1.4 Executive Order 12291 (E.O. 12291)

The basic thrust of E.O. 12291 is that federal government regulations shall achieve maximum net benefits to society. Federal agencies will impose the least burdensome regulations necessary to achieve such benefits. The order requires evaluation of regulatory impacts in terms of competition, employment, productivity, the prices of goods and services, and investment. The analysis must cover potential benefits and costs, including those that cannot be quan-

tified in monetary terms. As with NEPA, this means that under the Framework Amendment, evaluations of the magnitude and distribution of gains and losses to salmon fishery participants, related industries, communities, and the public sector should be made.

5.2 Information Sources and Analytical Tools

A considerable amount of background information is needed to carry out the required evaluations. It is necessary to establish a basic understanding of the conditions in the fishery before the impact of alternative changes in management can be evaluated.

5.2.1. Informational Sources

Social and economic aspects of the salmon fisheries have been described as part of the FMP and subsequent annual amendments. It should be noted that there has been steady improvement in the amount and quality of economic information and analysis over the past years. Among the major sources of information are the following:

Salmon Plan Amendments:

Chapter V (Socio-economic Trends in the Ocean Fisheries and Potential Socio-economic Impacts of Proposed Management Measures), 1983 Salmon Plan Amendment, Pacific Fishery Management Council (PFMC), 1983.

Chapter V (Socio-economic Trends in the Ocean Fisheries and Potential Socio-economic Impacts of Proposed Management Measures), 1982 Salmon Plan Amendment, PFMC, 1982.

Appendix B (Social and Economic Description of the Salmon Fisheries), 1981 Salmon Plan Amendment, PFMC, 1981.

Prior to 1981, the regulatory impact analysis required for Executive Order 12044 and Department of Commerce Administrative Order 218-6 were published as separate supplemental documents. These regulatory analyses for the 1978, 1979, and 1980 amendments are on file at the Council offices. In addition, an Economic Impact Statement was prepared for the initial 1977 Salmon Fishery Management Plan in compliance with Executive Orders 11821, 11949, OMB Circular A-107 and Department of Commerce Administrative Order 218-6.

In addition to the information compiled for the salmon plan amendments the Council has funded the following contract work:

Socio-economics of the Idaho, Washington, Oregon and California Coho and Chinook Salmon Industry, Department of Agricultural and Resource Economics, Oregon State University, 1978.

Earl R. Combs, Inc., Inventory of Information on the Socio-Economic Characteristics of the Commercial and Recreational Fisheries off Washington, Oregon and California, 1978.

Crutchfield, James A. and Kurt Schelle, Survey of the Washington Recreational Fishing Charterboat Industry, 1976, 1977.

Crutchfield, James A. and Kurt Schelle, An Economic Analysis of Washington Ocean Recreational Salmon Fishing with Particular Emphasis on the Role Played by the Charter Vessel Industry, 1978.

Curtis, T., "Description of Social and Cultural Framework of Washington Coastal Domestic Fishermen and their Communities", Reference Documents Prepared for the Comprehensive Salmon Management Plan of the Pacific Fishery Management Council, WDF/PFMC, October 1977.

Higgs, Robert, Report on the Probable Socio-Economic Effects of a Moratorium on the Issuance of New Vessel Licenses in the Pacific Ocean Commercial Salmon Fishery, 1978.

The above documents have been incorporated into the FMP by reference and are available at the Council office.

5.2.2 Data Needs and Applications

While there has been improvement in the economic information available, the data base still falls short of that desired, in both type and quality of data. The following section provides a summary description of the data needed about different sectors of the fisheries, related industries, markets and governmental agency management program costs to evaluate the impact of regulatory changes. An attempt has been made to indicate which data are available over a series of years, which will be available in the near future, and which are cost-prohibitive or unlikely to be available in the foreseeable future.

5.2.2.1 Harvest Sector

The principal user groups harvesting the West Coast salmon resource are as follows:

Ocean Harvesters
- Commercial trollers
- Charterboat/recreational fishermen
- Treaty Indian fishermen

Inside waters harvesters
- Non-Indian commercial fishermen
- Inland treaty Indian commercial fishermen
- Inside (river/bay) recreational fishermen
- Inside treaty Indian subsistence fishermen

Ocean Troll Fishery

While management actions by the Council can affect all of the harvest groups listed above, the people impacted most are the ocean commercial troll and recreational fishermen. Table 5.1 lists the type of quantitative information on the ocean troll fishery that has been collected and incorporated into the salmon plan amendments in recent years.

Table 5-1. Socio-economic information presently available for the West Coast Ocean Commercial Salmon Troll Fishery

DATA DESCRIPTION	AVAILABILITY STATE	AVAILABILITY YEARS	COMMENTS	FMP PLAN AMENDMENTS OR REPORTS
Troll Landing Data	WA, OR, CA	1971-1983	It may be possible to look at this by port of landings on a monthly basis in the future.	1978-1984
Ex-vessel Price Data	WA, OR, CA	1971-1983	For California ex-vessel value not available for 1977, 1978.	1982-1984 (as part of Socio-Economic Section)
		1978-1981	(rough estimate of total value)	
Number of Vessels Landing Salmon	WA	1978-1983	Years prior to 1978 not presently reported. However, this data may be obtained from Washington Department of Fisheries in the future.	
	OR	1974-1984		
	CA	1960-1983	For California, no data available for 1973, 1980	
Catch Statistics by Boat Size	OR	1978-1983	Only landing data has been presented for Oregon and Washington. Presentation of ex-vessel value data for different size categories will be presented in the future.	1982-1984
	CA	1974-1983		
Number of out of State Troll Vessels	WA	1974-1983	1982, 1983 (Oregon, California only)	
	OR	1977-1982		
	CA	1978-1983	For California, available for both North and South Coast registration areas.	

These data are used to monitor changes in the ex-vessel value of the troll catch, annual trends in ex-vessel prices, distribution of catch between size categories of vessels, and participation of vessels in troll fisheries outside their home states. Such information is necessary when attempting to assess the impact of regulatory measures on the troll fishery.

Many factors affect the net revenue of ocean troll fishermen in addition to regulations imposed upon them through the FMP process and the distribution and abundance of salmon. Among these are fixed and operating costs, weather conditions, other sources of fishery income and world market conditions. At present, information on price trends (1975-1983) of diesel fuel, landing data for the albacore and dungeness crab fisheries, and weather data is collected on a yearly basis.

Ocean recreational fishery

There are two components to the ocean recreational fishery: the charter boat industry and the individual ocean anglers. Table 5.2 illustrates the type of quantitative data available on a time series basis, in addition to some estimates of angler expenditures and net economic values of an angler day.

The value of the recreational salmon fisheries in Washington, Oregon, and California cannot be measured in the same way as is commercial fishery value. The "fishing experience" and not necessarily the fish itself must be given a monetary value. Anglers "willingness-to-pay" over and above the costs associated with the fishing experience is used as a measure of the net benefits from salmon angling. Because salmon angling is not a market commodity, "willingness-to-pay" above actual expenditures must be estimated indirectly. The measure which has been used most often is the average "consumer surplus" associated with an estimated demand equation for ocean salmon fishing.

Several estimates of "willingness-to-pay" from Pacific Northwest studies are listed in Table 5.2. Accurate measures of "willingness to pay" are difficult to obtain. All the studies of Pacific Northwest recreational salmon fisheries occurred prior to 1978 and therefore, estimates of net economic value based on these studies should be used with caution.

The state and federal agencies within the Council's purview are investigating the feasibility of conducting a coastwide comprehensive survey of the West Coast salmon fisheries. If this occurs more detailed information on recreational salmon values may be available within several years.

Other Harvesting Groups

Although the Council is charged with managing the ocean salmon fishery outside of three miles, the reciprocal effects of inside salmon fisheries cannot be ignored. For instance, the allocative requirements of inside net fisheries and treaty Indian fisheries help determine the allowable level of ocean harvest. Conversely, an incorrect pre-season stock assessment will impact the number of fish ultimately available to the terminal fisheries.

Table 5-2. Socio-economic information presently available for the West Coast Ocean Recreational Fishery

DATA DESCRIPTION	AVAILABILITY STATE	YEARS	COMMENTS
Ocean Sport Landings	WA, OR, CA	1971-1983	Estimates of number of salmon by species
Number of Charterboats Landing Salmon	WA	1975-1983	For California, only an estimate of the minimum number based on membership in the Golden Gate Sportfishers (which includes the vast majority of California Salmon charterboats) is available.
	OR	1980-1983	
	CA	1972-1983	
Number of Angler Trips	WA	1973-1983	Available for five ports of landing on a monthly basis. Prior to 1974 available on an annual, rather than monthly basis. For 1979 to present, number angler trips are subdivided into charter and pleasure boat trips for surveyed ports.
	OR	1974-1983	
	CA	1971-1983	Monthly landings for five ports. San Francisco data categorized by boat type.
Information on Estimated Net Economic Benefits		Estimated based on various studies:	
		$39.18/fishing day	Brown et.al. (1980)
		$18.19/angler day	Crutchfield & Schelle (1979)
Angler Expenditure Data Estimates		Estimates available from survey in 1977, 1980.	Source: NMFS, Crutchfield & Schelle (1979)

Due to data and time constraints, past economic analysis have focused on the ocean troll and recreational fishery. Some data are available for these other user groups and, in the future, efforts will be made to address the impacts of Council actions on these groups in at least qualitative terms.

For the inside non-Indian net fisheries, landing data are available and average ex-vessel prices could be obtained. Inside sport catch data are also available for Oregon and California from 1971 to the present. Washington and Idaho sport catch data for recent years may also be obtained.

Some social and economic information on the treaty Indian fisheries can be found in the 1981 (Appendix B), 1982 and 1983 amendments. Quantitative data available which could aid in assessing the impacts on treaty Indians include landing data (Washington and Oregon, 1971 to present, California 1978 to present) and number of treaty fishing days in Washington for the major river systems (1974 to present).

Again, it must be recognized that with continuing data, funding, and time constraints, the assessment of impacts on the non-ocean fisheries will probably continue to be qualitative in the near future.

5.2.1.2 Processing/Wholesale Sector

The processing/wholesale sector is relatively small and homogeneous compared to the harvest sector. Assessing the impacts of past and future management decisions on this sector is, however, no less complicated for several reasons. First, most wholesalers deal with a number of fish products; salmon are only a part of the overall business, the size of the part varying by wholesale firm. Second, wholesalers have a large number of sources of salmon products; including troll and net-caught WOC salmon, Canadian troll and net caught salmon, Alaskan troll and net caught salmon, and Norwegian pen-reared salmon. Thus, they may be able to handle a relatively constant total volume of salmon even if WOC harvesters catch were to vary widely from year to year. Third, it is very difficult to obtain detailed data on the operations of different firms to assess with reasonable accuracy and completeness how changes in WOC harvests affect WOC processors revenues, costs, profits, investments, and employment.

The situation has been further complicated recently with the large number of fishermen, particularly in Washington, who have obtained wholesale licenses in order to sell direct to the public. With limited enforcement there is little incentive for these fishermen/wholesalers to provide complete or accurate fish ticket records. The activities of these participants in the wholesale sector are therefore not well documented.

A brief description of the structure and dynamics of the salmon marketing system can be found in the OSU study (1978) and in Appendix B of the 1981 Salmon Plan Amendment. Annual salmon export (fresh, chilled, and frozen) information is available from NMFS for 1981 and 1982 although the origin of the salmon is not indicated. Import data by country, species, and type can also be obtained from NMFS. Such information is useful when trying to assess the world market conditions at the time of proposed changes in the regulatory regime.

More specific data on the operation of wholesale dealers and processing companies is difficult to obtain. Some information on total employment (average and seasonal maximum) in the processing/wholesale sector for the fishing industry as a whole is available by state. The number of processing plants and their location, the number of wholesale dealer licenses, and the purchase price of the salmon can be obtained from the state agencies. However, the information on the wholesale prices received for the product is not readily available.

In summary, the salmon marketing sector is extremely complex. Numerous steps exist in the distribution of salmon from harvesters to consumers. Domestic and foreign markets have varying preferences and rates of substitutions with regard to types of salmon and end products. Operational cost and revenue data for the processing/wholesale sector is not readily available. For all of these reasons it is likely that assessment of regulatory impacts on this sector will remain somewhat qualitative and speculative.

5.2.2.3 Community Impacts

Changes in harvest levels impact not only harvesters, processors, and consumers (in terms of price and availability of product) but also the secondary services. For the commercial fishery these would include boat repair and maintenance services, gear suppliers, boat builders, wholesale and retail fish buyers, etc. Expenditures by recreational fishermen add revenues to the following sectors of a coastal community's economy among others: cafes and taverns, campgrounds, motels, marinas, and gear and bait suppliers.

In analyzing the impacts of change in harvest levels, whether due to management measures or natural causes, on communities, it is first necessary to determine on what regional level such an analysis is to be made. For instance, a change in allocation between commercial and recreational fishermen might adversely affect a predominantly commercial port while increasing the revenues to a community with a large charterboat fleet. Analysis on a community, county, state, or coastwide basis could lead to different results. What might appear to be a net loss on the individual community level may only be a redistribution of benefits on the county or state level.

In addition to the problem of defining the geographical boundaries for which the impact analysis is to be performed, the interrelationship between different sectors of a community's or region's economy is complex. A change in tourism revenue because of a loss in recreational salmon fishing opportunity in a region which still offers whale watching, other recreational fishing, and other coastal recreational activities may be difficult to assess.

These and other complexities notwithstanding the types of data needed to quantitatively assess the impact of management measure on coastal communities or regions include:

1. average expenditure per day for recreational anglers
2. average per sector expenditures
3. up-to-date input-output models for regions in question
4. cost and earning data for commercial fishing support services
5. information on alternative employment opportunities for community members
6. information on the substitutability of tourism generating activities in a coastal area for lost salmon fishing opportunity

An attempt at measuring the impact of the troll fishery on selected counties in Washington, Oregon, and California and to assess the impact of a closure in the recreational fishery on coastal communities was made in the 1983 Salmon Plan Amendment. These studies illustrate an effort to perform quantitative economic impact analysis. However, such studies must be viewed only as gross measures of the economic impacts due to the quality of data employed and the underlying assumptions. For example, the input-output models have not been updated since 1977 and are only available for selected counties. Percent expenditure information for various economic sectors by the recreational fishery were based on 1976 survey information from Washington and applied to Oregon because no such information existed for Oregon.

Generation and revision of input-output models, updating survey-derived expenditure data and other data collection activities are costly, in both time and funding requirements. Until better data is available, assessment of the economic community impacts will be at best semi-quantitative.

5.2.2.4 Administrative and Enforcement Sector

In deciding whether to adopt the Framework Amendment, or any other management/regulatory measure, it is also necessary to determine whether the projected benefits of the measure outweigh the costs of implementing and enforcing the amended plan.

The Framework Amendment is primarily a procedural document which describes the processes by which each fishery will be managed, differentiates between fixed and flexible management principles and measures, and establishes the limits and controls within which regulatory adjustments will be made. One of the primary purposes of the framework approach was to alleviate the need for annual amendment, thus allowing for more timely implementation of Council management recommendations and a significant reduction in the number and length of planning documents associated with the plan amendment process.

Since the initial salmon FMP in 1977, NMFS and Council personnel have estimated the federal costs of developing, administering and enforcing the salmon plan. Many of these costs would be identical under either an annual amendment or framework process because they are associated with implementing annual fishery regulations. Among those costs are the following:

1. Costs of data collection for monitoring the fishery and costs of fishery reports;
2. Costs of enforcement patrols and investigative casework;
3. Costs of prosecuting cases;
4. Costs of developing annual regulatory measures.

Administrative costs on the other hand would be significantly lower under the Framework Amendment for both the regional NMFS offices and the Council because normal annual regulatory measures will not require plan amendment. This would reduce the number of documents to be prepared and subjected to the public review process required for a plan amendment. The estimated reduction in administrative costs each year would be $124,000. Table 5-3 lists estimated federal costs by agency under both the annual amendment and framework procedures.

Table 5-3. Estimated costs of developing, administering, and enforcing regulations established under the framework plan as compared to the annual amendment procedure (in thousands of dollars).

	Annual Amendment [a]	Framework Plan [b]
NMFS - Northwest Region		
Administration	101	58
Data Collection & Monitoring	293	293
Enforcement	205	205
NMFS - Southwest Region		
Administration	30	11
Data Collection & Monitoring	200	200
Enforcement	45	45
Pacific Council		
Administration	262	212
Planning and Development	156	156
Data Collection & Monitoring	83	83
Stock Distribution	131	131
Coast Guard	2,505	2,505
General Counsel - NW Region		
Litigation	10	10
Enforcement	23	23
Document Review	19	11
General Counsel - Washington D.C.		
Interim rule making NMFS, NOAA etc in WA	4	-
TOTAL [c]	4,067	3,943

[a] Estimated costs for the 1983 amendment are used for comparison.

[b] Costs are in 1983 dollars (i.e., inflation factor has been added) so that the costs can be compared with the annual amendment process. Costs by either method may be increased in 1984 because of the inflation factor.

[c] This total does not include costs of administration and document review by NMFS personnel in Washington, D.C.

5.2.3 Analytical Limitations

The above sections have outlined the type of information needed when conducting an RIR/RFA for a salmon plan amendment. The availability and sources of such data have been discussed in some detail. In this section an attempt is made to step back and examine some of the external factors and limitations which make assessment of the economic impacts of alternative management measures for the West Coast salmon fisheries particularly difficult. Some of the factors are as follows:

- Weather and oceanic conditions - The most variable and uncontrollable factors. The weather impacts both the recreational and the commercial fleets. It affects the small boats more than the large boats. In 1983 the warm ocean current known as El Nino impacted the availability and size of the coho and chinook. It may also be a factor in 1984 due to expected poor survival of immature fish. In future years, runs may be small reflecting low escapement and spawning rates.

- In-river environmental conditions - Changes in the in-river environment by construction of man-made obstructions, diversion of water supplies or degradation of water quality can also greatly impact harvest levels.

- Alternate income sources - Income from other fisheries is difficult to predict for the commercial fleet. The availability, size, and market price of other species, such as tuna, groundfish, and crab, are factors affecting the incomes of many trollers. Many WOC salmon fishermen may have permits to fish in Alaska or in the IPSFC fisheries. Regarding the recreational charterboat fleet, the income from groundfish fishing trips, whale watching excursions, and other pleasure trips also supplement the revenue received from salmon fishing trips. Many ocean fishermen receive their primary income from other jobs; fishing only supplements their regular incomes.

- Markets/Inventories/Prices - For the commercial fleet, these considerations are extremely important. Large fluctuations in both pre-season salmon inventories and ex-vessel price have occurred over the years. Markets for salmon fluctuate abroad with the strength of the U.S. dollar; currently the dollar is strong and therefore the price of U.S. fish is relatively higher and the demand has declined. Also, northwest salmon competes with Norwegian and Alaskan salmon in the U.S. market; salmon compete with other fish products; and fish products compete with poultry and meats.

- U.S./Canada Treaty - Since many northwest chinook migrate through Alaska and Canadian waters, the status of those fisheries and their regulations are instrumental in determining the future of our Oregon, Washington, and, to a lesser extent, California fisheries. High interception rates in the north decrease harvests off our coasts.

The Council and Secretary also have to balance short and long-term objectives. Benefits from management are not always apparent to individual fishermen in the ocean salmon fisheries where (1) salmon runs have been depressed in recent years greatly reducing allowable harvests, (2) fisheries are overcapitalized, i.e., too many fishermen and not enough fish, (3) recent court-ordered compliance with treaty Indian fishing obligations in some areas has greatly decreas-

ed the number of salmon available to non-Indian fishermen, and (4) factors such as high fuel costs and interest rates, increased competition from foreign imports, etc., have affected the economic viability of the fisheries. Fishermen tend to look at the short-term, to meet their immediate financial obligations to pay mortgage, interest, and operating costs.

An inverse relationship exists between the status of the resource and the amount and restrictiveness of harvest regulations. When salmon are abundant, fewer impediments to fishing activities are required to assure resource maintenance. Conversely, when salmon runs are reduced in size, irrespective of the cause, more restrictive harvest regulations are required, and such restrictions usually result in adverse short-term economic impacts. Under circumstances where there are not enough fish to go around in all years, regulations necessarily limit the number of fish to be caught, perhaps taking fish from one group and giving them to another group or allowing them to return to spawn to maintain the runs so that there will be more fish in future years. Since there is a high recruit-per-spawner ratio at depressed stock levels, the economic value of an additional spawner in years of depressed stocks will likely exceed the current market value of another fish caught. While restrictive regulations in such situations usually result in significant hardships on current harvesters, failure to impose such restrictions will most likely cause greater losses of economic value in future years.

Recent trends in many of the salmon stocks being managed by this FMP have been toward lower levels of abundance compared to historic levels, even with large investments in hatchery facilities. Predictions indicate continued lower levels of abundance for many of the natural stocks. These include Klamath River fall chinook, upper Sacramento River fall chinook, upper Columbia River fall, summer, and spring chinook, Washington coastal fall chinook, Columbia River and Oregon coastal coho, Washington coastal coho, and Puget Sound coho and pink salmon. Given these predictions for many of the stocks under management, regulations in the near future will likely be more restrictive than would otherwise be the case.

Quantifying the benefits and costs of annual salmon regulations is difficult if not impossible, given the state of the art and availability of data for quantifying social and economic benefits and costs. Estimating the revenues and values added in commercial fishing and processing, placing values on the recreational experience of sport fishing for salmon and attempting to estimate the multiplier effects of such activities in any given year, even if it could be done accurately, does not help much in determining the benefits of a set of annual regulations. Short-term revenues accruing to fishermen and related industries are more a function of the status of the stocks, the weather, the state of the market and the economy, etc. than they are of the regulations themselves. In fact, it is probably correct to say that a particular set of regulations also is a function of the status of stocks, the weather, and the other factors affecting the economic viability of the fishermen. Therefore, to attribute direct gains or benefits to the regulations themselves, independent of the root causes of the situation creating the need for such regulations, is incongruous.

To complete the benefits picture, the short-term (this year's) revenues and profits must be related to the revenues and profits that may accrue in future years. This becomes even more difficult, particularly to estimate how those

future revenues and profits are affected by this year's regulations because of the great number of variables that affect future revenues and profits.

The cost side of the equation is equally difficult. To simply estimate federal costs of amending the FMP, promulgating the regulations, and enforcing compliance of the regulations does not have much meaning. If the regulations were not updated to make them more applicable to the current status of the runs, the previous year's regulations would be in place, and they might be less effective. Nevertheless, the fisheries would still be managed and regulations enforced by the federal government. Thus, federal costs would be little different than with the updated regulations. If federal regulations were eliminated totally, then states would still manage the fisheries and the costs would be much the same with the costs accruing to the states instead of to the federal government.

It seems reasonable to conclude, based on the fishery management experience to date, that fishery regulations under the MFCMA and the Council structure are almost always compromises, i.e., compromises between the biological needs of the salmon to maintain their productivity at maximum levels and the economic and social demands of fishermen and fishing communities. Long-term biological requirements usually are reduced as much as possible in order to meet the short-term economic and social demands of fishermen and fishing communities. Although there are many reasons why salmon stocks have been depressed in recent years, e.g. destruction of habitat and spawning grounds, construction of dams and power development on major rivers, etc., another contributing factor has been that management decisions have been weighted too heavily in the direction of the short-term social and economic concerns of fishermen.

Virtually all commercial salmon fishermen, including charterboat operators, can be categorized as owners and operators of small businesses. Therefore, when considering the responsibilities of government in setting fishing regulations under the Regulatory Flexibility Act, it is not possible to structure regulations so that they apply only to big business or so that they exempt the small businessman. Likewise, it is not possible to exempt certain groups of fishermen in areas that are economically depressed more than others because the salmon stocks in those areas already are being fished as heavily as possible and sometimes heavier than they should be. Any further inroads into the spawning escapement needs of the stocks will certainly mean fewer and fewer fish in future years. The long-term multi-year costs of not providing enough spawning escapement to maintain a healthy stock greatly exceeds the short-term one-time benefits that might accrue to fishermen in a given year.

5. 3. Framework Plan Amendment Regulatory Impact Review/Regulatory Flexibility Analysis (RIR/RFA)

After discussing data needs and limitations for assessing economic impacts of salmon plan amendments in general, it is appropriate to turn to the Framework Amendment in particular. As is noted in Sections 2.2 of this document, the Framework Amendment process differs from the previous annual amendment process. The principal difference is that the Framework Amendment is largely a procedural document which describes the processes by which each fishery will be managed and establishes the limits and controls within which regulatory adjustments may be made.

Because the Framework Amendment is specifically not designed to describe any given future year's regulatory management measures in detail, a sort of generic RIR/RFA which looks at the outer limits of a range of impacts must be made. To this end, a comparison of the most and least restrictive federal management regimes is presented to evaluate the potential socio-economic impact of the Framework Salmon Plan Amendment. The pre-federal management years of 1971-1975 will be used as the base period. The first year of federal salmon management, 1977, which was the least restrictive, will be contrasted with the most recent year of federal management, 1983, which is considered to be the most restrictive under normal circumstances; i.e., in the absence of abnormal negative environmental conditions.

In the years prior to the MFCMA, salmon management was the responsibility of the individual states. When the MFCMA was approved, the area between 3 and 200 miles offshore came under the jurisdiction of the eight Regional Fishery Management Councils. The Pacific Council developed the first salmon fishery management plan in 1977. This plan proposed regulations for ocean waters (3-200 miles) off of Washington, Oregon, and California. The plan imposed significant new regulations north of Tillamook Head on the Northern Oregon coast. These management measures were to increase previously inadequate spawning escapements of upper Columbia River spring and summer chinook, Puget Sound coho, and Washington coastal chinook and coho, and also to provide greater treaty Indian fishing opportunities as required by court decisions. Regulations south of Tillamook Head remained the same as existing state regulations.

As has been discussed in the previous section, the true economic impact of any set of salmon fishing regulations is next to impossible to define, since weather, fish availability and abundance, prices, and other factors complicate the picture. Fleet size also has varied over the years (see Table 5-8) so that per vessel profit or loss may be difficult to ascertain from these aggregate figures. Given these variables, it is impossible to isolate the effects of federal regulation on harvest levels.

However, economic trends created in part by regulation of the commercial salmon industry can be ascertained by comparing total landing figures in 1971-75 with those in 1977, as well as the real ex-vessel values of the salmon landed in 1971-75 with 1977 landing figures. It should be kept in mind that coho landings were down along the entire coast in 1977, due to depressed stocks, and that the regulations put in place under the 1977 plan did not impact California (see Tables 5-4 and 5-5) as they remained unchanged from pre-existing state regulations. The most restrictive federal management regime was that implemented during the 1983 season. Preliminary landing data and real ex-vessel values for that year also are found in Tables 5-4 and 5-5. Real ex-vessel values are used, eliminating the inflation factor, to facilitate comparisons between years. Again, when evaluating the data presented in Tables 5-4 and 5-5, it must be noted that an El Nino condition was present in 1983 which appears to have reduced food supplies for salmon along the coast. It may have been largely responsible for the poor catch rates and small size of salmon caught.

Table 5-4. Landings of troll-caught chinook and coho salmon in California, Oregon, and Washington during 1971-75, 1977, and 1983 (numbers of fish).

California	Chinook	Coho
1971-75	563,000	362,000
1977 a/	600,000	45,000
1983 b/	274,000	57,000

Oregon	Chinook	Coho
1971-75	209,000	981,000
1977 a/	340,000	446,000
1983 b/	80,000	320,000

Washington c/	Chinook	Coho
1971-75	280,000	871,000
1977 a/	268,000	716,000
1983 b/	77,000	66,000

Coast Wide	Chinook	Coho
1971-75	1,052,000	2,214,000
1977 a/	1,208,000	1,207,000
1983 b/	431,000	443,000

a/ Note also that 1977 was a depressed year for coho stocks.

b/ Preliminary. 1983 was a year of an El Nino event; both coho and chinook stocks were depressed in number and average size of fish.

c/ Includes Indian troll catch and catches made off Oregon, California, and Alaska and landed in Washington.

Source: 1984 Salmon Plan Development Team Report: A Review of the 1983 Ocean Salmon Fisheries and Status of Stocks and Management Goals For the 1984 Salmon Season Off the Coast of California, Oregon, and Washington.

Table 5-5. Ex-vessel values of chinook and coho [a/] landed in California, Oregon, and Washington (thousands of dollars).

CALIFORNIA

	1971-75 [b/]	1977 [c/]	1983 [d/]
Chinook	NA	$8,573	$1,989
Coho	NA	212	147
Chinook and Coho	$6,163	$8,785	$2,136

OREGON

	1971-75	1977	1983 [d/]
Chinook	$1,831	$5,678	$ 577
Coho	3,370	2,563	488
Chinook and Coho	$5,201	$8,241	$1,065

WASHINGTON

	1971-75	1977	1983 [d/]
Chinook	$2,473	$4,413	$ 534
Coho	2,794	3,412	145
Chinook and Coho	$5,267	$7,825	$ 679

[a/] Based on prices paid for the dressed weight of the salmon. Ex-vessel values are deflated to 1972 levels for ease of comparison using the GNP price deflator.

[b/] A species-by-species breakdown was not available for California so aggregate real values are presented.

[c/] As pointed out in the text, federal regulations were identical to pre-existing state regulations in California in 1977, therefore, any increase in landings value should be attributed to stock size and ex-vessel prices and not federal regulations.

[d/] Preliminary.

Source: 1984 Salmon Plan Development Team Report: A Review of the 1983 Ocean Salmon Fisheries and Status of Stocks and Management Goals For the 1984 Salmon Season off the Coasts of California, Oregon, and Washington.

Given this information, a range of impacts of the framework plan on the commercial salmon troll fleet can be predicted. This range, found in Table 5-6 represents the difference between the base period (1971-75) and 1977, and between the base period and 1983 levels (dressed weight prices). This information is presented in Table 5-7.

The economic impact of federal regulations on recreational fishermen is more difficult to evaluate than on commercial fishermen, since a recreationally-caught salmon is not a market commodity. One rough estimate of the gross value of the recreational fishing experience is total expenditures by anglers. This is a very rough measure which is not given a lot of credence by economists. At the present time, however, it is the best information available. Willingness-to-pay estimates are based on pre-1977 surveys for Washington ocean fishery and Columbia River recreational fishermen only. To employ these figures coastwide would be suspect. Assuming that the majority of surveyed expenditures occur in and around coastal communities, the expenditure comparison can be viewed as an extremely rough approximation of the impact of recreational regulations under the Framework Amendment. The average expenditure per salmon angler day for each of the three states, as estimated by the 1980 NMFS Marine Recreational Fishery Statistics Survey, is used in this analysis. These figures then are deflated to 1972 levels to facilitate comparisons among 1971-75, 1977, and 1983. Table 5-9 gives an overview of the recreational salmon fishery during 1971-75, 1977, and 1983.

When evaluating the data presented in Table 5-9, several factors need to be considered. Stock size variations, as explained previously, occur independently from federal regulations. Weather factors also affect harvest levels as do angler success rates. Fishing effort by anglers has varied greatly during 1971-1983. The economic value of the salmon fishing experience is extremely difficult to estimate; the method used here grossly oversimplifies this procedure.

The impacts shown above cannot be ascribed to federal regulations alone. The severity of short-term revenue losses was greatly accentuated by factors outside the jurisdiction of the Council such as the interception of returning stocks by Canadian fisheries and environmental degradation of in-river habitat and a decreasing trend in real ex-vessel price in recent years. In addition, the 1983 season was negatively impacted by unfavorable oceanic conditions associated with an El Nino event. Until such time when at least some of these external factors can be controlled and gravel-to-gravel management of salmon stocks is possible, decreases in revenues from 1971-75 averages are likely to continue if escapement goals and rebuilding schedules are to be met.

5.4 Annual Analytical Products

While the RIR/RFA gives a general idea of the range of economic impacts under the Framework Amendment, it is the intent of the Council and the Secretary to fully consider the economic impacts of alternative management measures each year. Under the Framework Amendment, the Council will base its decisions on a

Table 5-6. Difference in commercial salmon landings between the base period (1971-75), 1977, and 1983 respectively for California, Oregon, and Washington (numbers of fish). Percentage difference from base period in parentheses.

	1977		1983 [a]	
California				
Chinook	+37,000	(+7%)	-289,000	(-51%)
Coho [b]	-317,000	(-88%)	-305,000	(-84%)
Oregon				
Chinook	+131,000	(+63%)	-129,000	(-62%)
Coho [b]	-535,000	(-54%)	-661,000	(-67%)
Washington				
Chinook	-12,000	(-4%)	-203,000	(-73%)
Coho [b]	-155,000	(-18%)	-805,000	(-92%)
Coast-wide				
Chinook	+156,000	(+15%)	-621,000	(-45%)
Coho [b]	-1,007,000	(-48%)	-1,771,000	(-80%)

[a] Preliminary. 1983 was a year of an El Nino event; both coho and chinook stocks were depressed in number and average size of fish.

[b] Coho stocks were depressed in 1977 and therefore the decline from 1971-75 figures cannot be totally attributed to federal regulations. The decline in California coho landings can only be attributed to stock declines since federal regulations, different from previous state regulations, were not in place in California.

Table 5-7. Difference in total real commercial salmon revenues between the base period (1971-75), 1977, and 1983, respectively for California, Oregon, and Washington (thousands of dollars). Percentage difference from base period in parentheses.

	1977	1983 a/
California		
Chinook	NA b/	NA
Coho	NA	NA
Chinook and Coho	+ 2,622 (+43%) c/	-4,027 (-65%)
	1977	**1983**
Oregon		
Chinook	+3,847 (210%)	-1,254 (-68%)
Coho	-807 (-24%)	-2,882 (-86%)
Chinook and Coho	+3,013 (+58%)	-4,136 (-80%)
	1977	**1983**
Washington		
Chinook	+1,940 (+78%)	-1,939 (-78%)
Coho	+618 (+22%)	-2,649 (-95%)
Chinook and Coho	+2,558 (+48%)	-4,588 (-87%)

a/ Preliminary. 1983 was a year of an El Nino event, catch rates were low and fish were below average weight. In addition, ex-vessel prices were down considerably.

b/ A species-by-species breakdown was not available for California in 1971-75, so aggregate real values are presented.

c/ As pointed out in the text, federal regulations were not imposed on California in 1977 and therefore, any increase in landings value should be attributed to stock size and ex-vessel price fluctuations and not federal regulations.

Table 5-8. Commercial vessels landing salmon in California, Oregon, and Washington.

	Year	Vessels Landing Salmon
California [a]	1971-75 avg. [b]	2,739
	1977	3,797
	1983 [c]	3,216
Oregon [a]	1971-75 avg. [d]	2,278
	1977	3,108
	1983 [c]	2,948
Washington [e]	1971-75 avg.	NA
	1977	NA
	1983 [c]	2,045

[a] Moratorium enacted in 1979.

[b] Average of 1971, 1972, 1974, and 1975, only.

[c] Preliminary.

[d] Average of 1974 and 1975, only.

[e] Moratorium enacted in 1974.

Table 5-9. Estimated catches, effort and revenues from the ocean recreational salmon fishery during 1971-75, 1977, and 1983 (percentage change from the base period, 1971-75 average are in parentheses).

	Year	Effort (Angler Trips)	Catch (Numbers of Fish) Chinook	Coho	Pink	Total	Fish/ Angler Trip	Average Expenditure Per Angler Trip [a/]	Total Revenue [b/]	Difference From 1971-1975 Avg.
CALIFORNIA -	1971-75 Avg.	241,500	169,600	48,300		217,900	.90	$15.5	$3,466,000	
	1977	215,000 (-11%)	127,400	26,800		154,200 (-29%)	.72	20.0	3,076,000	$ -390,000 (-11%)
	1983 [c/]	111,500 (-54%)	62,100	26,900		89,000 (-59%)	.80 [d/]	30.8	1,594,000	-1,872,000 (-54%)
OREGON -	1971-75 Avg.	345,800	49,400	271,800	1,600 [e/]	321,800	.93	11.5	3,682,000	
	1977	404,500 (+17%)	61,400	195,300	4,000	260,700 (-19%)	.64	14.9	4,311,000	+629,090 (+17%)
	1983 [c/]	226,000 (-35%)	24,700	146,900	NA	171,600 (-47%)	.76 [d/]	23.2	2,432,000	-1,250 (-34%)
WASHINGTON -	1971-75 Avg.	483,000	210,400	567,400	10,100 [f/]	787,900	1.60	24.2	10,812,000	
	1977	530,000 (+ 7%)	175,000	490,200	29,300	694,500 (-12%)	1.31	31.2	11,828,000	+1,016,000 (+ 9%)
	1983 [c/]	209,500 (-57%)	48,300	209,300	4,500	262,100 (-67%)	1.25 [d/]	48.0	4,664,000	-6,148,000 (-57%)

[a/] Derived from the NMFS 1980 Marine Recreational Fisheries Statistics Survey. Included in these expenditures are fishing equipment, bait, ice and ice chests, clothing, sundries, food and beverage and lodging. Not included are the cost of automobile gasoline for travel, cost of boat or engine, cost of repairs to boat or engine cost of insurance and cost of annual or monthly boat moorage.

[b/] Total revenue, in real dollars, is obtained by multiplying effort by average expenditure per angler trip and then deflating to 1972 dollars.

[c/] 1983 angler trips and catch are preliminary.

[d/] Preliminary.

[e/] Includes the average of 1973 and 1975, only.

[f/] Includes the average of 1971, 1973, and 1975.

Source: 1984 Salmon Plan Development Team Report: A Review of the 1983 Ocean Salmon Fisheries and Status of Stocks and Management Goals for the 1984 Salmon Season off the Coasts of California, Oregon, and Washington.

report by the Salmon Plan Development Team each year. This report will have two components: a post-season review discussing actual and predicted results of the fishing season for the year under consideration; and a pre-season forecast presenting estimated run sizes, harvests, values, and other factors for alternative management strategies.

Both components of the report will be subject to public review and it is considered appropriate that an update of social and economic information and analysis of the impacts of annual regulatory options be an integral part of this document. In this manner the requirements of the Magnuson Act, NEPA, EO 12291 and RFA can be addressed on a continual basis.

The types of data and the available sources needed for the economic sections have been discussed in Section 5.2. The following sections describe the components of the annual report relevant to the socio-economic analysis.

5.4.1 Post Season Analysis of the Effectiveness of Management

The post-season review each year will include a description of the economic status of each fishery sector and the performance of the plan with respect to achievement of the Framework Amendment's management goals and objectives as defined in the pre-season analysis for that year (see Section 5.4.2).

The post-season review will present the following information.

1. The specific objectives for the previous season. This will indicate the basis for translating the general objectives of the Framework Amendment (Section 3.2) into operational and quantitative terms for measuring the effectiveness of the season's management regime.

2. The regulatory regime for the past year. This would include a listing of the measures, a comparison with the measures of the previous year, and the reasons for any changes from the previous year. This will help provide a basis for determining the effectiveness of the changes.

3. A summary of the previous pre-season assessment of stock conditions and predictions or estimates of run size, ocean escapement, harvest levels, and revenues by species, area, and harvest sector. This is intended to be the basis for comparing actual results and predicted results.

4. A tabulation and narrative description of actual results for the season. This would be a complete (although some data would presumably be "preliminary") presentation of the catch, effort, and value data on the fisheries performance. It would be based on the specific data sets listed in 3.9.2.1 and 3.9.3.1; but it also would include information about related fisheries (e.g., Alaska and Canada salmon fisheries; albacore and crab harvests and value for vessels also landing WOC salmon; imports and exports; and general economic data on conditions in ports or countries in which salmon landings are or appear to be relatively important).

5. An evaluation of effectiveness against the year's objectives and economic criteria. This would be an analysis, in quantitative terms where possible, of the extent to which the specific objectives (Section 1 of the report) were met; and of the impacts of the annual measures on different fishery sectors in terms of competition, employment, productivity, investment, prices of goods and services, and imports and exports of salmon and salmon products. These are primary factors required to be evaluated under E.O. 12291.

In summary, the post-season review is intended to facilitate determination of what worked and did not work, and why, and thus provide a basis for considering, evaluating, and selecting management objectives and measures for the following year. This annual review would be completed and distributed to the SSC, Advisors, Council members, and the public in March.

5.4.2 Pre-Season Impact Analysis of Fishery Conditions and Alternatives

The annual pre-season section of the report would present the following information, to the extent practicable:

1. Assessment of stocks and pre-season run predictions, with a summary of the data and techniques used to make these findings. This is to present a description of the relative health of the salmon stocks which are of primary interest to the Council. It could well be simply an update of the previous year's assessment based on the escapement and catch information in the post-season evaluation (Section 3.10).

2. Review of management principles. It is generally true that certain principles are fixed, including the management unit, the escapement goals, and the general management objectives. These would be subject to change only in unusual circumstances. They will be reviewed annually to determine the need for amendment. This section would provide that review and, if any changes are recommended, would indicate the type of change, the reasons for change, and the implications of such a change. Among the items which might bring about the need for changes are international agreements, court decisions, legislation, and significant new research findings. It is expected the general principles will remain constant for several years.

3. Derivation of estimated total harvestable amounts of salmon. The pre-season predictions of run sizes, minus escapement goals, inside fishery requirements and treaty Indian obligations equal harvestable returns potentially available to all ocean salmon fisheries. This is not to be considered as a quota. Rather, it would be an attempt to indicate the number of salmon by species and area which could be subject to harvest assuming pre-season predictions are on target and the Council or Secretary has no specific reason to propose a different level of harvest.

4. Proposed specific, annual management objectives. As noted earlier, the Framework Amendment's management objectives are broad. Some elements can be stated in more specific form only when stock or fishery conditions for the next year and the results of the previous season are known. Allocations and quotas could be among the specific objectives.

5. Evaluation and comparison of effects of alternative management strategies and measures. This would be an examination of ways in which the specific objectives could be achieved and their impacts on stocks, on the sectors of the fisheries, and on administrative and enforcement programs. The trade-offs between alternatives would be displayed to assist the Council and Secretary in achieving a balance between different objectives. Among the factors to be covered would be the impact categories identified in the Magnuson Act, E.O. 12291, the RFA, and the NEPA. Impacts would be presented in quantitative terms to the extent possible.

5.5 Summary

The primary objective of this chapter has been to adequately describe the process of analyzing social and economic impacts under the Framework Amendment. In order to accomplish this goal, the analytical requirements mandated by legislative and executive actions were first described. The sources and type of data which have been used in the past to fulfill these requirements were examined in Section 2. Where possible, areas for improved economic data collection and analysis were identified.

After discussing the more global factors which influence social and economic conditions in the fishery, making analysis of regulatory impact exceedingly difficult, an effort was made to identify the range of economic impacts under the Framework Amendment.

Due to the procedural nature of the Framework Amendment and a number of outside environmental and world market factors, this generic RIR/RFA approach is only partially successful. In order to satisfy the intent of socio-economic analysis requirements embodied in the previously referenced legislation, a pre-season and post-season review of social and economic considerations is proposed. In this manner, the impacts of annual regulatory options, within the specific environmental and market conditions of a given year, can be examined. Incorporation of this information and analysis into the Salmon Plan Development Team's report for the Council will also allow for extensive public review (see Section 3.11, Schedule and Procedures for Pre-season Modification to the Regulations).

6.0. RELATIONSHIP OF THE PROPOSED ACTION TO OTHER PLANS, LAWS AND REGULATIONS

The Framework Amendment to the 1978 salmon plan and the regulations that will implement it relate to a variety of state, federal and international plans, regulations and agreements.

6.1. State Laws and Regulations

This action recognizes that any state law which pertains to fishing activities that are addressed in this action or the regulations that implement this action and which applies to fishing vessels registered under the laws of that state while operating in the Council's fishery management area, (including any state landing law), shall continue to have force and effect if that state law is consistant with the salmon management plan.

The Framework Amendment is related to state fishery management efforts. The Washington Department of Fisheries, Oregon Department of Fish and Wildlife, and California Department of Fish and Game also manage salmon in state territorial and internal waters. Each of the states has regulatory systems for vessel licensing, seasons, quotas, and other aspects of the fishery. The Idaho Department of Fish and Game also has management authority over salmon in Idaho streams and it is a member of the Pacific Fishery Management Council. State input to the salmon management process in the FCZ is assured through participation on the Council.

6.2. Federal Laws and Regulations

This action, which is authorized under the Magnuson Act, relates to numerous other federal laws and regulations including the following:

1. Coastal Zone Management Act
2. Endangered Species Act
3. Executive Order 12291
4. Marine Mammal Protection Act
5. National Environmental Policy Act
6. Pacific Northwest Electric Power Planning and Conservation Act
7. Paperwork Reduction Act
8. Regulatory Flexibility Act
9. Salmon and Steelhead Conservation and Enhancement Act

6.2.1 Coastal Zone Management Act (CZMA)

The Coastal Zone Management Act of 1972 (CZMA) specifies at Section 307(c)(1) that "Each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs."

The Magnuson Act specifies at Section 303(b) that "Any fishery management plan which is prepared by any Council or by the Secretary, with respect to any fishery, may...(5) incorporate (consistent with the national standards, the

other provisions of this Act, and any other applicable law) the relevant fishery conservation and management measures of the coastal states nearest to the fishery."

Both the CZMA and the Magnuson Act establish policies that affect the conservation and management of fishery resources.

NOAA administers both the Magnuson Act and the CZMA. Moreover, it is NOAA's policy that the two statutes are fundamentally compatible and should be administered in a manner to give maximum effect to both laws. It is also NOAA's current policy that most FMPs (and amendments of FMPs) constitute a federal activity that "directly affects" the coastal zone of a state with an approved coastal zone management program. 1/ NOAA recognizes that fisheries constitute one of the key resources of the coastal zone and that the preparation and implementation of FMPs to regulate fisheries in the FCZ could have a direct effect on the state's coastal zone because of the division of the fishery resources between the FCZ and state territorial and internal waters.

The CZMA and the Magnuson Act establish time frames for consistency review and approval of FMPs and amendments that are approximately equal. However, these time frames may, on occasion, cause procedural problems in coordinating consistency review and approval of FMPs or amendments.

NOAA regulations require that consistency determinations be provided to states with approved programs "at least 90 days before final approval of the federal activity unless both the federal agency and the state agency agree to an alternative notification schedule" (15 CFR 930.54(b)). Similarly, NOAA regulations encourage federal agencies to provide consistency determinations "at the earliest practical time" in the planning of an activity, "before the federal agency reaches a significant point of decisionmaking in its review process" (930.54(b)). A state must indicate its agreement or disagreement with the consistency determination within 45 days from receipt of the determination. If the state fails to respond within 45 days, the state's agreement may be presumed. However, the state may request one 15-day extension before the expiration of the 45-day period, and the federal agency must comply. Longer extensions may be granted by the federal agency (15 CFR 930.41).

The Magnuson Act requires that the Secretary of Commerce review an FMP or amendment prepared by a Council and notify such Council of his approval, disapproval, or partial approval within 95 days after he receives the FMP or amendment (P.L. 97-453).

1/ In January 1984, the Supreme Court in the Secretary of the Interior et. al. v. California et. al. found that Outer Continental Shelf lease sales do not "directly affect" the coastal zone and are not subject to the consistency review under Section 307(c)(1) of the CZMA. NOAA is consulting other federal agencies seeking the advice of the public and analyzing the Court's decision as it affects other federal activities. NOAA has not yet reached a conclusion in this regard. The U.S. Congress also is considering the matter. A bill has been introduced which would reverse the Supreme Court decision regarding federal activities seaward of the coastal zone.

NOAA has determined that for the purpose of this Framework Amendment, a general consistency determination should be issued relative to the Washington, Oregon, California, and San Francisco Bay Area Coastal Zone Management Plans in accordance with 15 CFR 930.37(b) which states:

> "In cases where federal agencies will be performing repeated activity other than a development project (e.g., ongoing maintenance, waste disposal, etc.) which cumulatively has a direct effect upon the coastal zone, the agency may develop a general consistency determination thereby avoiding the necessity of issuing separate consistency determinations for each incremental action controlled by the major activity. A general consistency determination may only be used in situations where the incremental actions are repetitive or periodic, substantially similar in nature, and do not directly affect the coastal zone when performed separately. If a federal agency issues a general consistency determination, it must thereafter periodically consult with the state agency to discuss the manner in which the incremental actions are being undertaken."

The determination of consistency will serve for the life of the Framework Amendment and will only be supplemented if the escapement goals for either Washington, Oregon, or California are reduced by the Council to levels below those established in the approved state coastal zone management programs and which are enforceable and mandatory provisions of the programs. The facts and analysis on which these consistency determinations are based for each of the four CZ programs are as follows.

6.2.1.1. Washington State Coastal Zone Management Program

The Washington Department of Ecology (DOE) is the lead state agency for implementation of the Washington Coastal Zone Management Program (WCZMP). The coastal zone boundary embodies a two-tier concept. The first or primary tier, bounded by the "resource boundary," encompasses all of the state's marine waters and their associated wetlands, including, at a minimum, all upland area 200 feet landward from the ordinary high water mark. The second tier, bounded by the "planning and administrative boundary," is composed of the area within the fifteen coastal counties which front on saltwater. The second tier is intended to be the maximum extent of the coastal zone and, as such, is the context within which coastal policy planning is accomplished through the Washington CZM Program.

Among authorities for management of the coastal zone are the Shoreline Management Act and implementing regulations, the Federal and State Clean Air Act requirements, and the energy facility siting law. Together, these authorities establish priorities for permissibility of uses and provide guidance as to the conduct of uses of Washington's coastal zone. The emphasis of the program includes not only Washington coastal waters, but the shoreline jurisdiction throughout the 15 coastal counties.

The WCZMP provides a consistency review mechanism for federal activities affecting the coastal zone based on specific policies and standards. For federal activities requiring no permits, but having coastwide implications

(such as FMPs), the policies and standards addressed in the Shoreline Management Act of 1971 (RCW 90.58) and the Final Guidelines (WAC 173-16) provide the basis for determining consistency.

The management goals in the Shoreline Management Act emphasize a balance between conservation and use of the shorelines. More specific priorities were given to "shorelines of state-wide significance" encompassing an area including Washington ocean waters and shoreline from Cape Disappointment on the south to Cape Flattery on the north, including harbors, bays, estuaries, and inlets.

The Framework Amendment is consistent with the following directives contained in the Washington Coastal Zone Management Program:

(a) Recognize and protect the statewide interest over local interest.

The Council has incorporated state interests in the Framework Amendment by adopting the spawning escapement goals that were recommended by the Washington Department of Fisheries and the treaty Indian tribes.

Under the ocean salmon plan and its previous amendments, the Council established discrete ocean management areas and developed regulatory measures for fisheries that take place in those areas. The management areas and boundary demarcations have been established for the purpose of marking the approximate northern and southern migration limits of the primary salmon stocks that are included within the Council's coastwide fishery management unit. For example, Leadbetter Point, Washington, has been identified as the approximate northern limit of migration for coho salmon stocks that are included in the Oregon Production Index. This regional approach to fishery management enhances the ability to reach the state-adopted escapement goals by targeting management measures in areas where fisheries harvest the involved stocks.

To ensure that statewide and coastwide interests take precedent over local interests, the Council adopted management objectives that emphasize the need for fair and equitable treatment (in the form of harvest opportunities) for all user groups. For example, Harvest Management objectives 1(d) and 4 state respectively:

"Harvest allocations of salmon stocks between ocean and inside recreational and commercial fisheries shall be fair and equitable and fishing interests shall equitably share the obligations of fulfilling any treaty or other legal requirements for harvest opportunities."

And "Develop fair and creative approaches to managing fishing effort and evaluate and apply effort management systems as appropriate to achieve these management objectives."

(b) Preserve the natural character of the shoreline.

This Framework Amendment should have no direct impact on the natural character of the Washington shoreline. The salmon fishing regulations that are implemented as a result of this action will be effective outside of state territorial waters in the fishery conservation zone.

(c) Result in long-term over short-term benefit.

The Framework Amendment requires the annual balancing of short-term and long-term social and economic benefits, with the short-term and long-term resource conservation needs. Ocean commercial and recreational fisheries off Washington have been curtailed in recent years in order to help rebuild depressed runs. It is likely that both the recreational and commercial ocean salmon fisheries will be restricted for the short-term under this amendment. However, such restrictions will continue only until long-term escapement goals are reached and maintained.

(d) Protect the resources and ecology of the shoreline.

The purpose of the fishery management plan, and the Framework Amendment is to conserve and protect the salmon resources for current and future use. In this regard, this action is consistent with this goal.

(e) Increase public access to publicly-owned areas of the shoreline.

The Framework Amendment will not have any direct or indirect effect on public access to publicly-owned areas along the coastal zone.

(f) Increase recreational opportunities for the public in the shoreline.

The Framework Amendment provides the regulatory mechanisms to establish recreational opportunities consistent with the needs to conserve and protect the resource and the needs of competing user groups. Harvest Management Objective #3 (Section 3.2.1) requires the Council to "Manage and regulate the fisheries so that the optimum yield encompasses the quantity and value of food produced, the recreational value (emphasis added), and the social and economic values of the fisheries." The Council's intention to maximize recreational salmon fishing opportunities (consistent with resource conservation needs and the requirements of other user groups) is established in the Harvest Management Objectives.

The concept of preferred shoreline uses has been incorporated in DOE's final guidelines, with water-dependent uses clearly a priority over water-oriented or nonwater-oriented uses. Guidelines address uses compatible with (1) the natural environment, (2) the conservancy environment, (3) the rural environment, and (4) the urban environment. Of the 21 individual development policies in the final guidelines, three have relevance or potential relevance to the federal activity proposed in this Framework Amendment of the ocean salmon fishery management plan.

Commercial Development: Shoreline-dependent commercial development and developments which will provide shoreline enjoyment for a large number of people shall be preferred. New commercial activities shall locate in urbanized areas.

Ports and Water-related Industry: Industry which requires frontage on navigable waters should be given priority over other industrial uses. Prior to allocating shorelines for port uses, regional and state-wide needs for such uses should be considered.

Although this Framework Amendment does not specifically address development of water-related coastal industry, the protection and enhancement of ocean resources may provide an incentive for shoreside commercial development. Numerous shoreside fish plants process salmon that are caught in the fishery conservation zone. Some of the processors are dependent on the salmon fishery and will be affected by regulatory decisions made under the Framework Amendment. Consideration of the economic success of shoreside commercial developments that are dependent on salmon fisheries is an important economic factor in the annual determination of total allowable ocean harvest by the Council.

Recreation: Priority will be given to developments which provide recreational uses and other improvements facilitating public access to shorelines. Water-oriented recreation is a preferred use along the shorelines, but it should be located and conducted in a way which is compatible with the environment.

The Framework Amendment does not specifically address shoreside recreational development, but again the conservation, protection, and enhancement of ocean resources could provide an incentive for such developments. Additionally, the Council has demonstrated its intention to maximize recreational fishing opportunities even during periods of low resource abundance. For example, when it became apparent in 1983 that several natural Washington coastal salmon stocks would be severely depressed, the Council adopted a management regime that enabled recreational and commercial fisheries to target on healthy hatchery stocks while minimizing fishing pressure on the weak natural stocks. The Council also adopted a species substitution rule in 1983 that permitted the recreational fishery to substitute and target on the more abundant coho salmon for the less abundant chinook salmon and thus maximize the opportunity for a longer fishing season. The Council also adopted a series of open fishing seasons in smaller areas both in the FCZ and in state territorial waters that permitted the recreational fishery to target on the more abundant hatchery stocks and away from the less abundant natural stocks.

6.2.1.2 Oregon State Coastal Zone Management Program

This section consists of an analysis of available facts and determination of consistency with the Oregon Coastal Management Program. The components of the Oregon Coastal Management Program are described.

The Oregon program calls for consistency review for activities directly affecting the coastal zone, including air, water, scenic, living, economic, cultural and/or mineral resources of the coastal zone.

The basis for the Oregon program is the 1973 Oregon Land Use Act, ORS 197. Oregon's program relies on the combined authority of state and local governments to regulate uses and activities in the coastal zone. The principal components of Oregon's program are: (1) a total of 19 statewide planning goals and supporting guidelines adopted by the Land Conservation and Development Commission (LCDC), the state's coastal zone agency; (2) coordinated comprehensive local plans prepared by local governments and approved by the LCDC; and (3) selected state statutes implemented by various state agencies.

Local and state planning decisions must comply with the Statewide Planning Goals, which serve as the program's overriding standards until local comprehensive plans are developed and acknowledged by LCDC. Once acknowledged, the comprehensive plans supersede the goals as standards for state and federal planning and activities in the coastal zone. Coastal zone boundaries are generally defined to extend to the state's seaward limit (three miles offshore) and inland to the crest of the coastal mountain range.

The Oregon Coastal Management Program was approved by the U.S. Secretary of Commerce on May 6, 1977 with the Department of Land Conservation and Development as the implementing agency. The term "consistent" is interpreted by federal regulations as not requiring the management of salmon within the 197-mile federal fishery conservation zone to be the same as the state management within the three-mile territorial sea and inland waters. Rather, the term "consistent" requires federal management to be compatible with state management. However, federal management may be more restrictive than state management when more restrictive management is necessary to meet the standards of the Federal Magnuson Fishery Conservation and Management Act (Magnuson Act) as amended. Federal management will be consistent with state management if enough adult salmon escape capture in the fishery conservation zone to allow for state managed ocean and inland salmon fisheries and sufficient spawning escapements. Spawning escapements will be sufficient if the natural spawning escapement goals are met and if Oregon hatcheries meet their egg needs.

Table 6-1 lists the statewide planning goals, state laws, and local plans that have been examined in this consistency determination and categorizes them according to their degree of applicability to the Framework Amendment.

Table 6-1. Oregon Statewide Planning Goals and State Statutes

Category 1. Most Applicable Goals/Statutes	
Goal No. 1	Citizens Involvement in Planning
Goal No. 19	Ocean Resources
ORS 506.109	Foodfish Management
Category 2. Other Applicable Goals/Statutes	
Goal No. 5	Preservation of...Natural Resources
Goal No. 8	Recreational Needs
Goal No. 16	Estuarine Resources
ORS 496-012	Wildlife Policy
ORS 506.201-506.211	Oregon Fish and Wildlife Management Planning
Category 3. Potentially Applicable Goals/Statutes/Plans	
Goal No. 2	Land-Use Planning
Goal No. 9	Economy of the State
Goal No. 17	Coastal Shorelands
ORS 184.033	Economic Development
ORS 777.835	Ports Planning
Acknowledged, Local, Comprehensive Plans and Land Use Regulations	

Table 6-1 (continued)

Category 4. Goals Relatively Inapplicable to the Proposed Action

Goal No. 3	Agricultural Lands
Goal No. 4	Forest Lands
Goal No. 6	Air, Water, and Land Resources Quality
Goal No. 7	Areas Subject to Natural Disasters
Goal No. 10	Housing
Goal No. 11	Public Facilities and Services
Goal No. 12	Transportation
Goal No. 13	Energy Conservation
Goal No. 14	Urbanization
Goal No. 18	Beaches and Dunes

Goal 19, Ocean Resources, is the most pertinent aspect of the Oregon coastal zone program that relates to the Framework Amendment. The overall statement of Goal 19 is:

> "To conserve the long-term value, benefits and natural resources of the nearshore ocean and the continental shelf. All local, state, and federal plans, projects and activities which affect the territorial sea shall be developed, managed and conducted to maintain, and where appropriate, enhance and restore, long-term benefits derived from the nearshore oceanic resources of Oregon. Since renewable ocean resources and uses, such as food production, water purity, navigation, recreation and aesthetic enjoyment will provide greater long-term benefits than will nonrenewable resources, such plans and activities shall give clear priority to the proper management and protection of renewable resources."

Guidelines for Goal 19 reflect concerns for awareness of impacts upon fishing resources, biological habitat, navigation and ports, aesthetic uses, recreation and other issues.

Goal 19 is administered by the LCDC. The LCDC has identified the following components of Goal 19, Implementation Requirement 2, as directly applicable to the Framework Amendment.

a. The requirement to determine the impact of the proposed action.
b. The requirement to develop scientific information on the stocks of commercially, recreationally, and ecologically important species of fish.
c. The requirement to designate and enforce fishing regulations to obtain an optimum sustainable yield while protecting the natural marine ecosystem.
d. The requirement to identify and protect important feeding areas, spawning areas, nurseries, migratory routes or other biologically important areas of commercially and recreationally important fish and shellfish.
e. The requirement to identify, maintain and enhance the diversity, quality and quantity of recreational opportunities over Oregon's continental shelf.

The management objectives that are expressed in the Framework Amendment are consistent with the objective of Goal 19, the protection and conservation of ocean resources. Goal 19 emphasizes the long-term benefits that would be

derived from the conservation and restoration of the renewable nearshore oceanic resources. The Framework Amendment emphasizes the need to establish management measures that will provide for the conservation and protection of salmon stocks and will help rebuild some stocks that have been chronically depressed.

ORS 506.109 is administered by the Oregon Fish and Wildlife Commission (OFWC). The OFWC has identified the following components of ORS 506.109 as directly applicable to the Framework Amendment.

a. The requirement to maintain all species of food fish at an optimum level in all waters of the state and to prevent the extinction of any indigenous species.

b. The requirement to develop and manage the lands and waters of the state in a manner that will optimize the production, utilization, and public enjoyment of food fish.

c. The requirement to regulate food fish populations and the use and public enjoyment of food fish in a manner that is compatible with other uses of the lands and waters of the state, and to provide the optimum commercial and public recreational benefits.

d. The requirement to preserve the economic contribution of the sports and commercial fishing industries in a manner consistent with sound food fish management practices.

The Oregon Fish and Wildlife Commission (OFWC) was given broad discretion to define the term "optimize" and "optimum" by the Oregon State Legislature. Establishing optimum management measures requires the balancing of management objectives which may conflict with one another. The OFWC has chosen to determine these optimum management measures through its June 1, 1982 Comprehensive Plan for the Production and Management of Oregon's Anadromous Salmon and Trout which is not a part of Oregon's approved coastal zone management program. Comprehensive planning is completed for coho salmon and the optimum yield for coho is defined as a sustainable yield of 2.2 million adults composed of 1.67 million hatchery fish and 0.53 million wild fish. In order to reach this optimum sustainable yield, a natural spawning escapement of 200,000 adult coastal coho is required and private and public hatchery needs must also be met.

Since an optimum sustainable yield of Oregon coastal coho did not exist at the time that either Goal 19 or the Magnuson Act became effective, the OFWC has adopted a rebuilding program designed to achieve an optimum sustainable yield by 1987. Incremental progress in achieving the annual interim escapement goals is, however, recognized as meeting the optimum sustainable yield criteria of Goal 19 as well as ORS 506.109. The PFMC has included the rebuilding schedule from the OFWC's coho plan within the Framework Amendment. The escapement goals are compatible with the OFWC's Coho Plan escapement goals. The analyses used to predict coho abundance will be reviewed regularly to account for changes in natural mortality, density dependent mortality and other factors according to the best available scientific information.

Comprehensive planning is not complete for Oregon Coastal chinook salmon, but the best scientific information available indicates that coastwide, wild and naturally spawning stocks are presently managed at an optimum sustainable yield. The Framework Amendment includes natural spawning escapement goals for Oregon's coastal chinook. These goals are compatible with Oregon's escapement goals. Oregon's coastal chinook component of the Framework Amendment is consistent with all applicable policies of the Oregon Coastal Management Program.

Many naturally spawning stocks of Columbia River chinook are being managed at a level well below optimum sustainable yield. Scientific information that is necessary to fully quantify the impacts on these stocks from implementing the Framework Amendment is not available. The Framework Amendment proposes management measures that are designed to meet treaty Indian obligations while also preventing the further reduction of these depressed stocks. There is no scheduled program to rebuild certain naturally spawning stocks of upper river chinook to optimum sustainable yield, but the Framework Amendment management measures will maintain these stocks at conservation levels. Both the Magnuson Act and Oregon Law permit the prolonged harvest of certain stocks within a mixed stock fishery provided that this management would not seriously deplete any species or require the protection of any stock under the Endangered Species Act. Upper river, bright, fall chinook are expected to meet the long term escapement goal past McNary Dam, but no separate escapement goals have been established for the individual components of this stock. Upper river, naturally spawning, spring and summer chinook stocks also are severely depressed.

The lower-river fall chinook are managed for hatchery production. Lower-river (Willamette) spring chinook are expected to meet the escapement goal. The lower-river chinook and some components of the upper-river, fall chinook hatchery stocks are being managed at an optimum sustainable yield, and the Framework Amendment provisions for these stocks are fully consistent with all applicable policies of the Oregon Coastal Management Program.

The Framework Amendment provisions for upper-river, naturally spawning, bright, fall chinoook stocks; upper river, naturally spawning, spring chinook stocks; and upper-river, naturally spawning, summer chinook stocks are not consistent with the applicable enforceable policies of the Oregon Coastal Management Program. However, unless and until, the proposed U.S.-Canada salmon interception treaty is ratified by the United States Senate and signed by the President, it will not be possible to implement a rebuilding program for these depressed stocks. The Framework Amendment provisions for these depressed stocks are, however, "to the maximum extent practicable" consistent with the Oregon Coastal management program because: (1) these depressed stocks are being maintained at least at conservation levels; (2) monitoring of these stocks is ongoing; (3) the best scientific information is being used in determining what these conservation levels should be; and (4) a rebuilding program will be implemented for these stocks as soon as such a program becomes possible.

ORS 506.109 and Goal No. 5 also address the issue of conservation of natural resources. The guidelines call for fish and wildlife areas and habitats to be protected and managed in accordance with the OFWC management plans. The Framework Amendment contains escapement goals and management objectives for various salmon stocks off Oregon that were developed by the Oregon Department of Fish and Wildlife and adopted by the Oregon Fish and Wildlife Commission.

The desired 1984 objective for natural spawning stocks of Oregon coastal coho is to achieve a spawning escapement of 135,000 adults. This goal represents an increase of 25% over the 1980 brood year (107,500) and is consistent with Oregon's program for rebuilding coastal stocks to optimum spawning levels of 200,000 by 1987 as stated in Oregon's Coho Plan. Under this rebuilding schedule, the optimum escapement of 200,000 adults would be achieved in 1987.

Goal 16 addresses the protection of estuarine resources. This goal emphasizes the need for protection, maintenance, development, and appropriate restoration of long-term environmental, economic and social values; diversity, and benefits of Oregon's estuaries. Comprehensive plans and activities affecting estuaries must protect the estuarine ecosystem including its biological productivity, habitat, diversity, unique features, and water quality. However, Goal 16 underscores the need to classify Oregon estuaries and to specify "the most intensive level of development or alteration which may be allowed to occur within each estuary." The Framework Amendment, and the fishing regulations that will be implemented under this amendment, are resolved to conserve, protect, and perpetuate the salmon resources that utilize the estuaries during part of their life cycle. Neither the amendment nor the regulations that will be implemented will have a direct effect on development or alteration of the estuarine environment.

Goal No. 8, Recreational Needs, refers to existing and future demand by citizens and visitors for recreational facilities and opportunities. Planning guidelines recommend that inventories of recreational opportunities be based on adequate research and analysis of the resource, and where multiple uses of the resource exist, provision be made for recreational users. The Framework Amendment contains provisions that assure the continued opportunity for recreational fishermen to harvest salmon subject to resource conservation needs and competitive needs of other resource harvesters.

Goal No. 1, Citizen Involvement, calls for the coordination of state, regional, and federal planning with the affected governing bodies and citizenry. Guidelines address communication methods, provision of technical information, and feedback mechanisms to assure the opportunity for citizen involvement in planning processes. The process described in the Framework Amendment provides for close collaboration and coordination among the state, federal and tribal salmon management entities and assures citizen involvement in decision-making through the forum of the Pacific Council and through a series of public hearings that are convened before the Council adopts any fishery management measures.

Insofar as FMPs and amendments have the potential to indirectly affect the coastal zone by stimulating private development of new markets or development of fish handling and processing facilities, or otherwise influence land-use planning, Goals 2, 9, and 17 may also apply. Since the ocean salmon fishery is not expanding, it is unlikely that any of these effects will occur.

This determination of consistency will serve for the life of the Framework Amendment and will only be supplemented if the escapement goals are reduced by the Council to levels below those established by the Oregon Department of Fish and Wildlife and adopted by the approved Oregon coastal zone management program.

The PFMC has abided by the National Environmental Policy Act, the Federal Administrative Procedure Act and the Council on Environmental Quality's guidelines when adopting the Framework Amendment. Public involvement has been extensive and will continue during annual implementation meetings and any supplemental consistency determinations which may be required. Compliance with these federal procedures also assures compliance with the citizen involvement requirements of Statewide Planning Goal 1.

6.2.1.3 California State Coastal Zone Management Program and San Francisco Bay Plan

The California Coastal Zone Management Plan is based upon the California Coastal Act of 1976, Division 20, California Public Resources Code, Sections 30000, et. seq.; and the California Urban and Coastal Park Bond Act of 1976, Division 5, CPRC 5096.777 et. seq.; and the California Coastal Commission Regulations, California Administrative Code, Title 14.

The California Coastal Act establishes a structure for state approval of local coastal programs (Section 30050). The California Coastal Commission is the state's coastal zone agency (Section 30300). The coastal zone boundaries are generally the seaward limit of state jurisdiction, and inland to 1,000 yards from the mean high-tide line.

The general provisions of the California Program that address issues significant to this analysis concern the protection of the ocean's resources, including marine fish and the natural environment. The program also calls for the balanced utilization of coastal zone resources, taking into account the social and economic needs of the people of the state. Specific coastal zone policies developed to achieve these general goals and which are applicable or potentially applicable to the regulatory measures proposed in the amendment to the salmon plan have been identified as follows:

(a) Section 30210. "...recreational opportunites shall be provided for all the people consistent with the need to protect natural resource areas from overuse."

This goal is consistent with several of the objectives of the Framework Amendment, most notably Harvest Management Objective 1d. The amendment seeks to provide recreational fishing opportunities, consistent with the needs of other user groups and the need to protect the resource. Harvest Management Objective 1d of the Framework Amendment (Section 3.2) (presented below) describes the Council's intent to provide recreational fishing opportunities that are consistent with the need to conserve and protect the resource and with Section 30210 of the California Plan.

> "Establish ocean harvest rates for commercial and recreational fisheries that are consistent with requirements for optimum spawning escapements, treaty obligations and continuance of established recreational and commercial fisheries within the constraints of meeting conservation and allocation objectives. Achievement of this objec-

tive requires that: ...(d) Harvest allocations of salmon stocks between ocean and inside recreational and commercial fisheries shall be fair and equitable and fishing interests shall equitably share the obligations of fulfilling any treaty or other legal requirements for harvest opportunities."

(b) Section 30231. "The biological productivity and quality of coastal waters, streams, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and, where feasible, restored..."

The action that is proposed in the Framework Amendment does not affect the quality of coastal waters. However, it does provide for the conservation of salmon stocks, which are an integral part of the ecology of the coastal waters.

The Council adopted several Habitat and Environment Objectives that relate to the biological productivity of the salmon resource and the need to protect and restore spawning (freshwater) habitat and water quality. The Council's Environmental Objectives (Section 3.2.2.1) are:

"1. All available or potential natural habitat for anadromous salmonids should be restored or replaced by encouraging management of conflicting uses to assure no obstruction to access, and a maintenance of high standards to protect water quality and quantity for migration, spawning, and rearing of salmon and steelhead.

2. Water of suitable quality and quantity should be allocated for anadromous salmonid uses.

3. Improvement of provisions for safe passage of anadromous salmonids at existing or future obstructions, dams, and pump intakes will be advocated, supported, and where possible, carried out."

(c) Section 30230. "Uses of the marine environment shall be carried out in a manner...that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes."

The action proposed in the Framework Amendment assures the protection of coastal stocks by specifying harvest levels that are designed to achieve the state-established spawning escapement goals (see Section 3.5 of the Framework Amendment). In the case where specific stocks have been identified as needing special protection, e.g., Klamath River chinook, long-term rebuilding schedules have been established that require the orderly rebuilding of those stocks.

(d) Section 30234. "Facilities serving the commercial fishing and recreational boating industries shall be protected, and where feasible, upgraded."

The Framework Amendment does not specifically address the development of shoreside facilities that serve the commercial and recreational fishing industries. Consideration of fisheries-dependent commercial industries is an important social-economic factor in the Council's annual determination of optimum yield. (See Section 5 of this plan for a discussion of socio-economic factors that have been considered in the development of the Framework Amendment.)

(e) Section 30260. "Coastal-dependent industrial facilities (such as fishing support) shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with the Act."

(f) Section 30708. "All port-related developments shall be located...so as to...give highest priority to the use of existing land space within harbors for port purposes including...necessary (commercial fishing) support and access facilities."

The action proposed in the Framework Amendment does not address the location of coastal-dependent industry or ports. However, the amendment does provide the mechanism to manage offshore salmon fisheries in order to assure the conservation of salmon stocks and the continuance of established recreational and commercial fisheries. This will result in the continued need for support and access facilities that are located on shore.

(g) Section 30411. "The California Department of Fish and Game and the Fish and Game Commission are the state agencies responsible for the establishment and control of wildlife and fishery management programs.."

The Director of the California Department of Fish and Game (CDFG) is a voting member of the Pacific Council. Salmon fishery experts from the CDFG participate on the Council's salmon fishery management plan development team and have helped develop this Framework Amendment. The Magnuson Act mandated that all interested individuals, including state fishery management personnel, would have the opportunity to participate in the preparation of fishery management plans and amendments. This action is consistent with the provisions of Section 30411 because the CDFG has been involved in the planning process for those parts of the proposed action that pertain to the management of California fisheries. The CDFG also proposed the spawning escapement goals for the California chinook salmon resource that the Council finally adopted.

The California State Coastal Zone Management Program does not include San Francisco Bay. The San Francisco Bay Conservation and Development Commission has jurisdiction over the Bay itself, as well as any river, stream, tributary, creek, flood control or drainage channel that flows into the Bay.

The San Francisco Bay Plan was approved by the California legislature in 1969. Part II of the Plan describes the Commission's objectives as follows:

1. Protect the Bay as a great natural resource for the benefit of present and future generations.

2. Develop the Bay and its shoreline to their highest potential with a minimum of Bay filling.

Part III of the Bay Plan describes the findings and policies of the Commission including fish and wildlife policies for the Bay. The adopted policies state:

"1. The benefits of fish and wildlife in the Bay should be ensured for present and future generations of Californians. Therefore, to the greatest extent feasible, the remaining marshes and mudflats around the Bay, the remaining water volume and surface area of the Bay, and adequate fresh water inflow into the Bay should be maintained.

"2. Specific habitats that are needed to prevent the extinction of any species, or to maintain or increase any species that would provide substantial public benefits, should be protected, whether in the Bay or on the shoreline behind dikes..."

Part IV of the Bay Plan presents the findings and policies concerning the development of the Bay and the adjacent shoreline. Emphasis is given to the consideration of construction projects on filled lands and the controls over filling and dredging in the Bay.

The Framework Amendment does not address water flows, inshore habitat protection, or shoreline development. However, there are major similarities between the action that is proposed in the Framework Amendment and the Bay Plan. The Bay Plan includes inventories of the conditions that exist in the coastal zone and planning policies that are designed to balance resource protection, conservation and enhancement with resource development and utilization. At the core of the Bay Plan is the recognition of the need to preserve the coastal zone resources for use by current and future generations.

Likewise, the Framework Amendment includes a status report of the fishery resource and of the user groups. This action provides the mechanism to annually balance short-term and long-term resource conservation needs with the socio-economic needs of the resource users. At the core of the proposed action is the recognition that the resource must be protected for current and future generations. Thus, the proposed action and the Bay Plan are philosophically compatible and consistent.

6.2.1.4 Consistency Determinations

Based on the information cited above in this section and in Sections 2.0, 3.0, 4.0 and 5.0, NMFS has determined that the activities proposed in the Framework Amendment are consistent with the approved San Francisco Bay, California, Oregon, and Washington coastal zone management plans. If in the future, the Council reduces any escapement goals to levels below those established in the approved state coastal zone management programs, and which are enforceable and mandatory provisions of the programs, a supplemental consistency statement will be prepared.

6.2.2. Endangered Species Act (ESA) of 1973

The purposes of the ESA are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered and threatened species, and to take such steps as may be appropriate to achieve the objectives of the treaties and conventions created for these purposes.

The Council and the NMFS have determined that the conservation and management measures that are proposed in the Framework Amendment will have no adverse impact on any threatened or endangered species in the Council's fishery management area (jurisdiction) and will not jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat of any such species.

Whenever any fish species is listed as endangered, the taking, possession, transport and sale of that species becomes (with minor exceptions), a prohibited act. A salmonid listed as threatened (i.e., likely to become endangered) could be harvested under certain conditions, but with a listing as either endangered or threatened there would likely be major ramifications for harvest management, particularly the harvest of mixed stocks which include a listed species.

In 1978 the National Marine Fisheries Service and Fish and Wildlife Service initiated a review of salmon in the upper Columbia River Basin. The purpose of the review was to determine whether any of these upriver populations warranted listing as threatened or endangered species under Section 4 of the ESA. Under the ESA, a "species" may be listed for protection if it is threatened or endangered for any of five reasons, including habitat destruction or degradation and inadequate regulatory mechanisms. A listing decision must also take into account ongoing measures to conserve the species under consideration.

Since the initiation of the review, there have been significant legal and other developments directed toward the improved survival of Columbia River Basin upriver salmon (see Section 6.2.5). In view of these developments, the National Marine Fisheries Service and the Fish and Wildlife Service inactivated their consideration of Columbia River Basin upriver salmon for listing as threatened or endangered species.

6.2.3 Marine Mammal Protection Act (MMPA) of 1972

The purpose of the MMPA is to protect marine mammals and to prevent certain marine mammal species and stocks from falling below their optimum sustainable population which is defined in Section 3(8) as "...the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element."

Recreational and commercial salmon fishermen occasionally will have an incidental involvement with marine mammals. Any commercial fishermen that may expect to become involved with marine mammals incidental to normal fishing operations should apply to the NMFS for a free certificate of inclusion. The

certificate of inclusion prevents the fishermen from being in violation of the MMPA in the event a marine mammal is taken incidental to normal fishing operations.

Taking incidental to commercial fishing is only permitted by the MMPA for marine mammals which are not depleted as defined by Section 3(1). Fishing under the proposed Framework Amendment will not cause depletion of any marine mammal.

6.2.4. National Environmental Policy Act (NEPA)

In accordance with the NEPA and the Council on Environmental Quality regulations that implemented NEPA, the Pacific Council and the National Marine Fisheries Service have prepared a supplemental environmental impact statement (parts of Sections 2.0, 4.0, 5.0, 6.0, 7.0, 8.0) for this Framework Amendment to supplement the final EIS filed with the 1978 FMP as amended each year since 1978. The draft EIS was filed with the Environmental Protection Agency and a notice of availability of the draft EIS was published in the Federal Register on February 4, 1983. The SEIS and the Framework Amendment describe the proposed action, alternatives to the proposed action and an assessment of the impacts that may be expected as a result of the proposed action. A 45-day comment period was provided for public review and comment on the proposed action. The Council held six public hearings to receive comments about the draft Framework Amendment during the period from March 30, 1983 through April 1, 1983 and another six public hearings for the same purpose during the period from October 18, 1983 through October 20, 1983.

6.2.5 Pacific Northwest Electric Power Planning and Conservation Act of 1980 (NPPA)

There are two major fishery resource conservation purposes of the NPPA. The first is to protect, mitigate, and enhance the fish and wildlife, including related spawning grounds and habitat, of the Columbia River and its tributaries, particularly anadromous fish which are of particular importance to the social and economic well-being of the Pacific Northwest. This purpose is addressed by the Columbia Basin Fish and Wildlife Program, adopted by the Power Planning Council on November 15, 1982.

The second is to protect, mitigate, and enhance the fish and wildlife, including related spawning grounds and habitat throughout the Northwest, including provision of "sufficient quantities and qualities of flows for successful migration, survival, and propagation of anadromous fish." This purpose is addressed in the Regional Energy Plan adopted in April, 1983.

The Council, NMFS, and treaty Indian tribes have participated on the Power Planning Council (established by the NPPA) in developing and carrying out the fishery provisions of the Act. These fishery-related activities are entirely consistent and compatible with the conservation and management goals of the Framework Amendment.

Section 200 of the Columbia Basin Fish and Wildlife Program calls for the determination of anadromous fish production goals for each salmon and steelhead stock and each significant river basin by April 15, 1984. The Columbia

River Inter-Tribal Fish Commission, Oregon Department of Fish and Wildlife, Washington Department of Fisheries, and U.S. Fish and Wildlife Service have undertaken the joint conduct of a study to accomplish this objective. Section 500 of the Fish and Wildlife Program calls for fishery management entities to impose adequate controls on mixed-stock ocean harvest of Columbia Basin salmon and steelhead so that basin mitigation and enhancement measures can be effective. This Framework Amendment will facilitate these efforts.

6.2.6 Salmon and Steelhead Conservation and Enhancement Act of 1980 (SSCEA)

The purpose of the SSCEA is to assist the harvesters of salmon and steelhead trout within the Columbia River conservation area and the Washington conservation area established by the SSCEA to overcome temporary dislocations arising from federal court decisions concerning treaty Indian fishing rights. The SSCEA authorizes the establishment of a cooperative program involving the U.S., the States of Washington and Oregon, and the treaty Indian tribes. The program is designed to encourage stability and economic well-being of the treaty and non-treaty fishing industries and to improve the distribution of fishing power between treaty and non-treaty fisheries through vessel buy-back programs, and through coordinated fishery research, management, and enhancement programs.

The action and objectives proposed by this Framework Amendment are compatible with the purposes of the SSCEA and many of the parties involved under the SSCEA are also involved in the Council's coordinated ocean salmon management efforts.

Further, the Act declares that "...the supply of salmon and steelhead can be increased through carefully planned enhancement measures designed to improve the survival of stocks and to augment the production of artificially propagated stocks."

The SSCEA authorized the Secretary of Commerce to establish a twelve-member Salmon and Steelhead Advisory Commission (SSAC). The six voting members represent the states of Washington and Oregon, the Indian tribes with treaty fishing rights in the Washington and Columbia River conservation area, the National Marine Fisheries Service, and the Council. Six non-voting members include the Regional Director of the U.S. Fish and Wildlife Service and five other knowledgeable people.

The SSCEA authorizes the SSAC to develop a comprehensive plan with "recommendations...for the development of a management structure...for the effective coordination of research, management, and enforcement policies for the salmon and steelhead resources" of the Columbia River and its tributaries. The plan also is to provide recommendations for the "resolution of disputes between management entities" concerned with common stocks. Grants for activities consistent with the enhancement plan are authorized.

6.2.7 Magnuson Act Amendment

Public Law 97-243 amending the Magnuson Act passed Congress and was signed by the President early in 1983. Among other things, the amendment substantially revises the process of plan review by the Secretary of Commerce.

Under the new system, the Secretary must publish in the Federal Register any plan and proposed regulations received from a council, requesting comments for a 75-day period. Following the close of the comment period, the Secretary must complete a review of the plan within 20 days, addressing the public comments, data and views received, consultations with the Secretary of State regarding foreign fishing, and consultations with the Coast Guard regarding enforcement issues.

At any time during this period, the Secretary may notify the appropriate council of his approval, disapproval, or partial approval. If approval is granted, the plan becomes effective upon such approval. If no action is taken by the Secretary, the plan becomes effective at the end of the 20-day period (95 days after receipt).

If the plan is disapproved or only partially approved, the Secretary of Commerce must immediately notify the appropriate council of such action and the reasons for disapproval. The Council is then free to pursue the revision of the plan without time restrictions. All of the provisions relating to plans relate to plan amendments as well.

The process of implementing regulations also has been shortened by the new amendment. The Secretary must promulgate each regulation that is necessary to carry out a plan or amendment within 110 days after that plan or amendment was received by him for action.

6.2.8 Other Federal Acts and Executive Orders

The Paperwork Reduction Act, the Regulatory Flexibility Act, and Executive Order 12291 also relate to the process of developing and implementing the action proposed in this Framework Amendment.

The major purposes of the Paperwork Reduction Act of 1980 are: (1) to minimize the federal paperwork burden for individuals, small businesses, state and local governments; (2) to minimize the cost to the federal government of collecting, maintaining, using, and disseminating information; and (3) to ensure that the collection, maintenance, use and dissemination of information by the federal government is consistent with applicable laws relating to confidentiality. NMFS has determined that neither the Framework Amendment nor the regulations that will implement the Framework Amendment will involve any federal government collection of information that would violate the purposes and requirements of the Paperwork Reduction Act.

The major requirement of the Regulatory Flexibility Act of 1980 is for agencies to describe the impact(s) of a rulemaking action on small businesses. In particular, whenever an agency is required to publish a notice

of proposed rulemaking (as NOAA will be when regulations are published to implement the Framework Amendment), the agency shall prepare and make available for public comments an initial regulatory flexibility analysis (IRFA).

Executive Order 12291 establishes procedures for review and oversight of existing regulations, regulations which have been issued in final form but are not yet effective, regulations to be issued in final form, and regulations that the agency wishes to propose. The basic purpose of the Order is to ensure that, to the extent permitted by law, administrative decisions are based on adequate information concerning the need for and consequences of government action, and that regulatory action is not undertaken unless the potential benefits to society from the regulation outweigh the potential costs to society. In order to implement the Executive Order, each agency is directed, in connection with every major rule, to prepare a regulatory impact analysis (RIA).

The NOAA guidelines provide that the IRFA and the RFA can be combined into a single document called a regulatory impact review/initial regulatory flexibility analysis (RIR/IRFA). For the purpose of the action proposed in this Framework Amendment, Section 5.0 - Social and Economic Impacts, is also the RIR/IRFA.

It is likely that the NOAA Administrator will determine that the rule that will implement this Framework Amendment will not be a "major" rule under Executive Order 12291 thus not requiring the preparation of a regulatory impact analysis.

6.3 International Laws and Regulations

In odd-numbered years, e.g., 1983, pink salmon usually are abundant and available to ocean salmon fishermen, particularly off the northwest coast of Washington state. However, the management action proposed in this Framework Amendment does not apply to fishing for pink or sockeye salmon conducted under the Convention for the Protection, Preservation, and Extension of the Sockeye Salmon Fishery of the Fraser River System, as amended by the Pink Salmon Protocol, in U.S. Convention Waters between 48° N. latitude and the provisional international boundary between the United States and Canada.

6.4 Other Laws, Regulations, or Plans

One of the Council's primary management objectives is to adopt management measures that are consistent with treaty Indian fishing rights that have been recognized and upheld in recent judicial decisions. Section 4.2.1 of the 1978 plan describes and discusses treaty Indian fishing rights. Some negotiations are continuing between the States of Washington and Oregon, treaty Indian tribes, and the federal government concerning such issues as determinations of spawning escapement goals, allocations between user groups including other treaty tribes, etc. When these issues are resolved, the Council will incorporate any relevant salmon management agreements into its salmon management plan.

The Council will continue to coordinate its salmon management activities with similar salmon management activities of the North Pacific Fishery Management Council and the Canadian government. These ongoing management coordination activites are especially important for the conservation and enhancement of the depressed upper Columbia River chinook salmon stocks that are harvested off Alaska, British Columbia, Canada, and off the coasts of Washington and Oregon.

7.0 LIST OF PREPARERS

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8.0 LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE AMENDMENT ARE SENT

The Pacific Fishery Management Council mailed three different versions of the draft Framework Amendment, while it was being developed, to over 1500 individuals who had requested copies of the document, including representatives of the following agencies and organizations. (The list may not include all the agencies and organizations that received copies.)

FEDERAL AGENCIES

U.S. Army Corps of Engineers
U.S. Coast Guard
Environmental Protection Agency
Department of the Interior
- Fish and Wildlife Service
- Bureau of Land Management
- Bureau of Indian Affairs

Department of Agriculture
- Forest Service
- Soil Conservation Service

Department of Energy
- Bonneville Power Administration

OTHER AGENCIES AND ORGANIZATIONS

University of California
California Indian Legal Services
California Coastal Commission
California Department of Fish and Game
Columbia River Fishermens Protective Union
Columbia River Inter-Tribal Fish Comm.
Del Norte County Fishermen's Assoc.
Grays Harbor Gillnetters
Halfmoon Bay Fishermen's Marketing Assoc.
Hoh Indian Tribe
Hoopa Valley Business Council
Humboldt Fishermen's Marketing Assoc.
Idaho Fish and Game Department
Ilwaco Charterboat Association
Lummi Island Fishermens Protective Assoc.
Makah Tribal Council
Moss Landing Trollers
Moss Landing Fishing Association
Nez Perce Tribal Executive Commission
North Pacific Fishery Management Council
Northwest Indian Fisheries Commission
Northwest Regional Council of the Federation of Fly Fishermen
Northwest Steelhead/Salmon Council
Oregon Department of Fish and Wildlife
Oregon Department of Land Conservation and Development
Oregon Fishermen's Association
Oregon State University
Oregon Wildlife Federation
Pacific Coast Federation of Fishermen's Assoc.
Pacific Trollers Association
Point No Point Treaty Council
Professional Fishermen's Alliance
Purse Seine Vessel Owners Association
Quileute Tribe
Quinault Treaty Area Tribes
Salmon Trollers Marketing Association
Shoshone - Bannock Tribes
Sierra Club - Redwood Chapter
The Resources Agency of California
Umatilla Fish and Wildlife Committee
University of Washington
Warm Springs Confederated Tribes
Washington Department of Ecology
Washington Department of Fisheries
Washington Trollers Association
Washington State Sportsmens Council
West Coast Professional Fishermens Union
West Coast Trollers Association
Westport Charterboat Association
Yakima Indian Nation
Yurok Indian Tribe

9.0 REFERENCES CITED

1. Final Environmental Impact Statement and Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coast of Washington, Oregon, and California Commencing in 1978, Pacific Fishery Management Council, March, 1978.

2. Supplement to the Final Environmental Impact Statement/Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coast of Washington, Oregon, and California Commencing in 1978, Including Proposed Amendments and Appendices for 1979, Pacific Fishery Management Council, April, 1979.

3. A Proposed Plan for Managing the 1980 Salmon Fisheries off the Coast of California, Oregon, and Washington, An Amendment to the FMP for Commercial and Recreational Salmon Fisheries off the Coast of Washington, Oregon, and California Commencing in 1978, and including Proposed Amendments and Appendices for 1980, Pacific Fishery Management Council, May, 1980.

4. Proposed Plan for Managing the 1981 Salmon Fisheries off the Coast of California, Oregon and Washington, An Amendment to the "Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coast of Washington, Oregon, and California Commencing in 1978," Pacific Fishery Management Council, April, 1981.

5. Proposed Plan for Managing the 1982 Salmon Fisheries off the Coasts of California, Oregon and Washington, An Amendment to the "Fishery Management Plan for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California Commencing in 1978," Pacific Fishery Management Council, May, 1982.

6. Six, L.D. 1982. Salmon Plan Performance Evaluation: Report to the Pacific Fishery Management Council. 82 pp.

7. King, Dennis M. and Kenneth L. Shellhammer. 1981. The California Interindustry Fisheries (CIF) Model: An Economic Impact Calculator for California Fisheries, Vol. I. California Sea Grant, Center for Marine Studies, San Diego State University.

8. Bell, Douglas et al. 1978. Tillamook County Input/output Model. Socio-economics of the Idaho, Washington, Oregon, and California Coho and Chinook Salmon Industry, Vol. A and B. Department of Agricultural and Resource Economics, Oregon State University.

9. Upper Sacramento River Salmon and Steelhead Advisory Committee Report No. 1, Red Bluff Diversion Dam and Tehama-Colusa Fish Facility, July 1983.

APPENDIX A
List of Commenters,
Schedule of Public Hearings,
Copies of Agency Comments

List of Commenters

Seattle Public Hearing - March 30, 1983
Chuck Cetak - Washington Troller's Association
Charles Hale - Washington Troller's Association
Richard Haugen - Washington Troller's Association

Astoria Public Hearing - March 30, 1983
David Cadwell
Les Clark - Northwest Gillnetter's Association
Norm Green
Mildred Malchow

Eureka Public Hearing - March 31, 1983
Roger Adkins
George Balding - Salmon Troller's Marketing Association
David Bittea - Humboldt Fishermen's Marketing Association
Kevin Collina - " "
Michael Faro - Trinidad Fishermen's Marketing Association
Jeffrey Huhn - Humboldt Fishermen's Marketing Association
Richard Lucas
Michael Maahs
Larry Miller - Salmon Troller's Marketing Association
William Moss - " "
Lee O'Brien - " "
Tom Peters - Humboldt Fishermen's Marketing Association
Cecil Proudfoot
Robert Ross
Wayne Scott - Salmon Troller's Marketing Association
Dave Zebo - Trinidad Chamber of Commerce

North Bend Public Hearing - March 31, 1983
Scott Boley - Oregon Fishermen's Association
Bob Frazell - Professional Fishermen's Alliance
Jim Irwin - Brookings Fishermen's Marketing Association
Al Seelig
Lawrence Stone

Boise Public Hearing - April 1, 1983
Chris Korte - Federation of Fly Fishermen

Seattle Public Hearing - April 1, 1983
Charles Hale - Washington Troller's Association
Don Hamilton - Washington Charter Association
Chris Jones - Washington Troller's Association
Tom Swain

Astoria Public Hearing - October 18, 1983
Larry Carlson
Allan Fleming - Oregon Sport Salmon Fishermen's Association
Edwin Goodrich
Norm Green
Larry Hale
Blair Minor

Phil Pinkstaff
Bob Wilkens

Arcata Public Hearing - October 18, 1983
David Bitty - Humboldt Fishermen's Marketing Association
Steve Leiker
Jack Lyons
David Miller
Tom Peters - Humboldt Fishermen's Marketing Association
Buzz Platt - Salmon Troller's Marketing Association

North Bend Public Hearing - October 19, 1983
Allan Degner
Dennis Degner
Fred Gagnon
Al Seelig
B.W. "Doc" Smith
Larry Stone - Pacific Fisheries Enhancement Corporation

Monterey Public Hearing - October 19, 1983
Roger Consanti
Zeke Grader - Pacific Coast Federation of Fishermen's Associations
Robert Little

Written Comments
California
Elsie Ricklefs
William Maahs
Michael Maahs
R.W. Sears
James R. Smith
California Coastal Commission
Dick Lucas
Wlyse Becker, et. al.
Wayne Blankinship, et. al.
Kevin Pinto, et. al.
Thomas Peters, et. al.
Marily Miller, et al.
Diane Holck, et. al.
Billy Allen, et. al.
Milton Rovdahl, et. al.
David Sitts, et. al.
Lee O. Bryant, et. al.
Wayne Scott, et. al.
Zeke Grader

Oregon
Scott Boley
James Irwin
Harry Pavelek
B.M. Bakke
Forrest Meuret
Oregon Sport Salmon Fishermen's Association
Wayne Wolf

Timothy Wapato
Allan Fleming

Washington
Harry Moulton
Don Stevens
Alan Aries
Bruce Ferguson
Ronald Haworth
Glen Aurdahl
Richard Reich
Susan Kay Hvalsoe
Phil Anderson
Charles Gott
Bryan Phinney
Robert Hayman
Bill Frank, Jr.
Les Clark
Chris Jones
Kent Martin
Toimi Maki

Idaho
Chris Korte
Idaho Department of Fish and Game

Schedule of Public Hearings

Day/Date	Location
Wednesday, March 30, 1983	Hyatt House Hotel, 17001 Pacific Highway South, Seattle, Washington
Wednesday, March 30, 1983	Astoria Middle School 1100 Klaskanine Avenue Astoria, Oregon
Thursday, March 31, 1983	Pony Village Inn, Virginia Street, North Bend, Oregon
Thursday, March 31, 1983	Eureka Inn 7th and J Streets Eureka, California
Friday, April 1, 1983	Airport Hilton U.S. 101, Airport San Francisco, California
Friday, April 1, 1983	Idaho Department of Fish and Game, 600 South Walnut Street, Boise, Idaho
Tuesday, October 18, 1983	Hyatt House Hotel 17001 Pacific Highway South, Seattle, Washington
Tuesday, October 18, 1983	Astoria Middle School, 1100 Klaskanine Avenue, Astoria, Oregon
Tuesday, October 18, 1983	Humboldt State University Gist Hall Arcata, California
Wednesday, October 19, 1983	Pony Village Inn, Virginia Street North Bend, Oregon
Wednesday, October 19, 1983	Monterey Conference Center, #1 Portola Plaza, Monterey, California
Thursday, October 20, 1983	California State University 400 Golden Shore Long Beach, California

AGENCY COMMENTS

California Coastal Commission, San Francisco, CA

State of California, Department of Fish and Game, Sacramento, CA

Columbia River Inter-Tribal Fish Commission, Portland, OR

Idaho Department of Fish and Game, Boise, ID

Northwest Indian Fisheries Commission, Olympia, WA

State of Oregon, Intergovernmental Relations Division, Salem, OR
State of Oregon, Department of Land Conservation and Development, Salem, OR

Quinault Indian Nation, Taholah, WA

State of Washington, Department of Fisheries, Olympia, WA
Washington State Parks and Recreation Commission, Olympia, WA

U.S. Department of the Interior, Office of the Secretary, Washington, D.C.
U.S. Department of the Interior, Bureau of Indian Affairs, Hoopa, CA
U.S. Environmental Protection Agency, San Francisco, CA

State of California, George Deukmejian, *Governor*

California Coastal Commission
631 Howard Street, 4th Floor
San Francisco, California 94105
(415) 543-8555

April 21, 1983

Mr. Joseph C. Greenley, Executive Director
Pacific Fishery Management Council
526 S.W. Mill Street
Portland, Oregon 97201

Dear Mr. Greenley:

Our office has received and reviewed the proposed Framework Plan for Managing the Ocean Salmon Fisheries Off The Coasts of Washington, Oregon, and California and its draft EIS.

The Coastal Commission has a strong interest in the protection, enhancement, and utilization of the State's salmon. Salmon are an important component of the coast's aquatic habitats, and are the focus of much of the State's coastal fishing and recreational industries. The policies of California's federally approved coastal zone management program require that:

> "Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes (Section 30230)."

The PFMC's fishery management process provides an important opportunity to implement these policies through the identification of an optimum yield (OY) for the salmon fishery, the establishment of spawner escapement goals for specific river systems, and the related regulation of ocean salmon harvests. For these reasons, the identification of OY and of escapement goals for specific rivers is the element of the framework plan of greatest interest to our agency.

Of the options offered for escapement goals in the draft framework plan, we believe Option 1 - long term escapement goals fixed with an opportunity for temporary alterations through the regulatory process - is the best alternative. Option 1 would provide a reasonable amount of certainty in the regulatory process and the flexibility to accommodate unforseen annual changes in salmon stocks or inriver fisheries. Because the establishment of escapement goals is so central to

the regulatory program and the long term stability of salmon populations, permitted annual adjustments of the escapement goals should be relatively small - perhaps ten percent of the long term escapement goal or ten percent of the average escapement for recent years, whichever is less. Such adjustments should be reviewed annually as part of the regulatory process to provide for the maximum public participation in this key decision.

Where proposed revisions to an escapement goal are the result of new scientific information indicating an adopted goal is unrealistic or that efforts to reach an adopted goal are severely affecting other species, we recommend the revision be accomplished through amendment of the framework plan rather than through the annual adjustment process. Because these kinds of revisions really reflect long term changes in management goals, the plan amendment process is a more appropriate decision making forum than the annual regulation process. The amendment process would also provide full evaluation of the environmental effects of such changes and the maximum opportunity for public involvement in these decisions.

We have no opinion on the specific escapement goals proposed for the various rivers, but are concerned about the methods used in their identification. Because of the specific inriver problems affecting the upper Sacramento River, it may be more reasonable to establish and overall escapement goal for the entire Sacramento-San Joaquin system than for the upper Sacramento alone. As your draft 1982 plan pointed out, the lower Sacramento and the San Joaquin system have both exceeded established escapement goals in recent years, indicating that efforts to restore upper Sacramento stocks through regulation of the ocean harvest may be resulting in underutilization of other stocks.

We also support a long term rebuilding schedule for the Klamath River stocks, similar to that described in Option 2 (p. 3-19) of the draft framework plan. The Klamath's salmon stocks are so severely depressed that efforts to achieve the present long term escapement goal of 115,000 spawners by 1988 may result in severe socio-economic impacts in the north coast's fishing and tourism industries. The recent experience of ocean and inriver Klamath salmon management suggests that achieving the 115,000 spawner escapement goal in the next five years is not realistic and that a gradual, long term stock rebuilding program is a more realistic approach. However, we are concerned that the Klamath River management goal proposed in Option 2 (p. 3-19) is expressed as an inriver run size, rather than as a spawning escapement goal. The shift from a spawner escapement goal to an inriver run size goal without considering the effects of inriver Indian and sports harvests would effectively reduce the spawner escapement goal by 30,000 to 40,000 fish (if inriver harvests remain at recent levels). We are unaware of any compelling information supporting such an effective reduction in the Klamath escapement goal, and understand that an investigation by a PFMC Klamath River task force concluded there was inadequate information to support a reduced spawner escapement goal for the river. Our concern could be accommodated by revising the 1995-98 inriver run size goal to 115,000 spawners plus a number of fish equal to the inriver harvest, leaving an effective escapement of 115,000 fish.

As you are aware, the Department of Commerce has determined that Fishery Management Plans in most cases directly affect the coastal zone and require a consistency determination. The Commission agrees with this conclusion and this comment letter is to be viewed as a concurrence under the CZMA consistency regulations. Please keep this office advised of any amendments or revisions, so that we may continue to review the Salmon Framework Plan for Consistency and add any other comments.

Thank you for the opportunity to comment. If you have any questions please contact Dan Ray in our Eureka office at (707) 443-1623 or Susan Hansch in our San Francisco office at (415) 543-8555.

Sincerely,

William Travis
Deputy Director

cc: Gordon F. Van Vleck, Secretary for Resources
H. A. Larkins, Regional Director, National Marine Fisheries Service
E. C. Fullerton, Director, California Department of Fish and Game
Terry Roberts, State Clearinghouse
Day Ray
Susan Hansch

WT/eds

STATE OF CALIFORNIA—RESOURCES AGENCY GEORGE DEUKMEJIAN, *Governor*

DEPARTMENT OF FISH AND GAME
1416 NINTH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-3531

November 7, 1983

Mr. Joe Greenley
Executive Director
Pacific Fisheries Management Council
526 S. W. Mill Street
Portland, Oregon 97201

Dear Joe:

Before the final framework plan amendment is printed for submission to Commerce, we have a few comments, mostly editorial in nature, to make about the third draft dated October 7. These follow:

Page 3-19, paragraph 1: Delete "since there is no significant inriver harvest." The recreational harvest in the Sacramento River is relatively small in terms of total production, but is significant to the river anglers.

Page 3-19, paragraph 2: I will be asking the Council to delete San Joaquin escapement goals from the plan at the November meeting. However, if it remains in the plan the San Joaquin natural goal should be 7,000, not 5,000. Five thousand was the interim goal developed in 1980. Make the same change on Table on page 3-20.

Page 3-20, paragraph 3: The upper Sacramento River includes that portion of the Sacramento system above the Feather River, not just above Red Bluff Diversion Dam which is further upstream. To correct this paragraph delete from the first sentence "...above Red Bluff Diversion Dam (RBDD)."; and replace in the second sentence "Below RBDD" with "Lower river." This is an important point because significant spawning occurs in the Main Stem Sacramento between Feather River and RBDD. The numbers and percentages are correct with these changes.

Page 3-22, paragraph 1: If San Joaquin escapement goals remain in the plan, the goal in line 8 should be 12,500. With this correction, the percent in line 6 should be 25, not 5.

Page 3-23, paragraph 5: The first sentence of this paragraph needs to be reworded. We do not agree that determination of allowable harvest in any way optimizes management objectives. We suggest replacing "...which optimizes..." with "...required to meet the objectives delineated in Section 3.2."

Page 3-32, paragraph 2: Under No. 4, line 3, the closing date should be August 31, not September 1.

Page 3-42, paragraph 2: Management boundaries off California have been used to separate Klamath and Sacramento River chinook only since 1980. Insert "since 1980" after "..subdivision.." in line 7.

Page 3-42, Table 3-5: We suggest differentiating management zones from management boundaries in this table alongside the area name; e.g., Klamath River (CZ). Also in the Table, place an X on the OR-CA Border in 1983 because there were separate coho quotas north and south of the border that year.

Page 3-44, Figure 3-2 (PFMC Map): We have several comments on this map: 1)definitions of (SFZ and (CZ) are needed; 2) Cape Vizcaino is misspelled; 3) if possible add Cape Mendocino, Shelter Cove, Bodega Bay and Monterey; and 4) relocate La Jolla just north of San Diego (by about 10 miles) and San Clemente to about where La Jolla is shown. I question the need to include La Jolla, San Clemente, Santa Barbara Channel, and Anacapa Island on the map.

Page 3-45, Table 3-6: Under "Recreational Fishery," "Oregon-California Border to U.S. Mexcio Border," "chinook:" the 1977 footnote should be d/ not c/.

Page 3-50, Table 3-9: We have several changes in this Table. These are shown on the attached copy.

Page 3-53, Table 3-10: We have several changes for this Table. These are shown on the attached copy.

Page 3-55, last paragraph: We believe economics should be a major criterion for setting the commercial season. To address this issue, amend (2) to read "size, poundage and value of fish caught."

Page 3-57, paragraph 5: (1) delete reference to "harvest ceilings" and add "quotas."

Page 3-61, paragraph 4: We have our own salmon data system and do not rely on WDF. Oregon also has its own data storage system. It is my understanding that the individual states will be responsible for managing most of their own inseason data, not WDF.

Page 3-61, paragraph 5: The four data collection methods described in this paragraph are not always used. For example, the "key buyer" system does not work well for a port where major key buyers change from year to year. We suggest changing all "wills" in this paragraph to "coulds."

Page 3-63, paragraph 4: Change 1. "Ocean harvest guidelines" to "quotas."

Page 4-5, Table 4-1: Under California a/, 1980 d/: add footnote e/ to 6,500, 7,000. Footnote e/ should read: "e/ number of eligible salmon vessel operators. Vessel count not yet available."

Page 5-4, Table 5-2: In the heading, indicate landings are in thousands of fish. Also, add footnote h/ to all the "California Inside Sport" estimates, chinook and coho.

Page 5-10, Table 5-6: Please add a footnote indicating the base year for the "GNP Price Deflator."

Page 5-11, Table 5-7: Price deflator year needed.

Page 5-12, Table 5-8: Same as above. Price deflator year needed.

Your attention to the above corrections will be appreciated.

Sincerely,

Director

Attachment

Table 3-8. Actual commercial troll seasons and quotas by area, 1977-82 (FCZ Only).

Year / Subarea	Seasons: All Except Coho	Seasons: All Species	Days: All Except Coho	Days: All Species	Total	Preseason (Adjusted Coho	Preseason Quo Chi
1977							
A. U.S.-Canada Border to Pt. Grenville, WA	May 1-June 14	July 1-Sept. 15	45	77	122		
B. Pt. Grenville, WA to Tillamook Head, OR	May 1-June 14	July 1- Oct. 31	45	101	146		
C. Tillamook Head, OR to OR-CA Border	May 1-June 14	June 15-Oct. 31	45	139	184		
D. OR-CA Border to Tomales Point, CA	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
E. Tomales Point, CA to U.S.-Mexico Border	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
1978							
A. U.S.-Canada Border to Pt. Grenville, WA	May 1-June 14	July 1-Sept. 15	45	77	122		
B. Pt. Grenville, WA to Cape Falcon, OR	May 1-June 14	July 1-Oct. 31	45	123	168		
C. Cape Falcon, OR to OR-CA Border	May 1-June 14	June 15-Oct. 31	45	139	184		
D. OR-CA Border to Tomales Pt., CA	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
E. Tomales Pt., CA to U.S.-Mexico Border	Apr. 15-May 14	May 15-Sept. 30	30	139	169		
1979							
A. U.S.-Canada Border to Cape Falcon, OR	May 1-May 31	July 1-24; Aug. 4-31	31	52	83		
B. Cape Falcon, OR to OR-CA Border	May 1-May 31; Sept. 4-Oct. 31	July 1-Sept. 15	89	77	166		
C. OR-CA Border to U.S.-Mexico Border	May 1-May 23	May 24-June 15; July 1-Sept. 30	23	115	138		
1980							
A. U.S.-Canada Border to Cape Falcon, OR	May 1-May 31	July 15-Sept. 8 a/	31	56	87		
B. Cape Falcon OR to Cape Blanco OR	May 1-May 31; June 16-30; Sept. 9-Oct 31	July 15-Sept. 8	99	56	155		
C. Cape Blanco, OR to OR-CA BOrder	May 1-31; Sept. 9-Oct. 31	July 15-Sept. 8	84	56	140		
D. OR-CA Border to Cape Vizcaino, CA	May 1-May 15	May 16-31; July 16-Sept. 30	15	93	108		
E. Cape Vizcaino, CA to U.S.-Mexico Border	May 1-May 15	May 16-31; July 1-Sept. 30	15	108	123		
1981							
A. U.S.-Canada Border to Cape Falcon, OR	May 1-May 31	July 15-Aug. 21	51	38	89	372,000	
B. Cape Falcon, OR to OR-CA Border	May 1-May 31; Aug. 21-Oct. 31	July 1-Aug. 21	72 b/	52	124	548,000 c/	
C. OR-CA Border to U.S.-Mexico Border	May 1-May 15	May 16-May 31; July 1-Sept. 30	15	108	123	None d/	565,000 e/
1982							
A. U.S.-Canada Border to Leadbetter Pt., WA	May 1-May 31	July 15-July 30	31	16	47	204,000	
B. Leadbetter Pt., WA to Cape Falcon, OR	May 1-May 31	July 1-July 8	31	8	39	89,000 (75,000)	
C. Cape Falcon, OR to Cape Blanco, OR	May 1-June 15 July 15-Oct. 31	July 1-July 12	157	12	169	488,000	
D. Cape Blanco, OR to OR-CA Border	May 1-June 8 July 15-Oct. 31	July 1-July 12	150	12	162		
E. OR-CA Border to Pt. Arena, CA e/ f/	May 1-May 15	May 16-June 8 July 1-Sept. 30	15	116	131	None d/	
F. Pt. Arena, CA to U.S.-Mexico Border f/	May 1-May 15	May 16-June 15 July 1-Sept. 30	15	123	138	None d/	

a/ The part of Subarea A between Leadbetter Pt., WA and the U.S.-Canada Border closed Aug. 25.

b/ A portion of Subarea B (Cape Sebastian to the Oregon-California Border) closed on August 21st when the commercial troll coho quota was reached. The area between Cape Sebastian and Cape Falcon remained open for all species except coho.

c/ OPI commercial troll coho quota for the area south of Cape Falcon Oregon, including California.

e/ 300,000 chinook quota for the area north of Pt. Arena and 265,000 chinook quota for the area south of Pt. Arena.

f/ These areas opened under the authority of the 1980 regulations with the dividing line at Cape Vizcaino. On June 1, 1982, the management boundary separating Subarea E and F was changed to Pt. Arena.

d/ Coho landed in California counted toward the OPI coho quota.

Table 3-10. Actual ocean recreational salmon fishing seasons and quotas by area, 1977-82 (FCZ Only).

Year / Subarea	Seasons: All Except Coho	Seasons: All Species	Total	Preseason Quota (Adjusted Quota): Coho	Preseason Quota (Adjusted Quota): Chinook
1977					
A. U.S.-Canada Border to Pt. Grenville, WA		Apr. 30-Oct. 1 a/	185		
B. Pt. Grenville, WA to Tillamook Head, OR		Apr. 30-Oct. 1 a/	185		
C. Tillamook Head, OR to OR-CA Border		Apr. 30-Oct. 1	185		
D. OR-CA Border to Tomales Point, CA		All Year	365		
E. Tomales Point, CA to U.S.-Mexico Border		Feb. 12-Nov. 13	275		
1978					
A. U.S.-Canada Border to Pt. Grenville, WA		Apr. 29-Oct. 31	186		
B. Pt. Grenville, WA to Cape Falcon, OR		Apr. 29-Oct. 31	186		
C. Cape Falcon, OR to OR-CA Border		Apr. 29-Oct. 31	186		
D. OR-CA Border to Tomales Pt., CA		All Year	365		
E. Tomales Pt., CA to U.S.-Mexico Border		Feb. 18-Nov. 12	268		
1979					
A. U.S.-Canada Border to Cape Falcon, OR		May 12-Sept. 16 b/	128		
B. Cape Falcon, OR to OR-CA Border		May 12-Sept. 16	128		
C. OR-CA Border to U.S.-Mexico Border		Feb. 17-Oct. 14	240		
1980					
A. U.S.-Canada Border to Cape Falcon, OR		May 10-Sept. 1 c/	115		
B. Cape Falcon, OR to Cape Blanco, OR	Sept. 2-Oct. 31	May 10-Sept. 1	155		
C. Cape Blanco, OR to OR-CA BOrder	Sept. 2-Oct. 31	May 10-Sept. 1	155		
D. OR-CA Border to Cape Vizcaino, CA		Feb. 16-Oct. 13	241		
E. Cape Vizcaino, CA to U.S.-Mexico Border		Feb. 16-Oct. 13	241		
1981					
A. U.S.-Canada Border to Cape Falcon, OR		May 23-Aug. 26	96	248,000	
B. Cape Falcon, OR to OR-CA Border	Sept. 21-Oct. 31 d/	May 15-Aug. 29 e/	107	224,000 f/	h
C. OR-CA Border to U.S.-Mexico Border		Feb. 14-Nov. 15	275	None i/ g/	130,000 i/ g/
1982					
A. U.S.-Canada Border to Leadbetter Pt., WA	May 29-June 11	June 12-Aug. 19	83	119,000	
B. Leadbetter Pt., WA to Cape Falcon, OR		June 12-July 25	44	100,000	
C. Cape Falcon, OR to Cape Blanco, OR		June 12-July 21	40		(94,000)
D. Cape Blanco, OR to OR-CA Border	July 22-Oct. 31	May 29-July 21	40	114,000	
E. OR-CA Border to Pt. Arena, CA i/ h/		Feb. 13-Nov. 14	279	None i/ g/	
F. Pt. Arena, CA to U.S.-Mexico Border i/		Feb. 13-Nov. 14	279	None g/	

a/ Washington State waters (0-3 miles offshore) closed Oct. 9.
b/ Washington State waters (0-3 miles offshore) closed Sept. 3. Oregon State waters south of Cape Falcon closed Sept. 3 to coho only.
c/ FCZ waters from Leadbetter Point, WA to the U.S.-Canada Border closed Aug. 25. The area between Leadbetter Point and Cape Falcon closed Sept. 1.
d/ Only in that part of Subarea B between the Oregon-California Border and Cape Blanco, Oregon.
e/ Daily bag limit increased from 2 fish (any species) to 3 fish (any species) on Aug. 14, 1981.
f/ For the entire area south of Cape Falcon, including California (Subarea C).
h/ g/ 15,000 for that part of Subarea C north of Point Arena and 115,000 for that part of Subarea C south of Pt Arena.
g/ i/ Coho salmon caught in Subareas E and F counted toward the coho quota for Subareas C and D.

i/ These areas opened under 1980 regulations with the dividing line at Cape Vizcaino. On June 1, 1982, the management boundary separating Subareas E and F was changed to Point Arena

STATE OF CALIFORNIA—RESOURCES AGENCY

George Deukmejian, Governor

DEPARTMENT OF FISH AND GAME
1416 NINTH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-3531

November 22, 1983

Joseph C. Greenley, Executive Director
Pacific Fishery Management Council
526 S. W. Mill Street
Portland, OR 97201

Dear Joe:

I was not able to complete all of our proposed changes to the Salmon Framework Plan amendment at our Boise meeting. The ones we missed are presented in this letter.

Page 3-15 (Table 3-14). Change footnote c/ to "The Sacramento escapement goal is an average around which annual escapements can be expected to vary".

The Sacramento River goal was established in 1977 and was based on average escapement during a previous base period (as explained on page 3-18, paragraph 5). We prefer this clarification so Council members are not led to believe the Sacramento goal is a desired minimum level of escapement.

Page 3-19, paragraph 4 (Option 3). After the first sentence of this Option, add the sentence, "This is a desirable level around which annual escapements can be expected to vary". (Explanation is the same as before.)

Page 3-21, paragraph 5 (..Yuba River). In line 3, the name of the dam is "New Bullards Bar". Also, amend line 3 as follows: "The expected improvements in production have not materialized because the flows have been provided at times that are not beneficial to salmon".

Page 3-21, paragraph 6 (San Joaquin..). Delete "goal" from the heading and "Anticipated" from the second sentence. Our environmental services specialists are negotiating water transport out of the Delta, and are not willing to concede at this time that increased water export is eminent.

Page 3-22, paragraph 1. 1) Delete from the first sentence all words between "a separate" and "San Joaquin Escapement", and add "the State has established escapement goals for the San Joaquin to be used as a basis for State management and mitigation", and 2) Delete the last two sentences from this paragraph.

Page 3-22, paragraph 6. In line 3 delete "ocean" from "an ocean allocation for Indian harvest".

Thank you for your time in making these additions and corrections.

Sincerely,

Director

STATE OF CALIFORNIA—RESOURCES AGENCY

George Deukmejian, Governor

DEPARTMENT OF FISH AND GAME
1416 NINTH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-3531

March 14, 1984

TO: Council Members
Pacific Fishery Management Council
526 S. W. Mill Street
Portland, Oregon 97201

SUBJECT: Sacramento River Salmon Escapement Goal

Dear Fellow Members:

The purpose of this letter is to point out an oversight in Table 3-2 (page 3-14) of the Framework Plan for Managing the Ocean Salmon Fisheries off the coasts of Washington, Oregon and California commencing in 1985, and to present the Department's rationale for a new interim spawning escapement goal for the Sacramento River system which previously had not been considered but appears necessary.

Three spawning escapement goal options were presented in Table 3-2 of the Framework Plan for California Central Valley fall chinook adults. Under the column entitled Rebuilding Schedule, Options 1 and 2 include a footnote b/, which states that achievement of the goals under those options will be contingent upon solving the problems associated with the Red Bluff Diversion Dam (Appendix A). For reasons unexplained, footnote b/ was omitted from Option 3, and we hereby request that this footnote be added to the Sacramento River escapement goal in the Framework Plan Amendment.

With the addition of footnote b/, an interim escapement goal for the Sacramento River is necessary. We have determined the interim goal should be 122,000 adults. Our rationale for this new interim goal is presented in the following revision of pages 3-20 and 3-21 of Proposal Framework Plan Amendment.

Rationale for Single River System Goal

Management of ocean fisheries by the PFMC is limited to the management of ocean harvest. Presently there are no techniques for selective management of different stocks of Sacramento River fall chinook salmon. Ocean harvest management only can provide for a target ocean escapement of Sacramento River fall chinook. Once the fish have entered the river, distribution of fish within the system is dependent on factors such as water flow, habitat, water quality, fish passage barriers, and hatchery practices. It is likely that future increases in water development,

increased water export, and stream channelization will reduce the production capacity of portions of the Sacramento River system. Mitigating for these losses may necessitate increasing production in other portions of the system.

The only portion of the system currently not meeting escapement goals is the Upper Sacramento River. Lower river 1979-82 escapements have averaged 138 percent (99,700) of the new lower-river goal of 72,000 and 122 percent of the present goal of 82,000 chinook.

Fish passage and water quality problems are largely responsible for the upper river spawning escapement shortfall (see Appendix A). Since upper river fall chinook cannot be selectively managed in the ocean fisheries, attainment of present upper river escapement goals by reducing ocean harvest would necessitate reducing harvest of abundant lower river stocks, thereby increasing lower river escapement still higher over escapement goals. As an example, based on the team analysis, the USFWS 1983 proposal for managing Sacramento stocks would have resulted in 92,000 and 193,000 adult fall chinook returning to the Upper and Lower Sacramento River systems, respectively. In 1984, returns would be even higher because two year classes would be impacted by the regulations rather than one, resulting in 130,000 and 271,000 returning to the Upper and Lower Sacramento, respectively. Since the lower river spawning escapement goal is 72,000 salmon, restrictive regulations designed to meet upper river goals would result in gross over-escapement into the lower river. Not only would ocean users be denied the opportunity to harvest these surplus fish, overall egg and smolt production could be reduced due to density dependent factors such as superimposition of redds and competition for limited food supply by fry and fingerlings.

As a result, the Department recommends that an interim spawning escapement goal for the Sacramento River be established until such time as the problems caused by Red Bluff Diversion are rectified, and the full production of salmon in the Upper Sacramento River can be realized. For the period 1979 to 1983, Upper Sacramento fall chinook runs have fallen from 81,700 to 51,500 adults (Figure 3-1). From the figure, the rate of decline appears to be slowing and will likely stabilize at about 50,000 adults. Therefore, the Department recommends that the Upper Sacramento River interim fall chinook spawning escapement goal be reduced from 108,000 to 50,000 adults. This figure should be added to the lower river goal of 72,000 to produce a single river goal of 122,000 adults.

Your immediate attention to this matter will be appreciated.

Sincerely,

Robert C Fletcher

For Director

Attachment

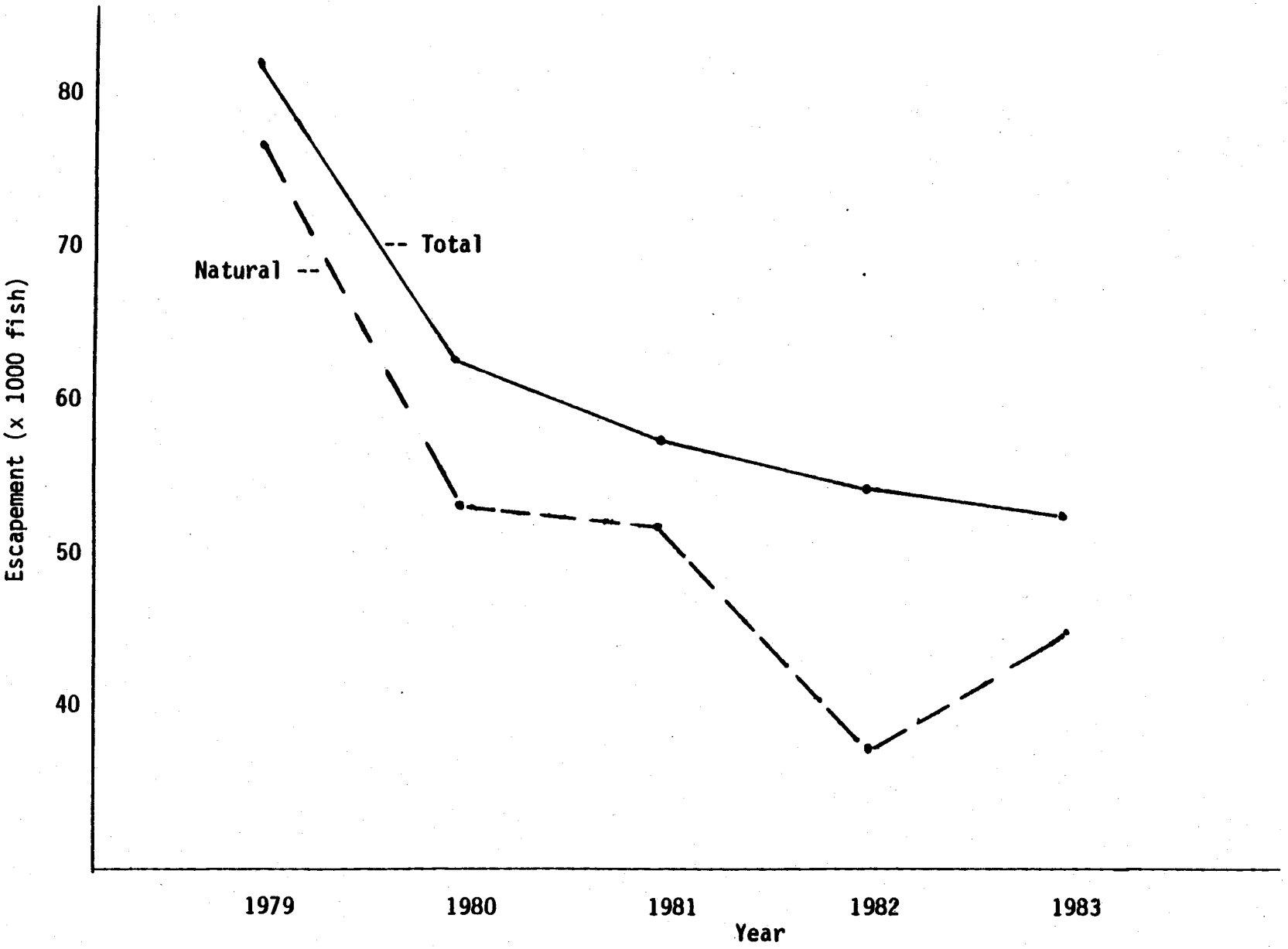

Figure 3-1. Upper Sacramento River Adult Fall Chinook Spawning Escapement in Thousands, 1979-1983.

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
2705 East Burnside Street, Suite 114, Portland, Oregon 97214 Telephone (503) 238-0667

November 8, 1983

Dr. John R. Donaldson, Chairman
Pacific Fishery Management Council
526 S.W. Mill Street
Portland, OR 97201

Dear Dr. Donaldson:

The Columbia River Inter-Tribal Fish Commission has reviewed the third draft of the "Proposed Framework Plan for Managing the Ocean Salmon Fisheries Off the Coasts of Washington, Oregon, and California Commencing in 1985," and submits the following comments for consideration by the Council. In general, the third draft represents a significant improvement over earlier versions of the proposed framework plan. However, the Commission is concerned that adoption of a final framework plan would be premature at this time. The Commission's comments, as well as those of other agencies, suggest that certain parts of the draft plan require modification or clarification. Because a viable framework plan is crucial to rational fishery management, we urge the Council to adjust its decisionmaking schedule to permit it to carefully assess the agency and tribal comments and to make the appropriate changes in the draft framework plan.

GENERAL COMMENTS

Table 3-2 sets the following escapement goals for upper Columbia River chinook runs:

Spring chinook	100-120,000 adults above Bonneville Dam
Summer chinook	80,000 adults above Bonneville Dam
Fall chinook	40,000 adults above McNary Dam

At this point there is inadequate information to determine whether some of those goals are either realistically achievable or scientifically valid. Significant environmental and production changes have occurred in the past fifteen years, and those events have particularly affected the upper Columbia River spring and summer chinook runs. Accordingly, the escapement goals for those upper Columbia River chinook stocks are being reevaluated. Pending completion of those reviews, the Commission is unable to recommend specific numerical changes in the goals enumerated in Table 3.2. However, the Council must take into account the uncertainty

that surrounds these escapement goals, for two reasons. First, achievement of escapement goals must be based on a realistic and fair management scheme. Treaty Indian fisheries can not be forced to bear an inequitable share of the conservation burden. Second, many of the stocks for which reliable escapement goals are lacking also are the stocks that are depressed. Accordingly, it is imperative that ocean fisheries be conservatively managed to avoid the potential for increased harvest of depressed stocks.

SPECIFIC COMMENTS

Section 3.2.1 Harvest Management Objectives

1. The following provision regarding natural stocks should be substituted for the existing provision found at item 1(a): "Escapements of viable natural spawning stocks of salmon defined on the Framework Plan shall be sufficient to maintain or restore the production of such stocks at optimal levels."

2. At item 1(c) regarding management of mixed-stock salmon fisheries, the language suggested by the Washington Department of Fisheries should be adopted.

3. Objective 7 should be eliminated since it may conflict with other goals of the Council and with fulfillment of treaty fishing rights. The principle of salmon enhancement could be included under Objective 5.

Section 3.3 Specification of Optimum Yield

1. The calculation of optimum yield must take into account the interrelationships of fisheries that occur in the area within this Council's jurisdiction with those fisheries that occur in Canadian and Alaskan waters. Achievement of escapement goals must take into account the migratory range and ocean harvest distribution of Pacific salmon stocks. Determination of allowable levels of harvest also must take these factors into account.

Section 3.6.2.3 North of Cape Falcon Chinook

1. The parenthetical definition of "depressed stock" is inadequate. Depressed stocks can be protected and, in some cases, restored through harvest controls. Ocean escapement goals for depressed stocks should be adopted and ocean fishing regimes should be based on achievement of those goals.

2. The last sentence on page 3-33 should be modified to read: "Spawning and hatchery escapement objectives are established for some natural and hatchery stocks."

3. The framework plan must retain the flexibility to permit imposition of harvest ceilings (or quotas) by season. Such measures may be particularly important in the case of May chinook-only fishery, which has the potential for adversely impacting the upper Columbia River summer chinook run. The Salmon Plan Development Team's "Analysis of Impacts of 1983 Regulations" (March 24, 1983) substantiates the need to consider harvest ceilings by season in order to protect depressed summer chinook stocks.

3.7.2.2. Columbia River Indian Fisheries

1. This section should be revised to read as follows:

"A Plan for Managing Fisheries on Stocks Originating from the Columbia River and its Tributaries Above Bonneville Dam" was signed by the states of Oregon and Washington, the United States, and the Warm Springs, Umatilla, Yakima, and Nez Perce Indian Tribes in February 1977. The federal district court adopted the agreement as a consent decree on February 28, 1977.

In 1982, two of the Indian tribes filed notices of intent to withdraw from the agreement, in accordance with paragraph 13 of the agreement. However, some of the parties to the agreement believe it is still in effect.

On September 1, 1983, the federal district court found that changed circumstances of law and fact since its entry have rendered the court's order of February 28, 1977, subject to revision or modification. The court ordered the parties to meet and attempt to agree upon a revised or modified order for allocation and management of Columbia River anadromous fish. If the parties are unable to agree on a new order, they are to independently submit proposed orders.

Actions Associated With Adjustable Quotas (Page 3-66).

1. Factors that should be considered in adjusting quotas, in addition to those specified in section 3.8.5.4., are:

(a) effort shifts or increases which would result in unanticipated or undesirable impacts on the stocks involved; and

(b) state action in state waters that may force premature curtailment of FCZ fisheries.

Any action taken by the Council or the Secretary, pre-season or in-season, should be expressly predicated on completion of a technical analysis of the action's effects, and any decision should be accompanied by an explanation.

4.1.2 Other Natural Resources

1. Since there is a paucity of scientific information on this subject, speculation about the impact of predation by marine mammals on salmon is unwarranted.

2. A more detailed description of the physical environment would give a more realistic sense of the relative impacts of certain activities on salmon habitat.

6.1 State Laws and Regulations

1. Where appropriate, Indian tribes should be included as entities with responsibility for management of salmon fisheries.

The Inter-Tribal Fish Commission appreciates this opportunity to comment on the Council's draft framework plan. We share your commitment to the formulation of a framework plan that will foster a more rational and orderly approach to salmon fishery management. We believe significant strides have been made toward that end, and we strongly urge that the Council take this opportunity to pause for a careful review of the third draft, and the agencies' comments. We are confident that any delay that ensues from deferral of a final decision on a framework plan will be more than offset by improvements in the final document's clarity and internal consistency.

Respectfully Submitted,

S. Timothy Wapato

S. Timothy Wapato

IDAHO DEPARTMENT OF FISH AND GAME
600 South Walnut • Box 25
Boise • Idaho • 83707

June 22, 1983

Mr. Joe Greenley, Executive Director
Pacific Fishery Management Council
526 S. W. Mill Street
Portland, Oregon 97201

Dear Joe:

In further response to the Draft Proposed Framework Plan for 1984, we are offering some specific comments regarding the management objectives as presented in Table 3-2.

It seems to us that the identification of spawning escapement goals is of limited value in displaying management objectives for the in-river runs. The most important figure is the in-river run size, which includes both the spawning escapement and the potential in-river harvest. In 1981, through the Columbia River Fisheries Council (CRFC), the fishery agencies of Idaho, Oregon, and Washington, the federal fishery entities, and the Columbia River Intertribal Fish Commission, produced the Columbia River Basin Salmon and Steelhead Management Framework Plan. Table 1 on page 5 of this document displays the in-river run objectives for Columbia River Basin anadromous fish (attached). These are probably the best jointly-developed run size figures which currently exist. While we do not totally agree with the hatchery/wild division of these runs, we do believe that the total upriver run sizes in this table could be used as a first approximation of the run size objectives for a framework plan.

It is also possible to provide the spawning escapement goals along with the in-river run sizes if that is desirable. However, while we can provide spawning escapement goals for the Snake River chinook, Washington and Oregon will have to provide that data for their runs exclusive of the Snake River.

We have included a sample table similar to your Table 3-2 with just a section on Snake River chinook stocks and with an identified in-river run size goal. Our rebuilding schedule is inherently different from that put forward by California. They are attempting to reach optimum spawning escapements without completely closing an existing fishery. We currently have no ocean or in-river fisheries directed at the stocks in question. The quickest and best way to re-establish our runs at their most productive levels is to prohibit any ocean or in-river fisheries directed on these stocks until the optimum spawning escapements are met. Once the escapements are met, the ocean fishery can be managed to meet the projected in-river run size at the mouth of the Columbia River.

• EQUAL OPPORTUNITY EMPLOYER •

If Oregon and Washington are willing, they could use the figures in the CRFC Framework Plan to establish the other Columbia River in-river chinook management goals just as we have done for the Snake River. These management goals would, of course, be subject to change as we refine our management knowledge.

I hope our data and suggestions prove useful.

Sincerely,

Jerry M. Conley
Director

CC: ODFW
WDF
Harvey Hutchings, NMFS-Seattle
Herman McDevitt

Northwest Indian Fisheries Commission

November 4, 1983

Dr. John Donaldson, Chairman
Pacific Fishery Management Council
526 S.W. Mill Street
Portland, OR 97201

Dear Dr. Donaldson:

We have reviewed the Council's third draft of a "Proposed Framework Plan for Managing the Ocean Salmon Fisheries off the Coasts of Washington, Oregon, and California Commencing in 1985," dated October 7, 1983. We support the concept of a framework plan that allows the Council the ability to react quickly to the best and most current information in managing the salmon fisheries without the need for a plan amendment. For example, methods may be developed in the future to 1) estimate chinook abundance in the ocean and provide an improved basis for establishing chinook quotas; 2) provide improved abilities to update estimated stock sizes in-season; and 3) provide improved modeling capabilities that could result in alternatives to the existing WDF model. Based on our review we have the following comments that we wish considered prior to finalization of this plan.

In Section 3.2.1, we concur with the Washington Department of Fisheries' proposed wording of Harvest Management Objective "1". Objective "1.a." should be expanded to define those stocks "which are deemed important by the Council," as suggested by the National Marine Fisheries Service's comments on page 3-8. Objective 7. on page 3-9 should be deleted because it is a production objective, not a harvest management objective.

Although the environmental and production objectives in Section 3.2.2. are laudable, the Council does not have jurisdiction over these areas and activities, which makes the direct achievement of these objectives impossible for the Council to control. Rather than adopting these objectives, we suggest that the Council express their desire that the responsible jurisdictions promote these goals and offer whatever support the Council can provide.

2625 parkmont lane s.w., olympia, washington 98502 phone (206) 352-8030

In Section 3.5 on escapement goals, we support the Council's preferred Option 3. If these goals are not fixed, it is too easy to favor short term over long term socio-economic concerns. The fixed escapement goal policy we are supporting is summarized in Table 3-2 and includes 1) specific numerical goals; 2) rebuilding schedules; and 3) goals that may or may not change annually based on procedures established by the U.S. District Court in U.S. v. Washington and Hoh v. Baldridge.

We have several comments concerning Table 3-2. First, the Washington Coastal and Puget Sound coho stocks which are being specifically managed as listed on pages 3-4 and 3-5 of this framework plan, should be listed separately in the table. The spawning escapement goal for Puget Sound pink salmon should have footnote "f" rather than a specific numerical goal, as it is subject to the same U.S. District Court procedures as coho and chinook. The spawning escapement goal for Fraser River pink and sockeye is not correctly stated in the table, and should be changed to simply say that the goals will be those set by the IPSFC or through the U.S.-Canada treaty procedures. If Fraser River sockeye are to be included in this table, then Puget Sound sockeye should also be included.

The description of how spawning escapement goals are established in the U.S. v. Washington Case Area in Section 3.5.1.2 on page 3-18 is not correct. Proposed escapement goals are made by both the Washington Department of Fisheries and the treaty Tribes, and any disagreements are resolved through the U.S. District Court procedures.

The sentence in Section 3.5.2.3 which states "Low, incidental harvest of several naturally produced stocks occurs in fisheries within this area, including upper Columbia River Falls (brights) summers, springs, and certain Washington coastal stocks" should also include Puget Sound stocks.

In Section 3.6 "Procedures for Determining Allowable Ocean Harvests," the WDF/NBS Catch Regulation Analysis Model is described as an important tool to be used (e.g., see Figure 3-1). The use of this particular model should not be a fixed element of the plan. The plan should provide for updating the model or use of a new model based on new scientific information without the need for a plan amendment.

The schematic describing adult equivalent determination in Figure 3-1 is not correct in that it considers only Washington ocean interceptions. The position of the treaty Indian Tribes is that all catch within the United States' jurisdiction should

be included in the allocation between treaty and non-treaty fisheries. The Tribes have asked the U.S. District Court to affirm this position. To reflect the fact that this issue is being litigated, the language in Figure 3-1 under "Adult Equivalent Simulation Run" should be revised to read "Estimate adult terminal run sizes in the absence of prior interceptions by fisheries subject to treaty sharing obligations given anticipated regulations for non-counting fisheries.

In Section 3.8 "Ocean Salmon Harvest Controls," we concur with providing flexibility as proposed in the Plan in order to adequately respond to resource conservation needs.

We will appreciate the opportunity to work closely with the Council in the final development of this Framework Plan for Managing the Ocean Salmon Fisheries.

Sincerely,

Bill Frank Jr.

BILL FRANK, JR.
Chairman

MMG:cm

cc: All Member Tribes
Commissioners
CRITFC
WDF
NMFS, Seattle
FWS, Portland
BIA, Portland

VICTOR ATIYEH
GOVERNOR

Executive Department

155 COTTAGE STREET NE., SALEM, OREGON 97310

November 8, 1983

Mr. Joseph C. Greenley
Executive Director
Pacific Fishery Management Council
526 SW Mill Street
Portland, OR 97201

SUBJECT: Proposed Plan for Managing Salmon Fisheries in 1985
PNRS #OR831011-015-4

Thank you for submitting your draft plan for State of Oregon review and comment.

Your plan was referred to the appropriate state agencies for review. The Department of Environmental Quality offered the enclosed comments which should be addressed in preparation of the final plan.

We will expect to receive copies of the final statement.

Sincerely,

INTERGOVERNMENTAL RELATIONS DIVISION

Dolores Streeter

Dolores Streeter
Clearinghouse Coordinator

DS:bm
Enclosure

INTERGOVERNMENTAL [illegible]

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

OCT 27 1983

STATE CLEARINGHOUSE

Intergovernmental Relations Division
155 Cottage St NE , Salem, Oregon 97310
Phone Number: 378-3732

Management Services Div.
Dept. of Environmental Quality

RECEIVED
OCT 17 1983

PNRS STATE REVIEW

Project #: OR 831011-0105-E

Return Date: NOV 04 1983

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

If you cannot respond by the above return date, please call to arrange an extension at least one week prior to the review date.

RECEIVED
OCT 20 1983

Water Quality Division
Dept. of Environmental Quality

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project has no significant environmental impact.

( ) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement.

( ) No comment.

(x) None of the above.

Remarks

Looks like another trial and error attempt at improved fishery mgt. On page 4-6 we learn that the status of fish stocks over the next 5 years will not be greatly different from the past 5 years. That's a hell of a bleak prediction. We can only hope there are still fishery stocks to manage when this plan takes effect in 1985. The writers' use of the word "hopefully" does not instill confidence.

Agency DEQ By Glen Carter

PNRS 38

EIS CATEGORY CODES

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objection to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

APR 20 1983

Mr. Joseph C. Greeley, Executive Director
Pacific Fishery Management Council
526 S.W. Mill Street
Portland, Oregon 97201

Dear Mr. Greenley:

The Environmental Protection Agency (EPA) has reviewed the Draft Supplemental Environmental Impact Statement (DS) titled 1984 FRAMEWORK PLAN FOR THE MANAGEMENT OF OCEAN SALMON FISHERIES OFF CALIFORNIA, OREGON, AND WASHINGTON. We have no comments on this DS.

We have classified this DS as category LO-1. Definitions of the categories are provided by the enclosure. The classification and date of EPA's comments will be published in the Federal Register in accordance with our public disclosure responsibilities under Section 309 of the Clean Air Act.

We appreciate the opportunity to review this DS. Please send one copy of any subsequent National Environmental Policy Act document to this office at the same time it is officially filed with our Washington, D.C. office. If you have any questions, please contact Loretta Kahn Barsamian, Chief, EIS Review Section, at (415) 974-8188 or FTS 454-8188.

Sincerely yours,

Charles W. Murray, Jr.
Assistant Regional Administrator
for Policy, Technical and
Resources Management

Enclosure (1)

3.2.1.3 - eliminate this objective in its entirety.
3.2.1.4 - shoud read - "Develop fair, creative and biologically sound approaches..."
3.2.1.5 - should read - "...the treaty and non-treaty Indian tribes,..."
3.2.1.6 - should read - "Manage consistent with any U.S./Canada salmon treaty and other obligations of the U.S. Government."
3.2.1.7 - eliminate this objective in its entirety for the reasons given by the Department of the Interior - Blanchard and the Salmon Plan Development Team.
3.2.2.2.4- We concur with the comment by the Salmon Plan Development Team and ask that their statement be adopted.
3.2.2.2.5- should read - "Increase the compatability of artificial propagation programs with natural production programs."

The BIA supports Option 3 of Section 3.5, Escapement Goals, which is also the Council preferred option. However, we remain adamantly opposed to the concept of measuring Klamath River escapement at the mouth of the river rather than on the spawning grounds as is the accepted practice. The rational that "Goals for the Klamath River are expressed as in-river escapement until in-river Indian and recreational harvest allocations are established", pp 3-22, is totally unacceptable.

By doing so, the Council refuses to recognize the interim quota of 30,000 fall chinook adults imposed on Indian users by the Department of the Interior and blatantly refuses to provide a mechanism to specifically provide those fish. In addition, the tribes and the BIA have vigorously attempted to arrive at some additional controls on the in-river recreational harvest in the Klamath River in concert with the State of California, but with no success to date.

The most serious biological flaw in the entire plan is the proposed rebuilding schedule for Klamath River stocks on page 3-22. A rebuilding schedule that stretches out 15 years is totally unacceptable, especially with the condition that "... if in the future an ocean allocation for Indian harvest is set at a level that, when combined with recreational needs and the spawning escapement goal, would require an in-river escapement goal that would result in under-utilization of other stocks in the ocean, the escapement goal may be reevaluated", emphasis added.

Instead, we strongly recommend that a rebuilding schedule which does not extend over two (2) brood cycles and in which natural and hatchery stocks are separated be adopted. To adopt anything less is to effectively "write off" the Klamath River stocks.

Until our concerns are addressed and progress is evident toward resolving them Northern California Agency of the Bureau of Indian Affairs cannot support this plan in its entirety.

Sincerely,

Daniel H. Swaney
Superintendent

VICTOR ATIYEH
GOVERNOR

Department of Land Conservation and Development

1175 COURT STREET N.E., SALEM, OREGON 97310-0590 PHONE (503) 378-4926

September 26, 1983

Joseph C. Greenley
Executive Director
Pacific Fishery Management Council
526 SW Mill Street
Portland, OR 97302

Dear Mr. Greenley:

I have reviewed the September 1, 1983 draft of the Salmon Framework Plan. I would like to offer the following suggestions concerning framework planning and the federal consistency provisions of the Coastal Zone Management Act:

1. The "fixed" provisions of the Framework Plan could be addressed by a generic consistency determination. Annual implementation of the fixed standards would not require a subsequent consistency determination.

2. Standards expressed in terms of a range of values, rather than a single value, could also be covered by a generic consistency determination, provided the entire range of discretion afforded the PFMC/NMFS by the framework plan was no broader than the discretion allowed by the policies of Oregon's Coastal Management Programs.

3. Annual implementation of the "flexible" provisions of the Framework Plan would require annual consistency determinations, as would temporary modifications of the fixed standards. However, these determinations would follow from the generic determination and could be more concise than the NMFS's previous determinations.

I am enclosing my federal consistency concurrence for the 1983 salmon season. This concurrence could serve as a model for a generic determination.

In summary, I must state that I applaud the concept of framework planning, and am very pleased to see many of the provisions of Oregon's Coho Plan included within the draft Framework Salmon Plan. However, the review of annual management measures is becoming very complex. In order to review proposed salmon management measures, one must first review the 1978 Salmon Plan and portions of the 1979, 1980, 1981, 1982, and 1983 amendments, plus an assortment of impact analyses and supporting

background documents. This is quite a stack of paper. For this reason I would suggest that the 1985 framework plan replace the 1978 plan, rather than being another annual ammendment. Agency and public review would be facilitated by a single document.

If current staffing levels preclude simultaneous framework and comprehensive planning, I would then suggest that these approaches be combined in a 1986 or 1987 salmon plan. The combined comprehensive/framework plan could also address some implementation strategies for Maganson Act standards, such as limited entry, which were not fully explored in the 1978 plan.

I thank you for the opportunity to provide these comments.

Sincerely,

James F. Ross
Director

AB:mg
5917B/5B

CC: Doug Ancona, NOAA
Kirk Beiningen, ODFW

Attachment

Office of the Reservation Attorney
QUINAULT INDIAN NATION
POST OFFICE BOX 189
TAHOLAH, WASHINGTON 98587

(206) 276-8211

November 4, 1983

Mr. John R. Donaldson, Chairman
Pacific Fishery Management Council
526 S.W. Mill Street
Portland, OR 97201

Re: Draft Proposed Framework Plan For Managing Ocean Salmon Fisheries

Dear Mr. Donaldson:

We have reviewed the Draft Proposed Framework Plan For Managing The Ocean Salmon Fisheries and offer the following comments on behalf of the Quinault Indian Nation, Quileute Indian Tribe and Hoh Indian Tribe.

1. Throughout the plan reference is made to the use of the WDF/NBS Model. We suggest that the definition of the model at page xiii be expanded to clearly include not only the existing model, but also any improved version or similar tool determined by the Team to provide the best available information. Without this clarification it might be argued that a plan amendment is necessary to modify the existing modeling process where better information might be available from other modeling tools.

2. At page 3-4 it should be noted that the native Quillayute summer coho run is viable and management of the Quillayute summer hatchery run must incorporate measures to insure the perpetuation and maintenance of this natural stock.

3. At page 3-7, we concur with the modification of management objective 1 suggested by WDF.

4. At page 3-8, we concur in with the published comments of the NMFS Portland Office.

5. At page 3-9, we concur with the comments of WDF and the Team with respect to objective 7.

6. At pages 3-10 and 11 we concur with the published Team comments.

7. At page 3-16, we support the Council preferred option for escapement goals, option 3, for the reasons stated by the Council in the draft plan. However, we believe that this option could be strengthened by adding the following language ". . .based on a recommendation by the Team after technical review, or by agreement of the relevant management entities.

Red Bluff Diversion Dam are corrected." This statement is misleading and unsubstantiated. There is no evidence presented that returning adult salmon cannot ascend nor their progeny descend the Red Bluff Diversion Dam. We believe that further research and fish passage improvements are appropriate at Red Bluff Diversion Dam.

Page 3-43, Sections 3.7.2.2. Columbia River and 3.7.2.3. United States, vs. Washington area.

When the allocation issues are resolved through negotiation with the litigants and/or the court cases are finalized, provision should be made to incorporate the approved allocation regimen into the framework Plan.

Page 4-1, Section 4.0. Ranges of Environmental Impacts.

We find no reference made to the existence of, or consideration given to, the resource maintenance and protection needs of Olympic National Park. In addition to earlier remarks, we point out that the park encompasses approximately 900,000 acres, or 1,417 square miles, of the Olympic Peninsula and is the source of twelve major rivers that support stocks of all five species of Pacific salmon. The purposes for which the Park was established clearly subsume the preservation and protection of wildlife--including fish.

Page 6.1, Section 6.0. Relationship of the Proposed Action to Other Plans, Laws and Regulations

Interagency coordination and cooperation between several State and Federal agencies has been ongoing for a number of years to maintain high natural productivity for anadromous salmonids and enhancement of acquatic habitats. This coordination during land use planning and management, under the Fish and Wildlife Coordination Act, should be acknowledged.

SUMMARY COMMENTS

The Department can support the concept of establishing a long-term management system which incorporates a flexible framework for setting annual fishing regulations in the Fishery Conservation Zone without the need for annual amendments to the Fisheries Management Plan. We believe the Framework Plan should be more objective in its approach; the document should be understandable to the general public; the proposed change in the mechanical function of the Council should be explained clearly; and, the SEIS should be separated from the text of the Framework Plan.

We appreciated the opportunity to review and comment on this document. If we may be of further assistance, please let us know.

Sincerely,

Bruce R. Blanchard, Director
Environmental Project Review

We believe that standard number (2) is not met by the proposed plan. The best available scientific information available has shown that a rebuilding schedule should be based upon the spawning escapement needs of the weakest natural run deemed to be an important management unit. The rebuilding schedule for the Klamath basin should specify spawning escapement for naturally spawning fall chinook in the Trinity and Klamath River basins if it is to comply with standard number (2).

It is our opinion that national standards number (4) and (5) will also not be met by this plan. The plan does not provide fair and equitable allocation, promote conservation, and is carried out in such a way that the Northern California and Southern Oregon ocean troll fisheries receive an excessive share of fishing opportunity on Klamath basin stocks. In addition, by allocating an excessive share of Klamath salmon to the ocean troll fishery, the plan fails to promote efficiency in the utilization of this fishery resource.

Because of the failure of the proposed plan to provide adequate protection in the ocean for Klamath/Trinity naturally spawning stocks and the fact that the long-term rebuilding schedule proposed combines natural and hatchery stocks as one, we contend that Section 30230 of the California Coastal Zone Management Plan is being violated.

The Supplemental Environmental Impact Statement is inadequate in that it does not address the impacts on Klamath/Trinity natural stocks in section 4.0, Range of Environmental Impacts. In Section 5.0, Social and Economic Impacts of the Framework Amendment, no mention is made of impacts on non-treaty Indians. In fact, only scanty mention is made of impacts on treaty tribes with the bulk of the analysis concerned with ocean trollers and sport fishers. The Council must recognize its obligation and that of the U.S. Government to all groups, not just the non- Indian interests.

Our specific comments on section 3.2 Fishery Management Objectives are:

3.2.1.1 - should read - "...treaty and non-treaty obligations..."

3.2.1.1a - we strongly support the position of NMFS - Portland Office where they say that the framework plan should indicate those natural spawning stocks which the Council deems important and for which efforts are to be made to restore production to optimum levels. Section 4.1.1 of this plan twice describes Klamath River runs as deserving special mention, yet the actual seasons and regulations, when promulgated, totally ignore the problem of natural stocks of the Klamath/Trinity Basin.

3.2.1.1b - should read - "...production and mitigation goals..."

3.2.1.1c - we strongly agree with the comment and concept presented by the Washington Department of Fisheries which is: "In managing mixed stock fishing, the level of exploitation that can be sustained by the weakest natural spawning stocks..." Again, section 4.1.1 of this plan identifies Klamath River chinook stocks that occur off southern Oregon with healthier Oregon coastal chinook stocks as deserving special mention. We contend that these are the "weakest natural spawning stocks" and that harvest management objectives must be developed and initiated to protect them immediately.