

FINAL AMENDMENT 10

TO THE FISHERY MANAGEMENT PLAN FOR COMMERCIAL AND RECREATIONAL SALMON FISHERIES OFF THE COASTS OF WASHINGTON, OREGON, AND CALIFORNIA COMMENCING IN 1978

Incorporating the Environmental Assessment,
Regulatory Impact Review/Initial Regulatory Flexibility Analysis
and
Requirements of Other Applicable Law

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December 1990

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EXECUTIVE SUMMARY

This document presents and analyzes the issues and impacts of the tenth amendment to the "Environmental Impact Statement and Fishery Management Plan for Commercial and Recreational Salmon Fisheries Off the Coasts of Washington, Oregon, and California Commencing in 1978". It is the fourth amendment since the FMP was converted into a framework plan in 1984.

Issues in the FMP Amendment

The Council considered four issues during the development of final Amendment 10. However, the Council's recommended alternatives require amendment of the FMP for only three of the four issues. The Council recommended status quo for Issue 2 (modification of the Klamath River fall chinook spawning escapement goal) as presented in the draft amendment document.

Issue 1 - Inseason Reallocation of Coho South of Cape Falcon

The current FMP requires an inseason reallocation to the commercial fishery (about August 1) of any coho projected to be unneeded by the recreational fishery to complete its scheduled season south of Cape Falcon. Reallocation of coho harvest from the recreational to commercial fishery has occurred in two of the four years in which this requirement has been in effect. However, the reallocation did not occur until August 22, 1987 and August 15, 1988. The transfer date has been delayed, in part, because there is no precise method for making a harvest projection for the last six weeks of the recreational season.

In draft Amendment 10, the Council considered two alternatives to status quo to provide a method of reallocating coho which would better assure completion of the recreational season while allowing the commercial fishery adequate time to harvest the reallocated fish prior to September 1. The Council's final recommendation is a modification of Alternative 3 based on input at the public hearings. It clarifies the objectives of the reallocation process, requires the reallocation process to occur no later than August 15, and specifies that the remaining recreational coho quota becomes a guideline after any reallocation is made.

Issue 2 - Modification of the Klamath River Fall Chinook Spawning Escapement Goal

In its final adoption of Amendment 10, the Council recommended maintaining the status quo for this issue.

Issue 3 - Modification of Criteria Guiding the Nontreaty Catch Allocation North of Cape Falcon

This issue concerns modification of the criteria which guides the allocation of harvest for the nontreaty troll and recreational fisheries north of Cape Falcon, including inseason and geographic deviations from the overall nontreaty catch allocation schedule. It consists of three parts which attempt to improve upon the 1989 amendment of the north of Cape Falcon harvest allocation. The first part seeks to clarify that the TAC does not need to be reallocated between the two gear groups (recreational and troll) when inseason management changes result in adjustment of fishery impacts which change the TAC of one gear group. The second part applies to the commercial fishery and proposes a more specific standard for guiding geographic deviations from the overall preseason harvest

allocation for the purpose of protecting weak stocks. The third part proposes specific criteria to guide geographic distribution of the overall recreational TAC.

In draft Amendment 10, the Council considered only one alternative to the present FMP which clarifies inseason and geographic deviations from the overall commercial and recreational catch allocations north of Cape Falcon (Alternative 2). In its final recommendation, the Council adopted those parts of Alternative 2 which relate strictly to the recreational fishery and inseason reallocation for both the commercial and recreational fisheries. The Council maintained the basic direction of status quo with regard to preseason geographic distribution of the commercial fishery.

The Council clarified inseason changes in the commercial or recreational TACs by stating:

Any increase or decrease in the recreational or commercial TAC, resulting from an inseason restructuring of a fishery or other inseason management action, does not require reallocation of the overall north of Cape Falcon nontreaty TAC.

For the geographic distribution of the preseason commercial TAC, the Council chose to stay within the basic intent of the current FMP which is stated in Criterion 4 of the ninth amendment.

For the geographic distribution of the recreational coho TAC, the Council chose to limit the preseason flexibility by stating that the allocation would be divided to provide 50 percent each to the areas north and south of Leadbetter Point. The allocation to the area north of Leadbetter Point is further split to provide 74 percent to the Westport area and 26 percent to the Neah Bay/La Push area. In years in which there is an Area 4B fishery, a special formula is used to provide a slightly larger share to the Westport area by decreasing the Neah Bay/La Push share an equal amount.

Definition of Overfishing

Under NOAA's most recently published final rule of "Guidelines for Fishery Management Plans," 50 CFR Part 602 (July 24, 1989), all FMPs are required to contain a definition of overfishing for each managed stock or stock complex covered by the FMP (Section 602.11[c]). This requirement is based on the need to meet National Standard 1 of the MFCMA which states: "Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery."

The Council's definition of overfishing is based on the spawning escapement goals for chinook and coho salmon stocks specified in the salmon FMP. It is stated as follows.

Overfishing is an occurrence whereby all mortality, regardless of the source, results in a failure of a salmon stock to meet its annual spawning escapement goal or management objective as specified in Section 3.5 of the salmon FMP for three consecutive years, and for

which changes in the fishery management regime offer the primary opportunity to improve stock status.

When a specific stock or stock grouping fails to meet its annual spawning escapement objective for three consecutive years, the Council shall appoint a work group to investigate the apparent causes of the apparent shortfall (e.g., due to causes within or outside of Council control). The work group will include members from the STT, SSC and SAS, as well as invited representatives of federal, state and tribal agencies having management authority over water quality and pertinent salmon production habitat. The current status of stock productivity and all sources of stock mortality will be examined by the work group and a report of its conclusions and recommendations provided to the Council. For those actions within Council control, the Council may change analytical or procedural methodologies to improve the accuracy of estimates for abundance, harvest impact and MSY escapement levels, and/or reduce ocean harvest impacts when shown to be effective in stock recovery to MSY levels. For those causes beyond Council control, the Council may make recommendations to those entities which have the control to change preseason prediction methodology, improve habitat, and review and/or revise escapement goals.

TABLE OF CONTENTS

INTRODUCTION 1

ISSUE 1 - ACHIEVEMENT OF RECREATIONAL SEASON DURATION GOALS BETWEEN
CAPE FALCON AND HUMBUG MOUNTAIN FOLLOWING INSEASON REALLOCATION
TO THE COMMERCIAL FISHERY 1

 Purpose and Need for Action 1

 Proposed Alternatives 2

 Alternative 1 - Status Quo (Reallocation Date of Approximately
 August 1) 2

 Alternative 2 - Status Quo (Reallocation Date Later Than
 August 1) 2

 Alternative 3 - Flexible Reallocation Process and Clarification
 of Objectives 3

 Recommended Alternative for Implementation by the Secretary
 of Commerce 4

 Impacts of the Alternatives 4

 Interaction With Other Amendment Issues 6

 References 6

 Literature Cited 6

 FMP 6

 Regulations 6

ISSUE 2 - MODIFICATION OF THE KLAMATH RIVER FALL CHINOOK SALMON
SPAWNING ESCAPEMENT GOAL 7

 Recommended Alternative for Implementation by the Secretary
 of Commerce 7

ISSUE 3 - MODIFICATION OF CRITERIA GUIDING THE NONTREATY CATCH
ALLOCATION NORTH OF CAPE FALCON 7

 Purpose and Need for Action 7

 Identification of Amendment Alternatives 8

 Proposed Alternatives 9

 Alternative 1 (Status Quo) 9

 Alternative 2 9

 Inseason Change of TAC Within the Recreational or
 Commercial Fishery 9

 Geographic Distribution of the Commercial Allocation 9

 Geographic Distribution of the Recreational Allocation 10

 Recommended Alternative for Implementation by the Secretary
 of Commerce 11

 Fishery Allocation Priorities 16

 Impacts of Alternatives 16

 Administrative Impacts 16

 Recreational Fishery Impacts 17

 Commercial Fishery Impacts 17

 Biological Impacts 20

 Socio-Economic Impacts 20

 Interaction With Other Amendment Issues 20

 References 20

 Literature Cited 20

FMP	20
Regulations	20
ISSUE 4 - DEFINITION OF OVERFISHING	20
Purpose and Need for Action	20
Overfishing	21
Definition of Overfishing	21
Stocks Requiring Special Consideration	25
Management Implications of Special Concern to the Council	25
Impact of the Proposed Definition	26
Administrative Impacts	26
Scientific Merit	26
Prevents Overfishing	26
Stock Status Can be Measures Against the Definition	26
Feasibility	27
Interaction With Other Amendment Issues	27
References	27
APPENDIX A EA SUMMARY OF AMENDMENT 10 TO THE FMP FOR COMMERCIAL AND RECREATIONAL SALMON FISHERIES OFF THE COASTS OF WASHINGTON, OREGON, AND CALIFORNIA COMMENCING IN 1978	A-1
APPENDIX B SUPPLEMENTAL INFORMATION COMPLETING THE RIR/IRFA	B-1
APPENDIX C CONSISTENCY WITH FEDERAL AND STATE COASTAL ZONE MANAGEMENT PROGRAM	C-1
APPENDIX D OTHER APPLICABLE LAW	D-1

LIST OF TABLES

Table 1. Average percentage of the total north of Cape Falcon recreational ocean coho catch landed in each port area	8
Table 2. Example distribution of the recreational coho TAC north of Leadbetter Point for years in which there is no Area 4B recreational fishery	15
Table 3. Example distribution of the recreational coho TAC north of Leadbetter Point for years in which there is an Area 4B recreational fishery of 20,000 coho	15
Table 4. Comparison of the probable preseason recreational TAC distribution under Alternative 2 with the actual preseason recreational TAC adopted by the Council in recent years	18
Table 5. Comparison of the probable preseason recreational TAC distribution under Alternative 2 with the base-cased distribution agreed to by the recreational work group at the TAC levels of recent years	19
Table 6. Current summary of management goals for stocks in the Council's salmon management unit	22

ACRONYMS

CDFG	California Department of Fish and Game
Council	Pacific Fishery Management Council
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EEZ	exclusive economic zone
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FMP	fishery management plan
LCDC	Oregon Land Conservation and Development Commission
MFCMA	Magnuson Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
MSY	maximum sustainable yield
NEPA	National Environmental Protection Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPAA	Northwest Power Planning Council
OCN	Oregon coastal natural
ODFW	Oregon Department of Fish and Wildlife
OPI	Oregon production index
OY	optimum yield
PacFIN	Pacific Coast Fishery Information Network
PSC	Pacific Salmon Commission
PSTA	Pacific Salmon Treaty Act
RIR/IRFA	Regulatory Impact Review/Initial Regulatory Flexibility Analysis
SAS	Salmon Advisory Subpanel
SEIS	Supplemental Environmental Impact Statement
STT	Salmon Technical Team
SSC	Scientific and Statistical Committee
TAC	total allowable catch
WCZMP	Washington State Coastal Zone Management Program

INTRODUCTION

This document presents and analyzes the issues and impacts of the tenth amendment to the "Environmental Impact Statement and Fishery Management Plan for Commercial and Recreational Salmon Fisheries Off the Coasts of Washington, Oregon, and California Commencing in 1978". It is the fourth amendment since the FMP was converted into a framework plan in 1984.

The description of issues which follows, incorporates or summarizes the elements analyzed by an RIR/IRFA and most of the requirements of an EA. Appendix A of this document contains or references the information required for a structurally complete EA and Appendix B contains the structurally complete RIR/IRFA. Appendix C contains a review of the amendment's consistency with federal and state coastal zone management programs and Appendix D provides a review of other applicable law.

Draft Amendment 10 contained four issues. However, in its final recommendations, the Council chose to amend the FMP for only three issues. To prevent confusion in the numbering of the issues, a brief reference to Issue 2 remains in the final amendment document. The four issues are as follows.

1. Achievement of recreational season duration goals between Cape Falcon and Humbug Mountain following inseason reallocation to the commercial fishery.
2. Modification of the Klamath River fall chinook salmon spawning escapement goal. (No amendment recommended for this issue.)
3. Modification of criteria guiding the nontreaty catch allocation north of Cape Falcon.
4. Definition of overfishing.

ISSUE 1 - ACHIEVEMENT OF RECREATIONAL SEASON DURATION GOALS BETWEEN CAPE FALCON AND HUMBUG MOUNTAIN FOLLOWING INSEASON REALLOCATION TO THE COMMERCIAL FISHERY

Purpose and Need for Action

To assure achievement of spawning escapement goals, the commercial and recreational salmon fishing seasons south of Cape Falcon are constrained by coho impact quotas as well as a maximum season length. The quotas are derived from a coho allocation schedule which allots the total allowable harvest of coho available in any year to the commercial and recreational fisheries. A general objective of the allocation schedule is to provide recreational seasons which extend from at least Memorial Day through Labor Day. This interval marks the major period of recreational ocean salmon fishing.

The current FMP requires an inseason reallocation to commercial fishery (about August 1) of any coho projected to be unneeded by the recreational fishery to complete its scheduled season. Reallocation of coho harvest from the recreational to the commercial fishery has occurred in two of the four years in which this requirement has been in effect. However, the reallocation did not occur until August 22, 1987 and August 15, 1988. The transfer date has been delayed, in part, because there is no precise method for making a harvest

projection for the last six weeks of the recreational season. The recreational harvest rate varies greatly from year to year and from week to week within the same season. The earlier a projection is made in the season, the less likely it is to be precise. If the recreational harvest rate is significantly underestimated, it is possible the recreational fishery off Oregon, between Cape Falcon and Humbug Mountain, could reach its inseason adjusted quota and be closed prior to Labor Day, even though the preseason recreational coho quota was sufficient to provide for at least that length of season. An unplanned preemption of the recreational season prior to Labor Day, with little prior notice, could create considerable economic and social disruption for coastal communities and fishery participants.

The reallocation feature of the FMP was not designed to penalize the recreational fishery in years when more than enough coho were available in the recreational allocation to complete the scheduled season. Therefore, Issue 1 involves more clearly identifying the inseason procedure and objectives for reallocating unneeded coho from the recreational to commercial fishery. The Council considered two alternatives to the current salmon FMP (status quo) which help assure achievement of the FMP objectives for the recreational and commercial salmon fisheries between Cape Falcon and Humbug Mountain for years in which an inseason reallocation occurs.

Proposed Alternatives

Alternative 1 - Status Quo (Reallocation Date of Approximately August 1)

The present salmon FMP has a general objective of providing recreational seasons which encompass Memorial Day and/or Labor Day weekends whenever feasible (framework amendment at Section 3.8.5.2) and a specific objective of a season extending from Memorial Day through Labor Day south of Cape Falcon (framework amendment at Section 3.7.1.1). However, to assure meeting FMP coho spawning escapement goals (Section 3.5 of the framework amendment as amended by the seventh amendment to the FMP), the recreational fishery between Cape Falcon and Humbug Mountain and the commercial coho fishery south of Cape Falcon must close when their respective coho quotas are reached. These closures are necessary whether or not an inseason reallocation of coho from the recreational to commercial fishery has occurred.

The present FMP requires that any reallocation of coho from the recreational to commercial fishery occur near August 1. This requires the STT to estimate the probable catch of the recreational fishery for most of August and early September. This projection is subject to considerable imprecision, especially when made as early as August 1.

Alternative 2 - Status Quo (Reallocation Date Later Than August 1)

This alternative would be the same as the status quo, except the approximate date on which the reallocation is made from the recreational to troll fishery would be delayed from August 1 to August 15. This would reduce the risk of reallocating too many fish to the commercial fishery and prematurely ending the recreational season or, conversely, reallocating to few fish and unnecessarily limiting the troll harvest.

Alternative 2 would modify the current FMP language in the second paragraph under "South of Cape Falcon (Coho)" in Section 3.7.1.1 (seventh amendment at page 25) as follows (deletions are lined-out and insertions are shaded in gray).

The allocation schedule is designed to give sufficient coho to the recreational fishery to increase the probability of attaining no less than a Memorial Day to Labor Day season as stock sizes increase. This increased allocation means that, in many years, actual catch in the recreational fishery may fall short of its allowance. In such situations, managers will make an inseason reallocation of unneeded recreational coho to the south of Cape Falcon troll fishery. This "roll-over" process will occur near the first of August 15 and will involve projecting the recreational fishery needs for the latter half remainder of the summer season. The exact timing of the "roll-over" projection will be established in the preseason regulation setting process each year.

Alternative 3 - Flexible Reallocation Process and Clarification of Objectives

This alternative would modify the current FMP language in the second paragraph under "South of Cape Falcon (Coho)" in Section 3.7.1.1 (seventh amendment at page 25) to provide general reallocation objectives and approximate timing of the reallocation process. The specific process and timing would be flexible, based on the best inseason recommendations of the STT to achieve the FMP objectives for each specific year. The modification would be as follows (deletions are lined-out and insertions are shaded in gray).

The allocation schedule is designed to give sufficient coho to the recreational fishery to increase the probability of attaining no less than a Memorial Day to Labor Day season as stock sizes increase. This increased allocation means that, in many years, actual catch in the recreational fishery may fall short of its allowance. In such situations, managers will make an inseason reallocation of unneeded recreational coho to the south of Cape Falcon troll fishery. The reallocation should be structured and timed to allow the commercial fishery sufficient opportunity to harvest any available reallocation prior to September 1, while still assuring completion of the scheduled recreational season (usually near mid-September) and, in any event, the continuation of a recreational fishery through Labor Day. This "roll-over" reallocation process will occur near the first of August generally be completed by about mid-August, based on the recommendations of the STT to best achieve the objectives of the reallocation, and will involve projecting the recreational fishery needs for the latter half a portion of the summer season. The exact timing of the "roll-over" projection will be established in the preseason regulation setting process each year.

Recommended Alternative for Implementation by the Secretary of Commerce

At the Amendment 10 public hearings in Astoria and Coos Bay, Oregon, representatives of the commercial salmon fishermen recommended that the reallocation of coho from the recreational to the troll fishery occur no later than August 15 to allow the commercial fishery an opportunity to harvest the available fish. In addition, to reduce the potential for closing the recreational fishery prior to Labor Day under the August 15 reallocation deadline, the commercial representatives recommended that the recreational quota become a "guideline" once a reallocation is made. In response to that and other public input, the Council recommends adoption of Alternative 3 with a modification of the last two sentences to reflect a reallocation date of "no later than August 15" and to indicate that the recreational quota becomes a guideline after any reallocation. The complete text of the Council's recommendation (which will replace the current second paragraph under "South of Cape Falcon (Coho)" in Section 3.7.1.1 of the framework plan, seventh amendment at page 25) reads as follows.

The allocation schedule is designed to give sufficient coho to the recreational fishery to increase the probability of attaining no less than a Memorial Day to Labor Day season as stock sizes increase. This increased allocation means that, in many years, actual catch in the recreational fishery may fall short of its allowance. In such situations, managers will make an inseason reallocation of unneeded recreational coho to the south of Cape Falcon troll fishery. The reallocation should be structured and timed to allow the commercial fishery sufficient opportunity to harvest any available reallocation prior to September 1, while still assuring completion of the scheduled recreational season (usually near mid-September) and, in any event, the continuation of a recreational fishery through Labor Day. This reallocation process will occur no later than August 15 and will involve projecting the recreational fishery needs for the remainder of the summer season. The remaining projected recreational catch needed to extend the season to its scheduled closing date will be a harvest guideline rather than a quota. If the guideline is met prior to Labor Day, the season may be allowed to continue if further fishing is not expected to result in any significant danger of impacting the allocation of another fishery or of failing to meet an escapement goal.

Impacts of the Alternatives

The alternatives to status quo examined under Issue 1 are primarily administrative amendments to the FMP. They reduce the risk of (1) reallocating too many coho to the commercial fishery and thereby preempting the recreational season before its scheduled closing date or (2) reallocating too few coho to the commercial fishery and thereby limiting harvest more than necessary. These alternatives do not have any quantifiable biological, social or economic impacts that are different from the present FMP (Alternative 1).

Alternative 2 simply changes the current FMP reallocation timing statement from "near the first of August" to "near August 15". This change more closely reflects the management practice and reality since the reallocation process was instituted in 1987. However, it does not fully satisfy the need of the commercial fishery for a timely and more certain reallocation date.

Alternative 3 clarifies, but does not change, the objectives of the reallocation procedure in the current FMP and specifies a general time frame rather than a specific date for the reallocation. This management approach indicates that the timing and procedures of the reallocation may need to vary in some years to best achieve the FMP objectives. This alternative provides good protection for the recreational season duration, but may exacerbate the commercial need for more certainty in completion of the reallocation.

The Council's recommended alternative satisfies the need of the commercial fishery for a more certain and timely reallocation while it adds some flexibility in meeting the season duration goals of the recreational fishery should the remaining recreational allocation prove insufficient to provide at least a season through Labor Day. It does this by specifying that the reallocation process be completed no later than August 15 and changing the remaining recreational quota to a guideline after a reallocation is made.

Under the present FMP, a harvest "quota" is treated as a fixed ceiling on catch that is tied to meeting ocean escapement objectives and/or complex allocation requirements. When it appears that a quota will be reached during the season, the NMFS Regional Director closes the fishery through inseason management authority to prevent the quota from being exceeded, even by a very small amount. While quotas may be changed by inseason management action as long as certain criteria are met, the inseason management process is generally not deliberate enough to allow careful consideration by the public of such changes and can be the source of confusion and distrust among competing fishery participants.

A harvest "guideline" is not specifically defined in the FMP, but generally is used (and construed by fishery participants) to provide a management objective which appears to help assure achievement of Council management intent without being an absolute ceiling. Generally guidelines are not directly tied to assuring achievement of an ocean escapement goal or allocation requirement. Under a recreational harvest guideline, the Regional Director of NMFS might allow the recreational fishery to continue, even when the guideline is met, if there were no significant danger of impacting the allocation of another fishery or failing to meet an escapement goal. This could happen in cases where the commercial fishery ended its season with additional quota remaining or if the expected overage above the guideline were deemed to be insignificant. Participation in the recreational fishery decreases greatly toward the end of the season (especially after Labor Day) and minimizes the potential for significantly underestimating the probable final harvest.

A brief review of previous reallocations provides some insight into the imprecision of the process and the potential impacts of the alternatives. Reallocation has occurred only in 1987 and 1988.

In 1987, 35,000 coho were reallocated and both the commercial and recreational fisheries ended on their scheduled closing dates without fully harvesting their respective inseason adjusted coho quotas. The commercial fishery harvested about 88 percent of its 409,900 inseason adjusted quota (51,000 coho remaining), while

the recreational harvest was short by about 36,000 fish of its inseason adjusted quota of 234,200 (Council 1988). The very late transfer of fish (August 22) did not allow the commercial fishery much opportunity to harvest a rather large reallocation. However, even with an earlier reallocation it appears the commercial catch rate and effort in 1987 would have been insufficient to harvest the entire adjusted quota. In 1988, the reallocation occurred on August 15 and the commercial fishery closed on August 19 with a coho harvest that exceeded the inseason adjusted quota of 670,300 by less than 1 percent (6,000 fish). The recreational fishery reached its scheduled closing date with over 4,000 coho remaining in the inseason adjusted quota of 253,400 (Council 1989).

Under Alternative 2, there would have been no difference in the way reallocation occurred in 1987 and 1988 since the reallocation dates would not have changed. Under Alternative 3 and the Council's recommended alternative, it may have been possible to increase the utilization of available harvest slightly. In 1987, a partial reallocation could have been made early in August which may have stimulated more effort in the troll fishery without danger of precluding the recreational fishery prematurely. A final, smaller reallocation, could have been made in the latter part of August (or by August 15 under the Council's recommended alternative).

Viewed on an average basis, management of the quotas in 1988 was about as precise as may be expected and would not have been improved by Alternative 3 or the Council's recommended alternative. However, the reallocation did not occur until August 15 rather than near August 1 as stated in the current FMP.

Interaction With Other Amendment Issues

There is no interaction between Issue 1 and any of the other issues in this amendment.

References

Literature Cited

- STT. 1988. Review of 1987 ocean salmon fisheries. Council, Portland, Oregon.
STT. 1989. Review of 1988 ocean salmon fisheries. Council, Portland, Oregon.

FMP

- Council. 1984. Final framework amendment for managing the ocean salmon fisheries off the coasts of Washington, Oregon, and California commencing in 1985.
Council. 1986. Seventh amendment to the fishery management plan for commercial and recreational salmon fisheries off the coasts of Washington, Oregon, and California commencing in 1978.

Regulations

- 50 CFR Part 661, Appendix Section II.B.2.(b)(iii)

ISSUE 2 - MODIFICATION OF THE KLAMATH RIVER
FALL CHINOOK SALMON SPAWNING ESCAPEMENT GOAL

This issue concerns the current FMP spawning escapement goal for Klamath River fall chinook salmon and achievement of OY from the ocean and inriver fisheries which impact the Klamath River stock. The current spawning escapement goal was incorporated in the FMP in Amendment 9 and is an escapement rate goal. The issue contained 1 alternative to status quo which would slightly reduce the escapement rate (i.e., make a larger portion of the stock available for harvest) when the spawning escapement was projected to be over 70,000 natural spawners.

Recommended Alternative for Implementation by the Secretary of Commerce

The Council recommends no amendment of the FMP for this issue. The issue remains noted in the final amendment to avoid confusion over changing the remaining issue numbers.

ISSUE 3 - MODIFICATION OF CRITERIA GUIDING THE NONTREATY CATCH
ALLOCATION NORTH OF CAPE FALCON

Purpose and Need for Action

This issue concerns modification of the criteria which guide the allocation of harvest for the nontreaty troll and recreational fisheries north of Cape Falcon, including inseason and geographic deviations from the overall nontreaty catch allocation schedule. It consists of three parts which attempt to improve upon the 1989 amendment of the north of Cape Falcon harvest allocation. The first part seeks to clarify that the TAC does not need to be reallocated between the two gear groups (recreational and troll) when inseason management changes result in adjustment of fishery impacts which change the TAC of one gear group. The second part applies to the commercial fishery and proposes a more specific standard for guiding geographic deviations from the overall preseason harvest allocation for the purpose of protecting weak stocks. The third part proposes specific criteria to guide geographic distribution of the overall recreational TAC.

The proposed changes to the FMP include clarification of the fourth criterion (Criterion 4) developed in Issue 2 of the Council's ninth amendment to the FMP (at page 21). This criterion establishes the basis for geographic deviations from the allocation schedule north of Cape Falcon to protect weak stocks. However, as it is presently written, it is difficult to determine if this criterion has been followed.

Criterion 4 of Issue 2 in the ninth amendment to the salmon FMP has been implemented in federal regulations (50 CFR Part 661, Appendix II.B.2.a.[iii]) as follows:

(D) The percentages presented in the allocation schedule are averages for the entire area between Cape Falcon and the U.S.-Canada border. The geographic distribution of the allocation percentages may be varied by major subareas (i.e., north of Leadbetter Point and south of Leadbetter Point) if there is need to do so to protect weak stocks. Deviations from the overall percentages in each major subarea will generally not exceed 50 percent

of the allocation of each species that would have been established in the absence of the transfer. Deviation of more than 50 percent will be based on a conservation need to protect the weak stocks and will provide larger overall harvest for the entire fishery north of Cape Falcon than would have been possible without the deviation.

The constraints on geographic deviation were included in the ninth amendment primarily at the request of the commercial fishing representatives. These representatives wanted to assure that major subareas of the coast would not be completely precluded from sharing in the commercial harvest opportunity. A more specific criterion may be needed to assure achieving the desired commercial harvest objectives and additional criteria are needed to clearly delineate management objectives for the distribution of the recreational TAC and inseason changes in the TAC of each gear group.

Identification of Amendment Alternatives

The Council appointed special commercial and recreational work groups, composed of representatives from the affected fisheries and port areas, to develop alternatives to resolve the problems of the present FMP.

By consensus, the Council's work groups recommended that changes in either the commercial or recreational TAC, resulting from inseason management changes in the fishery structure of a gear group, do not require reallocation of the overall nontreaty TAC. The commercial work group developed a replacement for Criterion 4 which deals only with the commercial fishery. These management elements are included in Alternative 2 below.

Also, by consensus, the recreational work group agreed upon a base-case distribution among the recreational subareas which is representative of the catches prior to Council allocation and management as follows.

Neah Bay/La Push (U.S.-Canada border to Queets River)	13 percent
Westport (Queets River to Leadbetter Point)	37 percent
Columbia River Ports (Leadbetter Point to Cape Falcon)	50 percent

These percentages are well within the range of actual catch shares by the three port areas in the years before the first subarea quotas were established north of Cape Falcon in 1982. Table 1 provides the actual percentages of the total recreational catch by port subarea for three time periods.

Table 1. Average percentage of the total north of Cape Falcon recreational ocean coho catch landed in each port area.

Port Area	<u>Percent of North of Cape Falcon Coho Catch</u>		
	1976-1989	1979-1981	1971-1975
Neah Bay	9.7	8.9	7.9
La Push	3.8	2.9	5.9
Neah Bay and La Push	13.5	11.8	13.8
Westport	37.6	36.5	40.1
Columbia River	48.8	51.7	46.1

The recreational work group did not achieve consensus on a method for determining the geographic distribution of the recreational allocation among the three major subareas north of Cape Falcon under present Council management. Two proposed recreational alternatives developed by the work group are described in draft Amendment 10 and the summary minutes of the recreational work group. At its September 1990 meeting, the Council considered both of these recreational alternatives and rejected them in favor of Alternative 2 as presented in this document. Further exploration and analysis of alternative ways of distributing the recreational allocation will be pursued in future amendment cycles.

Proposed Alternatives

Alternative 1 (Status Quo)

The regulatory language implementing Criterion 4 of the north of Cape Falcon nontreaty harvest allocation in the current FMP (ninth amendment) is reproduced above under the description of the need and purpose for the amendment. Criterion 4 is the major focus of this issue. While difficult to interpret, it allows geographic deviation from the overall allocation schedule for both the commercial and recreational fisheries to reduce impact on weak stocks. However, neither Criterion 4 nor any other part of the current FMP addresses inseason changes in the TAC, or provides any criteria for the distribution of recreational harvest opportunity among the three major recreational subareas north of Cape Falcon.

Alternative 2

This alternative would retain all of the language of the present FMP (ninth amendment) except for the last of four criteria (Criterion 4) which guide deviations from the initial preseason allocation. In place of the present Criterion 4, Alternative 2 would add three new criteria (4, 5, and 6) as described in the three subsections below.

Inseason Change of TAC Within the Recreational or Commercial Fishery

Under Alternative 2, the following statement would become Criterion 4 in Section 3.7.1.1 of the FMP.

4. Any increase or decrease in the recreational or commercial TAC, resulting from an inseason restructuring of a fishery or other inseason management action, does not require reallocation of the overall north of Cape Falcon nontreaty TAC.

Geographic Distribution of the Commercial Allocation

Criterion 5, written specifically to describe allowable geographic distribution of the commercial TACs, would be added to the present FMP as follows.

5. The overall preseason allocation of chinook and coho for the commercial fishery is for the entire area north of Cape Falcon. Openings during the May through June chinook season shall encompass the entire area from Cape Falcon to the U.S.-Canada border. To reduce impacts on

critical coho stocks, the Council may structure all-salmon seasons in which the commercial allocation is unequally divided between the areas north and south of Leadbetter Point, as long as the area north of Leadbetter Point receives no less than 60 percent of the coho allocation, and the area south of Leadbetter Point receives no less than 25 percent of the coho allocation. These restraints on coho allocation shall not apply when there is an all-salmon troll fishery for the entire area north of Cape Falcon which has, for that fishery, a coho quota which equals or exceeds 75 percent of the total north of Cape Falcon troll coho quota. Inseason redistributions of quotas within the commercial fishery or between the commercial and recreational fisheries are not constrained by any geographic deviation limits.

Geographic Distribution of the Recreational Allocation

Criterion 6 would be added to the FMP to provide guidance for determining the geographic distribution of the recreational TAC.

6. The total recreational TAC derived during the preseason allocation process will be distributed among the three major recreational subareas as described in the coho and chinook distribution sections below. Additionally, based on the recommendations of the SAS members representing the ocean sport fishery north of Cape Falcon, the Council will include criteria in its preseason salmon management recommendations to guide any inseason transfer of coho among the recreational subareas to meet recreational season duration objectives. Inseason redistributions of quotas within the recreational fishery or the distribution of allowable coho catch transfers from the commercial fishery may deviate from the preseason distribution. The Council may also establish additional subarea quotas within a major subarea to meet recreational season objectives when agreed to by representatives of the affected ports.

Coho Distribution - The north of Cape Falcon preseason recreational TAC of coho will be distributed to provide 50 percent to the area north of Leadbetter Point and 50 percent to the area south of Leadbetter Point. In years with no Area 4B fishery, the distribution of coho north of Leadbetter Point will be divided to provide 74 percent to the subarea between Leadbetter Point and the Queets River (Westport) and 26 percent to the subarea north of the Queets River (Neah Bay/La Push). In years when there is an Area 4B fishery, 25 percent of the numerical value of that fishery shall be added to the recreational TAC north of Leadbetter Point prior to applying the sharing percentages. That same value would then be subtracted from the Neah Bay/La Push share in

order to maintain the same total distribution north of Leadbetter Point.

Chinook Distribution - Subarea distributions of chinook will be managed as guidelines and shall be calculated by the STT with the primary objective of achieving all-species fisheries without imposing chinook restrictions (i.e., area closures or bag limit reductions).

Chinook in excess of all-species fisheries needs may be utilized by directed chinook fisheries north of Cape Falcon or by negotiating a preseason chinook/coho trade with another fishery participant group (as provided in Criterion 1).

Inseason management actions may be taken by the NMFS Regional Director to assure the primary objective of the chinook harvest guidelines for each of the three recreational subareas north of Cape Falcon are met. Such actions might include: closure from 0 to 3, or 0 to 6, or 3 to 200, or 5 to 200 nautical mile from shore; closure from a point extending due west from Tatoosh Island for 5 miles, then south to a point due west of Umatilla Reef Buoy, then due east to shore; closure from North Head at the Columbia River mouth north to Leadbetter Point; change species which may be landed; or other actions as prescribed in the annual regulations.

Recommended Alternative for Implementation by the Secretary of Commerce

Input at the Amendment 10 public hearings made it evident that a great deal of controversy still surrounded Alternative 2 for both the commercial and recreational representatives. There was not any consensus among the affected commercial fishermen on the newly proposed Criterion 5. Recreational representatives differed over the need for more flexibility in Criterion 6 and the Council had already indicated the recreational issues would be reviewed further in the development of Amendment 11. With this background, the Council adopted Alternative 2 with regard to the recreational stipulations and the inseason guidance, but retained the basic direction of Criterion 4 in the current FMP for the commercial fishery. The Council's recommended changes for Section 3.7 of the framework FMP are contained in the following excerpt from the FMP.

3.7 Allocation of Ocean Harvest

* * *

3.7.1 Non-Indian Ocean Fisheries

* * *

3.7.1.1 U.S.-Canada Border to Cape Falcon - Coho and Chinook

Harvest allocations will be made from a total allowable ocean harvest which is maximized to the largest extent possible but still consistent with treaty obligations, state fishery needs and spawning escapement requirements. 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. These may include single-species directed fisheries with landing restrictions for other species.

The goal of allocating ocean harvest north of Cape Falcon is to achieve, to the greatest degree possible, the objectives for the commercial and recreational fisheries as follows.

- ° Provide recreational opportunity by maximizing the duration of the fishing season while minimizing daily and area closures and restrictions on gear and daily limits.
- ° Maximize the value of the commercial harvest while providing fisheries of reasonable duration.

Initial commercial and recreational allocation will be determined by the schedule of percentages of total allowable harvest as follows.

Harvest (Thousands of Fish)	Coho		Harvest (Thousands of Fish)	Chinook	
	Percentage ^{a/}			Percentage ^{a/}	
	Troll	Recreational		Troll	Recreational
0-300	25	75	0-100	50	50
>300	60	40	>100-150	60	40
			>150	70	30

a/ The allocation must be calculated in additive steps when the harvest level exceeds the initial tier.

This allocation schedule should, on the average, allow for meeting the specific fishery allocation priorities described below. The initial allocation may be modified annually by preseason and inseason trades to better achieve (1) the commercial and recreational fishery objectives and (2) the specific fishery allocation priorities. The final preseason allocation adopted by the Council will be expressed in terms of quotas which are neither guaranteed catches nor inflexible ceilings. Only the total ocean harvest quota is a maximum allowable catch.

To provide flexibility to meet the dynamic nature of the fisheries and to assure achievement of the allocation objectives and fishery priorities, deviations from the allocation schedule will be allowed as follows.

1. Preseason species trades (chinook and coho) which vary from the allocation schedule may be made by the Council based upon the recommendation of the pertinent recreational and commercial SAS representatives north of Cape Falcon. The Council will compare the socio-economic impacts of any such recommendation to those of the standard allocation schedule before adopting the allocation which best meets FMP management objectives.
2. Inseason transfers, including species trades of chinook and coho, may be permitted in either direction between recreational and commercial fishery quotas to allow for uncatchable fish in one fishery to be reallocated to the other. Fish will be deemed "uncatchable" by a respective commercial or recreational fishery only after considering all possible annual management actions to allow for their harvest which meet framework harvest management objectives, including single species or exclusive registration fisheries. Implementation of inseason transfers will require (a) consultation with the pertinent recreational and commercial SAS members and the STT and (b) a clear establishment of available fish and impacts from the transfer.
3. An exchange ratio of four coho to one chinook shall be considered a desirable guideline for preseason trades. Deviations from this guideline should be clearly justified. Inseason trades and transfers may vary to meet overall fishery objectives. (The exchange ratio of four coho to one chinook approximately equalizes the species trade in terms of average ex-vessel values of the two salmon species in the commercial fishery. It also represents an average species catch ratio in the recreational fishery.)

[Start of Amended Language]

4. Any increase or decrease in the recreational or commercial TAC, resulting from an inseason restructuring of a fishery or other inseason management action, does not require reallocation of the overall north of Cape Falcon nontreaty TAC.
5. The commercial TACs of chinook and coho derived during the preseason allocation process may be varied by major subareas (i.e., north of Leadbetter Point and south of Leadbetter Point) if there is a

need to do so to decrease impacts on weak stocks. Deviations in each major subarea will generally not exceed 50 percent of the TAC of each species that would have been established without a geographic deviation in the distribution of the TAC. Deviation of more than 50 percent will be based on a conservation need to protect the weak stocks and will provide larger overall harvest for the entire fishery north of Cape Falcon than would have been possible without the deviation.

6. The recreational TACs of chinook and coho derived during the preseason allocation process will be distributed among the three major recreational subareas as described in the coho and chinook distribution sections below. Additionally, based on the recommendations of the SAS members representing the ocean sport fishery north of Cape Falcon, the Council will include criteria in its preseason salmon management recommendations to guide any inseason transfer of coho among the recreational subareas to meet recreational season duration objectives. Inseason redistributions of quotas within the recreational fishery or the distribution of allowable coho catch transfers from the commercial fishery may deviate from the preseason distribution. The Council may also establish additional subarea quotas within a major subarea to meet recreational season objectives when agreed to by representatives of the affected ports.

Coho Distribution - The north of Cape Falcon preseason recreational TAC of coho will be distributed to provide 50 percent to the area north of Leadbetter Point and 50 percent to the area south of Leadbetter Point. In years with no Area 4B fishery, the distribution of coho north of Leadbetter Point will be divided to provide 74 percent to the subarea between Leadbetter Point and the Queets River (Westport) and 26 percent to the subarea north of the Queets River (Neah Bay/La Push). Table 2 displays the distribution of shares north of Leadbetter Point with the 74/26 percent split. In years when there is an Area 4B fishery under state management, 25 percent of the numerical value of that fishery shall be added to the recreational TAC north of Leadbetter Point prior to applying the sharing percentages. That same value would then be subtracted from the Neah Bay/La Push share in order to maintain the same total distribution north of Leadbetter Point. Table 3 displays the allowable catch shares for Westport and Neah Bay/La Push with a 20,000 coho harvest for Area 4B.

Table 2. Example distribution of the recreational coho TAC north of Leadbetter Point for years in which there is no Area 4B recreational fishery.

Recreational Coho TAC North of Cape Falcon	Allowable Coho Catch		
	North of Leadbetter Point	Westport (74 Percent)	Neah Bay/La Push (26 Percent)
100,000	50,000	37,000	13,000
125,000	62,500	46,250	16,250
150,000	75,000	55,500	19,500
175,000	87,500	64,750	22,750
200,000	100,000	74,000	26,000
225,000	112,500	83,250	29,250
250,000	125,000	92,500	32,500
300,000	150,000	111,000	39,000

Table 3. Example distribution of the recreational coho TAC north of Leadbetter Point for years in which there is an Area 4B recreational fishery of 20,000 coho.

Recreational Coho TAC North of Cape Falcon	North of Leadbetter Point	Westport	Neah Bay/La Push
100,000	50,000	40,700	9,300
125,000	62,500	49,950	12,550
150,000	75,000	59,200	15,800
175,000	87,500	68,450	19,050
200,000	100,000	77,700	22,300
225,000	112,500	86,950	25,550
250,000	125,000	96,200	28,800
300,000	150,000	114,700	35,300

Chinook Distribution - Subarea distributions of chinook will be managed as guidelines and shall be calculated by the STT with the primary objective of achieving all-species fisheries without imposing chinook restrictions (i.e., area closures or bag limit reductions).

Chinook in excess of all-species fisheries needs may be utilized by directed chinook fisheries north of Cape Falcon or by negotiating a chinook/coho trade with another fishery participant group.

Inseason management actions may be taken by the NMFS Regional Director to assure that the primary objective of the chinook harvest guidelines for each of the three recreational subareas north of Cape Falcon are met. Such actions might include: closure from 0 to 3, or 0 to 6, or 3 to 200, or 5 to 200 nautical mile from shore; closure from a point extending due west from Tatoosh Island for 5 miles, then south to a point due west of Umatilla Reef Buoy, then due east to shore; closure from North Head at the Columbia River mouth north to Leadbetter Point; change species which may be landed; or other actions as prescribed in the annual regulations.

[End of Amended Language]

Fishery Allocation Priorities

The priorities listed below will be used to help guide establishment of the final harvest allocation while meeting the overall commercial and recreational fishery objectives.

At total allowable harvest levels up to 300,000 coho and 100,000 chinook:

- ° Provide coho to the recreational fishery for a late June through early September all-species season. Provide chinook to allow (1) access to coho and, if possible, (2) a minimal chinook-only fishery prior to the all-species season. Adjust days per week and/or institute area restrictions to stabilize season duration.
- ° Provide chinook to the troll fishery for a May and early June chinook season and provide coho to (1) meet coho hooking mortality in June where needed and (2) access a pink salmon fishery in odd years. Attempt to ensure that part of the chinook season will occur after June 1.

At total allowable harvest levels above 300,000 coho and above 100,000 chinook:

- ° Relax any restrictions in the recreational all-species fishery and/or extend the all-species season beyond Labor Day as coho quota allows. Provide chinook to the recreational fishery for a Memorial Day through late June chinook-only fishery. Adjust days per week to ensure continuity with the all-species season.
- ° Provide coho for an all-salmon troll season in late summer and/or access to a pink fishery. Leave adequate chinook from the May through June season to allow access to coho.

Impacts of Alternatives

Administrative Impacts

Alternative 2 and the Council's recommended alternative decrease the administrative workload of salmon management north of Cape Falcon due to the clarification of criteria to guide allocation decisions. They remove a significant source of confusion and controversy during the preseason salmon management process for the recreational fishery. Alternative 2 and the Council's recommended alternative require no major change in current management procedures. The present process of arriving at the overall ocean TAC is very complex and includes a large element of negotiation among the various treaty and nontreaty fishery participants in both the ocean and inside fisheries.

Both Alternative 2 and the Council's recommended alternative require no reallocation of the overall nontreaty TAC when one group's TAC changes by inseason action. Inseason changes in TAC should generally be relatively small and occur irregularly when harvest patterns deviate from those expected in the preseason establishment of the regulations. It is primarily an administrative necessity in the inseason management process to handle TAC changes in this manner. If changes in one group's TAC required reallocation of the overall TAC, timely inseason adjustments in each fishery would become complex decisions

requiring extensive public input to consider how the actions in one fishery (commercial or recreational) impacted those of the other. Inseason management is prosecuted primarily by conference call, requires rapid decision making and is generally limited in its scope to assure Council intent is not subverted in the absence of a Council decision. It is not designed to handle complex decision making and extensive public input.

Recreational Fishery Impacts

Table 4 compares the probable preseason recreational subarea TACs under Alternative 2 (same as the Council's recommended alternative for the recreational fishery) with those which were actually adopted by the Council in the past six years (period in which the present boundaries of the three major subareas have been used). For 1990 and 1987, there are no differences in the distributions. For 1986, the largest change under Alternative 2 is about a 4 percent (1,000 coho) decrease for the Neah Bay/La Push subarea. However, chinook quotas were the controlling factor in the 1986 fisheries and 5,400 coho (19 percent of the subarea quota) were transferred inseason from the Neah Bay/La Push subarea to the Westport subarea in exchange for 1,800 chinook. In the 1985 comparison, Alternative 2 decreases the Neah Bay/La Push quota by about eight percent. However, the actual adopted preseason quota for Neah Bay/La Push was reduced inseason by 3,000 coho (11 percent). The 1989 comparison shows about a 14 percent increase for the Neah Bay/La Push subarea under Alternative 2. This subarea had the shortest season of the three subareas in that year. The increase to Neah Bay/La Push and the slight increase to the Columbia River subarea at the cost of a five percent decrease to Westport would have provided more equal season durations among the three subareas in 1989.

The largest changes under Alternative 2 would have been in 1988 when the overall recreational TAC was only 100,000 coho. In that year, Alternative 2 would have provided a 67 percent increase for the Columbia River subarea which resulted from decreases of 35 and 26 percent in the subarea quotas of Neah Bay/La Push and Westport, respectively. Season lengths in 1988 were 10 days in the Columbia River area, 21 days in the Westport area and 23 days in the Neah Bay/La Push area. In 1988, the Council specifically departed from the normal sharing percentages to adjust harvest opportunity in the face of an extremely low TAC in the ocean.

Except for the adjustment for the Area 4B fishery in 1990 and 1989, the coho TACs for the three major recreational subareas under Alternative 2 are identical to the base-case distribution which the recreational work group agreed was representative of the catches prior to Council subarea catch allocation. In 1989 and 1990, with an Area 4B fishery of 20,000 coho, Alternative 2 decreases the allocation to the Neah Bay/La Push subarea by 3,700 coho and increases the Westport subquota by the same amount (Table 5).

Commercial Fishery Impacts

The Council's recommended alternative does not change the FMP with regard to the distribution of the preseason commercial TACs and therefore there are no impacts to evaluate.

Table 4. Comparison of the probable preseason recreational TAC distribution under Alternative 2 (Council recommendation) with the actual preseason recreational TAC distribution adopted by the Council in recent years. (See discussion of impacts for inseason modifications to the distribution.)

Year and Area of Catch	Allowable Recreational Coho Catch ^{a/}		
	Alternative 2 Council Recommendation	Council Adopted	Change with Alternative 2
1990 TAC North of Cape Falcon	245,000	245,000	0
Neah Bay and LaPush	28,200	28,200	0
Westport	94,300	94,300	0
Columbia River	122,500	122,500	0
1989 TAC North of Cape Falcon	225,000	225,000	0
Neah Bay and LaPush	25,600	22,500	3,100
Westport	86,900	91,100	-4,200
Columbia River	112,500	111,400	1,100
1988 TAC North of Cape Falcon	100,000	100,000	0
Neah Bay and LaPush	13,000	20,000	-7,000
Westport	37,000	50,000	-13,000
Columbia River	50,000	30,000	20,000
1987 TAC North of Cape Falcon	200,900	200,900	0
Neah Bay and LaPush	26,100	26,100	0
Westport	74,300	74,300	0
Columbia River	100,500	100,500	0
1986 TAC North of Cape Falcon	207,500	207,500	0
Neah Bay and LaPush	27,000	28,000	-1,000
Westport	76,700	76,300	400
Columbia River	103,800	103,200	600
1985 TAC North of Cape Falcon	201,400	201,400	0
Neah Bay and LaPush	26,200	28,400	-2,200
Westport	74,500	74,000	500
Columbia River	100,700	99,000	1,700

^{a/} Numbers are rounded to the nearest hundred.

Table 5. Comparison of the probable preseason recreational TAC distribution under Alternative 2 with the base-case distribution agreed to by the recreational work group at the TAC levels of recent years.^{a/}

Year and Area of Catch	Allowable Recreational Coho Catch		
	Alternative 2	Base-Case 13/37/50	Change with Alternative 2
1990 TAC North of Cape Falcon	245,000	245,000	0
Neah Bay and LaPush ^{b/}	28,150	31,850	-3,700
Westport ^{b/}	94,350	90,650	3,700
Columbia River	122,500	122,500	0
1989 TAC North of Cape Falcon	225,000	225,000	0
Neah Bay and LaPush ^{b/}	25,550	29,250	-3,700
Westport ^{b/}	86,950	83,250	3,700
Columbia River	112,500	112,500	0
1988 TAC North of Cape Falcon	100,000	100,000	0
Neah Bay and LaPush	13,000	13,000	0
Westport	37,000	37,000	0
Columbia River	50,000	50,000	0
1987 TAC North of Cape Falcon	200,900	200,900	0
Neah Bay and LaPush	26,117	26,117	0
Westport	74,333	74,333	0
Columbia River	100,450	100,450	0
1986 TAC North of Cape Falcon	207,500	207,500	0
Neah Bay and LaPush	26,975	26,975	0
Westport	76,775	76,775	0
Columbia River	103,750	103,750	0
1985 TAC North of Cape Falcon	201,400	201,400	0
Neah Bay and LaPush	26,182	26,182	0
Westport	74,518	74,518	0
Columbia River	100,700	100,700	0

^{a/} The base-case distribution of the coho TAC is 13 percent for Neah Bay/La Push; 37 percent for Westport; and 50 percent for the Columbia River ports.

^{b/} Reflects the adjustment for an Area 4B fishery of 20,000 coho as provided in Alternative 2.

Biological Impacts

Alternative 2 and the Council's recommended alternative would have no additional quantifiable biological impacts on the critical salmon stocks when compared with the status quo. The constraints in these alternatives which guide distribution of the TACs might tend to maintain the historic harvest patterns of ocean fisheries and result in more stable stock impacts from the fisheries than under the status quo which allows for more variation in the distribution of harvest opportunity. However, if recent ocean salmon seasons are an indicator of future seasons, the alternatives to status quo would have virtually the same impacts as the present plan in a majority of years.

Socio-Economic Impacts

See Issue 3 in Appendix B.

Interaction With Other Amendment Issues

There is no interaction between Issue 3 and any other issue in this amendment.

References

Literature Cited

STT. 1984. 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. Council, Portland, Oregon.

STT. 1987. Review of 1986 ocean salmon fisheries. Council, Portland, Oregon.

FMP

Council. 1984. Final framework amendment for managing the ocean salmon fisheries off the coasts of Washington, Oregon and California commencing in 1985.

_____. 1988. Ninth amendment to the fishery management plan for commercial and recreational salmon fisheries off the coasts of Washington, Oregon and California commencing in 1978. p.14-32.

Regulations

50 CFR Part 661, Appendix II.B.2.a.

ISSUE 4 - DEFINITION OF OVERFISHING

Purpose and Need for Action

Under NOAA's most recently published final rule of "Guidelines for Fishery Management Plans," 50 CFR Part 602 (July 24, 1989), all FMPs are required to contain a definition of overfishing for each managed stock or stock complex covered by the FMP (Section 602.11[c]). This requirement is based on the need to meet National Standard 1 of the MFCMA which states: "Conservation and

management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery."

To meet the requirements of the FMP guidelines, the Council proposes consideration of a new subsection on overfishing for the salmon FMP. The following FMP format modifications are necessary: add the new section title, "3.3 Specification of Optimum Yield for the Fishery and Overfishing"; renumber present Section 3.3 (Specification of Optimum Yield for the Fishery) as subsection 3.3.1 and add subsection 3.3.2 (Overfishing) as provided below.

Overfishing

Section 602.11(c)(1) of the FMP guidelines states:

Overfishing is a level or rate of fishing mortality that jeopardizes the long-term capacity of a stock or stock complex to produce MSY on a continuing basis. Each FMP must specify, to the maximum extent possible, an objective and measurable definition of overfishing for each stock, or stock complex covered by that FMP, and provide an analysis of how the definition was determined and how it relates to reproductive potential.

The Council's definition of overfishing is based on the spawning escapement goals for chinook and coho salmon stocks specified in the salmon FMP (Table 6). Spawning escapement goals are based on such factors as estimates of spawning or rearing habitat or historical production from a range of observed spawning escapements. Spawning escapement goals are generally expressed in numbers of adult fish or as an escapement rate, often with a numerical floor. Because spawning escapement goals tend to reflect estimates of MSY for a stock, they provide a much greater level of harvest restraint than any alternative definition based on a minimum threshold below which a stock might not recover. During the Council's annual salmon management process, achievement of the spawning escapement goals is reviewed and, where needed, actions taken to improve estimation procedures, note habitat problems and modify fishing regimes to assure achievement of the goals in the coming season.

Definition of Overfishing and Council Response

Overfishing is an occurrence whereby all mortality, regardless of the source, results in a failure of a salmon stock to meet its annual spawning escapement goal or management objective, as specified in Section 3.5 of the salmon FMP for three consecutive years, and for which changes in the fishery management regime offer the primary opportunity to improve stock status. While this condition is defined as overfishing in the broad sense, it is recognized that this situation may also be the result of nonfishing mortality and fishery management actions may not adequately address the situation.

When a specific stock or stock grouping fails to meet its annual spawning escapement objective for three consecutive years, the Council shall appoint a work group to investigate the causes of the apparent shortfall (e.g., due to causes within or outside of Council control). The work group will include members from the SIT, SSC and SAS, as well as invited representatives of federal, state and tribal agencies having management authority over water quality and pertinent salmon production habitat. The current status of stock productivity

Table 6. Current summary of management goals for stocks in the Council's salmon management unit.

System	Management Objectives	
	Spawning Escapement Goal ^{a/}	Rebuilding Schedule
	Other	
Sacramento River Fall Chinook	122,000 to 180,000 natural and hatchery. ^{b/c/}	Provide for inside recreational fishery. None.
Klamath River Fall Chinook	33 to 34 percent of the potential adults from each brood of natural spawners, but not fewer than 35,000 naturally spawning adults in any year.	Ocean and inriver fisheries to be managed based on allowable harvest rate combination, except as needed to protect the escapement floor. None.
Oregon Coastal Chinook South Coast North Coast	150,000 to 200,000 natural. Unspecified. Unspecified.	Meet hatchery requirements. None.
Columbia River Chinook		
Upper River Fall (Brights)	40,000 bright adults above McNary Dam.	Manage consistent with U.S.-Canada treaty, meet treaty Indian obligations, provide fish to inside non-Indian fisheries, and meet hatchery requirements.
Upper River Summer	80,000 to 90,000 adults above Bonneville.	The Council recognizes certain factors such as (1) implementation of the Northwest Pacific Power Act, (2) implementation of the U.S.-Canada Salmon Treaty, and (3) renegotiation among the parties of a plan for allocation of inriver harvest 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 stocks 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 upriver chinook stocks will be required until substantial improvements occur.
Upper River Spring	115,000 adults above Bonneville.	
Lower River Fall (Tule)	Meet hatchery requirements.	Provide for inside net and recreational fisheries.
Lower River Spring (Willamette)	30,000 to 45,000 based on run size.	As specified in Willamette Plan.

Table 6. Current summary of management goals for stocks in the Council's salmon management unit (continued).

System	Spawning Escapement Goal ^v	Management Objectives	
		Other	Rebuilding Schedule
Washington Coastal Fall Chinook	d/e/	Meet treaty allocation requirements, provide fish for inside non-Indian needs.	None.
Washington Coastal Spring-Summer Chinook	d/e/	Same as Washington coastal fall chinook.	None.
Puget Sound Chinook	d/e/	Same as Washington coastal fall chinook.	None.
Columbia River Coho	Meet hatchery escapement goals.	Provide for Columbia River treaty obligations, inside non-Indian fisheries, and meet hatchery requirements.	None.
Oregon Coastal Coho	200,000 adult natural coastal spawning escapement. ^v	None.	None after 1986. ^v
Washington Coastal Coho	d/	Meet treaty obligation requirements, provide fish to inside non-Indian fisheries, and meet hatchery requirements.	None.
Puget Sound Coho	d/	Same as Washington coastal coho.	None.
Southern BC Coho	Not clearly established.	Manage consistent with U.S./Canada treaty.	None.
Fraser River Sockeye and Pink	g/	Manage consistent with chinook and coho escapement needs.	None.

Table 6. Current summary of management goals for stocks in the Council's salmon management unit (continued).

System	Spawning Escapement Goal ^{a/}	Management Objectives	
		Other	Rebuilding Schedule
Puget Sound Pink	900,000 natural. ^{d/}	Meet treaty obligation requirements.	None.
Lake Washington Sockeye	300,000 to Lake Washington. ^{d/}	Meet treaty allocation requirements. ^{b/}	None.
Columbia River Sockeye	65,000 over Priest Rapids.	h/	None.

- a/ Represents adult natural spawning escapement goal for viable natural stocks or adult hatchery return goal for stocks managed for artificial production.
- b/ Includes upper and lower river components.
- c/ The State of California has established a distribution goal for each river system which contributes to the aggregated Central Valley fall chinook goal. These distribution goals are not used as a basis for ocean management, but will be used as management goals by agencies having inriver management responsibilities. The distribution goals are listed in Section 3.5.2.1 of the salmon framework amendment.
- d/ Annual management objectives (expected hatchery plus natural escapement) for specific rivers or regions of origin are developed through fixed procedures established in the U.S. District Court. The total escapement objective is based upon either maximum sustained harvest spawning escapement goals for stocks managed primarily for natural production (Grays Harbor, Queets, Hoh, Quillayute, Strait of Juan de Fuca, Skagit, Stillaguamish/Snohomish, and Hood Canal) or upon hatchery escapement needs for stocks managed for artificial production. Total escapement objectives for each stock are established annually based on the appropriate goal. Puget Sound procedures are currently being developed in "Memorandum Adopting Salmon Plan" (U.S. v. Washington, 459 F. Supp. 1020 [1978]). Washington north coastal coho procedures are currently being developed via U.S. District Court order in Hoh v. Baldrige.
- e/ These stocks represent a minor component of the Washington ocean harvest although ocean impact relative to terminal run size for each stock can be a management consideration.
- f/ The escapement goal for OCN coho adults beginning in 1987 provides increased flexibility to respond to socio-economic concerns at OCN stock sizes below 400,000 coho salmon. A spawning escapement goal floor of 135,000 coho is established for stock sizes of up to 270,000 coho. Between stock sizes of 270,000 and 400,000, the spawning escapement goal will be one-half of the estimated stock size. For stock sizes above 400,000, the escapement goal will be 200,000 coho salmon.
- g/ Fraser River pink and sockeye salmon are managed primarily under jurisdiction of the Fraser River Panel of the PSC which includes control of ocean harvests north of 48°N latitude. State control of landings may be used to control potential impacts on coho or chinook during pink and/or sockeye fisheries.
- h/ These stocks represent a negligible component of the Washington ocean harvest.

and all sources of stock mortality will be examined by the work group and a report of its conclusions and recommendations provided to the Council. For those actions within Council control, the Council may change analytical or procedural methodologies to improve the accuracy of estimates for abundance, harvest impact and MSY escapement levels, and/or to reduce ocean harvest impacts when shown to be effective in stock recovery to MSY levels. For those causes beyond Council control, the Council may make recommendations to those entities which have the control to change preseason prediction methodology (e.g., procedures established under Hoh v. Baldridge), improve habitat, and review and/or revise escapement goals.

The definition of overfishing recognizes that management imprecision in the Council's annual salmon management process may result in spawning escapements which deviate from the annual goals or objectives. The Council reviews such deviations annually and makes appropriate adjustments in management procedures and the harvest regime, as well as noting possible impacts from habitat degradation to assure the goals are met. The Council process minimizes impacts of the deviations by annually establishing fishing regimes, based on estimates of preseason stock abundance and expected harvest patterns, which are designed to achieve ocean and river harvest allocations while meeting the spawning escapement goals or objectives. Failure by a stock to meet management objectives for three consecutive years may indicate an undesirable downward trend in a stock which requires the special consideration accorded it under the definition of overfishing to assure that corrective action is taken long before the stock is significantly depleted.

Stocks without specified goals in the FMP are also provided significant protection against overfishing because the Council bases its management on the stock which is first reduced to its annual specified goal level by the fisheries. Such a stock could be the weakest stock or an abundant stock which is heavily impacted by ocean salmon fisheries.

Stocks Requiring Special Consideration

The Council has established annual spawning escapement goals for two stocks (Columbia River upriver spring and summer chinook) which have failed to meet their annual spawning escapement goals for a long period of time. The cause of this failure has been documented as adverse flow and fish passage problems and harvest impacts outside Council jurisdiction (Northwest Power Planning Council 1986; PSC 1990). The ocean harvest of these stocks occurs primarily north of Council-managed waters. The Council will closely monitor ocean fisheries impacts on these stocks while it attempts to maintain low harvest levels and endeavors to increase their productivity by seeking improvements in habitat, fish passage, flows, interceptions, and other factors affecting the overall stock survival.

Management Implications of Special Concern to the Council

Salmon stocks in the Pacific Northwest have suffered significantly from habitat destruction and mortality induced by hydroelectric operations and water diversion (Northwest Power Planning Council 1986). The Council's fishery managers and Pacific coast fishermen have persistently struggled for many years to realize mitigation for these negative habitat impacts and have had fisheries curtailed to protect the stocks so impacted. This has been an extremely long and difficult battle and several affected salmon stocks are currently being reviewed under the ESA.

In formulating its definition of overfishing, the Council was extremely concerned that cases of stock stress not be labeled as overfishing unless fishing was the primary cause of the depression. Such indiscriminate use of the overfishing label could greatly diminish the region's focus on correcting major nonfishing sources of stock depression. It could also give the mistaken impression of the need for further reduction in fisheries which have already been curtailed for years to protect the weakened stocks and in which case further fishing reductions provide little or no tangible benefit to the long-term recovery of the stock while inflicting severe social and economic hardship on the fishermen.

While the Council will not use the label of overfishing in a case of stock depression in which fishing mortality is clearly not the primary factor, it must seek to assure adequate spawning escapements by whatever means are available. Even if fishing is not the primary factor in the depression of a stock, the Council will act to decrease the harvest rate of fisheries within its jurisdiction where such action has a reasonable expectation of benefits to the stock or the fisheries, or is necessary to avoid protection of the stock under the ESA.

Impact of the Proposed Definition

There are no biological, social or economic impacts created by adding the definition of overfishing to the salmon FMP that are different from those of the current FMP. The definition simply clarifies what, in the Council's view, constitutes overfishing, how the present FMP avoids overfishing and what procedures the Council will follow in addressing any instances of overfishing.

Administrative Impacts

The proposed definition meets the requirements for Secretarial approval in Section 602.11(c)(5) of the FMP guidelines as described below. Because the definition for overfishing utilizes current Council management measures, prevention of overfishing is assured without additional plan amendments.

Scientific Merit

Data generally do not exist from which to determine a precise point at which a stock is overfished. However, our best scientific information on stock recruitment generally relates to achieving MSY. The spawning escapement goals in the FMP are based on the available production data for each stock and tend to reflect estimates of MSY. Therefore, a consistent failure to meet these goals is probably our best scientific basis for assuming that a stock management problem exists, including the danger of overfishing.

Prevents Overfishing

Managing the fisheries to achieve spawning escapement goals which tend to reflect MSY on a stock by stock basis assures a high level of protection against overfishing, even in the face of extreme uncertainty. Such a management scheme provides maximum protection while also attempting to maximize harvest.

Stock Status Can be Measured Against the Definition

Actual postseason estimates of the spawning escapements of the various stocks are available in the Council's annual reports for comparison with the annual spawning

escapement objectives. Data on ocean and inriver harvest rates are generally available after the season is over and can be used to provide estimates of fishery mortality which can be reviewed along with any other factors known to affect the stock status. This information can be reviewed when stocks fail to meet spawning escapement objectives to determine if overfishing is actually occurring and, in any event, what action to take to improve stock status or assure achievement of the proper spawning escapement objective.

Feasibility

The definition embodies the Council's normal management procedures as found in the current FMP. Any necessary action to prevent overfishing fits the Council's current management schedule and the role of its existing advisory entities.

Interaction With Other Amendment Issues

There is no interaction between Issue 4 and any other issue in Amendment 10.

References

Council. 1984. Final framework amendment for managing the ocean salmon fisheries off the coasts of Washington, Oregon and California commencing in 1985.

Northwest Power Planning Council. 1986. Appendix D of the 1987 Columbia River Basin fish and wildlife program. 252 p.

PSC. 1990. Estimates of chinook salmon interceptions. Joint Chinook Technical Committee Report (90)-2. 21 p.

50 CFR Part 602 Guidelines for Fishery Management Plans; Final Rule.

APPENDIX A
EA SUMMARY OF AMENDMENT 10 TO THE
FMP FOR COMMERCIAL AND RECREATIONAL SALMON FISHERIES
OFF THE COASTS OF WASHINGTON, OREGON, AND CALIFORNIA
COMMENCING IN 1978

Introduction

Shortly after the enactment of the MFCMA, the Council prepared the first ocean salmon FMP/EIS which was approved and implemented in 1977. A new FMP/EIS was developed for the 1978 season. Since that time, the 1978 FMP has been amended nine times.

From 1979 to 1983, the FMP was amended annually to establish management measures for each year's fishery and a SEIS was prepared for each amendment. In 1984, a framework amendment was implemented and was accompanied by another SEIS. The framework amendment established a mechanism to implement preseason and inseason regulatory adjustments without an FMP amendment. This amendment is the fourth amendment since implementation of the framework FMP.

Development of Amendment 10 to the 1978 FMP began formally with a scoping session in November 1988 and a second scoping session in November 1989. Issues 1, 2 and 3 of this amendment package were identified following the initial scoping session in 1988 and Issue 4 was added to the amendment at the November 1989 scoping session.

The EA for this amendment has been prepared according to 40 CFR 1501.3 and 1508.9 and NOAA Directive 02-10 in order to determine whether an EIS is required by Section 102(2)(C) of the NEPA. An EIS normally is required for any major action that will have a significant impact on the quality of the human environment. An EIS is not required if the EA concludes there is no significant impact.

An analysis of the environmental impacts for each of the issues in the amendment is provided in the main body of this amendment document under each separate issue. Table A-1 identifies the pages of the amendment which discuss the need for action and analyze the potential environmental impacts of the alternatives for each issue. Thus, this appendix either contains or references the information required for a "structurally complete" EA.

Summary of Impacts

Productive Capability of the Resource

Only Issue 4 directly relates to impacting the productive capability of the resource. It provides a definition of overfishing which will help assure the productive capacity of all salmon stocks is not jeopardized.

Ocean and Coastal Habitats

None of the issues considered in this FMP amendment have any direct or significant indirect impacts on ocean and coastal habitats.

Table A-1. Page references for requirements of an EA under NEPA for issues in "Amendment 10 to the Fishery Management Plan for Commercial and Recreational Fisheries off the Coasts of Washington, Oregon and California Commencing in 1978".

Requirement	Issue 1 Recreational Season Duration	Issue 2 Klamath River Spawning Escapement	Issue 3 Harvest Allocation Distribution	Issue 4 Definition of Overfishing
Need for Action	1		7	20
Description of Alternatives	2		9	21
Biological Impacts	4, None	No Proposed Amendment	20	26, None
Social and Economic Impacts	4, None		See Appendix B	26, None
Interaction with Other Issues	6, None		20, None	27, None
Council Recommendation	4		11	21

Public Health and Safety

Fishing in the ocean can be hazardous. The MFCMA and salmon FMP require the Council to consider whether an FMP amendment will result in the need for temporary adjustments for access to the fishery for vessels prevented from harvesting due to weather or other oceanic conditions affecting the safety of the vessels. The Council reviewed this issue in adopting the eighth amendment to the FMP.

None of the issues considered in this FMP amendment have any direct or anticipated indirect impacts on public health and safety that are different than those considered under the framework plan and the eighth amendment. None of the issues are anticipated to result in an increased or decreased need for allowing fishery access (due to unsafe weather) beyond that already existing under the present FMP.

Endangered or Threatened Species and Marine Mammals

The Council and NMFS have determined that the measures proposed in this amendment are unlikely to adversely affect Stellar sea lion populations in the Council's fishery management area. Also, none of the amendment issues changes commercial fishing in a way which was not anticipated and provided for under the interim exemption system for the incidental take of marine mammals. A Section 7 consultation on affects of salmon management and conservation on Sacramento River winter-run chinook salmon is underway currently. None of the amendment issues has the potential for increasing ocean harvest rate of winter-run chinook. A complete discussion of the ESA and the MMPA is provided in Appendix D (page D-1).

Cumulative and Controversial Impacts

None of the issues considered in this FMP amendment have any direct or anticipated indirect cumulative impacts that are in addition to the impacts already discussed in this document.

The determination of the recreational and commercial harvest distribution in Issue 3 is a controversial issue. This is due to its direct impact on season length and structure for commercial and recreational fisheries and the difficulty in accurately and precisely quantifying the socio-economic impacts of the distribution.

Flood Plains, Wetlands, National Trails and Rivers

The actions proposed by this amendment will have no significant or adverse affect on flood plains or wetlands and trails and rivers listed or eligible for listing on the National Trails and Nationwide Inventory of Rivers.

Agencies and Persons Consulted

Representatives of the following agencies were consulted in formulating the proposed action, considering alternatives, and preparing this EA.

California Department of Fish and Game
Oregon Department of Fish and Wildlife
Idaho Department of Fish and Game
National Marine Fisheries Service
Pacific Fishery Management Council
Salmon Plan Team of the North Pacific Fishery Management Council
Washington Department of Fisheries
U.S. Coast Guard
U.S. Fish and Wildlife Service

Finding of No Significant Environmental Impact

For the reasons discussed and referenced above, it is determined that neither approval nor disapproval of any alternative presented in the Amendment 10 would significantly affect the quality of the human environment in a way that has not already been contemplated in the SEIS for the FMP. Accordingly, preparation of a SEIS on these issues is not required by Section 102(2)(C) of the NEPA or its implementing regulations.

Assistant Administrator for Fisheries, NOAA

Date

APPENDIX B
SUPPLEMENTAL INFORMATION COMPLETING THE RIR/IRFA

The information provided in this appendix, in combination with the more detailed description of the need for action and alternatives, contained in Amendment 10, serve to complete the requirements for an RIR/IRFA. The draft of Amendment 10 sent out for public review contained four issues. The Secretary of Commerce is not requiring RIR/IRFAs on overfishing definitions (Issue 4) and Issue 1 is considered administrative. The potential impacts of Issue 1 are discussed briefly in the main text and shown to be negligible. On Issue 2, Klamath River fall chinook salmon spawning escapement goal, the Council elected to make no changes during the present amendment cycle (selected status quo). Therefore, no socio-economic analysis is included on Issues 1, 2, or 4 in this appendix to the final document.

General Description of the Fishery

The following is a description of the west coast commercial and recreational salmon fishery. A more extensive description of the fishery will be found in the "Proposed plan for managing the 1981 Salmon Fisheries Off the Coast of California, Oregon, and Washington" (Council 1981). The entire fishery may be involved in decisions made by salmon FMP Amendment 10; however, specific decisions will pertain to some segments of the fishery more than others.

- o Decisions on Issue 1 (achievement of recreational season duration goals) relate to fisheries between Cape Falcon and Humbug Mountain;
- o Decisions on Issue 2 (Klamath River fall chinook salmon spawning escapement goal) will have their primary affect on fisheries south of Cape Falcon (the status quo option was selected for this issue);
- o Decisions on Issue 3 (criteria for guiding nontreaty allocation north of Cape Falcon) will primarily involve fisheries north of Cape Falcon; and
- o Decisions on Issue 4 (overfishing definition) will have an affect on all Council-managed salmon fisheries.

A map inside the back cover of this report shows the management areas referred to in the above list of issues. This description will focus more attention on stocks and user groups which will be particularly affected by decisions on the current amendment issues. Many additional details are available from Council (1981 and 1990).

Managed Stocks

The management unit for the salmon FMP includes those stocks of salmon and steelhead that are harvested in the EEZ off the coasts of California, Oregon and Washington. Exceptions are those stocks which are managed by another management entity with primary jurisdiction; i.e., the PSC in the convention area between 49° and 48°N latitude.

The primary stocks comprising the unit are chinook and coho salmon, along with pink salmon in odd-numbered years. The principle stocks or stock groupings

comprising the management unit and the general ocean area where they occur are described in Table 3-1 of the final framework amendment (Council 1984).

The stocks directly affected by Issues 2 and 3 in Amendment 10 will be the Washington coastal and Puget Sound coho stocks (Issue 3), OPI coho stocks (Issue 3) and Klamath River fall chinook (Issue 2).

The Washington coastal coho and Puget Sound coho are managed to provide an ocean fishery while meeting treaty obligation requirements and providing fish to inside fisheries. These stocks are important components of the north of Cape Falcon sport and troll fisheries and escapement goals for certain critical stocks often limit the TAC for the area. Annual spawning escapement goals for specific rivers or regions of origin are developed through fixed procedures established in the U.S. District Court. The total escapement objective is based upon either maximum sustained harvest spawning escapement goals for stocks managed primarily for natural production (Grays Harbor, Queets, Hoh, Quillayute, Strait of Juan de Fuca, Skagit, Stillaguamish/Snohomish and Hood Canal) or upon hatchery escapement needs for stocks managed for artificial production. Since implementation of these objectives, natural production escapement goals have constrained harvest. Total escapement objectives for each stock are established annually based on the appropriate goal.

The Columbia River and Oregon coastal coho are managed together within the framework of the OPI. The principle coho stocks which make up the OPI stock complex include the Columbia River hatchery, coastal hatchery and OCN stocks. These coho are important to the fisheries off the southern Washington, Oregon and northern California coasts. Columbia River coho are managed for full utilization of hatchery production, while Oregon coastal stocks are managed to achieve full production from natural spawning. Under the current FMP, while providing for ocean harvest, 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.

The major chinook run in the area between Horse Mountain and Port Orford is from the Klamath River system, which includes the Salmon and Trinity rivers. Natural production from the Klamath River system is primarily fall chinook, but small runs of spring chinook originate in the Salmon and Trinity rivers. State-operated chinook hatcheries are located in the upper Klamath and Trinity rivers. Under the current FMP, management objectives for the area are to establish natural production at the MSY level consistent with meeting ocean harvest needs, Indian fishery needs on the lower Klamath River system and recreational needs in inland areas.

Non-Indian Commercial

Ocean Troll

The Pacific salmon trollers fish along the entire Pacific coast, from the Monterey area in California to Cape Suckling in the Gulf of Alaska. Although Pacific coast troll fleets have been identified for California, Oregon and Washington, there is a great deal of mobility and interchange among the troll fleets. The structure of these fleets and distribution of the 1989 troll catch among various sizes of vessels is shown in Table B-1. Larger ("trip") boats are

generally perceived to be more mobile than smaller ("day") boats. Data available on interstate mobility comes from a report on the 1985 PacFIN research data base (Korson and Thomson 1987), Table B-2. In 1989, trollers caught 872,000 chinook and 474,000 coho south of Cape Falcon. For the same year north of Cape Falcon 43,000 chinook and 78,000 coho were caught. More extensive historical data will be found in "Review of the 1989 Ocean Salmon Fisheries" (Council 1990).

Inside Fisheries

Pacific coast non-Indian inside net fisheries include three gear types (gill net, purse seine and reef net) in five locations (Oregon and Washington sectors of the Columbia River, Willapa Bay, Grays Harbor and Puget Sound). Purse seine and reef net fisheries only occur in Puget Sound, while gill netting occurs in all five locations. The Washington 1982-1985 average numbers of salmon and total dollar revenues for each of these gears were as follows: gill nets - 984,517 fish (\$8,496,330), purse seines - 1,725,887 fish (\$8,315,300), and reef nets - 88,060 fish (\$450,026) (Washington Department of Community Development 1988). The primary inside commercial stocks which may be affected by this amendment are coho. In the Puget Sound nontreaty commercial fisheries, 334,000 coho were harvested in 1989. Washington coastal gill net fisheries harvested 68,000 coho in 1989. In the Columbia River, Oregon and Washington nontreaty gillnetters combine harvested 375,000 coho in 1989, with an ex-vessel value of \$2,267,000 (Council 1990). Impact on inside net fisheries would primarily be related to the impacts of decisions on the distribution of harvest north of Cape Falcon (Issue 3) on ocean escapement.

Indian Fisheries

Indians from many west coast tribes fish salmon for commercial, subsistence and ceremonial purposes. Twenty-one tribes in western Washington, and five tribes in Idaho and the central and eastern parts of Washington and Oregon have adjudicated fishing rights. In addition, there are two tribes with fishing rights in the Klamath River Basin in northern California (the Hoopa and the Yurok tribes). The primary gears used by Indians are troll, gill net, dip nets, purse seine and reef nets. Troll is the only gear used in the EEZ. Additional details on the Indian fisheries may be found in Appendix B of the 1981 amendment to the salmon FMP.

Decisions on the Klamath River fall chinook escapement goal (Issue 2) may affect Indian fisheries in the Klamath River Basin (Hoopa and Yurok tribes). Klamath River Indians use gill nets inside the river for commercial and subsistence fisheries. In the commercial fishery, the salmon and roe are generally sold to buyers from northern California through a single buying station organized by the Bureau of Indian Affairs. In 1987, \$944,564 new nonfederal dollars were generated by the Indian community through the sale of 29,000 fish. A total of 440 individuals participated in the fishery which lasted over a 25 day period in late-July and August.

Treaty Indian ocean troll fisheries off the coast of Washington harvested 81,400 coho in 1989. The distribution of nontreaty harvest north of Cape Falcon may affect escapement to inside Indian fisheries. Movement of coho harvest to the north would increase escapement of coho to the Columbia River system and decrease escapement on non-critical stocks to the Washington coast and Puget Sound, with a reverse effect for a southward redistribution. Indian gill net and

Table B-1. Salmon troll catch statistics in pounds of fish landed by boat size category for California, Oregon and Washington, 1989.^{a/}

Length Category (Feet)	Vessels		Poundage	
	Number ^{b/}	Percentage	Number	Percentage
CALIFORNIA				
20<	705	17.0	272,419	5.0
21-25	1,012	25.0	557,399	9.0
26-30	669	16.0	666,359	11.0
31-35	395	10.0	727,332	12.0
36-40	608	15.0	1,690,534	28.0
41-45	301	7.0	1,082,745	18.0
46-50	240	6.0	667,985	11.0
51-55	81	2.0	224,870	4.0
56-60	55	1.0	113,879	2.0
61-65	24	1.0	32,549	1.0
66-70	3	<1.0	532	<1.0
≥71	7	<1.0	1,227	<1.0
Unknown	2	<1.0	3,863	<1.0
TOTAL	4,102		6,041,694	
OREGON				
<20	35	1.8	29,490	0.5
20-29	916	47.3	1,541,729	27.8
30-39	541	27.9	2,132,953	38.5
40-49	350	18.1	1,531,492	27.6
>50	95	4.9	311,513	5.6
Unknown	0	0.0	0	0.0
TOTAL	1,937		5,547,177	
WASHINGTON				
<25	367	41.6	111,709	14.5
26-36	236	26.7	153,601	19.9
>36	229	25.9	474,865	61.7
Unknown	51	5.8	30,360	3.9
TOTAL	883		770,535	

^{a/} Derived from vessel registration and fish landing tickets, preliminary.

^{b/} Number of boats include only those recording pounds greater than zero.

Table B-2. Interstate troller activity for 1985. Number of vessels landing in each state and combination of states.^{a/}

State(s) of Landing	Salmon Trollers ^{b/}
Washington Only	972
Oregon Only	1,446
California Only	1,780
Washington and Oregon Only	120
Washington and California Only	2
Oregon and California Only	85
Washington, Oregon, and California Only	<u>10</u>
TOTAL	4,415

^{a/} Excerpt from Korson and Thomson 1987.

^{b/} If vessel used troll during the year and most of the vessel's revenue came from coho or chinook salmon, the vessel is called a salmon troller.

dip net fisheries in the Columbia River harvested 10,900 coho in 1989. Indian fisheries in Washington coastal streams harvested between 42,000 and 44,000 coho in 1988 and 1989. Puget Sound Indian net and troll fisheries harvested 460,000 coho in 1988 and 636,000 coho in 1989 (Council 1990).

Sport

Ocean

Information on the number of charter and private sport salmon fishing vessels is not as well developed as the data on the commercial fleet. The number of ocean charter vessels licensed in 1989 is shown by state in Table B-3. The number of ocean sport trips taken (private and charter) and the sport catch is shown for California, Oregon and Washington in Table B-4.

Inside

Major inside marine/estuary recreational fisheries occur in the Buoy 10 area of the Columbia River, the Strait of Juan de Fuca and Puget Sound. The Buoy 10 fishery may be affected by ocean escapement impacts resulting from decisions on the geographic distribution of the north of Cape Falcon harvest (Issue 3). There were 144,000 sport trips made to the Buoy 10 fishery in 1989 and totals of 16,000 chinook and 79,000 coho were caught. There were 131,000 chinook and 216,000 coho caught in the Puget Sound sport fishery in 1988 (Council 1990).

Additionally, freshwater fisheries occur in the numerous rivers and streams which provide spawning habitat for returning fish. Data on numbers of trips are generally unavailable for the freshwater sport fishery. Some numbers on total sport catch are available. For example, in 1987, there were 39,000 chinook and 20,000 coho caught in Washington freshwater areas and 75,000 chinook and 8,000 coho caught in Oregon freshwater areas. In 1989, 13,000 chinook were caught in the Klamath River fall chinook run during inside sport fisheries (Council 1990). Generally, the harvests of chinook and coho in the sport fisheries in Washington coastal rivers run between 5,000 and 15,000 fish for each species (chinook and coho) (Council 1990).

Issue 2 - Modification of the Klamath River Fall Chinook Salmon Spawning Escapement Goal

The ninth amendment to the salmon FMP implemented an escapement rate methodology for annual determination of the spawning escapement goal for natural adult fall chinook spawners returning to the Klamath River Basin. The Council considered an alternative which would have allowed deviations from the escapement rate goal at higher ocean abundance levels. The status quo alternative was chosen.

Issue 3 - Modification of Criteria Guiding the Nontreaty Catch Allocation North of Cape Falcon

In this issue there are two subissues on which the Council chose alternatives other than status quo.

- o between gear group allocation of inseason changes in the TAC resulting from inseason transfers within a gear group, and

Table B-3. Number of salmon charter boats in California, Oregon and Washington.

Year	California ^{a/}	Oregon ^{b/}	Washington ^{b/}
1987	149	254	272
1988	166	313	281
1989	150	322	268

^{a/} Vessels participating.

^{b/} Vessels licensed.

Table B-4. California, Oregon and Washington ocean recreational salmon catch in thousands of fish and effort in thousands of angler trips by boat type, 1981-1989.

Year	Angler Trips		Chinook Catch		Coho Catch	
	Charter	Skiff	Charter	Skiff	Charter	Skiff
CALIFORNIA ^{a/}						
1981	61.1	66.9	59.6	24.2	0.2	9.5
1982	80.4	90.1	102.0	47.2	1.6	22.8
1983	46.2	65.4	44.8	17.3	0.2	26.7
1984	57.6	66.0	69.7	19.6	0.2	18.2
1985	87.9	97.7	96.8	63.8	0.9	14.4
1986	86.4	109.2	86.5	55.1	2.2	16.5
1987	105.0	163.3	121.8	70.7	4.3	43.0
1988	97.0	145.9	109.1	62.3	3.5	31.2
1989	100.0	137.0	97.6	81.7	3.9	43.4
OREGON ^{b/}						
1981	65.4	242.6	6.6	22.2	64.5	135.3
1982	43.3	182.7	8.2	30.6	48.5	126.7
1983	41.9	184.1	4.7	20.0	39.7	107.2
1984	24.3	128.7	2.2	14.8	27.3	96.1
1985	53.4	198.2	9.2	46.6	60.2	122.8
1986	43.7	142.8	4.0	18.4	71.1	140.5
1987	60.9	194.4	14.1	44.5	60.7	116.8
1988	62.4	188.2	7.3	31.0	73.1	153.2
1989 ^{c/}	60.2	206.4	4.1	27.9	85.2	187.1
WASHINGTON ^{d/}						
1981	162.2	74.6	62.8	21.7	182.4	55.5
1982 ^{e/}	131.9	86.8	85.8	21.0	124.0	82.5
1983 ^{e/}	123.0	90.4	39.1	9.5	122.6	89.2
1984 ^{e/}	29.8	46.9	7.7	7.4	38.5	49.6
1985 ^{e/}	65.5	62.5	17.4	10.8	98.6	80.3
1986	56.5	53.0	13.3	7.9	98.0	77.7
1987	53.7	48.3	27.6	12.9	65.8	58.6
1988 ^{e/}	32.4	37.4	11.2	7.8	46.1	43.6
1989 ^{e/}	59.8	76.5	11.3	8.5	97.5	112.1

^{a/} Includes only San Francisco area charter boats from 1981-1986.

^{b/} Salmon data from surveyed ports only. In the period 1981-1989, Pacific City and Florence were also surveyed.

^{c/} Preliminary.

^{d/} Source: Washington ocean salmon sampling program.

^{e/} Values for 1982-1985 include some inriver Columbia River fishing after closure of the ocean fishery.

- o establishment of criteria for geographic allocation of recreational harvest.

The Council chose the status quo option on a subissue intended to clarify criteria limiting deviations in geographic allocation of commercial harvest.

Analysis Approach

A strict economic analysis provides little guidance for resolving distributional questions. The MFCMA dictates only that these issues be resolved in a fair and equitable manner. With respect to questions of equity, economic analysis can only inform about the likely effects of alternative allocations on the interested parties and provide quantitative information on other economic considerations which might be weighed in determining the most "fair and equitable" solution. When a shift in allocation may also change total benefits from the fishery, changes in net value need to be assessed. An allocation alternative which would have been considered inequitable may appear more equitable if there is an increase in total benefits from the fishery as a result of the shift in allocation.

Allocation of Inseason Changes in TAC

This subissue is primarily a technical clarification. A brief discussion is provided on incentives created by not reallocating TAC between user groups.

Geographic Distribution of the Sport Coho Allocation

Alternative 1, status quo, provided no starting base for geographic allocation but did allow geographic allocation and shifting of the allocation for the purpose of reducing impacts on critical stocks. The Council's recommended alternative provides a specific geographic allocation and does not allow preseason reallocation of harvest to reduce the impact rate on critical stocks. The preferred alternative allocation (Columbia River - 50 percent, Westport - 37 percent, Neah Bay/La Push - 13 percent; in years with no Area 4B add-on fishery) is based on the recreational work group consensus for the starting base allocation, but allocates more fish south to Westport in years in which Neah Bay/La Push receive benefits from the Area 4B add-on fishery. This allocation has a historic basis as it is within the range of catch shares by the three port areas in the years before the first subarea quotas were established north of Cape Falcon in 1982. The deviation for the Area 4B add-on fishery institutionalizes adjustments made by the Council for the 1990 season. Since the base allocation is similar to the historical distribution of harvest, the main difference between the Council's alternative and status quo, is that the recommended alternative constrains the Council from deviating from the status quo geographic allocation to increase the total allowable harvest through reduction of the rate of impacts on critical stocks (total impacts on critical stocks would remain the same under the Council's alternative). The focus of the analysis will therefore be on the impacts of the establishment of a base allocation and the reduced flexibility.

The analysis of this subissue will be concentrated in three areas:

1. assessment of direct distributional impacts,
2. assessment of mitigating community assets, and
3. analysis of effects on net benefits.

Mitigating factors to be analyzed include alternative sources of income for those most impacted and general levels of income in the community. Along this line, information will be provided on groundfish and sturgeon sport fishery income impacts, inside salmon sport fisheries income impacts, and total and per capita income in the community.

Analysis

Allocation of Inseason Changes in TAC

This subissue is primarily a technical clarification. The proposed action is to clarify that any inseason increase or decrease in TAC from the geographic redistribution of harvest by a particular user group will not be distributed between the sport and commercial fishermen, but rather accrue to the group whose season was affected by the change. By providing each group with full benefits or costs from that groups geographic deviations, there will tend to be more support within the group for inseason changes in geographic distributions which maximize increases and minimize decreases in the ocean users TAC. Conversely, if costs and benefits are shared between user groups, individually the user groups might be less willing to support changes which increase ocean TAC and more willing to support changes that decrease TAC. An example would be a recreational season in which the port with the highest impacts on the critical stock exhausted its quota quickly because of a high catch rate and other ports had more than sufficient coho to meet their needs. If impacts are shared between groups, the movement of excess sport coho quota to the port which exhausted its quota quickly would result in a reduction of the total ocean TAC. As a result of this shift, the sport fishery would be able to increase the utilization of its TAC while the troll fishery would experience a reduction in TAC. A similar scenario could be constructed in which a shift in TAC benefiting the troll fishery imposed costs on the sport fishery.

Geographic Distribution of the Sport Coho Quota Allocation

Distributional Effects - Tables 1 and 4 (in the main text) show the geographic allocation established under the Council's alternative is generally similar to the historic harvest distribution. The largest deviations under the preferred alternative allocation would have occurred in 1988 and 1989. In 1988, a year in which the sport TAC was very low, the Council allowed a greater harvest in Westport, at the expense of the Columbia River ports which were expected to benefit from a large Buoy 10 fishery (Table B-5). In 1989, the Area 4B add-on fishery was separate from the ocean fishery and benefitted the port of Neah Bay/La Push. While stocks were well above the low 1988 levels, in consideration of the new Area 4B fishery, the Council shifted some harvest from these more northern ports to Westport. In 1990, the Council also shifted coho from Neah Bay/La Push in consideration of the Area 4B add-on fishery, but in lesser proportions. The proportions shifted in 1990 are institutionalized in the preferred alternative so there is no difference between what was done in 1990 and under the Council's recommended management (Table 4). In these situations, the Council has used shifts in geographic distributions to achieve what it believed was a more equitable balance in use of the resource. Estimates of income impacts from the ocean salmon and inside fisheries are shown in Table B-6. These estimates are derived using the regional input/output models described in Amendment 9 to the salmon FMP. Examination of Table B-6 shows how the 1988 and 1989 shifts in geographic distribution of ocean harvest provide compensating

Table B-5. Comparison of catch and trips for coastal ports, Buoy 10, and Area 4B add-on sport fishery for recent years.

Year	Port Area/Inside Fishery				
	Buoy 10	Columbia River	Westport	Neah Bay/ La Push	Area 4B Add-on
COHO (THOUSANDS)					
1986	113	105	83	24	-
1987	46	80	42	28	-
1988	140	32	49	19	-
1989	75	117	88	42	20
ANGLER TRIPS (THOUSANDS)					
1986	91	57	52	20	-
1987	116	53	37	21	-
1988	173	19	39	19	-
1989	132	73	60	30	12

Table B-6. Local community income impacts from various sport fishing activities associated with coastal ports north of Cape Falcon, and personal and per capita income and employment for the counties which the port area serves (values in thousands).^{a/}

Year	Port Area		
	Columbia River	Westport	Neah Bay/La Push
OCEAN SPORT SALMON INCOME IMPACTS			
1971-1975 Average ^{b/}	\$ 11,214	\$ 16,846	\$ 4,732
1976-1980 Average	9,773	16,029	3,445
1981-1985 Average	3,644	6,002	1,551
1986	2,625	4,002	1,024
1987	2,450	2,848	1,069
1988	849	3,001	943
1989	3,336	4,544	1,508
INSIDE SPORT SALMON INCOME IMPACTS (BUOY 10 AND AREA 4B) ^{c/}			
1986	\$ 3,765	-	NA
1987	4,777	-	NA
1988	7,157	-	NA
1989	5,461	-	\$ 596
SPORT GROUND FISH AND STURGEON INCOME IMPACTS ^{d/}			
1986	\$ 544	\$ 1,560	\$ 710
1987	699	1,652	1,063
1988	615	1,861	1,024
1989	464	1,555	1,147
TOTAL PERSONAL INCOME ^{e/}			
1988	\$737,000	\$871,000	\$1,072,000
PER CAPITA PERSONAL INCOME ^{e/}			
1988	14.5	13.9	14.2
TOTAL EMPLOYMENT AND UNEMPLOYMENT RATE ^{e/}			
1988	23.2 (0.067)	23.5 (0.095)	28.9 (0.076)

^{a/} 1986-1989 average income impacts applied to historical trip data.

^{b/} The Astoria 1974-1975 average is extrapolated over the entire period.

^{c/} Impacts of Area 4B fishery are assessed using the Neah Bay/La Push estimates of impact per trip.

^{d/} Expenditure patterns and income impacts from groundfish trips are assumed to be similar to those for salmon trips.

^{e/} The personal income and employment figures for Columbia River are from Clatsop and Pacific counties, for Westport are from Grays Harbor county, and for Neah Bay/La Push are from Clallam and Jefferson counties.

utilization of the resource when taking the inside fisheries into account. Table B-7 shows the historical and Alternative 2 of catch and trips and Table B-8 shows the same information as proportions of the total.

As mentioned above, a provision in the preferred alternative takes into account and institutionalizes adjustments for the Area 4B add-on fishery. Amendment 9 restricted deviations in the geographic allocation to those which would reduce critical stock impacts. Thus under the recommended alternative, the Council loses some flexibility to redistribute catch to attain a larger ocean harvest and the possibility of a higher OY based on equity and community impact considerations. Part of the consideration equity in geographic allocation has been mitigating community assets. These are addressed in the following section.

Information on Mitigating Community Assets - There is some controversy over the appropriateness of considering inside salmon fisheries in evaluating what may constitute an equitable distribution of harvest. As discussed in the previous section, the Council has in the past altered its ocean allocation in consideration of opportunities available to the community in the inside salmon fisheries. It has been argued that if inside salmon fishing opportunities count in equity determinations so should sport groundfish trips and opportunities for whale watching charters.

Questions of fairness and equity in the distribution of resources are sometimes resolved in part through consideration of historic levels of allocation, historic levels of income from the resource, relative income levels of the groups involved, or alternative sources of income or employment available in the community. Therefore, that information is made available here to aid in deliberations over equity by those who find it of interest. Tables B-7 and B-8 show historic sharing of the resource between ports. Table B-6 provides information on the latter three factors in terms of community income impacts, per capita and total income levels, and unemployment rates. Community income impacts from sources of income similar to the ocean salmon fishery are shown in Table B-6 (Buoy 10 and Area 4B salmon fisheries, and the groundfish and sturgeon sport fisheries). These impacts may be of relevance because they probably benefit business sectors similar to those benefitted by the ocean sport salmon fishery. Total personal income for the community, per capita income and unemployment rate are shown for the information of those interested in total distribution of wealth and alternative employment in the general economy.

A work group of economists convened in 1989 to study the sablefish allocation question reported to the Council that income impact information should be considered in geographic allocational questions in the context of total community income. Greater per day income impacts in one community as compared to another should not be construed to mean that benefits to the nation or state are greater from the distribution of user days to that community. Similarly, coastal community income impacts cannot be summed to determine whether there has been any net gain from a particular allocation. Community income impacts should be used in the context of determining the degree of hardship or benefit conferred on a particular community by a particular allocation of resources.

Net Benefits - Under the recommended alternative, with the loss of ability to change geographic allocations to reduce impacts on critical stocks, the Council would lose the ability to increase ocean TACs through such reductions (Council briefing materials, September 1990, Attachment E.2.a. and Supplemental

Table B-7. Actual sport coho catch in thousands of coho and sport salmon trips for historical period and Alternative 2 allocation schedule (same as Council recommendation). The status quo, Alternative 1, specifies no geographic allocation schedule.^{a/}

Years/Alternative	Columbia River	Westport	Neah Bay/ La Push	Total
COHO CATCH/TAC				
1971-1975 Average	294.0	256.0	88.0	638.0
1976-1980 Average	271.0	232.0	73.0	576.0
1981-1985 Average	110.0	63.0	33.0	206.0
1986-1989 Average	83.0	65.0	28.0	177.0
1986	104.6	83.1	24.0	212.0
1987	79.6	41.5	28.1	149.0
1988	31.6	48.5	18.6	99.0
1989	117.0	87.9	42.3	247.0
Alternative 2 (No Area 4B Add-on)	50.0	37.0	13.0	100.0
Alternative 2 (20,000 Coho Area 4B Add-on)				
100,000 TAC	50.0	40.7	9.3	100.0
200,000 TAC	100.0	78.0	22.0	200.0
300,000 TAC	150.0	114.7	35.3	300.0
SALMON TRIPS				
1971-1975 Average	244.0	221.0	94.0	559.0
1976-1980 Average	213.0	210.0	68.0	491.0
1981-1985 Average	79.0	79.0	31.0	189.0
1986-1989 Average	50.0	47.0	23.0	120.0
1986	57.2	52.4	20.3	130.0
1987	53.4	37.3	21.2	112.0
1988	18.5	39.3	18.7	77.0
1989	72.7	59.5	29.9	162.0
Alternative 2 (No Area 4B Add-on)	30.0	27.0	10.0	67.0
Alternative 2 (20,000 coho Area 4B Add-on)				
100,000 TAC	30.0	29.0	7.0	67.0
200,000 TAC	61.0	56.0	18.0	135.0
300,000 TAC	91.0	83.0	28.0	202.0

^{a/} Number of trips under Alternative 2 are estimated on the basis of 1986-1989 average success rates. It is assumed that chinook are present in sufficient numbers to allow take of the full coho allocation and there is no chinook-only season.

Table B-8. Actual port shares of sport coho catch and salmon trips for historical periods and estimated share by port under Alternative 2 (same as Council recommendation).^{a/}

Years/Alternative	Columbia River (Percent)	Westport (Percent)	Neah Bay/ La Push (Percent)	Total
COHO CATCH				
1971-1975 Average	46	40	14	638
1976-1980 Average	47	40	13	576
1981-1985 Average	53	31	16	206
1986-1989 Average	47	37	16	177
1986	49	39	11	212
1987	53	28	19	149
1988	32	49	19	99
1989	47	36	17	247
Alternative 2 (No Area 4B Add-on)	50	37	13	Any
Alternative 2 (20,000 coho Area 4B Add-on)				
100,000 TAC	50	41	9	100
200,000 TAC	50	39	11	200
300,000 TAC	50	38	12	300
SALMON TRIPS				
1971-1975	44	39	17	559
1976-1980	43	43	14	491
1981-1985	42	42	16	189
1986-1989	42	39	19	120
1986	44	40	16	130
1987	48	33	19	112
1988	24	51	24	77
1989	45	37	18	162
Alternative 2 (No Area 4B Add-on)	45	40	15	Any
Alternative 2 (20,000 coho Area 4B Add-on)				
100,000 TAC	45	44	11	67
200,000 TAC	45	42	13	135
300,000 TAC	45	41	14	202

^{a/} Number of trips under Alternative 2 are estimated on the basis of 1986-1989 average success rates. It is assumed that chinook are present in sufficient numbers to allow take of the full coho allocation and there is no chinook-only season.

Attachment E.2.c.). Previous analysis has shown that movement of the sport harvest south of Leadbetter Point would generally increase allowable ocean harvest. For example, in 1988 decreasing harvest north of Leadbetter Point by 27,100 coho might have allowed for a 43,300 coho increase in the south of Leadbetter Point harvest for an overall increase in the ocean sport TAC of 16,200 coho. From a national perspective, the net gain is not the increase in ocean harvest, much of which is harvest redistributed from other users, but rather the increased utilization of excess hatchery coho stocks from the Columbia River. In the example just given, excess escapement to Columbia River hatcheries would have decreased by about 4,100 fish. Additionally, the described shift in harvest and increase in north of Cape Falcon ocean sport TAC would be expected to increase harvest inside the Washington coast and Puget Sound by 5,400 coho while decreasing harvest south of Cape Falcon by 3,900 coho and decreasing Columbia River sport and gill net harvest by 13,600 coho. These figures assume no adjustment during preseason negotiations. It is possible the inside and ocean users involved in the preseason negotiating process that determines the combined sport and troll ocean TAC might lower the ocean TAC to partially compensate for the decreased Columbia River and south of Cape Falcon harvest. The outcome of these negotiations is difficult to anticipate. However, the important point is that the increase in ocean TAC results from a reallocation between user groups and an increase in utilization of excess escapement of hatchery stocks. Predictable increases in net benefits from the increase in ocean TAC result primarily from the harvest of excess hatchery stock.

Additionally, the potential benefits which might be achieved from increased ocean harvest north of Cape Falcon may not be as great as would appear. Movement of ocean harvest south into areas where success rates are higher (areas around the Columbia River) would reduce the average number of angler days supported per fish. In one example year examined, an increase in TAC of about 10,000 coho caused by a redistribution of harvest to the south would only increase the total number of ocean sport trips north of Cape Falcon by 1,000. While community income impacts may increase less than would be expected from the increase in TAC, net value may go up closer to expectations as more trips would be taken in the Columbia River area where it is likely they would have higher recreational value than a similar number of trips taken in an area where success rates are lower.

While the deviations discussed in the above two paragraphs would be possible under the status quo option, the recommended alternative prevents them from occurring. Because the Council's alternative resembles historic allocation patterns, inside users are expected to experience no significant impacts and ocean users are not expected to experience geographic allocations significantly different from historical patterns.

The above describes the types of impacts which might be encountered if geographic deviations allowed under status quo were exercised strongly. The Council's alternative prevents these deviations and their potential costs and benefits. Despite the loss of flexibility, there may be significant social and administrative benefits from setting upon a method for geographic allocation. These benefits must be considered in any assessment of net benefits. As pointed out on page 15, Alternative 2 ". . . removes a significant source of confusion and controversy during the preseason salmon management process for the recreational fishery."

In the future amendment cycles, the Council will continue to consider a geographic allocation alternative which may allow more flexibility in ocean allocation and hence the reduction of impacts on critical stocks and increase of ocean TACs. Many of the issues described above will likely be an important part of future analyses of geographic allocation alternatives.

Conclusion

The sport geographic allocation alternatives would institutionalize historic geographic allocations and prevent future deviations which might be undertaken to increase ocean TACs or attempt to achieve what some would view as a more equitable distribution of harvest between communities in years of low ocean TACs. Changes from the status quo geographic distribution are relatively minor.

Small Business Impacts

The geographic allocation alternatives to status quo do not impose major shifts in usual historic allocation, but rather prevent the Council from deviating from historic allocations as has occasionally occurred in the past. There are no new direct or indirect compliance costs of the allocation. By reducing local fluctuations in allowable harvest, institutionalization of the geographic allocations may have a positive affect on the competitive position, cash flow and financial equity of location dependent firms, as well as a positive affect on these firms ability to remain in the market. The firms dependent on the sport fishery tend to be more dependent on the habit of the public and the location of the shore-based marketing component of their operations. Moving to different parts of the coast in response to shifts in geographic allocation would be more difficult and burdensome. For restaurants, hotels and other businesses dependent on the tourist aspect of the sport fishery, such relocation would be unrealistic.

References

Literature Cited

- Council. 1981. Proposed plan for managing the 1981 salmon fisheries off the coast of California, Oregon, and Washington.
- Council. 1990. Review of 1989 ocean salmon fisheries.
- Council. 1990. Council meeting briefing materials, September 1990, Attachment E.2.a. and Supplemental Attachment E.2.c.
- Korson, Charles S. and Cynthia J. Thomson. A report on the PacFIN research data base for 1985. NMFS, Southwest Fisheries Center, La Jolla, California, Administrative Report LJ-87-21.
- Washington Department of Community Development. 1988. Economic impacts and net economic values associated with non-Indian salmon and sturgeon fisheries.

FMP

- Council. 1984. Final framework amendment for managing the ocean salmon fisheries off the coasts of Washington, Oregon, and California commencing in 1985.

APPENDIX C
CONSISTENCY WITH FEDERAL AND STATE COASTAL ZONE MANAGEMENT PROGRAMS

Coastal Zone Management Act of 1972

The CZMA of 1972 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 MFCMA specifies at Section 303(b) that:

Any FMP 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 MFCMA, 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 MFCMA establish policies that affect the conservation and management of fishery resources.

NOAA administers both the MFCMA 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 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. NOAA recognizes that fisheries constitute one of the key resources of the coastal zone and the preparation and implementation of FMPs to regulate fisheries in the EEZ could have a direct affect on the state's coastal zone because of the division in the fishery resources between the EEZ and state territorial and internal waters.

The CZMA and the MFCMA 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 decision making in its review process" (930.54[b]). A state must indicate its agreement or disagreement with the consistency determination within 45 days. 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 MFCMA requires 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 (Public Law 97-453).

The sections that follow summarize those portions of the Washington, Oregon and California coastal zone management programs that may be relevant to the FMP and subsequent amendments.

Washington State Coastal Zone Management

The Department of Ecology is lead state agency for implementation of the 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 15 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 WCZMP.

Management of the coastal zone is subject to 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 for Washington's coastal zone. The emphasis of the program includes not only Washington's 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.

Shoreline Management Act

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 statewide 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.

Only Issues 3 and 4 of Amendment 10 are pertinent to salmon management off the coast of Washington. Both issues are consistent with the following directives contained in the WCZMP concerning shoreline management.

Recognize and Protect the Statewide Interest Over Local Interest - The current FMP and issues in this amendment emphasize statewide and regionwide management for a productive salmon resource and fishery harvest allocation and distribution.

Preserve the Natural Character of the Shoreline - This proposed FMP amendment should have no direct impact on the natural character of the Washington shoreline. The current FMP and the issues in this amendment are supportive of

this directive where degradation of the natural character of the shoreline also degrades the productive capacity of the environment.

Result in Long-term Over Short-term Benefit - The FMP requires the annual consideration of long-term resource needs and long- and short-term social and economic impacts. The determination of OY balances these competing demands. Issues 3 and 4 would not change this aspect of the FMP, but serve to clarify the Council's management actions to achieve these objectives. Issue 3 clarifies allocation and harvest distribution objectives and Issue 4 establishes criteria to assure long-term productivity of each salmon stock.

Protect the Resources and Ecology of the Shoreline - The purpose of the FMP and subsequent amendments is to conserve and protect the salmon resource for current and future use.

Increase Public Access to Publicly-owned Areas of the Shoreline - The amendment to the FMP will not have any direct or indirect affect on public access to publicly-owned areas along the coastal zone.

Increase Recreational Opportunities for the Public in the Shoreline - The FMP amendment will not affect recreational fishing opportunities for the public in the shoreline.

Washington Department of Ecology Final Guidelines

The concept of preferred shoreline uses has been incorporated in final Department of Ecology guidelines, with water-dependent uses clearly a priority over water-oriented or non water-oriented uses. The 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 amendment to the FMP.

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 statewide needs for such uses should be considered.

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.

Although this amendment does not specifically address development of water-related coastal industry, the protection and enhancement of salmon resources and

clarification of harvest distribution criteria may provide an incentive for shoreside recreational and commercial development.

Oregon State Coastal Zone Management Program

The Oregon program calls for consistency review to 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) 19 statewide planning goals and supporting guidelines adopted by the 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 nautical miles offshore) and inland to the crest of the coastal mountain range.

The consistency of this FMP amendment with each pertinent goal of the Oregon Coastal Zone Program is described below.

Goal 19 - Ocean Resources

The FMP as amended is consistent with Goal 19, the most pertinent aspect of the Oregon State Coastal Zone Management Program relating to salmon management. The overall statement of Goal 19 is:

to conserve the long-term values, benefits and natural resources of the nearshore ocean and 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. The management objectives that are expressed in the FMP and this 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 FMP, including Amendment 10 with its definition of overfishing, emphasizes the need to provide for the conservation and protection

of salmon stocks should enhance the production and conservation of the salmon resource.

Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources

Goal 5 also addresses 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 Oregon Fish and Wildlife Commission's management plans. The FMP was found consistent with the management objectives for salmon stocks off Oregon that were developed by ODFW and adopted by the Oregon Fish and Wildlife Commission. None of the issues in this FMP amendment has a direct or indirect effect on Goal 5.

Goal 16 - Estuarine Resources

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". Neither the FMP nor its amendments has a direct affect on development or alteration of the estuarine environment.

Goal 8 - Recreational Needs

Goal 8 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. Issue 1 of the FMP amendment seeks to assure achievement of the scheduled recreational season off central Oregon and Issue 3 clarifies the distribution of allowable commercial and recreational harvest off Oregon north of Cape Falcon.

Goal 1 - Citizen Involvement

Goal 1 calls for the coordination of state, regional and federal planning with the affected governing entities and citizenry. Guidelines address communication methods, provision of technical information, and feedback mechanisms to assure the opportunity for citizen involvement in planning processes. The FMP process provides for close collaboration and coordination between state and federal management entities and assures citizen involvement in decision making through the forum of the Council and through a series of public hearings that are convened before the Council adopts any fishery management measures. Amendment 10 does not impact citizen involvement in the fishery management process.

Lastly, 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, this amendment is also consistent with Goals 2, 9 and 17.

California State Coastal Zone Management Plan and San Francisco Bay Plan

Coastal Plan

The California State Coastal Zone Management Plan is based upon the California Coastal Act of 1976, Division 20, California Public Resources Code, Sections 30000, et seq.; 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 plan that address issues significant to this analysis concern the protection of the ocean's resources, including marine fish and the natural environment. The plan 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 FMP (as amended) have been identified as follows.

Section 30210 -

. . . recreational opportunities shall be provided for all the people consistent with the need to protect natural resource areas from overuse.

This goal is consistent with the FMP which seeks to provide recreational fishing opportunities consistent with the needs of other user groups and the need to protect the resource. Within these constraints, recreational salmon fishing opportunities of California citizens are not expected to be inhibited by this FMP amendment.

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 . . .

Any action considered in the FMP amendment does not affect the quality of coastal waters. It provides for the conservation and optimum use of salmon stocks, which are an integral part for the ecology of the coastal waters.

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 FMP amendment does not jeopardize the reproductive capability of any resource, has no significant environmental impacts, and promotes equitable utilization among user groups with the intent of maintaining the salmon harvest at levels which provide the long-term MSY.

Section 30234 - "Facilities serving the commercial fishing and recreational boating industries shall be protected, and where feasible, upgraded."

The FMP does not specifically address the development of shoreside facilities that serve the commercial and recreational fishing industries.

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 California Coastal Act.

The FMP does not address the location of coastal dependent industry.

Section 30708 -

All port-related developments shall be located . . . so as to . . . give highest priority to the use of existing and space within harbors for port purposes including . . . necessary (commercial fishing) support and access facilities.

The FMP does not address the location of ports.

Section 30411 - "The CDFG 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 CDFG is a voting member of the Council. A representative from CDFG participates on the Council's STT and helped develop the FMP and each amendment. The MFCMA mandated that all interested individuals, including state fishery management personnel, would have the opportunity to participate in the preparation of FMPs and amendments. This action is consistent with the provisions of Section 30411 because CDFG has been involved in the planning process for those parts of the amendment that pertain to the management of California and coastwide fisheries.

San Francisco Bay Plan

The San Francisco Bay Conservation and Development Commission has jurisdiction over the San Francisco Bay itself, as well as any river, stream, tributary, creek, flood control, or drainage channel that flows into San Francisco 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 San Francisco Bay Plan describes the findings and policies of the Commission including fish and wildlife policies for the San Francisco Bay. The adopted policies state:

1. The benefits of fish and wildlife in the bay should be insured 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 San Francisco Bay.

The amendment to the FMP does not address water flows or shoreline development.

Consistency Determination

The amendment document, including its appendices, describe the issues considered in Amendment 10 to the salmon FMP and evaluates the likely impacts of various actions that are to be taken. The EA and RIR/IRFA (incorporated in the issue descriptions and Appendices A and B) compare the expected impacts of the amendment from environmental, social and economic perspectives. Actions recommended in this amendment have been determined to have no significant impact under the NEPA, Executive Order 12991 and Regulatory Flexibility Act.

Based on the above discussions and supported by these determinations, the Council finds that any action likely to result from the FMP amendment is consistent, to the maximum extent practicable, with the approved Washington, Oregon, California and San Francisco Bay coastal zone management plans.

APPENDIX D
OTHER APPLICABLE LAW

Endangered Species Act of 1973

The purposes of the ESA are to provide a means whereby the ecosystems upon which endangered 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. Section 7 of the ESA requires all federal agencies to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species.

The Council and NMFS previously determined that populations of endangered/threatened species listed under the ESA are not likely to be adversely affected by the conservation and management measures in the FMP and subsequent amendments. In 1989, NMFS and the U.S. Fish and Wildlife Service completed a formal Section 7 consultation concerning the issuance of exemptions for commercial fisheries under the MMPA. The biological opinions prepared during the consultation assessed the impacts of all commercial fishery operations, including salmon fisheries under Council management, on endangered/threatened species listed as of July 1989. The consultation resulted in the conclusion that the issuance of the MMPA exemptions is not likely to jeopardize the continued existence of any listed species. Since the consultation directly addressed the potential impacts of the salmon fisheries, the findings apply to the FMP and subsequent amendments (including this amendment) and would fulfill ESA Section 7 requirements. However, since that time, the Sacramento River winter-run chinook salmon and the Stellar sea lion have been listed as threatened under the ESA. The Council and NMFS have determined that the measures proposed in this amendment are unlikely to adversely affect Stellar sea lion populations in the Council's fishery management area (jurisdiction). A Section 7 consultation on the affects of salmon management and conservation on Sacramento River winter-run chinook salmon is underway currently.

Marine Mammal Protection Act 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. On November 23, 1988, the President signed Public Law 100-711, the MMPA amendments of 1988. Among other things, this law establishes a five-year program to allow the incidental taking of marine mammals by commercial fishermen and to collect information regarding marine mammal interactions with fisheries.

Before enactment of the amendments, the MMPA prohibited the take of marine mammals incidental to commercial fishing unless authorized by an incidental take

permit or a small take exemption. Congress added Section 114, which replaced most earlier provisions for granting incidental take authorizations to commercial fishermen with an interim exemption system valid until October 1, 1993. Section 114 gives most commercial fishermen a five-year exemption from the incidental taking provisions of the MMPA, provided that certain conditions are met. The primary objective of this interim system is to provide a means to obtain reliable information about interactions between commercial fishing activities and marine mammals while allowing commercial fishing activities to continue despite NOAA fisheries' current inability to make Optimum Sustainable Production findings. The information collected in conjunction with the exemption system and information on the sizes and trends of marine mammal populations will be used to develop a long-term program to govern the taking of marine mammals associated with commercial fisheries. All commercial fishing vessels are included in one of the three following categories: (I) a frequent incidental taking of marine mammals; (II) an occasional incidental taking of marine mammals; and (III) a remote likelihood, or no known incidental taking, of marine mammals.

Beginning July 21, 1989, vessel owners must be registered and have proof of an exemption in order to engage lawfully in any Category I or II fishery. Owners of vessels must register with the Secretary to obtain an exemption certificate to take marine mammals incidentally, must display or possess physical evidence of exemption, and must submit periodic reports to NOAA fisheries. In addition, vessels engaged in Category I fisheries must take onboard a natural resources observer if requested by the Secretary. Fishing in a Category I or II fishery without an exemption is a violation of the MMPA and owners and masters of vessels are subject to penalties. Owners of vessels in Category III fisheries are not required to register with the Secretary to obtain an exemption certificate but they must report all lethal incidental takings.

Commercial fishing under Amendment 10 to the FMP will not be any different than what was anticipated and provided for under the interim exemption system.

Pacific Northwest Electric Power Planning and Conservation Act of 1980

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 importance to the social and economic well-being of the Pacific Northwest. This purpose is addressed by the Columbia Basin Fish and Wildlife Program, and adopted by the Northwest Power Planning Council on November 15, 1982 and as amended October 10, 1984 and February 11, 1987.

The second purpose is to protect, mitigate and enhance the fish and wildlife, including related spawning grounds and habitat throughout the Pacific Northwest, and including provision of "sufficient quantities and qualities of flows for successful migration, survival, and propagation of anadromous fish." This purpose is addressed in the fish wildlife program and the Regional Energy Plan adopted in April 1983.

The Council, NMFS and treaty Indian tribes have participated with the Northwest Power Planning Council (established by the NPPA) in developing and carrying out the fishery provisions of the NPPA, including amendments to the 1983 plan. The objectives of these fishery related activities were found to be consistent and compatible with the conservation and management goals of the salmon FMP.

None of the four issues considered in Amendment 10 will alter the basic consistency of the present salmon FMP with regard to the NPPA and the fish and wildlife program adopted by the Northwest Power Planning Council.

Pacific Salmon Treaty Act of 1985

The PSTA was established to implement the Pacific Salmon Treaty between the U.S. and Canada. The treaty provides for bilateral cooperation in salmon management, research and enhancement by establishing a bilateral commission with coastwide responsibilities for management of "intercepting" salmon fisheries. The PSTA provides for coordination with the Council-managed fisheries by requiring that at least one representative to the PSC's southern panel be a voting member of the Council and by requiring consultation with the Council in the promulgation of regulations necessary to carry out the obligations under the treaty. Nothing in the current salmon FMP has been identified as inconsistent with the PSTA, and the FMP amendment issues do not provide for a change to the harvest rates on any intercepted stocks.

Paperwork Reduction Act of 1980

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. The Council has determined that neither the FMP amendment nor the regulations that will implement the amendment will involve any new federal government collection of information and will not violate the purposes and requirements of the Paperwork Reduction Act.

Executive Order 12612 (Federalism)

Executive Order 12612 of October 26, 1987, provides federal agencies with guidance on the formulation and implementation of policies that have federalism implications. Federal agencies are to examine the constitutional and statutory authority supporting any federal action that would limit the policy-making discretion of the states. The issues in Amendment 10 either have no relevance to state policy-making authority, or support it by allowing more consistency between state and federal regulatory actions. Therefore, the Council has determined that the FMP amendment does not have sufficient federalism implications to require the preparation of a federalism assessment.

