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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

APR 29 2004

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act, an environmental review has been performed on the following action.

TITLE: Environmental Assessment for the Annual Management Measures for the 2004 West Coast Ocean Salmon Fisheries

LOCATION: U.S. Exclusive Economic Zone off Washington, Oregon, and California

SUMMARY: This action implements the Pacific Fishery Management Council's recommendations for 2004 ocean salmon management measures. Specific fishery management measures vary by fishery and by area. The measures establish fishing areas, seasons, quotas, legal gear, recreational fishing days and catch limits, possession and landing restrictions, and minimum lengths for salmon taken in the U.S. exclusive economic zone (3-200 nm) off Washington, Oregon, and California. The management measures are intended to prevent overfishing and to apportion the ocean harvest equitably among treaty Indian, non-treaty commercial, and recreational fisheries. The measures are also intended to allow a portion of the salmon runs to escape the ocean fisheries in order to provide for spawning escapement and for inside fisheries (fisheries occurring in state internal waters).

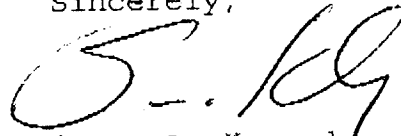
RESPONSIBLE D. Robert Lohn
OFFICIAL: Regional Administrator, Northwest Region
National Marine Fisheries Service
7600 Sand Point Way, NE
BIN C15700, Bldg 1
Seattle, WA 98115-0070
Phone: 206-528-6150

The environmental review process led us to conclude that fisheries to be conducted under the 2004 ocean salmon regulations would not significantly affect the quality of the human environment in ways that have not already been contemplated in the supplemental environmental impact statement for the Pacific Coast Salmon Plan. Therefore, an environmental impact statement was not prepared. A copy of the finding of no significant impact, including the environmental assessment, is enclosed for



your information. Please submit any written comments to the responsible official named above. Also, please send one copy of your comments to the NOAA Strategic Planning Office (PPI/SP), Rm. 15603, 1315 East-West Highway, Silver Spring, MD 20910.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Kennedy", written over the typed name.

Susan A. Kennedy
Acting NEPA Coordinator

Enclosure



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

APR 23 2004

MEMORANDUM FOR: William T. Hogarth, Ph.D.
Assistant Administrator
for Fisheries
FROM: *[Signature]*
D. Robert Lohn
Regional Administrator
SUBJECT: Finding of No Significant Impact (FONSI) on the
Environmental Assessment for the Proposed 2004
Management Measures for the Ocean Salmon
Fishery

I. NOAA FISHERIES ROLE AND RESPONSIBILITY

In accordance with the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NOAA Fisheries) environmental review procedures for complying with the National Environmental Policy Act (NEPA), NAO 216-6, NOAA Fisheries has completed an environmental review of the following proposed action:

The Proposed Action is implementation of the management measures for the Federally managed Ocean Salmon fishery occurring off the coasts of Washington, Oregon, and California (WOC) between May 1, 2004, and April 30, 2005.

II. NOAA FISHERIES DECISION TO BE MADE

From the information in the Environmental Assessment (EA), the Regional Administrator of the NOAA Fisheries must decide:

1. Which harvest management strategy to adopt for salmon fisheries off the coasts of Washington, Oregon, and California (WOC) for the 2004 fishery season.

The Regional Administrator of NOAA Fisheries must also determine if the selected alternative (management strategy) would or would not be a major Federal action, significantly affecting the quality of the human environment. The EA accompanying this statement has provided the analysis needed to assess the significance of the selected alternative. The Regional Administrator's decision on which alternative is to be implemented and the significance of that alternative is delineated near the end of this statement.



III. PURPOSE AND NEED OF ACTION

The proposed action is needed to constrain commercial and recreational harvests in 2004 to levels that will ensure ocean salmon stocks are maintained at or restored to sizes and structures that will produce the highest net benefit, while balancing environmental and social values.

The purpose(s) of the proposed action are to allow fishermen to harvest surplus production of healthy natural and hatchery salmon stocks within the constraints specified under the Pacific Coast Salmon Plan (Salmon FMP), the Pacific Salmon Treaty, and consultation standards established for Endangered Species Act (ESA) listed salmon stocks. In achieving this goal, management measures must take into account the allocation of harvest among different user groups and port areas. This is not done by stock, but rather by total allowable catch (TAC) and species. (Section 5.3 of the Salmon FMP enumerates specific allocation objectives.) The Salmon FMP also establishes nine more general harvest-related objectives:

1. Establish ocean exploitation rates for commercial and recreational salmon fisheries that are consistent with requirements for stock conservation objectives, specified ESA consultation standards, or Council adopted rebuilding plans.
2. Fulfill obligations to provide for Indian harvest opportunity as provided in treaties with the United States, as mandated by applicable decisions of the Federal courts, and as specified in the October 4, 1993 opinion of the Solicitor, Department of Interior, with regard to Federally recognized Indian fishing rights of Klamath River Tribes.
3. Seek to maintain ocean salmon fishing seasons that support the continuance of established recreational and commercial fisheries while meeting salmon harvest allocation objectives among ocean and inside recreational and commercial fisheries. These allocations will be fair and equitable, and fishing interests shall equitably share the obligations of fulfilling any treaty or other legal requirements for harvest opportunities.
4. Minimize fishery mortalities for those fish not landed from all ocean salmon fisheries as consistent with optimum yield and bycatch management specifications.
5. Manage and regulate fisheries, so the optimum yield encompasses the quantity and value of food produced, the recreational value, and the social and economic values of the fisheries.

6. Develop fair and creative approaches to managing fishing effort and evaluate and apply effort management systems as appropriate to achieve these management objectives.
7. Support the enhancement of salmon stock abundance in conjunction with fishing effort management programs to facilitate a return to economically viable and socially acceptable commercial, recreational, and tribal seasons.
8. Achieve long-term coordination with the member states of the Council, Indian tribes with Federally recognized fishing rights, Canada, the North Pacific Fishery Management Council, Alaska, and other management entities which are responsible for salmon habitat or production. Manage consistent with the Pacific Salmon Treaty and other international treaty obligations.
9. In recommending seasons, to the extent practicable, promote the safety of human life at sea.

These objectives, along with the conservation objectives established under the ESA, provide "sideboards" for setting management measures necessary to implement the Salmon FMP, which conforms to the terms and requirements of the Magnuson-Stevens Act and the National Standards Guidelines.

IV. ALTERNATIVES CONSIDERED IN THE EA

A. Preferred Alternative

The preferred alternative is a modification of Option I (the three options developed at the Council's March meeting are discussed below). Comparing the Preferred Alternative management measures with those in Option I, several minor refinements were made to simultaneously satisfy requirements of the Salmon Framework Plan, ESA consultation standards, and Pacific Salmon Treaty obligations. Primary constraints on the 2004 proposed seasons are (1) endangered Sacramento River winter chinook south of Point Arena, California, (2) Klamath River fall chinook south of Cape Falcon, Oregon; (3) threatened Snake River fall chinook north of Cape Falcon, and (4) management goals for naturally produced coho salmon over the entire Council management area, including Oregon and California coastal stocks, which are listed as threatened under the ESA, and Puget Sound and Interior Fraser (B.C.) coho which are subject to provisions of the PST. Constraints for threatened lower Columbia River natural tule chinook were not a limiting factor in 2004, primarily because constraints for Snake River fall chinook were reached first. Changes from Option I were also made in response to comments received at the public hearings in early April and were negotiated in an effort to increase socio-economic benefits with either negligible biological consequences or as compensation for changes with greater biological benefits. The changes include:

- From the U.S./Canada border to Leadbetter Point, Washington, the recreational season was changed to begin June 27 and continue through September 14.
- The late season recreational fishery between Cape Alava and the Queets River, Washington was reduced in area.
- From Leadbetter Point, Washington, to Cape Falcon, Oregon the recreational season was changed to begin June 27 and continue through September 30.
- For the U.S./Canada border to Cape Falcon, Oregon, commercial fishery, Oregon permitted fishers are permitted to transport their fish away from the port of landing for delivery to markets outside the fishery area.
- From Cape Falcon, Oregon to Humbug Mountain, Oregon, the commercial season during the months of July and August used alternating open-closed periods of between four and nine days.
- From Cape Falcon to Humbug mountain, the commercial chinook size limit was increased from 26 inches to 27 inches from May 1 through September, and to 28 inches during October.
- From Humbug Mountain to the Oregon/California border, fishing quotas and landing limits were slightly reduced.
- From the Oregon/California border to Horse Mountain, California, the September quota was reduced from 10,000 chinook to 6,000 chinook.
- For the commercial fishery between Horse Mountain and Pt. Arena, California, four days in July were added to the season.

B. No Action Alternative

As noted above, the No Action alternative consists of the previous year's regulations. For analytical purposes, 2004 chinook and coho abundance was modeled with 2003 preseason management measures and assumptions (no 2003 inseason actions are considered). These management measures may be found in Table I-1 through I-3 of the Preseason Report III for 2003, and are reproduced in Appendix A to this EA.

C. Other Alternatives Considered

Management measures for the three options developed during the March Council meeting are summarized in Tables 1, 2, and 3 in the 2004 Preseason Report II. (These tables are reproduced in Appendix A.) Option I generally provides the most liberal seasons for both coho and chinook coastwide, with the exception of the commercial fishery between Cape Falcon and Humbug Mt., Oregon, and between Horse Mt, and Pt. Arena, California, where Option II is the most conservative, and between Humbug Mt. and the OR/CA border where Option III is the most liberal. All fisheries allowing coho retention are selective for coho marked with a healed adipose fin clip. However, there are provisions for inseason action to allow retention of all legal sized coho in commercial and recreational fisheries north of Cape Falcon, with specific dates set for decision points.

All recreational and commercial non-Indian fisheries north of Cape Falcon, Oregon are managed on quotas (or guidelines) to be taken within a specified time frame. The TAC is allocated among port areas based on terms of the Salmon FMP. North of Cape Falcon the non-Indian commercial TAC is 62,000 chinook and 68,750 coho for Option I; 45,000 chinook and 56,250 coho for Option II; and 30,000 chinook and 43,750 coho for Option III. The recreational TAC north of Cape Falcon is 58,000 chinook and 206,250 coho for Option I; 45,000 chinook and 168,750 coho for Option II; and 30,000 chinook and 131,250 coho for Option III. The treaty Indian TAC north of Cape Falcon is 60,000 chinook and 90,000 coho for Option I; 40,000 chinook and 75,000 coho for Option II; and 30,000 chinook and 60,000 coho for Option III.

Fisheries south of Cape Falcon, Oregon, are managed primarily by season dates, although quota fisheries within specified time frames are employed in some fisheries. Coho quotas for the central Oregon mark selective recreational coho fishery are 75,000 for Option I, 65,000 for Option II, and 55,000 for Option III. The area included in the mark selective recreational coho fishery is from Cape Falcon to the OR/CA border for Option I, and Cape Falcon to Humbug Mt., Oregon, in Options II and III. Commercial non-Indian quotas for the June-September time frame in the Oregon portion of the KMZ are 10,500 chinook in Option I, 10,300 in Option II, and 11,300 in Option III. In the California portion of the KMZ, the September commercial non-Indian quota are 10,000 chinook for Options I and II, and 5,000 chinook for Option III.

V. PREDICTED ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

As provided by the Council on Environmental Quality (CEQ) NEPA regulations, the detailed information on the environmental effects of the alternatives is hereby incorporated by reference (40 CFR Part 1502.21). In further compliance with the CEQ NEPA regulations for incorporation by reference, a brief summarization of the environmental impacts of the alternatives is provided hereafter. For the comprehensive analysis of effects on the natural, physical or built components of the human environment, the reader can find that information in Section 4 of the EA.

Summary and Comparison of Impacts Between Alternatives

The Preferred Alternative would not have a significant impact on the environment because it meets the conservation objectives, allocation criteria, and other relevant objectives of the Salmon FMP; achieves applicable ESA consultation standards; and complies with obligations under the Pacific Salmon Treaty. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, section 6.02, and found to be not significant. The harvest impacts of the preferred alternative are intermediate between

Options I and II for both chinook and coho. For both the commercial and recreational fishery, short-term economic value for this alternative is intermediate between Options I and II. The commercial fishery management regulations result in a projected 18% decrease in exvessel revenue compared to the 2003 postseason baseline and 10% increase in recreational fishery impacts for the same comparison.

The No Action alternative would have a significant negative impact because it would not respond to changes in chinook and coho stock status, resulting in under or over-harvest of stocks. Re-application of 2003 management measures would increase impacts on some ESA-listed salmon and the objective for natural spawning Klamath River fall chinook would not be met. The short-term economic value for this option was not estimated because the alternative does not meet the purpose and need for action. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, section 6.02, and found to be significant, and therefore not reasonable to implement.

Option I has the highest overall harvest impacts to both chinook and coho of the three options, but lower than the preferred alternative, but would not meet all conservation and management objectives. Short-term commercial and recreational economic value is highest among the other Options and greater than the preferred alternative. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, section 6.02, and found to be significant, and therefore not reasonable to implement.

Option II is intermediate in terms of overall harvest impacts. The option would not meet the conservation objective for Interior Fraser coho under the terms of the Pacific Salmon Treaty. The short-term commercial and recreational economic value of this option is likely intermediate between than Option I and Option III, and less than the Preferred Alternative. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, section 6.02, and found to be significant, and therefore not reasonable to implement.

Option III has the lowest overall harvest impacts. It would also meet conservation and allocation objectives for all stocks. However, the short-term commercial and recreational economic value of this option is less than Option I, Option II, and the Preferred Alternative. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, section 6.02, and found to be not significant.

The following table summarizes for the public the predicted environmental effects of all the alternatives analyzed in the EA to the target and non-target ocean salmon populations and economic resources. The table has been provided to assist the public understand the how the decision-maker arrived at a decision on which alternative should be implemented for the proposal. It further establishes a clear basis of choice among alternatives and evaluates environmental impacts of the proposal and the alternatives in a comparative form, as required by CEQ NEPA regulations at 40 CFR Part 1502.14.

TABLE 2-1 from EA. Comparison of impacts of alternatives on selected key stocks. Source for the Preferred Alternative is Preseason Report III, for the No Action Alternative is Preseason Report I, and for Options I, II, and III is Preseason Report II. (Page 1 of 2)

Impact Criterion	Preferred Alternative	No Action	Option I	Option II	Option III
Chinook					
California Central Valley fall chinook escapement Goal: 122,000-180,000	457,500	451,500	454,500	454,500	454,500
California Coast (Klamath fall chinook Age 4 harvest rate) Goal: ≤16%	15.0%	15.8%	14.9%	15.0%	14.9%
Klamath River (Natural spawning adults) Goal: ≥35,000	35,000	23,700	35,000	35,000	35,000
Oregon Coast	Natural spawner escapement goal met				
Columbia River Natural Tule (total exploitation rate) Goal: ≤49%	46%	47%	45%	41%	37%
Snake River Fall Index (exploitation rate as a percentage of the base period) Goal: ≤70%	70%	72%	74%	68%	63%
Washington Coast	Council fisheries have a minor impact on these stocks; no evaluation				
Puget Sound	Impacts consistent with NOAA Fisheries Guidance	Council fisheries have a minor impact on these stocks; no evaluation Oregon Production Index (OPI) Conservation goals met for all stocks; Upper Columbia sharing agreement met. Conservation goals met for all stocks; Upper Columbia sharing agreement met. Conservation goals met for all stocks; Upper Columbia sharing agreement met. Conservation goals met for all stocks; Upper Columbia sharing agreement met.			
Coho					
Oregon Production Index (OPI)	Conservation goals met for all stocks; Upper Columbia sharing agreement met.	Conservation goals met for all stocks except : 18% OCN exploitation rate; Upper Columbia sharing agreement not met.	Conservation goals met for all stocks; Upper Columbia sharing agreement not met.	Conservation goals met for all stocks; Upper Columbia sharing agreement met.	
Washington Coast and Puget Sound	Conservation goals met for all stocks Conservation goals met for all stocks Coast wide community income associated with the non-Indian commercial troll fishery (millions \$)28.8No dollar value determined because this alternative was not viable29.129.228.7				
Canadian Stocks (Interior Fraser total exploitation rate for southern U.S. fisheries) Goal: ≤10%	10%	12.5%	12.0%	10.9%	10.0%

TABLE 2-1 from EA. Comparison of impacts of alternatives on selected key stocks. Source for the Preferred Alternative is Preseason Report III, for the No Action Alternative is Preseason Report I, and for Options I, II, and III is Preseason Report II. (Page 2 of 2)

Impact Criterion	Preferred Alternative	No Action	Option I	Option II	Option III
Coastwide community income associated with the non-Indian commercial troll fishery (millions \$)	33.4	No dollar value determined because this alternative was not viable	34.7	32.1	33.1
Coastwide community income associated with the recreational ocean salmon fishery (millions \$)	28.9	No dollar value determined because this alternative was not viable	29.1	26.0	23.6

VI. PUBLIC INVOLVEMENT

Scoping Summary

The scoping process occurs early in any environmental assessment process. It involves consultation with affected and interested parties--both inside and outside of agencies implementing the management measures--in order to determine which issues, because of their potential significance, should be analyzed in depth. Just as important, this process is used to eliminate those issues that are not significant or have been addressed in other documents. This narrowing of scope allows the preparers to focus their attention on key issues (40 CFR Part 1500.4(g)). It should be emphasized that the subject of this EA, the annual management measures for ocean salmon fisheries, falls within the scope of the Salmon FMP. As noted, the Salmon FMP establishes very specific management goals and outlines the process for developing management measures to achieve these goals. Fishery managers involved in the process often refer to the "sideboards" established in the Salmon FMP; this represents the scope of action that may be contemplated during the annual process.

Early scoping is conducted by the Salmon Technical Team (STT), which comprises fishery scientists from the NOAA Fisheries, the U.S. Fish and Wildlife Service, the three West Coast states, and Indian Tribes. This interdisciplinary review of the previous year's fishery provides information that may be relevant to issues that can surface in the coming year. After the review document is produced, the STT and Council staff compile preseason forecasts of the abundance of salmon for the coming fishing season, which for the most part begins in May, although there are limited early openings. This compilation, published as Preseason Report I, is produced in February each year and describes, to the extent practicable, the expected impacts (in terms of meeting conservation objectives) if the previous year's management measures were applied to abundance for the current season. The STT uses several linked computer models to determine fishing mortality, given a set of management measures.

The two Council meetings held in March and April each year, which focus on salmon management, provide opportunities to gain input from a broad cross-section of interested parties and the public, including those fishermen likely to be directly affected by the management actions. At the March meeting, the Salmon Advisory Subpanel, with members representing commercial and recreational fishers, charter boat operators, Indian Tribe representatives, and conservationists, develops three "season options" covering a range from relatively low fishing mortality (more "conservative") to relatively high fishing mortality (more "liberal"), which represent the sideboards referred to above. Components of each option may be developed separately for different parts of the coast by subgroups representing commercial, recreational, and

tribal interests in each of the three West Coast states. An initial "draft" of these options is then analyzed by the STT, using Council-approved computer models and procedures which are calibrated to preseason abundance forecasts and expectations for fisheries outside the Council's area of responsibility (e.g., fisheries occurring in Alaskan, Canadian, and inside waters), to project the impact of management measures (e.g., the duration and timing of season openings, quota levels, retention restrictions by species for different sections of the coast) on the ability to meet the Salmon FMP conservation and allocation goals. The options may be further modified, depending on the results of the STT analysis, and are then brought before the Council for examination. The Council also receives comments and recommendations from other bodies that are involved in salmon management, including NOAA Fisheries, Indian tribes, Klamath Fishery Management Council (KFMC), and state representatives that sit on the Council, as well as the general public. Council members often recommend additional modifications to the options to ensure conservation objectives and legal obligations are met, clarify provisions, or to balance catch allocation in response to socio-economic considerations. Over the course of the March meeting, management options are brought before the Council several times before refined before final options are approved for public review.

In the week after the March meeting, the STT and Council staff produce Preseason Report II, which describes each of the three options developed during the March meeting and presents the STT's analysis of their predicted impacts in terms of conservation objectives, legal obligations, catch, and economic factors. Along with the Review and Preseason Report I, Preseason Report II is an information source for public hearings. These hearings are held in coastal communities between the March and April Council meetings. Along with any written comments submitted to the Council, testimony during these hearings on the three options are summarized and presented at the April Council meeting.

In addition to the Council process, notice and opportunity for public comment is provided through meetings and caucuses of State, Tribal, local governments, and the various user groups. This parallel process occurs throughout the February to April time-frame when Council recommendations are developed. The two main forums that concern salmon fisheries on the west coast are the KFMC, established at 16 U.S.C. 46085-2, which focuses on management measures directed at Klamath River fall chinook; and the North of Cape Falcon Forum, sponsored by the state of Washington and northwest Indian tribes with treaty fishing rights, which focuses on chinook and coho fisheries from Cape Falcon, Oregon to the Canadian/Washington border. Other forums include U.S. v. Oregon meetings related to ocean and Columbia River fisheries and meetings held by the Washington Fish and Wildlife Commission, the Oregon Fish and Wildlife Commission, and

the California Fish and Game Commission. Commission meetings provide opportunities for stakeholders to participate in the process of providing policy guidance to Council members and advisory body representatives. Recommendations and information from these forums are incorporated into the Council process when representatives from these entities provide comments and information at Council sponsored functions.

Finally, during the April meeting, the Council crafts the set of management measures that will regulate the coming fishing season. Although it may choose any one of the season options already developed, typically the adopted measures blend elements from these options, taking into consideration public comment, the results of deliberations in the North of Falcon and Klamath forums, and additional information regarding stock status and fishery expectations that may become available. The Council adopts fishery management measures for recommendation to the Secretary of Commerce. The STT and Council staff then prepare Preseason Report III, which describes the adopted management measures; and like the two preceding preseason reports, contains an analysis of impacts, or fishing mortality to specific stocks, expected from ocean salmon fisheries under this regime. The Council-adopted management measures are then transmitted to the U.S. Secretary of Commerce, so they may be promulgated as the Federal regulations that govern ocean salmon fisheries for the year in question. (Section 6.3 lists public meetings held and agencies and persons consulted during the annual management process.)

VII. NOAA Fisheries DECISION AND FACTORS CONSIDERED IN THE DECISIONS

Based on the evaluation in the EA, NOAA Fisheries has chosen to implement the Preferred Alternative. NOAA Fisheries has taken into consideration all of the potential impacts of the proposed action and balanced those impacts with considerations of the agency's purpose and need for action.

In accordance with CEQ's 40 Most Asked Questions guidance on NEPA Question 37 (a), NOAA Fisheries has considered "which factors weighted most heavily in the determination" on choosing the Preferred Alternative to implement. Specifically, NOAA Fisheries acknowledged that based on the EA analysis that impacts to fish, tribal treaty rights and trust responsibilities, and were heavily considered in the decision. As the resources most affected by the proposal, NOAA Fisheries considered that the Preferred Alternative would result in the most overall net benefit to the human environment all factors considered.

VIII. FINDING OF NO SIGNIFICANT IMPACT

To determine the significance of the action analyzed in this EA, NOAA Fisheries is required by NEPA, 40 CFR 1508.27 and NOAA Administrative Order 216-6 to consider the context and intensity of the proposed action. Based on the EA, review of the NEPA criteria for significant effects, and my knowledge of the predicted impacts, I have determined that the action to be implemented (Preferred Alternative) would not have a significant effect upon the quality of the human environment. Therefore, preparation of an Environmental Impact Statement on the final action is not required under Section 102(2)(c) of the NEPA, its implementing regulations (40 CFR Part 1500-1508), or NOAA Fisheries environmental review procedures (NAO 216-6). This determination is based on the following factors from CEQ's implementing regulations at 1508.27 and then from NAO 216-6 Section 6.02:

1. In reaching my conclusion of no significant impacts, I recognize that there are both beneficial and adverse impacts of this project as discussed in section 4.0. However none of the impacts associated with the Proposed Action were significant.
2. This action does not affect public health or safety as discussed in sections 4.0 and as identified through public and internal scoping.
3. There are no significant effects to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas as discussed in section 4.0 or identified through public and internal scoping.
4. The effects on the human environment detailed in section 3.0 and 4.0 of the EA are non-controversial.
5. There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks as discussed in section 4.0 of the EA.
6. This action will not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about future considerations.
7. As discussed in section 4.4, this action will not result in cumulatively significant impacts on the environment.
8. This action will not cause loss or destruction of significant scientific, cultural, or historical resources as detailed in section 4.0.
9. As discussed in sections 4.3.3 of the EA, this action will not adversely affect endangered or threatened species or critical habitat.
10. This action does not violate Federal, State or local law or requirements imposed for protection of the environment as detailed in sections 5.0 of the EA.

In addition to the above CEQ regulations defining significance, NOAA Fisheries environmental review procedures at Section 6.02 of NAO216-6 require the agency to assess significance in fishery management actions.

1. The proposed action is not predicted to jeopardize the sustainability of any target species that may be affected by the action as discussed in Section 4.1.
2. As discussed in Section 4.1.2, the proposed action is not predicted to jeopardize the sustainability of any non-target species.
3. The proposed action is not predicted to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs as delineated in Section 4.1 of the EA.
4. The proposed action is not predicted to have a substantial adverse impact on public health or safety as discussed in Section 4.0.
5. The proposed action is not predicted to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species as noted in Section 4.1.3.
6. The proposed action is not predicted to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species as discussed in Section 4.4.
7. The proposed action is not predicted to have a substantial impact on biodiversity and ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc) as discussed in Section 4.0.
8. Section 4.1.4 predicts there to be no significant social or economic impacts tied to any natural or physical environmental effects.
9. The effects on the human environment detailed in section 3.0 and 4.0 of the EA are non-controversial.

I request your concurrence in this determination by signing below.

1. I concur. Rebecca Neul 4/29/04
Date

2. I do not concur. _____
Date

ENVIRONMENTAL ASSESSMENT

FOR THE

PROPOSED 2004 MANAGEMENT MEASURES FOR THE OCEAN SALMON FISHERY

MANAGED UNDER THE PACIFIC COAST SALMON PLAN

PREPARED BY:

**PACIFIC FISHERY MANAGEMENT COUNCIL
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IN COOPERATION WITH

**NATIONAL MARINE FISHERIES SERVICE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
DEPARTMENT OF COMMERCE**

APRIL 2004

This document may be cited in the following manner:

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COVER SHEET
2004 OCEAN SALMON FISHERY MANAGEMENT MEASURES
ENVIRONMENTAL ASSESSMENT

Proposed Action: Implementation of 2004 management measures will allow fishermen to harvest surplus production of healthy natural and hatchery salmon stocks within the constraints specified under the Salmon Fishery Management Plan (Salmon FMP) and consultation standards established for Endangered Species Act (ESA)-listed salmon stocks. In achieving this goal, management measures must take into account the allocation of harvest among different user groups and port areas. This is not done by stock, but rather by total allowable catch (TAC) and species. Section 5.3 of the Salmon FMP enumerates specific allocation objectives.

Type of Statement: Environmental Assessment

For Further Information Contact:

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Abstract:

An environmental assessment (EA) is used to determine whether an action being considered by a Federal agency has significant impacts. If such impacts are anticipated, then an environmental impact statement (EIS) must be prepared. This document analyzes the environmental and socioeconomic impacts of proposed management measures for ocean salmon fisheries occurring off the coasts of Washington, Oregon, and California. The Pacific Fishery Management Council (Council) produces four documents that provide information for decision making and report the annual management measures recommended for implementation in the coming fishing season. (These are the *Review of 2003 Ocean Salmon Fisheries* and *Preseason Reports I, II, and III*, listed in the bibliography.) These documents form the basis for the description of alternatives and the impact analysis in this EA.

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ABBREVIATIONS AND ACRONYMS

CCC	Central California Coastal (natural coho)
Council	Pacific Fishery Management Council
CPUE	catch per unit of effort
CVI	Central Valley Index
CZMA	Coastal Zone Management Act
EA	environmental assessment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	evolutionarily significant unit
FMP	fishery management plan
FMU	fishery management unit
FONSI	finding of no significant impact
FRAM	Fishery Regulation Assessment Model
IPHC	International Pacific Halibut Commission
KFMC	Klamath Fishery Management Council
KMZ	Klamath Management Zone
KOHM	Klamath Ocean Harvest Model
LRH	lower river hatchery (tule fall chinook returning to hatcheries below Bonneville Dam)
LRB	lower river bright (chinook salmon from the Columbia River below Bonneville Dam)
LRW	lower Columbia River wild (bright fall chinook spawning naturally below Bonneville Dam)
MCB	mid-Columbia River brights (bright hatchery fall chinook released in the mid-Columbia River)
MOC	mid-Oregon coast
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act

MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOC	north Oregon coast
OCN	Oregon coastal natural (coho salmon)
OCNL	Oregon coastal natural (coho) lake component
OCNR	Oregon coastal natural (coho) river component
OPI	Oregon Production Index (area)
OY	optimum yield
PacFIN	Pacific Coast Fisheries Information Network
PEIS	programmatic environmental impact statement
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
R/K	Rogue/Klamath (hatchery coho)
RIR	regulatory impact review
RMP	Resource Management Plan
SAB	select area brights
SAS	Salmon Advisory Subpanel
SCH	Spring Creek Hatchery (tule fall chinook returning to Spring Creek Hatchery)
Secretary	U.S. Secretary of Commerce
SEIS	supplemental environmental impact statement
SFA	Sustainable Fisheries Act
SONCC	Southern Oregon/Northern California Coastal (natural coho)
SRFI	SNAKE RIVER FALL CHINOOK INDEX
STEP	Salmon Trout Enhancement Program (Oregon)
STT	Salmon Technical Team
TAC	total allowable catch

URB	upper river brights (bright fall chinook originating primarily above McNary Dam)
WOC	Washington, Oregon, and California

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ABSTRACT

An environmental assessment (EA) is used to determine whether an action being considered by a Federal agency has significant impacts. If such impacts are anticipated, then an environmental impact statement (EIS) must be prepared. This document analyzes the environmental and socioeconomic impacts of proposed management measures for ocean salmon fisheries occurring off the coasts of Washington, Oregon, and California. The Pacific Fishery Management Council (Council) produces four documents that provide information for decision making and report the annual management measures recommended for implementation in the coming fishing season. (These are the *Review of 2003 Ocean Salmon Fisheries* and *Preseason Reports I, II, and III*, listed in the bibliography.) These documents form the basis for the description of alternatives and the impact analysis in this EA. They are incorporated by reference into this EA, and the information in them is summarized here as appropriate.

1.0 Introduction

1.1 How This Document is Organized

The Council develops annual management measures for ocean salmon fisheries occurring off the coasts of Washington, Oregon, and California^{1/} and submits them to the U.S. Secretary of Commerce (Secretary) for review and implementation. The Secretary then either approves the measures and implements them by regulation, partially approves them, or disapproves them. If they are partially approved or disapproved, the Council may reconsider and revise the measures and resubmit them to the Secretary. The scope of the measures that may be chosen in this annual process is limited by the management framework established in the Pacific Coast Salmon Plan (Salmon FMP), a fishery management plan (FMP) first developed by the Council in 1977 and subsequently amended 14 times, most recently in 1999. The Salmon FMP conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the principal legislation governing fishery management within the Exclusive Economic Zone (EEZ), which extends from the outer boundary of the territorial sea to a distance of 200 nautical miles from shore.

This document has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 to assess the impacts on the human environment that may result from the proposed action. It contains the elements consistent with an EA. The rest of this section discusses the reasons for establishing new management measures for the 2004 season. This description of *purpose and need* defines the scope of the subsequent analysis. Section 2 outlines *different alternatives* that have been considered to address the purpose and need. Based on public input and analysis of the impacts, a Preferred Alternative is formulated and adopted during the Council's April meeting. Section 3 describes the *affected environment*. This information provides the basis for the analysis contained in Section 4, which *assesses the potential environmental and socioeconomic impacts* of the alternatives outlined in Section 2. A list of agencies and persons consulted during preparation of the EA may be found in Section 6.3. Appendix A provides detailed information on the 2004 management measures (Preferred and other alternatives) and 2003 measures, which comprise the No Action Alternative.

1/ In addition to these three coastal states, Council membership includes Idaho because salmon spawn in rivers in that state.

1.2 Purpose and Need

1.2.1 Problems for Resolution (Need for Action)

Salmon are anadromous fish, spending a part of their life in ocean waters, but returning to freshwater rivers and streams to spawn and then die. Juvenile salmon rear in freshwater for up to two years (depending on species), then the young fish migrate to the ocean for further rearing until they are ready to return to their natal rivers to spawn. Council-managed ocean salmon fisheries mainly catch chinook and coho salmon (*Oncorhynchus tshawytscha* and *O. kisutch*); pink salmon (*O. gorbuscha*) are also caught in odd-numbered years, principally off of Washington. Fisheries not managed by the Council also impact stocks that are part of the Salmon FMP management unit (Salmon FMU). These fisheries include those prosecuted by Indian tribes and freshwater commercial and recreational fishers in state territorial and internal waters (including rivers and estuaries), as well as Canadian and Alaskan marine fisheries. Historical and contemporary habitat modification and degradation, primarily in and along rivers and streams that are critical to spawning and juvenile survival, have led to precipitous declines in West Coast salmon populations. As a result, several stocks within the salmon FMU have been listed as either threatened or endangered under the Endangered Species Act (ESA). Adult returns also fluctuate from year to year due to variability in juvenile production and survival rates.

Salmon originating from hatcheries have become an important component of all West Coast fisheries. Hatcheries have been established primarily for mitigation of development (hydropower, irrigation, etc.) and for fishery augmentation. When establishing annual management measures, the Council must set catch restrictions in order to meet the competing demands of different user groups and the need to ensure enough fish spawn, so that populations are sustained. These considerations must be applied to each stock.

1.2.2 Purpose of the Action: 2004 Management Measures

The purpose of this action, implementation of the 2004 ocean salmon fishery management measures, is to allow fishes to harvest surplus production of healthy natural and hatchery salmon stocks within the constraints specified under the Salmon FMP, the Pacific Salmon Treaty, and consultation standards established for ESA-listed salmon stocks. In achieving this goal, management measures must take into account the allocation of harvest among different user groups and port areas. This is not done by stock, but rather by total allowable catch (TAC) and species. (Section 5.3 of the Salmon FMP enumerates specific allocation objectives.) The Salmon FMP also establishes nine more general harvest-related objectives:

1. Establish ocean exploitation rates for commercial and recreational salmon fisheries that are consistent with requirements for stock conservation objectives, specified ESA consultation standards, or Council adopted rebuilding plans.
2. Fulfill obligations to provide for Indian harvest opportunity as provided in treaties with the United States, as mandated by applicable decisions of the Federal courts, and as specified in the October 4, 1993 opinion of the Solicitor, Department of Interior, with regard to Federally-recognized Indian fishing rights of Klamath River Tribes.
3. Seek to maintain ocean salmon fishing seasons that support the continuance of established recreational and commercial fisheries, while meeting salmon harvest allocation objectives among ocean and inside recreational and commercial fisheries. These allocations will be fair and equitable, and fishing interests shall equitably share the obligations of fulfilling any treaty or other legal requirements for harvest opportunities.

4. Minimize fishery mortalities for those fish not landed from all ocean salmon fisheries as consistent with optimum yield (OY) and bycatch management specifications.
5. Manage and regulate fisheries, so the OY encompasses the quantity and value of food produced, the recreational value, and the social and economic values of the fisheries.
6. Develop fair and creative approaches to managing fishing effort and evaluate and apply effort management systems as appropriate to achieve these management objectives.
7. Support the enhancement of salmon stock abundance in conjunction with fishing effort management programs to facilitate a return to economically viable and socially acceptable commercial, recreational, and tribal seasons.
8. Achieve long-term coordination with the member states of the Council, Indian tribes with Federally-recognized fishing rights, Canada, the North Pacific Fishery Management Council, Alaska, and other management entities which are responsible for salmon habitat or production. Manage consistent with the Pacific Salmon Treaty and other international treaty obligations.
9. In recommending seasons, to the extent practicable, promote the safety of human life at sea.

These objectives, along with the conservation objectives established under the ESA, provide "sideboards" for setting management measures necessary to implement the Salmon FMP, which conforms to the terms and requirements of the MSA and the National Standards Guidelines.

1.3 Background and Related Documents

For regulatory purposes, the fishing season, or term during which annually-developed management measures apply, is May 1 to April 30. Most ocean salmon fishing occurs from early to mid-May until late September. However, it is common for seasons to open earlier than May 1 in some areas. These openings may be anticipated in the previous year's management process with an option for "inseason" modification to allow for what are considered early openings (but in terms of the management cycle are actually late openings). But in terms of impacts analysis, these "late openings" are considered part of the next year's season. For example, all fishery impacts occurring after September of 2003 are modeled when analyzing impacts in the 2004 season, which for regulatory purposes starts on May 1.

Any material summarized and incorporated into this EA by reference may be obtained by contacting the Council at the address on the front of this document. In-text citations are not given for Council-produced documents referred to in this EA, but they are listed in the bibliography. Copies of these documents may be obtained from the Council office.

1.3.1 Pacific Coast Salmon Plan

As mentioned above, the Salmon FMP establishes conservation and allocation guidelines for annual management. This framework allows the Council to develop measures responsive to conditions in a given year. The Salmon FMP describes the types of management measures that may be applied and the flexibility available for modification during the process of developing annual management measures. These measures include setting size limits, bag limits for recreational fishers, gear restrictions, seasons, and quotas. The alternatives described in Section 2 are structured around variations within each type of management measure. They are assessed in light of the allocation and harvest objectives in the Salmon FMP discussed above.

Sections 8 and 9 of the Salmon FMP outline the annual process for developing management measures. This process results in a review of the previous year's fishery and three preseason reports, drafted by the Council's Salmon Technical Team (STT), that reflect the information gathering, analysis, and decision-making necessary to develop annual management measures.

This management regime has been subject to several previous environmental impact analyses. From 1976 through 1983, the Council prepared an EIS or supplemental EIS (SEIS) for each year's salmon fishing season. In 1984 an EIS was prepared when the Salmon FMP was comprehensively amended to implement the framework process for annual management. This resulted in a much more efficient management process and obviated the substantial staff burden of preparing an EIS or SEIS annually. A still more recent SEIS accompanied Amendment 14, which was implemented in 2001. They also represent information and analytical resources that, as appropriate, are incorporated into this document.

1.3.2 Review of 2003 Ocean Salmon Fisheries

This document is the first in a series of annual documents prepared by the Council's STT. It provides a historical context for fishery impacts, spawning escapement, and management performance for Salmon FMU stocks, annual regulations governing Council-area salmon fisheries, and economic factors associated with Council-area salmon fisheries. Information on inland marine and freshwater fisheries, as well as ocean fisheries in Canada and Alaska, are also presented. This document provides a baseline for the fishery impacts and economic assessments used in this EA.

1.3.3 Preseason Report I

This document is the second in the series prepared by the STT and presents projected stock abundances for Salmon FMU stocks and an analysis of the status quo management measures on projected abundance for the coming season. This analysis serves as the No Action Alternative in this EA.

1.3.4 Preseason Report II

This document is the third in the series prepared by the STT. It documents the range of management options, three in total, adopted by the Council for the coming season, which are released to the public for review and comment. The report includes an analysis of the effects of the management measures on conservation objectives for key Salmon FMU stocks, including those listed under the ESA, as well as an economic assessment of the options. These options serve as alternatives analyzed in this EA. The options also help inform managers in other forums of the likely range of ocean fishery impacts, so inland marine and freshwater fisheries can be structured to achieve the necessary conservation objectives and allocation agreements.

1.3.5 Preseason Report III

This is the final document in the series prepared by the STT. It details the final management measures adopted by the Council for recommendation to the National Marine Fisheries Service (NMFS) for the coming season's regulations. It includes an analysis of the effects of the management measures on conservation objectives for key Salmon FMU stocks, an assessment of the consultation standards for ESA-listed salmon, and an EA. These management measures serve as the Preferred Alternative analyzed in this EA.

1.3.6 West Coast Salmon Harvest Programmatic EIS (PEIS)

This document evaluates how NMFS reviews annual salmon fishery plans in three jurisdictions, the North Pacific Fishery Management Council for Southeast Alaska; the Pacific Fishery Management Council for the Washington, Oregon, and California coast; and *U.S. v. Oregon* for the Columbia River Basin. In general, NMFS seeks to implement fisheries that are consistent with a variety of statutory and legal obligations related to resource conservation, socioeconomic benefits associated with resource use, and treaty trust obligations. Fishery plans are developed annually within the context of framework plans to meet the year-specific circumstances related to the status of stocks affected by the fisheries. This final PEIS evaluates different ways to balance these objectives and different strategies that can be used that may provide better solutions for meeting the obligations and objectives of the respective framework plans. The alternatives considered in this final PEIS are programmatic in nature and are designed to provide an overview of fishery management methods and strategies that can be implemented as part of the annual planning processes.

1.3.7 Area 2A Pacific Halibut Catch Sharing Plan

A catch sharing plan for Pacific halibut in area 2A (southern U.S. waters) was developed in 1995 to allocate the halibut quota among various user groups and geographic areas. The catch sharing plan included, among other things, an annual allocation of Pacific halibut for the non-Indian commercial salmon fishery, to be taken incidentally during Council-area fisheries. This EA also assesses the impacts of the commercial salmon fishery on the halibut resource.

1.3.8 2004 Groundfish Fishery EIS

The 2004 Council-area groundfish fishery management measures were the subject of an EIS that included the likely effects of Council-area recreational and commercial salmon fisheries on important groundfish stocks. Alternative management measures for salmon fisheries were analyzed, but no modifications to salmon fisheries were recommended, due to the insignificant impacts on groundfish stocks of concern.

1.4 Scoping Summary

The scoping process occurs early in any EA process. It involves consultation with affected and interested parties—both inside and outside of agencies implementing the management measures—in order to determine which issues, because of their potential significance, should be analyzed in depth. Just as important, this process is used to eliminate those issues that are not significant based on public input and the best judgement of state and Federal fishery managers, and supported by other environmental impact analyses, such as the SEIS for the *Pacific Coast Salmon Plan* and the final PEIS prepared by NMFS, both of which were described above. This narrowing of scope allows the preparers to focus their attention on key issues. It should be emphasized that the subject of this EA, the annual management measures for ocean salmon fisheries, falls within the scope of the Salmon FMP. As noted, the Salmon FMP establishes very specific management goals and outlines the process for developing management measures to achieve these goals. Fishery managers involved in the process often refer to the “sideboards” established in the Salmon FMP; this represents the scope of action that may be contemplated during the annual process.

Early scoping is conducted by the STT, which comprises fishery scientists from NMFS, the U.S. Fish and Wildlife Service, the three West Coast states, and Indian tribes. Their review of the previous year’s fishery provides information that may be relevant to issues that can surface in the coming year. After the review document is produced, the STT and Council staff compile preseason forecasts of the abundance of salmon for the coming fishing season, which for the most part begins in May, although there are limited early openings. This compilation, published as *Preseason Report I*, is produced in February each year and

describes, to the extent practicable, the expected impacts (in terms of meeting conservation objectives) if the previous year's management measures were applied to abundance for the current season. The STT uses several linked computer models to determine fishing mortality, given a set of management measures.

The two Council meetings held in March and April each year, which focus on salmon management, provide opportunities to gain input from a broad cross-section of interested parties and the public, including those fishers likely to be directly affected by the management actions. At the March meeting, the Salmon Advisory Subpanel (SAS), with members representing commercial and recreational fishermen, charter boat operators, Indian tribe representatives, and conservationists, develops three "season options" covering a range from relatively low fishing mortality (more "conservative") to relatively high fishing mortality (more "liberal"). Components of each option may be developed separately for different parts of the coast by subgroups representing commercial, recreational, and tribal interests in each of the three West Coast states. An initial "draft" of these options is then analyzed by the STT, using Council-approved computer models and procedures, which are calibrated to preseason abundance forecasts and expectations for fisheries outside the Council's area of responsibility (i.e., fisheries occurring in Alaskan, Canadian, and inside waters) to project the impact of management measures (e.g., the duration and timing of season openings, quota levels, retention restrictions by species for different sections of the coast) on the ability to meet the Salmon FMP conservation and allocation goals. The options may be further modified, depending on the results of the STT analysis, and are then brought before the Council for examination. The Council also receives comments and recommendations from other bodies involved in salmon management, including NMFS, Indian tribes, Klamath Fishery Management Council (KFMC), and state representatives that sit on the Council, as well as the general public. Council members often recommend additional modifications to the options to ensure conservation objectives and legal obligations are met, clarify provisions, or to balance catch allocation in response to socioeconomic considerations. Over the course of the March meeting, management options are brought before the Council several times before refined final options are approved for public review.

In the week after the March meeting, the STT and Council staff produce *Preseason Report II*, which describes each of the three options developed during the March meeting and presents the STT's analysis of their predicted impacts in terms of conservation objectives, legal obligations, catch, and economic factors. Along with the *Review* and *Preseason Report I*, *Preseason Report II* is an information source for public hearings. These hearings are held in coastal communities between the March and April Council meetings. Along with any written comments submitted to the Council, testimony during these hearings on the three options are summarized and presented at the April Council meeting.

In addition to the Council process, notice and opportunity for public comment is provided through meetings and caucuses of state, tribal, local governments, and various user groups. This parallel process occurs throughout the February to April time frame when Council recommendations are developed. The two main forums that concern salmon fisheries on the West Coast are KFMC, established at 16 U.S.C. 46085-2, which focuses on management measures directed at Klamath River fall chinook, and the North of Cape Falcon Forum, sponsored by the State of Washington and northwest Indian tribes with treaty fishing rights, which focuses on chinook and coho fisheries from Cape Falcon, Oregon to the U.S./Canada border. Other forums include *U.S. v. Oregon* meetings related to ocean and Columbia River fisheries and meetings held by the Washington Fish and Wildlife Commission, the Oregon Fish and Wildlife Commission, and the California Fish and Game Commission. Commission meetings provide opportunities for the public, including stakeholders, to participate in the process of providing policy guidance to Council members and advisory body representatives. Recommendations and information from these forums are incorporated into the Council process when representatives from these entities provide comments and information at Council-sponsored functions.

Finally, during the April meeting, the Council crafts the set of management measures that will regulate the coming fishing season. Although it may choose any one of the season options already developed, typically the adopted measures blend elements from these options, taking into consideration public comment, the results of deliberations in the North of Falcon and Klamath forums, and additional information regarding stock status and fishery expectations that may become available. The Council adopts fishery management measures for recommendation to the Secretary. The STT and Council staff then prepare *Preseason Report III*, which describes the adopted management measures; like the two preceding preseason reports, it contains an analysis of impacts, or fishing mortality to specific stocks, expected from ocean salmon fisheries under this regime. The Council-adopted management measures are then transmitted to the Secretary, so they may be promulgated as the Federal regulations that govern ocean salmon fisheries for the year in question. (Section 6.2 lists public meetings held and agencies and persons consulted during the annual management process.)

1.5 Relevant Issues

In addition to the scoping activities described above, previous environmental impact analyses for Council-managed salmon fisheries, and other Council documents, are a valuable resource that can be used to narrow the scope of this analysis to potentially significant issues. These documents present issues the proposed action is likely to affect and aspects of the environment that may have changed since the completion of previous analyses. Agency guidance, in the form of National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6, Environmental Review Procedures for Implementing the NEPA, is a good starting point for identifying potentially significant issues. Section 6.01, which parallels NEPA implementing regulations (40 CFR 1508.27), lists 11 factors that should be used to determine the significance of any major action taken by NOAA. These are:

1. Impacts may be both beneficial and adverse -- a significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
2. Degree to which public health or safety is affected.
3. Unique characteristics of the geographic area.
4. Degree to which effects on the human environment are likely to be highly controversial.
5. Degree to which effects are highly uncertain or involve unique or unknown risks.
6. Degree to which the action establishes a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Individually insignificant, but cumulatively significant impacts.
8. Degree to which the action adversely affects entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources.
9. Degree to which endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973, are adversely affected.
10. Whether a violation of Federal, state, or local law for environmental protection is threatened.

11. Whether a Federal action may result in the introduction or spread of a nonindigenous species. Section 6.02 of the Order enumerates a more specific set of guidelines for identifying potentially significant environmental impacts resulting from a fishery management action. These are:
- a. The proposed action may be reasonably expected to jeopardize the sustainability of any target species that may be affected by the action.
 - b. The proposed action may be reasonably expected to jeopardize the sustainability of any non-target species.
 - c. The proposed action may be reasonably expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs.
 - d. The proposed action may be reasonably expected to have a substantial adverse impact on public health or safety.
 - e. The proposed action may be reasonably expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species.
 - f. The proposed action may be reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species.
 - g. The proposed action may be expected to have a substantial impact on biodiversity and ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc).
 - h. If significant social or economic impacts are interrelated with significant natural or physical environmental effects, then an EIS should discuss all of the effects on the human environment.
 - i. A final factor to be considered in any determination of significance is the degree to which the effects on the quality of the human environment are likely to be highly controversial. Although no action should be deemed to be significant based solely on its controversial nature, this aspect should be used in weighing the decision on the proper type of environmental review needed to ensure full compliance with NEPA. Socioeconomic factors related to users of the resource should also be considered in determining controversy and significance.

Both sets of guidelines are used in this assessment, but in different ways. The Section 6.02 guidelines are resource or topic specific and have been used to structure the analysis and screen for environmental components and effects that should be evaluated. Within this framework effects are evaluated based on the 11 factors listed in Section 6.01, as relevant.

As noted above, thorough scoping of the EA process should focus on those environmental components likely to be affected by the proposed action. NAO 216-6 Section 6.02 guidelines are used as a screen. If equivalent effects have already been considered in a previous environmental document, and the condition of an environmental component has not changed substantially in ways that would make it more likely the proposed action could significantly affect it, then that component is screened out from consideration. In this way, effects known not to be significant and resource components known not to be affected can be eliminated from consideration. This screening process is summarized below.

6.02(a) - Salmon FMU: Management measures developed annually for Council-managed fisheries control, by various means, the number of fish that will be harvested. They directly affect Salmon FMU populations. Because both the population status and the management measures change each year, and these changes may have significant impacts, this EA considers the impact of different harvest levels under alternatives considered by the Council. The Council's recommended management measures seek to maximize harvest opportunity by targeting stocks that have the largest harvestable surpluses (that is, fish in excess of established conservation needs) while constraining impacts on all stocks within allowable levels. The analysis focuses on fishing mortality to specific stocks, especially in relation to conservation objectives, legal obligations, and socioeconomic allocations identified in the Salmon FMP. Although salmon are target species, management measures are crafted to constrain impacts to salmon stocks that are either ESA-listed or whose status warrants critical attention. All coho stocks originating in Washington, Oregon, and California are affected by Council-area fisheries. Some chinook stocks are caught in such low numbers in Council-area fisheries that, according to the Salmon FMP, Council action would have negligible effects on stock status (see Salmon FMP Section 3.2.4.2). Therefore, the impact of management alternatives on these salmon stocks are considered in terms of potential mortality from Council-managed fisheries along with target stocks and in terms of the specific standards established by the ESA for listed stocks, through agreement with treaty Indian tribes under the provisions of *U.S. v. Washington* and subsequent U.S. District Court Orders (see below), or the provisions of Pacific Salmon Treaty (PST) agreements.

The criteria used in this EA to evaluate the significance of alternatives in terms of sustainability of Salmon FMU stocks is meeting the conservation objectives established in the Salmon FMP, NMFS ESA consultation standards, U.S. District Court orders, and/or the Pacific Salmon Treaty.

6.02(b) - Non-target Species: Commercial salmon trollers catch a range of species aside from salmon, albeit in low numbers. The 2000 SEIS found that the impacts of the fishery on fish other than salmon were not significant (see Section 5.2.3). Characteristics of the salmon fishery, such as changes in gear or method of deployment (including time and area) have not changed substantially since the SEIS was completed; however, the status of some of the non-salmon fish stocks taken as incidental catch has changed. For example, there are now eight groundfish species that have been declared overfished and for which rebuilding plans are being developed: bocaccio, cowcod, darkblotched, canary, widow, and yelloweye rockfish, Pacific ocean perch, and lingcod. These and other groundfish species are managed under the Council's Groundfish FMP. Under this plan, annual management measures are established for these species, and an environmental impact analysis is prepared in connection with that process, which also covers landings in the ocean salmon fishery. The EIS for 2004 groundfish management measures found that catch levels for target salmon fisheries would not have a significant impact on overfished groundfish species. Although not anticipated to have a significant impact, the effect of salmon fishing on selected groundfish species is considered in this EA. The criteria used in this EA to evaluate the significance of alternatives in terms of sustainability of non-target groundfish stocks is the likelihood of landing more overfished groundfish species than recent year maximum estimated catch.

Pacific halibut (*Hippoglossus stenolepis*) is also incidentally caught in the salmon fishery, but continues to be a healthy stock. During its March and April meetings, the Council sets management measures for incidentally-caught Pacific halibut in the commercial salmon fishery. Halibut are demersal (bottom-dwelling) fish that may be caught during fisheries that target salmon. The International Pacific Halibut Commission (IPHC) manages halibut fisheries throughout the entire North American range of the fish (Alaska, British Columbia, and the U.S. West Coast) by means of allocated catch quotas. (More information on the IPHC and halibut life history and management is available from the IPHC website, <http://www.iphc.washington.edu/halcom/>.) The allocation, established annually by the IPHC for the West Coast (referred to as Area 2A in the IPHC's scheme of management zones), is subdivided among various user groups according to a catch sharing plan developed by the Council. This plan allocates 15% of the non-Indian commercial halibut allocation in Area 2A to the salmon troll fishery incidental catch during May and

June (with provision for additional harvest from July through September if sufficient quota remains). In 1994, an EA was prepared for the catch sharing plan that allocates halibut catch among West Coast fishing sectors. The catch sharing plan is modified annually, or as necessary to accommodate changes, and an EA or Categorical Exclusion is prepared. Incidental catch in the salmon fishery in 2004 falls under terms of this plan, and impacts are not different from those analyzed in the EAs, which concluded they are not significant. Therefore, no further consideration of effects on Pacific halibut will be given in this EA.

6.02(c) - Affected Habitat Including Essential Fish Habitat (EFH): Appendix A of Amendment 14 (EFH Appendix A) describes salmon EFH and fishing and non-fishing impacts to this habitat. It found there is no evidence of direct gear effects on this habitat from Council-managed salmon fisheries (page A-58). Although some types of gear, such as bottom trawls are known to have habitat impacts, these gear types are not used in the ocean salmon fisheries considered here, nor is it clear these impacts affect habitat important to salmon. Non-fishing impacts to salmon habitat have been extensive and significant (see pages A-62 to A-110 in EFH Appendix A). However, salmon harvest management measures do not affect the activities that cause these impacts. Because EFH impacts are extensively described and analyzed in EFH Appendix A, and this analysis demonstrates the fishery has no significant impacts, EFH will not be considered further in this environmental assessment.

6.02(d) - Biodiversity and Ecosystem Function: The 2000 SEIS discusses impacts of the fishery to higher trophic level species including seabirds (Section 5.2.4 and 5.2.5 on pages 5-5 to 5-7) and lower trophic level species (Section 5.2.6 on page 5-7). Higher trophic level species affected by the salmon fishery include marine mammals, particularly harbor seals and sea lions. Salmon form a part of the diet of these animals, so marine mammals may compete with fisheries over this resource. These marine mammal species are opportunistic feeders and, in general, their populations have been increasing. (However, some other species' populations have been declining.) According to the Pacific Salmon Fisheries Management Final PEIS (pages 4-42 to 4-44), Pacific Coast fisheries have a minimal impact on marine mammals, which is mitigated by NMFS education programs aimed at vessel operators. Both the SEIS and final PEIS found that direct impacts on seabirds are minimal to non-existent. Indirect impacts, due to competition for salmon and the availability of processing offal as a food source, were determined to be minimal. The SEIS notes that "any amount of harvest removes animals that otherwise would have remained in the ecosystem" to prey on lower trophic levels. However, it concludes that fishery removals are not significant in this respect and that wide-scale changes in oceanographic conditions, resulting from El Niño events for example, are the primary determinants of abundance and structure of lower trophic level populations. Maintaining biodiversity, by conserving evolutionarily significant salmon stocks, is a key management goal. Since biodiversity impacts correlate with fishing mortality to depressed and ESA-listed wild stocks, these impacts can be addressed in assessing impacts to target stocks, as discussed above. Based on the analysis in the SEIS and final PEIS, and the fact that determining conditions have not changed significantly, biodiversity and ecosystem impacts will not be separately considered in this document.

6.02(e) - Protected Species Interactions: Section 5.2.4 of the SEIS, referenced above, also discusses direct interactions between marine mammals and ocean salmon fishing vessels. These interactions include vessels approaching these animals, marine mammals feeding on hooked salmon, and rarely, animals that become hooked by or snagged in the gear. The SEIS concludes that these interactions do not constitute a significant impact; the document also notes that these fisheries are classified under the Marine Mammal Protection Act as Category III, indicating there is no record of such impacts. Other listed species that might be affected by the salmon fishery include sea turtles and certain seabirds. Similarly, the SEIS considered possible impacts to these species and determined they were not significant. Therefore, interactions with these protected species will not be considered here. However, various salmon, steelhead, and trout stocks (or evolutionarily

significant units^{2/} [ESUs]) that are potentially caught in the fishery are listed under the ESA. Since 1992, NMFS has issued biological opinions indicating ocean salmon fisheries do not jeopardize the continued existence of ESA-listed salmonids or adversely affect their critical habitat (see Section 5.6 for a list of relevant biological opinions). This determination has been reached through the Section 7 consultation or Section 4(d) determinations process, pursuant to the ESA. This process establishes a set of “consultation standards” the fishery must satisfy in order to avoid a determination that the action jeopardizes the continued existence of a listed ESU. ESA consultation standards must be considered when developing management measures because the proposed action constrains harvest levels in response to stock status, conservation objectives, and legal obligations. As noted above, listed salmon stocks are also components of the target species, but ESA-listed stocks are considered separately under the protected species heading. The criteria used in this EA to evaluate the significance of alternatives in terms of effects on ESA-listed salmon species is by meeting the NMFS ESA consultation standards.

6.02(f) - Public Health and Safety: Fisheries management can affect safety if, for example, season openings make it more likely that fishermen will have to go out in bad weather because fishing opportunities are limited. The EA incorporated into Amendment 8 to the Salmon FMP analyzed alternatives to adjust management measures if unsafe weather affected fishery access. The Council’s Preferred Alternative in the Amendment 8 EA was the No Action Alternative, under which weather-related issues are considered during inseason adjustments to management measures. The range of management measures considered for the proposed action would be within the range described in that EA. Since these types of potential impacts have been previously analyzed and found not to be significant, they are not discussed in this EA.

6.02(g) - Socioeconomic Environment: As noted above, socioeconomic effects are only considered if they are interrelated with environmental effects (see also 40 CFR 1508.14). The 2000 SEIS describes how management measures that could be part of the proposed action have interrelated environmental effects. Allocation of fish between different user groups is the main socioeconomic factor the Council considers when formulating annual management measures. Since management measures with these interrelated effects change from year to year, and they may cause potentially significant impacts, this EA considers certain socioeconomic effects. Overall harvest opportunities and those related to allocation can affect some communities more than others. Disproportional impacts to particular communities resulting from management alternatives are described. The criteria used in this EA to evaluate the significance of alternatives in terms of socioeconomic impacts is deviation from the low end of the range of recent community level personal income impacts generated from Council-area commercial and recreational salmon fisheries, and meeting the allocation provisions of the Salmon FMP and of other relevant agreements.

6.02(h) - Cumulative Effects: This class of effects is usually considered separately, because it requires consideration of the impacts of actions other than the proposed action that may occur at different times or places. The incremental effects of these many actions may be collectively significant. In the context of salmon management, for example, past and “reasonably foreseeable” management measures may be considered as well as impacts to salmon habitat not caused by the proposed action. The effect of regulations for the ocean salmon fishery in any given year should be assessed with past and future annual regulations, since they affect a given population cohort. Although habitat impacts have been considered in previous documents, the cumulative effects of these impacts, when combined with fishing permitted under Council authority, should also be assessed. For these reasons, cumulative effects are considered. The West Coast Salmon Harvest Programmatic EIS (NMFS 2003) provides a comprehensive summary of cumulative effects

2/ An ESU constitutes a “distinct population segment” for the purposes of listing, delisting, and reclassifying species under the ESA. (See 61 FR 4722 for the current policy on recognizing distinct population segments.)

regarding West Coast salmon, including a general inventory of actions known to adversely affect salmon habitat and a list of the factors for decline for ESA-listed species. It examines the degree to which harvest can be expected to contribute to recovery of depressed stocks and the degree to which necessary survival improvements will have to come from other sources of human-induced mortality. It also provides examples of current remedial activities designed to improve the status of salmon stocks.

6.02(i) - Controversy: The final factor, controversy, is not by itself a basis for determining significance. Like other more general factors it is considered during EA preparation, but is not used to structure the analysis.

The screening process described above focuses the impact assessment in this EA on those components of the human environment for which further analysis is needed to determine whether there is a potential significant impact stemming from implementing the proposed action. As noted previously, if it is determined the proposed action has the potential to significantly impact the quality of the human environment, then the agency must prepare an EIS. Conversely, if, based on this EA, the agency concludes the proposed action will not have significant impacts, this is disclosed in a Finding of No Significant Impact (FONSI) and an EIS need not be prepared. It should be noted that the evaluation of the three options at the March Council meeting, and subsequently published in *Preseason Report II*, assume base level fisheries for northern (Alaskan and Canadian) and inland (Puget Sound, Coastal Washington, and Columbia River) fisheries. Prior to adoption of a Preferred Alternative, those fisheries are negotiated to ensure all relevant conservation and allocation objectives can be met. However, the Council may adopt for public review some options that do not meet all relevant objectives, so as not to restrict the range of possible Preferred Alternatives pending completed negotiations for northern and inland fisheries. Therefore, although an option may appear to have potentially significant impacts to the environment prior to completed negotiations, the Council is not violating the intent of the Salmon FMP or Sustainable Fisheries Act (SFA), nor triggering the need to develop an EIS, since the Council's expectation is the option will meet all relevant objectives. The indication that certain objectives are not met given base level fisheries assumptions also provides a focus for the subsequent negotiations. Further, if the overall impacts of an option do not meet all relevant objectives at the conclusion of negotiations, certain aspects of the option are still likely to be used in crafting a Preferred Alternative that does meet all relevant objectives.

2.0 Alternatives Including the Preferred Alternative

Management alternatives applicable to this EA are developed during the annual process described above (see Section 1.4). *Preseason Report I* contains salmon stock abundance projections for the current year and analyzes the impacts if the previous year's management regime were to be implemented. In the NEPA context, the previous year's management regime constitutes the "No Action Alternative": the expected impacts without the implementation of new management measures that respond to changes in the status of the salmon stocks significantly affected by Council-area fisheries. (According to the regulatory regime for ocean salmon fishing, the fishing season is governed by regulations established annually and apply until new measures are implemented.) *Preseason Report II* presents the three options developed during the March Council meeting, which represent the reasonable range of alternatives that, according to NEPA regulations, must be considered by the decision makers. The final management measures developed at the April Council meeting, and based on the options in *Preseason Report II*, public comment, and input from the Council's advisory bodies, represent the Preferred Alternative, which is described in *Preseason Report III*. Therefore, for the purposes of this EA there are five alternatives drawn from *Preseason Reports I* through *III*. Table 2-1 provides a summary of the analysis comparing the projected impacts of these alternatives.

2.1 Preferred Alternative

The Preferred Alternative, which is the set of management measures adopted by the Council at its April meeting, is summarized in *Preseason Report III*, Tables 1-3. These tables are appended to this EA; see Appendix A.

The Preferred Alternative is a combination of Options I and II (the three options developed at the Council's March meeting are discussed below). Comparing the Preferred Alternative management measures with those in Option I, several minor refinements were made to simultaneously satisfy requirements of the Salmon Framework Plan, NMFS ESA consultation standards, and PST obligations. Primary constraints on the 2004 proposed seasons are (1) endangered Sacramento River winter chinook south of Point Arena, California, (2) Klamath River fall chinook spawning escapement south of Cape Falcon, Oregon; (3) threatened Snake River fall chinook north of Cape Falcon, Oregon; and (4) management goals for naturally produced coho salmon over the entire Council management area, including Oregon and California coastal stocks, which are listed as threatened under the ESA, and Interior Fraser (Thompson River, B.C.) coho, which are subject to provisions of the PST. Changes from Option I were also made in response to comments received at the public hearings in late March and were negotiated in an effort to increase socioeconomic benefits with either negligible biological consequences or as compensation for changes with greater biological benefits. The changes include:

- From the U.S./Canada border to Leadbetter Point, Washington, the recreational season was changed to begin June 27 and continue through September 14.
- The late season recreational fishery between Cape Alava and the Queets River, Washington was reduced in area.
- From Leadbetter Point, Washington, to Cape Falcon, Oregon the recreational season was changed to begin June 27 and continue through September 30.
- For the U.S./Canada border to Cape Falcon, Oregon, commercial fishery, Oregon permitted fishers are permitted to transport their fish away from the port of landing for delivery to markets outside the fishery area.
- From Cape Falcon, Oregon to Humbug Mountain, Oregon, the commercial season during the months of July and August used alternating open-closed periods of between four and nine days.
- From Cape Falcon to Humbug mountain, the commercial chinook size limit was increased from 26 inches to 27 inches from May 1 through September, and to 28 inches during October.

- From Humbug Mountain to the OR/CA border, fishing quotas and landing limits were slightly reduced.
- From the OR/CA border to Horse Mountain, California, the September quota was reduced from 10,000 chinook to 6,000 chinook.
- For the commercial fishery between Horse Mountain and Point Arena, California, four days in July were added to the season.

2.2 No Action Alternative

As noted above, the No Action Alternative consists of the previous year's regulations. For analytical purposes, 2004 chinook and coho abundance was modeled with 2003 preseason management measures and assumptions (no 2003 inseason actions are considered). These management measures may be found in Table I-1 through I-3 of the *Preseason Report III* for 2003 and are reproduced in Appendix A to this EA.

2.3 Other Alternatives Considered

Management measures for the three options developed during the March Council meeting are summarized in Tables 1, 2, and 3 in the 2004 *Preseason Report II*. (These tables are reproduced in Appendix A.) Option I generally provides the most liberal seasons for both coho and chinook coastwide, with the exception of the commercial fishery between Cape Falcon and Humbug Mt., Oregon, and between Horse Mt., and Point Arena, California, where Option II is the most conservative, and between Humbug Mt. and the OR/CA border where Option III is the most liberal. All fisheries allowing coho retention are selective for coho marked with a healed adipose fin clip. However, there are provisions for inseason action to allow retention of all legal sized coho in commercial and recreational fisheries north of Cape Falcon, with specific dates set for decision points.

All recreational and commercial non-Indian fisheries north of Cape Falcon, Oregon are managed on quotas (or guidelines) to be taken within a specified time frame. The TAC is allocated among port areas based on terms of the Salmon FMP. North of Cape Falcon the non-Indian commercial TAC is 62,000 chinook and 68,750 coho for Option I; 45,000 chinook and 56,250 coho for Option II; and 30,000 chinook and 43,750 coho for Option III. The recreational TAC north of Cape Falcon is 58,000 chinook and 206,250 coho for Option I; 45,000 chinook and 168,750 coho for Option II; and 30,000 chinook and 131,250 coho for Option III. The treaty Indian TAC north of Cape Falcon is 60,000 chinook and 90,000 coho for Option I; 40,000 chinook and 75,000 coho for Option II; and 30,000 chinook and 60,000 coho for Option III.

Fisheries south of Cape Falcon, Oregon, are managed primarily by season dates, although quota fisheries within specified time frames are employed in some fisheries. Coho quotas for the central Oregon mark selective recreational coho fishery are 75,000 for Option I, 65,000 for Option II, and 55,000 for Option III. The area included in the mark selective recreational coho fishery is from Cape Falcon to the OR/CA border for Option I, and Cape Falcon to Humbug Mt., Oregon, in Options II and III. Commercial non-Indian quotas for the June through September time frame in the Oregon portion of the Klamath Management Zone (KMZ) are 10,500 chinook in Option I, 10,300 in Option II, and 11,300 in Option III. In the California portion of the KMZ, the September commercial non-Indian quota are 10,000 chinook for Options I and II, and 5,000 chinook for Option III.

TABLE 2-1. Comparison of impacts of alternatives on selected key stocks. Source for the Preferred Alternative is *Preseason Report III*, for the No Action Alternative is *Preseason Report I*, and for Options I, II, and III is *Preseason Report II*. (Page 1 of 2)

Impact Criterion	Preferred Alternative	No Action	Option I	Option II	Option III
Chinook					
California Central Valley fall chinook escapement Goal: 122,000-180,000	457,500	451,500	454,500	454,500	454,500
California Coast (Klamath fall chinook Age 4 harvest rate) Goal: ≤16%	15.0%	15.8%	14.9%	15.0%	14.9%
Klamath River (Natural spawning adults) Goal: ≥35,000	35,000	23,000	35,000	35,000	35,000
Oregon Coast	Natural spawner escapement goal met				
Columbia River Natural Tule (total exploitation rate) Goal: ≤49%	46%	47%	45%	41%	37%
Snake River Fall Index (exploitation rate as a percentage of the base period) Goal: ≤70%	70%	72%	74%	68%	63%
Washington Coast	Council fisheries have a minor impact (<5% exploitation rate) on these stocks; no evaluation				
Puget Sound	Impacts consistent with NMFS Guidance	Council fisheries have a minor impact (<5% exploitation rate) on these stocks; no evaluation			

Coho					
Oregon Production Index (OPI)	Conservation goals met for all stocks; Upper Columbia sharing agreement met.	Conservation goals met for all stocks except : 18% OCN exploitation rate; Upper Columbia sharing agreement not met.	Conservation goals met for all stocks; Upper Columbia sharing agreement not met.	Conservation goals met for all stocks; Upper Columbia sharing agreement met.	
Washington Coast and Puget Sound	Conservation goals met for all stocks				
Canadian Stocks (Interior Fraser total exploitation rate for southern U.S. fisheries) Goal: ≤10%	10%	12.5%	12.0%	10.9%	10.0%

TABLE 2-1. Comparison of impacts of alternatives on selected key stocks. Source for the Preferred Alternative is *Preseason Report III*, for the No Action Alternative is *Preseason Report I*, and for Options I, II, and III is *Preseason Report II*. (Page 2 of 2)

Impact Criterion	Preferred Alternative	No Action	Option I	Option II	Option III
Coastwide community income associated with the non-Indian commercial troll fishery (millions \$)	33.4	No dollar value determined because this alternative was not viable	34.7	32.1	33.1
Coastwide community income associated with the recreational ocean salmon fishery (millions \$)	28.9	No dollar value determined because this alternative was not viable	29.1	26.0	23.6

3.0 Affected Environment

The following descriptions summarize information provided in the Salmon FMP and preseason reports.

3.1 *Salmon FMU Stocks and Non-salmon Incidental Catch*

3.1.1 Salmon FMU Stocks

Salmon are anadromous, living in the ocean, but returning to freshwater to spawn, and semelparous, dying after they spawn. Eggs are laid in nests (called redds) in stream bottoms with fairly specific characteristics, including clear, cool water and suitable gravel for redd excavation. After an incubation period, which varies depending on water temperature, the eggs hatch into yolk sac larvae, which remain in the gravel until the sac is absorbed. These fry emerge, and after maturing into smolts capable of living in salt water, migrate downstream. These smolts may pause in lakes or estuaries before entering the ocean environment. Adults then spend from one to four years in the ocean before returning to spawn. Salmon return predominantly to their natal streams to spawn. Several stocks may return to freshwater during a given season; this constitutes a seasonal run. Therefore, management measures aim to constrain fishery impacts on distinct stocks or runs to levels appropriate for their status, as determined by the difference between projections of abundance and conservation needs.

Individual stocks exhibit considerable variability within these life history parameters: pre-spawning adult and post-hatchlings can spend varying amounts of time in freshwater, fish can mature at different ages, and ocean migration patterns can differ. In addition to natural characteristics, the development of hatchery rearing programs over the past century has added another dimension to management. As noted in Section 1, Council-managed ocean fisheries catch mostly chinook and coho salmon, and, to a lesser extent, pink salmon in odd-numbered years.

Population sustainability is predicated on the return of a sufficient number of adult fish, referred to as escapement, and their ability to successfully spawn. (Hatchery programs have the goal of increasing survival of juvenile fish by raising them under artificial conditions where mortality is comparatively low.) Management focuses on ensuring sufficient escapement for particular stocks and must also consider the timing of the seasonal runs in setting fishing seasons. Escapement levels can be assessed by monitoring the number of fish that reach freshwater spawning areas. Alternatively, managers may use allowable fishery exploitation rates instead of, or in addition to, escapement measures. Exploitation rates are commonly used to allow some fishing opportunity that might otherwise be precluded if management goals were based exclusively on escapement levels for depressed stocks. The abundance of hatchery-raised salmon, which in comparison to wild stocks are a less important reservoir of genetic variability,^{3/} has prompted management measures that direct fishermen to target and retain hatchery stocks in preference to wild fish.

Both chinook and coho salmon have specific life history features. Chinook show considerable life history variation. In addition to age of maturity and timing of entry to freshwater, stream-type and ocean-type races have been identified. Stream-type fish spend one to two years in freshwater as juveniles before moving to the ocean. Adults enter freshwater in spring and summer, and spawn upriver in late summer or early fall. Juvenile ocean-type fish spend a few days to several months in freshwater, but may spend a long time in estuarine areas. The timing of adult entry varies from late summer-early fall into winter months. In some

3/ Because the parent stock is fairly small, genetic diversity of these populations is lower. A related issue arises when hatchery-raised fish, returning to spawn as adults, interbreed with wild stocks, affecting wild population fitness.

river systems, chinook may enter freshwater throughout a good portion of the year. However, not all runs types are equally abundant. In Oregon and Washington, spring (March through May) and fall (August through November) chinook runs are most common; a few stocks run in summer (May through July). In California there are also late fall and winter runs (December through July) in the Sacramento River. (A late fall run has also been reported from the Eel River.) Chinook salmon mature and return to spawn between two to six years of age, although most returning fish are three to five years old. Precocious males that return to spawn early, at age two or three, are called “jacks.” In contrast to chinook, coho salmon have a relatively fixed residence time in fresh and saltwater and mature predominantly as age-three fish. Juveniles spend at least a year in freshwater and usually 18 months at sea before maturity. Like chinook, precocious male coho jacks return to spawn early. Although their historic range stretches south to Monterey Bay, California, most production currently occurs north of California. Most coho spawning sites are in smaller, low-gradient streams and tributaries. Unlike the year round distribution of chinook runs, coho generally return to spawn in the fall. Pink salmon are caught in significant numbers in odd numbered years, such as 2003, and can be considered target species in odd numbered years for the purposes of this EA. Pink salmon spawn in areas close to saltwater, and have a very short freshwater residence time as juveniles, migrating to the ocean soon after emergence. Adults return almost exclusively as two-year-olds. (Additional information about Council-managed salmon species’ life histories may be found in EFH Appendix A, which describes salmon EFH.)

Salmon FMP Table 3-1 (an updated version is in Table A-1 in Appendix A of *Preseason Report I*) summarizes the individual West Coast stocks (or runs) identified for the purpose of managing ocean fisheries. This table describes salmon conservation objectives for each stock or run. Chinook stocks are grouped into six major geographic categories, coho into three, and pink into two. For reference, chinook and coho geographic categories and component stocks (both hatchery and wild) are listed in Table 3-1 in this document. Note that two wild chinook stocks are listed as endangered under the Federal ESA and 17 are listed as threatened, and two^{4/} wild coho stocks are listed as threatened. Lower Columbia River natural coho are also listed as candidate species under the Federal ESA and as endangered under the Oregon State-ESA. Because salmon are anadromous, it is relatively easy to monitor the number fish that return to spawn (inriver escapement) and determine whether conservation objectives have been achieved. However, managers also need to predict ocean abundance and ocean escapement (number of fish reaching freshwater and available for inriver fisheries and escapement to spawning grounds). Although predictions cannot be made for all of the stocks listed in the Salmon FMP, estimates are made for the major stock components of the fishery. The components of the harvest for which abundance predictions are made is sufficient to allow reasonable projections of overall catch and bycatch mortality. Tables I-1 and I-2 in *Preseason Report I* summarize preseason estimates for the current season (2004) and several preceding years. *Preseason Report I* also provides detailed information on the performance of each predictor and a summary of 2004 stock status based on predictions. These summaries are reproduced in Tables 3-2a and 3-2b.

Overall, abundance projections for chinook and coho indicate significant fisheries can be conducted off the coasts of Washington, Oregon, and California in 2004. Figures 3-1 and 3-2 display the forecast data from *Preseason Report I* Tables I-1 and I-2. (It should be noted that these tables use different measures for some of the stocks, such as ocean abundance versus ocean escapement, so the comparisons made in the figures are not exact. Nonetheless, they provide a general idea of the relative abundance of different stocks. Consult *Preseason Report I* for more information on the predictors.) The figures show that for California stocks, chinook abundance is predicted to be slightly lower in 2004 than in 2003, while Columbia River stocks are predicted to be slightly higher. Coho salmon abundance in 2004 is expected to be higher for all stocks except

4/ On February 24, 2004, the Ninth Circuit Court of Appeals dismissed the appeals in the *Alsea Valley Alliance* case, and sent the case back to Judge Hogan. The practical effect of the decision is there is no Federal protection under the ESA for Oregon Coastal coho at this time.

Oregon Production Index (OPI) hatchery stocks. Oregon Coastal natural (OCN) coho are predicted to be up by 23%, and OPI hatchery coho are predicted to be down 38% from 2003 (Table 3-2).

3.1.2 Non-salmon Incidental Catch

Groundfish

These species are managed under the Council's Groundfish FMP. Under this plan biennial management measures are established for these species, and an EIS is prepared in connection with that process. The biennial management measures anticipate and take into account incidental groundfish in the ocean salmon fishery. This incidental groundfish catch is considered part of the open access groundfish fishery. During the groundfish process, expected groundfish bycatch in the salmon fishery is estimated, based on previous year's incidental catch levels. In 2004, no regulations specific to the ocean commercial salmon troll fishery were implemented as part of groundfish annual management. While the levels of salmon catch fluctuate from year to year, the amount of groundfish taken as incidental catch is very low, so changes in the salmon fishery do not substantially alter the projections for harvest-related mortality in the groundfish fishery (projections made as part of the development of the groundfish annual specifications). Any unexpected expansion in incidental groundfish harvest would be taken into account in management of the groundfish open access fishery and appropriate inseason adjustments made to groundfish regulations (e.g., season closures or reduced landing limits).

Various groundfish species are caught incidentally in ocean salmon fisheries. Table 3-4 shows landings of selected, overfished groundfish species and total groundfish landings in 2000 and 2001. Five of the eight overfished species are listed in the table; of the remaining four, darkblotched rockfish, Pacific Ocean perch and cowcod are unlikely to be caught because they occur in habitats outside areas where salmon trolling occurs. Although data from 2002 and 2003 are not available at this time, it is not likely there has been a substantial change in amount of groundfish catches in salmon fisheries, as effort has not increased substantially in salmon fisheries and landing restrictions for overfished groundfish have become more conservative. The table also lists OYs for the reported overfished species. It can be seen that the 2001 landings represent a small fraction of these OYs. The EIS for 2004 groundfish specifications and management measures also provides estimates of catch mortality by fishery for 2004. These estimates are generally in line with 2001 landings, except the document reports an estimate of 1.6 mt of canary rockfish total catch for the commercial salmon troll fishery. Canary rockfish are probably of greatest concern, since they have one of the lowest OYs (47.3 mt), so salmon troll catches represent a greater proportion of this limit.

A recreational vessel (charter or private) may target both groundfish and salmon on a single trip. Recreational groundfish catches are regulated through the groundfish management process. In 2004, various bag limits were imposed, varying by state or region and species, to limit catches of overfished species. Seasonal closures to recreational groundfish fisheries have also been implemented.

If incidental groundfish catch in the salmon fishery were to expand enough to cause increased restrictions in the open access groundfish fishery, the primary effect would depend on the nature of the restriction. If a season closure were to be imposed, the greatest burden of the reduction would be imposed on vessels targeting groundfish. Groundfish taken incidentally in fisheries targeting nongroundfish species would be discarded. If a trip limit reduction were to be imposed, the reduction would be borne primarily by the sector of the open access fishery that makes trips close to the existing limit and would be further constrained by the reduction of those limits. The effect of the constraint, whether a trip limit reduction or season closure, would be regulatory discards (to the degree the incidental harvest is unavoidable) and discard mortality (to the degree discarded fish die). Again, given the level of bycatch in the salmon fishery, it does not appear likely that a substantial increase in groundfish catch will be expected with the increase in salmon harvest.

Other Species

Other Council-managed species such as halibut, highly migratory species, and coastal pelagic species are also landed jointly with salmon. For all of these stocks, fish caught on the same trip with salmon are documented. Data on the commercial segment of these fisheries shows the co-occurrence rates for salmon and these other Council-managed species is low, as well as for non-Council-managed species. Changes in the salmon fishery are not expected to have a substantial impact on the directed fisheries for these non-salmon stocks. Fisheries for these non-salmon species are managed under other Council management plans or other jurisdictions. At present, these other non-salmon stocks are not the subject of overfishing concerns.

3.2 Salmon Stocks Listed Under the Endangered Species Act

ESA-listed species are managed under regulations pursuant to that law in addition to the MSA. “Take” (a term that covers a broader range of impacts than just mortality) of listed species may be allowed as long as it is not the primary purpose of the activity. (Therefore, catches of ESA-listed stocks are termed incidental take.) For salmon fisheries, this means incidental mortality may be allowed (including, for example, fish that are released or “drop off” the hook and consequently die). As part of the process authorizing such take, regulatory agencies must consult with NMFS^{5/} in order to ensure fisheries conducted in the Council area do not “jeopardize the continued existence of the species” (or in the case of salmon, the listed ESUs). Because of the Council’s central role in developing fishery management regimes, it must take the results of such consultations into account. Typically this process, termed a “Section 7 consultation” after the relevant section in the ESA, results in a biological opinion that applies a set of “consultation standards” to the subject activity and mandates those actions that must be taken in order to avoid such jeopardy. As listings have occurred, NMFS has initiated formal Section 7 consultations and issued biological opinions which consider the impacts to listed salmonid species resulting from proposed implementation of the FMP (long-term opinions), or in some cases, from proposed implementation of the annual management measures. The consultation standards, which are quantitative targets that must be met to avoid jeopardy, are also incorporated into the Salmon FMP and play an important part in developing annual management measures. A Section 7 consultation may be reinitiated periodically as environmental conditions change, and new measures may be required to avoid jeopardy. (Biological opinions for Council-managed salmon stocks are listed in Section 5.6 and are available from the NMFS Northwest Region office. These documents also provide detailed information on the biology and status of these stocks.)

In addition to the Section 7 consultation, actions that fall under the jurisdiction of the ESA may also be permitted through ESA Section 10 and ESA Section 4(d). Section 10 generally covers scientific, research, and propagation activities that may affect ESA-listed species. Section 4(d) covers the activities of state and local governments and private citizens.

Section 4(d) of the ESA requires NMFS and the U.S. Fish and Wildlife Service to promulgate “protective regulations” for threatened species (Section 4(d) is not applicable to species listed as endangered) whenever it is deemed “necessary and advisable to provide for the conservation of such species.”

“Whenever any species is listed as a threatened species pursuant to subsection (c) of this section, the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species. The Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1) of this title ...”

5/ NMFS is the designated agency for listed anadromous and marine species. The U.S. Fish and Wildlife Service is responsible for listed terrestrial species.

These protective rules for threatened species may apply to any or all of the ESA Section 9 protections that automatically prohibit take of species listed as endangered. The rules need not prohibit all take. There may be an “exception” from the prohibitions on take, so long as the take occurs as the result of a program that adequately protects the listed species and its habitat. In other words, the 4(d) rule can restrict the situations to which the take prohibitions apply.

Sec 9(a)(1) includes the take prohibition. The U.S. Fish and Wildlife Service has adopted a blanket regulation automatically applying the take prohibition to all threatened species upon listing. NMFS has no comparable blanket 4(d) regulation. Instead, NMFS promulgates 4(d) regulations on a species-by-species basis once a species is listed as threatened.

In proposing and finalizing a 4(d) rule, NMFS may establish exemptions to the take prohibition for specified categories of activities that NMFS finds “contribute to conserving listed salmonids.” Other exemptions cover habitat-degrading activities (and tribal and recreational fishing activities) that NMFS believes are governed by a program that adequately limits impacts on listed salmonids.

As part of the process for developing annual management measures, NMFS summarizes the current consultation standards and may provide additional guidance to the Council on minimizing the take of listed species. This guidance, a letter dated March 5, 2004, was presented to the Council during its March meeting. It describes requirements under relevant biological opinions and consultation standards for the current season. Pages 4-10 in *Preseason Report II* and Appendix A in *Preseason Report III* summarize this guidance.

For most ESA-listed stocks, NMFS guidance does not differ from the consultation standard. However, the guidance for Puget Sound chinook differs from the consultation standards summarized on page 8 of *Preseason Report II*. Fisheries impacting threatened naturally spawning chinook from Puget Sound and the Strait of Juan de Fuca were exempted from ESA take limitations by virtue of being managed under a Resource Management Plan (RMP) submitted under Limit 6 of the 4(d) rule in 2001-2003. Though the current RMP expires in May of 2004, state and tribal co-managers have established management objectives based on total exploitation rate constraints for this year. An RMP for 2004 including these objectives is currently under review by NMFS. Pending the completion of that review, NMFS provided guidance to the Council at its March and April meetings (*Preseason Report III*, Appendix A). That guidance includes impacts in inside fisheries as well as ocean fisheries. The fishery regimes developed by the state and tribal managers during the preseason planning process are considered in conjunction with the Council’s regimes to ensure compliance with NMFS guidance.

3.3 Socioeconomic Environment

Chapter IV in the *Review of 2003 Ocean Salmon Fisheries* provides information on the socioeconomic environment. More extensive information on ocean and inside salmon fisheries is provided in Appendix B to the Salmon FMP. Information on fishing communities is provided in Appendices A and B to the Council’s description of West Coast fishing communities.

The most significant trend in the non-Indian commercial troll fishery is a long-term decline in the real exvessel value of landings (see Figure IV-4 in the *Review*). This is due both to a decline in landings and declines in the real exvessel price for coho and chinook (see Figure IV-3 in the *Review*), although price per pound for chinook did increase slightly in 2003. Coastwide, the number of participants has declined and in 2003 was 6% less than in 2002. In California participants decreased by 18% compared to 2002, and 76% compared to the 1986-1990 average; in Oregon participants increased by 5% compared to 2002, but declined by 75% compared to the 1986-1990 average; in Washington participants increased by 9% compared to 2002, but declined by 91% compared to the 1986-1990 average. Recreational fishing for ocean salmon includes

private vessels, charter boats, and some shore-based fishing, although this last component accounts for a small amount of the recreational ocean catch. California exhibits the highest proportion of charter boat participation of the three states. Measured by number of trips, Oregon had the highest overall level of participation in 2003, although California usually has the highest effort. In 2003, California effort declined to the lowest level since 1992. Effort in Oregon and Washington increased from 2002 levels and was among the highest levels in both states since the early 1990s (Figure 3-6). Over the long term there has been a decline in the number of ocean recreational trips, with most of the decline occurring from the Eureka area north. In recent years, there has been some recovery in Washington and Oregon north of Humbug Mountain with the creation of mark-selective fisheries for coho with healed adipose fin clips.

While analysis of impacts to the natural environment is organized around stocks that spawn in particular rivers, the social dimension, including management measures, is organized around ocean management areas, as described in the Salmon FMP. These areas also correspond to some extent with the ocean distribution of salmon stocks, although stocks are mixed in offshore waters. Broadly, from north to south these areas are (1) from the U.S./Canada border to Cape Falcon (45°46' N. lat.), which is on the Oregon coast south of the Columbia River mouth; (2) between Cape Falcon and Humbug Mountain (42°40' 30" N. lat.) on Oregon's southern coast; (3) the Klamath Management Zone, which covers ocean waters from Humbug Mountain in southern Oregon to Horse Mountain (40°05' N. lat.) in northern California; and (4) from Horse Mountain to the U.S./Mexican border. (There are also numerous subdivisions within these areas used to further balance stock conservation and harvest allocation needs.) Figure 3-3 shows the boundaries of these areas and the main port areas within them. The following description of the fisheries and fishing communities is organized around these areas and is derived from the *Review*. For the purpose of characterizing the economic impact of Council area salmon fisheries, coastal community level personal income impacts were used (Figures 3-7a and 3-7b).

3.3.1 U.S./Canada Border to Cape Falcon

Stocks on Which the Fisheries Rely

Columbia River tule stocks comprise the bulk of the chinook salmon caught in this area, although stocks from British Columbia, Puget Sound, Central and Northern Oregon, and California also contribute. (See *Preseason Report I* and especially Table A-1 for details on the occurrence of stocks in ocean fisheries.) Columbia River, Washington Coast, and Puget Sound stocks are the main contributors to coho catches in this area. Indian tribes land a portion of the total catch in accordance with treaty rights. Pink salmon that contribute to fisheries in this zone originate primarily from Puget Sound and the Fraser River.

Commercial Fisheries

The area north of Cape Falcon covers fisheries around the Columbia River mouth and the Washington coast. Ports in this area include Neah Bay and La Push on the Olympic Peninsula; Westport on the central Washington Coast; Ilwaco, Washington, on the north side of the Columbia River mouth; and Astoria, Oregon, on the south side of the Columbia River mouth. (Smaller ports whose landings statistics are grouped with those of these ports are listed in footnotes to Table IV-6 through IV-8 in the *Review of 2003 Ocean Salmon Fisheries*.) Figures 3-4a and 3-4b display historical commercial landings by major catch areas by state. In the figures, port areas have been grouped by management areas and show that the north of Cape Falcon area accounts for a small proportion of commercial chinook landings, about 11% in 2003. Coho stocks experienced serious declines in the early 1990s. Regulatory action to limit catches accounts for the immediate fall in landings; retention of coho has been prohibited south of Cape Falcon since 1993. Thus, total coho landings are small and all but some minor illegal landings are made north of Cape Falcon. (For more information on the history of these management actions refer to Amendment 13 to the Salmon FMP.)

Tribal Fisheries

The Hoh, S'Klallam, Makah, Quileute, and Quinault tribes participate in ocean troll fisheries in the area from Grays Harbor northward. Ceremonial and subsistence fishing also occurs. There are no tribal fisheries in ocean waters south of this zone. Tribal fisheries operate in Puget Sound, Washington coastal rivers, the Columbia River, the Klamath River, and other coastal bays, estuaries, and rivers. Tribal fisheries are discussed in detail in Appendix B to the EIS prepared for Amendment 14 to the Salmon FMP.

Recreational Fisheries

In 2003, the north of Cape Falcon area accounted for 49% of the total Council-wide ocean area recreational landings of all salmon species (Table 3-3; Figure 3-5). As with commercial landings, the north of Cape Falcon area accounts for the largest share of coho landings at about 67% in 2003. The Salmon FMP allocates a larger portion of the coho total allowable catch to the recreational fishery as reflected in the management measures. This is facilitated by allowing retention of coho with a healed adipose fin clip. In 2003, ports north of Cape Falcon accounted for 35% of recreational fishing trips in the Council area (Figure 3-6). Almost two-thirds of these trips were made by private vessels. Westport and Columbia River ports (Astoria and Ilwaco) are the dominant ports for charter trips.

Two recreational fisheries adjacent to this ocean management area are particularly important considerations in estimating the impacts of management options for the ocean. One is referred to as the Buoy 10 recreational fishery, in reference to a navigational aid at the entrance to the Columbia River that demarcates the inner boundary between the ocean and the Columbia River. This fishery is important because it impacts a substantial portion of chinook and coho stocks from the Columbia River at a point where fish are just entering freshwater and because it also intercepts coho stocks destined for other river systems. The second fishery is referred to as Area 4B in reference to state waters near Neah Bay in the Strait of Juan de Fuca. Like the Buoy 10 fishery, recreational fisheries here intercept both local and non-local stocks, in this case, predominantly stocks entering Puget Sound or returning to Canadian Rivers. When the ocean fishery is open, Area 4B is managed as part of the ocean fishery; however, when the ocean fishery closes, the state will often keep the Area 4B fishery open as a state-managed fishery. There was no Area 4B fishery in 2003 because there was sufficient opportunity to harvest surplus coho in ocean fisheries.

3.3.2 Cape Falcon to Humbug Mountain (Central Oregon Coast)

Stocks on Which the Fisheries Rely

Fisheries in this area catch a mix of stocks, which varies from year to year in response to the status of individual stocks. Oregon Coast chinook, Central Valley, and Klamath River chinook stocks contribute substantially to these fisheries. Although regulations have prohibited retention of coho in commercial fisheries south of Cape Falcon since 1993, limited recreational fishing that is selective for coho with healed adipose fin clips has been permitted since 1999. Washington coastal, Columbia River, and Oregon, coastal coho stocks are encountered in this area.

Commercial Fisheries

Oregon coast ports between Cape Falcon and the KMZ are the major contributors to chinook landings, along with California ports south of the KMZ; in 2003, the Cape Falcon to Humbug Mountain harvest accounted for about one-third of all commercial chinook landings from the Council area (Figure 3-4). Coho landings were very large between Cape Falcon and Humbug Mountain until 1992 when, as noted, stock declines coupled with regulatory actions eliminated most landings south of Cape Falcon. (Some mortality to coho

stocks still occurs in conjunction with effort targeted on chinook. Mortality from gear encounters, including drop-off and hook-and-release, is accounted for in coho mortality estimates.) Tillamook, Newport, and Coos Bay are the major port areas in this zone; almost half of the chinook landings were made at Newport.

Recreational Fisheries

Central Oregon recreational coho landings accounted for about 33% of Council-area-wide recreational coho catch (Table 3-3) and 27% of the total recreational salmon catch (Figure 3-5) in 2003. Seasonal management measures allowed a selective fishery for hatchery-produced coho with a healed adipose fin clip in this area. This area accounted for 28% of Council-area-wide recreational fishing trips in 2003; 83% were on private boats (Figure 3-6). Of the three ports in this area, Newport originated the most charter trips in 2003. But the two other ports (Tillamook and Coos Bay) each originated more private trips than the number of charter trips out of Newport. Thus, while Newport is an important center for charter fishing, recreational fishing on private boats is important at all of the ports in the area.

3.3.3 Humbug Mountain to Horse Mountain (KMZ)

The KMZ covers waters in southern Oregon and northern California around the mouth of the Klamath River. This is geographically the smallest zone. A significant component of the allocation issues in this zone are the harvest needs of Klamath River tribal and sport fisheries.

Stocks on Which the Fisheries Rely

The KMZ was created to focus management on Klamath River fall chinook because the impacts of ocean fisheries have predominantly occurred in this area. Other major contributors to the harvest in this area include the Sacramento Valley and southern Oregon coast chinook stocks. Retention of coho is prohibited in California (NMFS ESA consultation standard for southern Oregon/northern California coastal [SONCC] and central California coastal [CCC] coho ESUs).

Commercial Fishery

This area accounts for a small proportion of commercial landings. In 2003, only about 1% of Council-area-wide commercial chinook landings were made at the three major ports in this zone: Brookings, Oregon; and Crescent City and Eureka in California (Figure 3-4).

Recreational Fishery

This area accounts for a small portion of recreational landings, about 9% of coastwide chinook landings (Table 3-3; Figure 3-5). About 8% of Council-area-wide angler trips occurred in the KMZ in 2003, with about 95% of these trips made on private vessels (Figure 3-6). Charter fishing in the zone, from a Council-area-wide perspective, accounted for less than half a percent in 2003.

3.3.4 South of Horse Mountain

Although this area is defined as stretching to the U.S./Mexican border, ocean salmon fishing generally occurs only as far south as Point Conception.

Stocks on Which the Fisheries Rely

Central Valley chinook stocks are important throughout this area, particularly south of Fort Bragg (Point Arena). Southern Oregon chinook stocks contribute to fisheries in the northern portion of this area. Klamath River fall and Sacramento River winter run chinook stocks are also caught in this area, and the conservation needs for these stocks often have a significant effect on ocean harvest management measures. Coho retention is prohibited in California (NMFS ESA consultation standard for SONCC and CCC coho ESUs).

Commercial Fisheries

California commercial fisheries historically have been the major component of Council-area-wide ocean salmon fishing, consistently accounting for a major share of chinook landings; 54% in 2003, and as much as 75% as recently as 2000 (Figure 3-4). Coho were less important historically than chinook; coho retention in commercial fisheries south of Cape Falcon has not been allowed since 1993 to reduce impacts on OCN coho.

Major ports in this area (as listed in *Review Table IV-6*) are Fort Bragg, San Francisco, and Monterey. In recent years San Francisco has been the major port for commercial landings, accounting for about two-thirds of landings at the three ports; however, because of increased opportunity in 2003, Fort Bragg was the primary port of landing in 2003 with 50% of the total. Opportunity in Fort Bragg was reduced beginning in 1990 to reduce impacts on Klamath River fall chinook. Monterey and Fort Bragg had a greater share of landings in the past, and as recently as 2000, Monterey landings were almost equal to San Francisco's.

Recreational Fisheries

This area had the largest share of Council-area-wide recreational chinook landings in 2003 at 50% (Table 3-3; Figure 3-5); coho landings were negligible, reflecting regulations prohibiting coho retention. (The reported landings includes some illegal harvest, as footnoted in the *Review tables*.) The number of recreational trips has remained more stable over the long term in the area south of Horse Mountain than in areas to the north where effort declined substantially in the 1990s (Figure 3-6). As a result, the number of trips occurring in this area as a proportion of coastwide trips has generally increased and accounted for the largest share of angler trips in Council-area recreational salmon fisheries. In 2003, however, the area south of Horse Mountain accounted for only about 29% of the trips, less than the 35% north of Cape Falcon and similar to the 28% from central Oregon. This was due to a combination of factors, including increased coho opportunity in northern areas and poor catch rates for chinook in the area south of Horse Mountain. Charter fishing historically, and today, has accounted for a much larger fraction of recreational trips in this area, as compared to areas to the north; in 2003, 48% of trips south of Horse Mountain were made by charter vessels. San Francisco is by far the largest port for charter trips, while private recreational trips are more evenly distributed among the three ports in this area.

TABLE 3-1. Chinook and coho salmon stocks managed under the Salmon FMP. (Page 1 of 1)

Chinook	Coho
California Central Valley Sacramento River Fall Sacramento River Spring (threatened) Sacramento River Winter (endangered)	Oregon Production Index Area Central California Coast (threatened) Northern California (threatened) Oregon Coastal Natural ^{a/} Columbia River Late Hatchery Columbia River Early Hatchery Columbia River Natural (federal candidate, Oregon State-endangered)
Northern California Coast Eel, Mattole, Mad (all threatened), and Smith Rivers, Fall and Spring Klamath River Fall Klamath River Spring	
Oregon Coast Southern Oregon (aggregate of several stocks) Central and Northern Coast (aggregate of several stocks)	
Columbia River Basin North Lewis River Fall (threatened) Lower River Hatchery Fall Lower River Hatchery Spring Upper Willamette Spring (threatened) ^{b/} Mid-Columbia Bright Hatchery Fall Spring Creek Hatchery Fall Klickitat, Warm Springs, John Day, and Yakima Rivers Spring ^{a/} Snake River Fall (threatened) Snake River Spring/Summer (threatened) ^{a/} Upper River Bright Fall ^{a/} Upper River Summer ^{a/} Upper Columbia River Spring (endangered) ^{a/}	
Washington Coast Willapa Bay Fall Natural ^{a/} Willapa Bay Fall Hatchery Grays Harbor Fall ^{a/} Grays Harbor Spring ^{a/} Quinalt Fall ^{a/} Queets Fall ^{a/} Queets Summer/Spring ^{a/} Hoh Fall ^{a/} Hoh Spring/Summer ^{a/} Quillayute Fall ^{a/} Quillayute Spring/Summer ^{a/} Hoko Summer/Fall ^{a/}	Washington Coastal Willapa Bay Hatchery Grays Harbor Quinalt Hatchery Queets Hoh Quillayute Fall Quillayute Summer Hatchery Western Strait of Juan de Fuca
Puget Sound Eastern Strait of Juan de Fuca Summer/Fall (threatened) ^{a/} Skokomish Summer/Fall (threatened) ^{a/} Nooksack Spring (threatened) ^{a/} Skagit Summer/Fall (threatened) ^{a/} Skagit Spring (threatened) ^{a/} Stillaguamish Summer/Fall (threatened) ^{a/} Snohomish Summer/Fall (threatened) ^{a/} Cedar River Summer/Fall-Lake Washington (threatened) ^{a/} White River Spring (threatened) ^{a/} Green River Summer/Fall (threatened) ^{a/} Nisqually River Summer/Fall-South Puget Sound (threatened) ^{a/}	Puget Sound Eastern Strait of Juan de Fuca Hood Canal Skagit Stillaguamish Snohomish South Puget Sound Hatchery
Southern British Columbia Coastal Stocks ^{a/} Fraser River ^{a/}	Southern British Columbia Coast Coastal Stocks Fraser River

a/ On February 24, 2004, the Ninth Circuit Court of Appeals dismissed the appeals in the Alsea Valley Alliance case and sent the case back to Judge Hogan. The practical effect of the decision is there is no Federal protection under the ESA for Oregon Coastal coho at this time.

b/ This stock impacted at a rate of less than 5% in Council-area fisheries.

TABLE 3-2a. Chinook 2003 predicted stock status. (Page 1 of 1)

Stock/Predictor	Status
Sacramento River Fall Chinook	A total of 39,800 age-two chinook are estimated to have returned to the Central Valley in 2003, forecasting a 2004 Central Valley Index (CVI) of 831,8100 adult chinook, which is 75% the 2003 preseason forecast.
Klamath River Fall Chinook	The forecast September 1, 2003 (preseason) ocean abundance of Klamath River fall chinook salmon is 72,100 age-three fish, 134,500 age-four fish, and 9,700 age-five fish. This is comparable to last year's preseason forecast of, 132,400 age-four, and 6,500 age-five fish, but lower than last year's forecast of 171,300 age-three fish.
Oregon Coastal Chinook, North Migrating	Based on the density index of total spawners, the generalized expectation for Oregon coastal north migrating (NOC and MOC) stocks in 2004 is for above average abundance. The density of adults observed since 1985 has met or exceeded the goal of 60-90 spawners per mile, a primary indicator that these stocks are generally healthy
Oregon Coast Chinook, South/Local Migrating	A quantitative estimate is made only for Rogue River fall chinook; the ocean abundance index for 2004 is 28,100 chinook, slightly below 2003, but still the third highest the highest since 1988.
Columbia River Fall Chinook	Abundance predictions are made for five major fall stock units characterized as being hatchery or natural production and originating above or below Bonneville Dam. The upriver brights (URB) and lower river wild (LRW) are primarily naturally produced stocks. The lower river hatchery (LRH) tule, Spring Creek Hatchery (SCH) tule, and mid-Columbia brights (MCB) are primarily hatchery produced stocks. The tule stocks generally mature at an earlier age than the natural fall stocks and do not migrate as far north. Minor stocks include lower river bright (LRB), a naturally produced stock, and Select Area brights (SAB), a hatchery stock originally from Rogue River stock; both occur downstream from Bonneville Dam. The preliminary forecast for 2004 URB fall chinook ocean escapement is 292,200 adults, slightly above the 2003 forecast of 280,400. The forecast is about 55% greater than the recent ten-year average of 189,100. No preseason forecast for 2004 ocean escapement of ESA-listed Snake River wild fall chinook is currently available. Ocean escapement of LRW fall chinook in 2004 is forecast at 24,100 adults. The forecast indicates a return similar to the last two years, which were the largest since 1989, and is almost double the recent 10-year average return of 14,300. The preliminary forecast for 2004 ocean escapement of LRH fall chinook is for a return of 77,100 adults, which would be less than last years forecast of 115,900, but similar to the recent ten-year average of 75,100. Ocean escapement of SCH fall chinook in 2004 is projected to be 138,000 adults. Although it would be less than last years actual return, it would still be the third largest return since 1982, and almost double the recent ten-year average of 67,100. The preliminary forecast for the 2004 ocean escapement of MCB fall chinook is 90,400 adults, down slightly from last year's forecast, but still above the recent 120-year average of 64,900.
Washington Coastal Chinook	Preseason forecasts for most Washington coastal chinook stocks were not available for inclusion in <i>Preseason Report I</i> . The Willapa Bay hatchery fall chinook ocean escapement abundance forecast is 14,700 adults, similar to the 2003 preseason forecast. The natural fall chinook ocean escapement abundance forecast is 4,100 adults, up approximately 67% from the 2003 preseason forecast.
Puget Sound Chinook	Spring chinook originating in Puget Sound are expected to remain depressed. Runs in the Nooksack, Skagit, White, and Dungeness rivers are of continuing concern. Preliminary information for Puget Sound summer/fall stocks indicates the total 2004 return (229,700) is expected to be similar to the 2003 preseason forecast of 227,400. However, the natural chinook return is predicted to be about 28% higher in 2004. This is largely due to the higher predicted returns of Snohomish River chinook. The 2004 forecast for this system is 15,700, compared to the 2003 forecast of 5,450. Natural stocks from Puget Sound have experienced improved survival in recent years, however, production and escapements remain depressed.

TABLE 3-2b. Coho 2003 predicted stock status. (Page 1 of 1)

Stock/Predictor	Status
Oregon Production Index Area–Public Hatchery Coho	The OPIH abundance prediction for 2004 is 623,900 coho, 72% of the 2003 prediction and 65% of the preliminary 2003 postseason estimate.
Oregon Production Index Area–Oregon Coastal Natural Coho	The 2004 preseason prediction for OCN (river and lake systems combined) is 150,900 coho, 128% of the 2003 preseason prediction and 54% of the 2003 postseason estimate. The 2004 preseason SRS prediction for OCNR and OCNL components are 125,400 and 25,500 coho, respectively.
Oregon Production Index Area–Salmon and Trout Enhancement Program Hatchery Coho	The 2003 preseason STEP index abundance prediction is 3,100 coho, slightly below the 2003 preseason prediction of 3,600.
Willapa Bay	The 2004 Willapa Bay hatchery coho abundance forecast is 55,000 ocean recruits, an 18% increase from the 2003 preseason forecast of 46,700. The natural coho ocean abundance forecast is 36,700 ocean recruits, which is the average terminal run size estimate from 1998-2002.
Grays Harbor	The abundance forecast for Grays Harbor natural stock coho for 2004 is 118,900 ocean recruits, double the 2003 forecast. The forecast for hatchery stock ocean abundance is 71,700 adults, 12% greater than the 2003 forecast.
Quinalt River	The 2004 forecast for Quinalt natural coho is 92,800 ocean recruits, a 51% increase from the 2003 projected level of 47,700. The Quinalt hatchery coho forecast is 18,200 ocean recruits, a decrease of 12% compared to the 2003 forecast level of 20,600.
Queets River	The Queets natural coho forecast is 18,500 ocean recruits, a decrease of 23% compared to the 2003 forecast level of 24,000. The forecast for supplemental production is 2,500 ocean recruits. The Queets hatchery (Salmon River) coho forecast is 17,100 ocean recruits, a decrease of 31% compared to the 2003 forecast level of 24,900.
Hoh River	The Hoh River natural coho forecast is 8,100 ocean recruits, a decrease of 35% compared to the 2003 forecast of 12,500.
Quillayute River	The Quillayute River summer natural and hatchery coho forecasts for 2004 are 1,080 and 6,100 ocean recruits, respectively. The 2004 forecast abundance of natural summer coho is nearly identical to the 2003 forecast while the hatchery forecast is 13% above the 2003 forecast level. The Quillayute River fall natural and hatchery coho forecasts are 21,200 and 20,900 ocean recruits, respectively. The 2004 forecast abundances of natural and hatchery components of Quillayute fall coho are 15% below and 38% above their respective 2003 forecast levels.
North Washington Coast Independent Tributaries	The 2004 forecast of natural coho production for these independent streams is 12,700, down slightly from the 2003 forecast of 14,900. The 2004 hatchery forecast of 4,300 is less than half the 2003 forecast of 10,700.
Puget Sound	The 2004 total hatchery and wild coho ocean recruit forecast for the Puget Sound region is 1,116,498, which is 8% above the 2003 forecast. The hatchery forecast of 502,134 is 2% above the 2003 forecast, and the wild forecast of 615,152 is 15% above the 2003 forecast. The 2004 forecasts for Strait of Juan de Fuca natural and hatchery coho ocean recruits are 41,603 and 22,834, respectively. For purposes of implementing the 2002 Pacific Salmon Commission (PSC) coho agreement, the status of the Strait of Juan de Fuca management unit is “abundant” with a total fishery exploitation rate limit of 60%. The 2004 forecasts for Nooksack-Samish natural and hatchery coho ocean recruits are 27,500 and 76,610, respectively. The 2004 forecasts for Skagit River natural and hatchery coho ocean recruits are 155,814 and 22,788 (20,903 from inriver hatchery production, 1,885 from Oak Harbor Net Pens) respectively. For purposes of implementing the 2002 PSC coho agreement, the status of the Skagit management unit is “abundant” with a total fishery exploitation rate limit of 60%. The 2003 forecast for Stillaguamish natural coho ocean recruits is 37,800. For purposes of implementing the 2002 PSC coho agreement, the status of the Stillaguamish management unit is “abundant” with a total fishery exploitation rate limit of 50%. The 2004 forecast for Snohomish River natural coho ocean recruits is 38,000. The Snohomish regional hatchery forecast is 48,300; 11,700 for the Wallace Hatchery facility, 31,300 for the Tulalip Bay facility, 3,280 for the Possession Bait House Net Pen located on southeast Whidbey Island, and 2,050 for the Mukilteo Net Pen. For purposes of implementing the 2002 PSC coho agreement, the status of the Snohomish management unit is “abundant” with a total fishery exploitation rate limit of 60%. The 2004 forecasts for South Sound region natural and hatchery coho ocean recruits are 61,300 and 288,369, respectively. The 2004 forecasts for Hood Canal region natural and hatchery coho ocean recruits are 98,152 and 42,733, respectively. For purposes of implementing the 2002 PSC coho agreement, the status of the Hood Canal management is “abundant” with a total fishery exploitation rate limit of 65%.

TABLE 3-3. Recreational landings by port and area in 2003 (thousands of fish and percent). (Page 1 of 1)

Port/Zone	Chinook	Coho	Total
North of Falcon			
Neah Bay	4.7 (2.8%)	19.7 (7.8%)	24.4 (5.8%)
La Push	1.9 (1.1%)	3.4 (1.3%)	5.3 (1.3%)
Westport	21.8 (13.0%)	32.3 (15.5%)	61.1 (14.5%)
Ilwaco	5.8 (3.4%)	76.7 (30.3%)	82.5 (19.6%)
Astoria	2.3 (1.4%)	29.8 (11.8%)	32.1 (7.6%)
Total	36.4 (21.7%)	168.9 (66.7%)	205.4 (48.8%)
Falcon to Humbug			
Tillamook	5.4 (3.2%)	21.2 (8.4%)	26.6 (6.3%)
Newport	12.4 (7.4%)	38.5 (15.2%)	50.9 (12.1%)
Coos Bay	15.0 (8.9%)	24.1 (9.5%)	39.1 (9.3%)
Total	32.8 (19.5%)	83.8 (33.1%)	116.6 (27.7%)
KMZ			
Brookings	5.5 (3.3%)	0.1 (0.0%)	5.6 (1.3%)
Crescent City	0.4 (0.2%)	0.0 (0.0%)	0.4 (0.1%)
Eureka	8.3 (4.9%)	0.1 (0.0%)	8.4 (2.0%)
Total	14.2 (8.5%)	0.2 (0.1%)	14.4 (3.4%)
South of Horse Mt.			
Fort Bragg	15.9 (9.5%)	0.1 (0.0%)	16.0 (3.8%)
San Francisco	55.7 (33.2%)	0.2 (0.1%)	55.9 (13.3%)
Monterey	12.7 (7.6%)	0.1 (0.0%)	12.8 (3.0%)
Total	84.3 (50.2%)	0.4 (0.2%)	84.7 (20.1%)
Council Area Total	167.8 (100.0%)	253.3 (100.0%)	421.1 (100.0%)

TABLE 3-4. Incidental overfished groundfish landings (lbs) in non-Indian commercial salmon troll fisheries by salmon management area for 2000 and 2001.^{a/} (Page 1 of 1)

Port Area/Year	Lingcod	Bocaccio	Species Canary	Widow	Yelloweye ^{b/}	All Groundfish ^{c/}
Neah Bay-La Push						
2000	NA	NA	469	65	205	5,788
2001	NA	NA	175	40	101	5,900
Westport-Astoria						
2000	NA	NA	119	15	-	2,399
2001	NA	NA	97	-	-	835
Central Oregon						
2000	NA	NA	2,332	102	132	18,250
2001	NA	NA	1,264	136	99	18,274
Oregon KMZ						
2000	NA	NA	167	9	4	1,693
2001	NA	NA	185	70	9	1,867
California KMZ						
2000	-	NA	-	-	-	249
2001	40	NA	-	-	-	64
Fort Bragg						
2000	50	12	91	-	NA	711
2001	121	9	61	22	NA	470
San Francisco						
2000	455	106	115	6	NA	2,971
2001	439	2	51	-	NA	807
Monterey-Conception						
2000	183	311	65	-	NA	2,308
2001	-	16	8	-	NA	166
Total						
2000	688	429	3,357	197	341	34,369
2001	600	27	1,841	268	209	28,382
Total (mt)						
2000	0.31	0.20	1.53	0.09	0.16	15.62
2001	0.27	0.01	0.84	0.12	0.10	12.90
2004 OY (MT)	651	250	47	240	22	

a/ Salmon troll landings are defined as those for which salmon represents at least 50% by weight of the total ticketed landing. Other overfished groundfish (darkblotched rockfish, Pacific Ocean perch, cowcod and whiting) are not recorded as landed. N/A indicates individual species estimates were not made. Data from Pacific Coast Fisheries Information Network (PacFIN).

b/ Yelloweye rockfish were not separated on landing tickets, so a proxy of shelf rockfish with an exvessel value of >\$1.00/lb was used for areas north of Cape Mendocino. For areas south of Cape Mendocino yelloweye catch was not estimated, however landings are assumed negligible because of species distribution, the absence of commercial landings in the area between Cape Mendocino and the OR/CA border, and the scarcity of recreational landings in California.

c/ All Groundfish category includes species where individual estimates were not available.

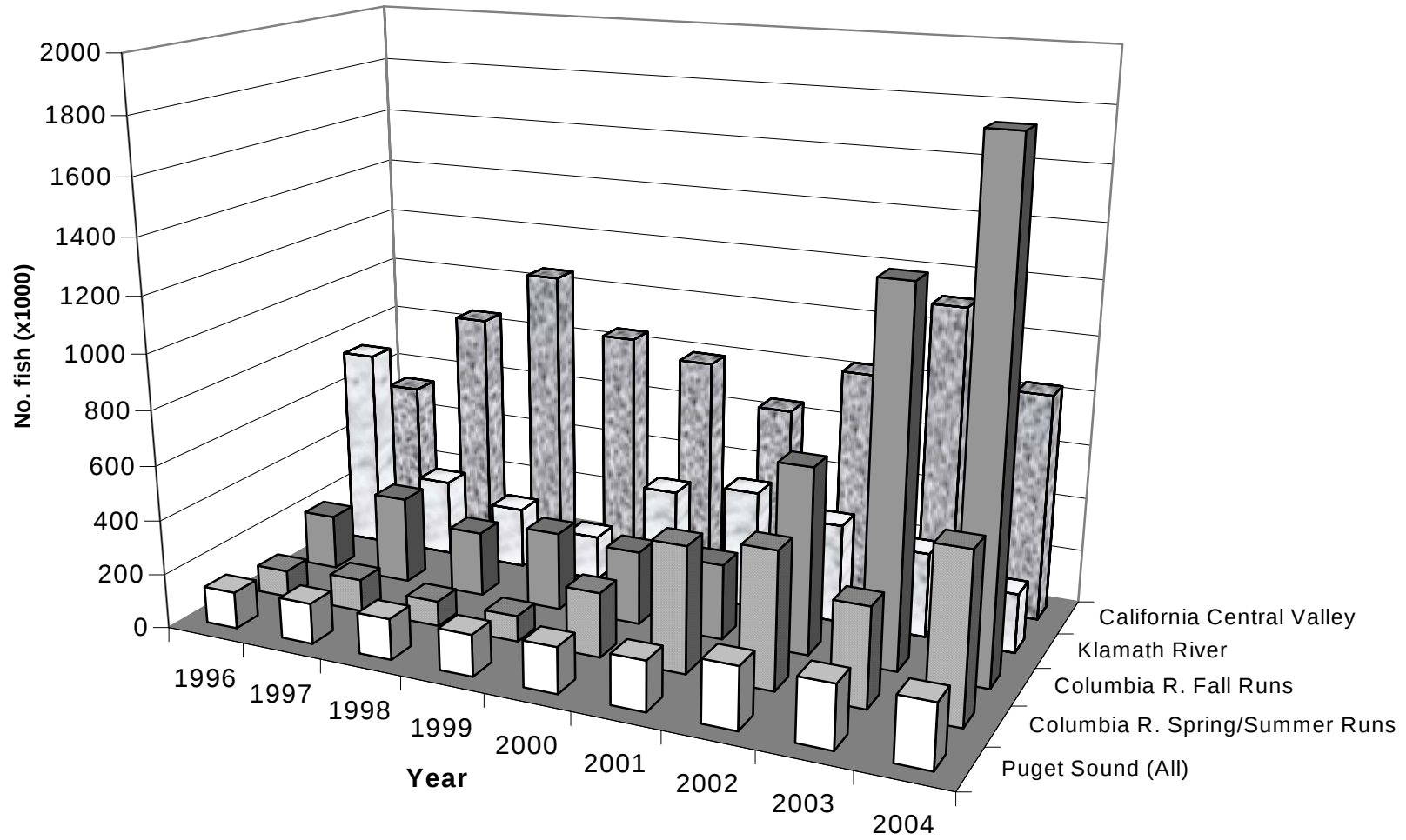


FIGURE 3-1. Preseason chinook abundance forecasts.

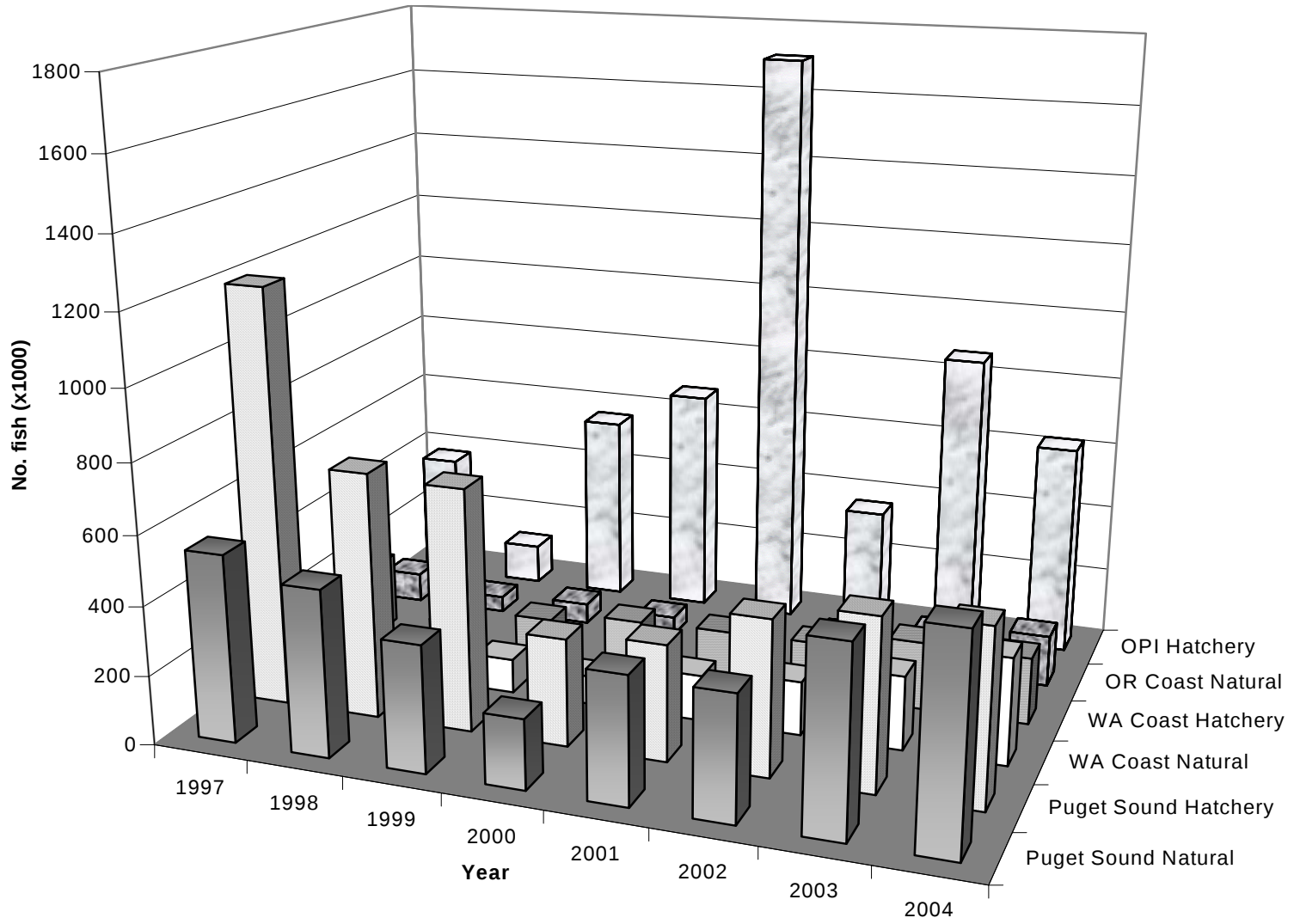


FIGURE 3-2. Preseason coho abundance forecasts.

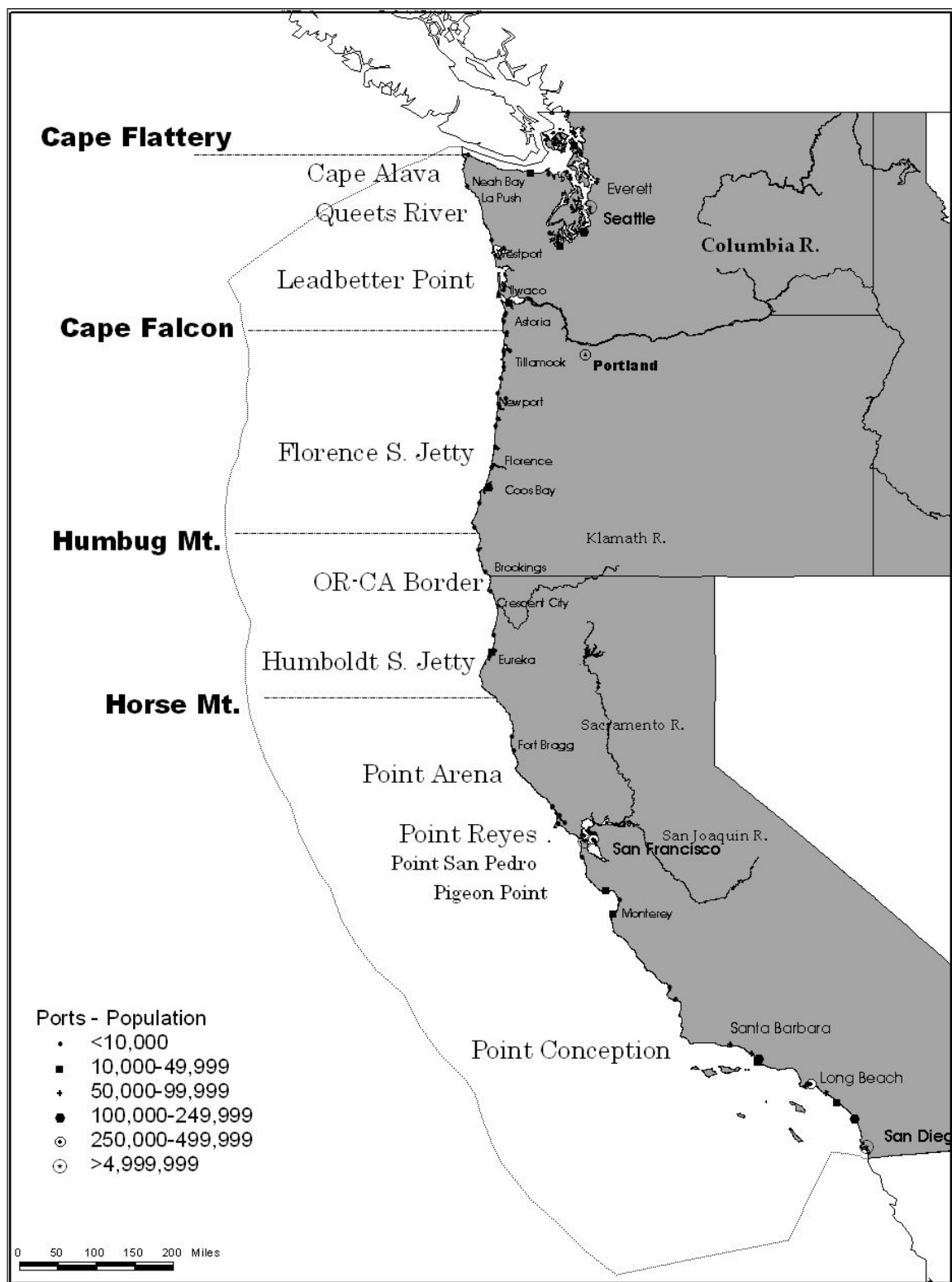


FIGURE 3-3. Salmon management zones and ports.

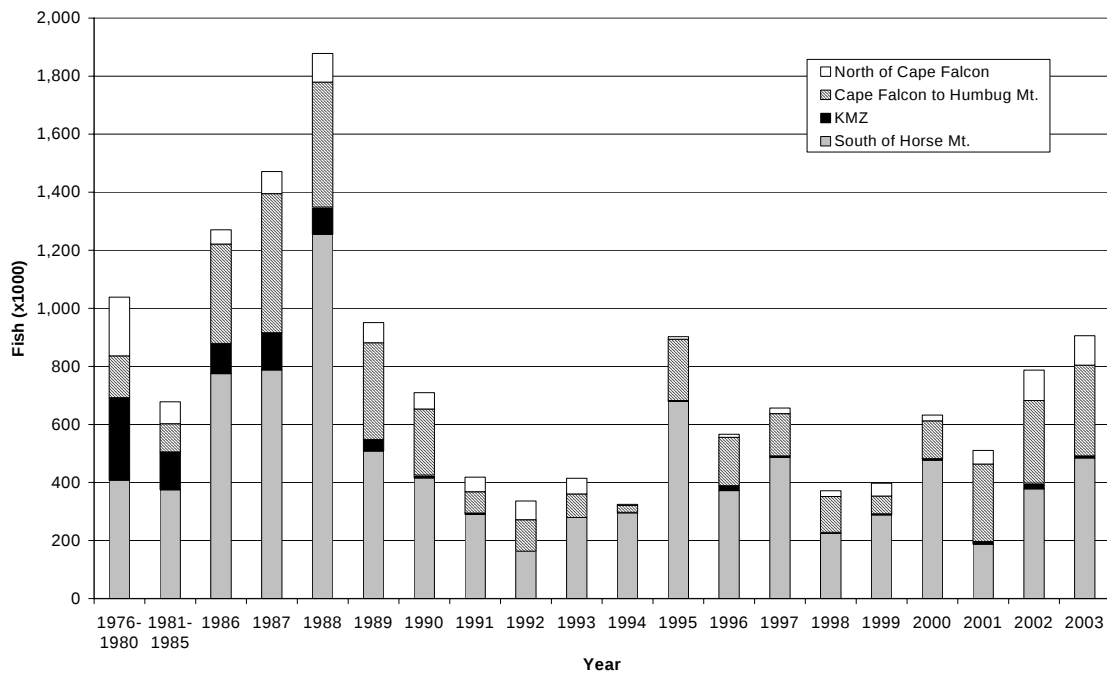


FIGURE 3-4a. Treaty Indian and non-Indian commercial chinook landings by zone.

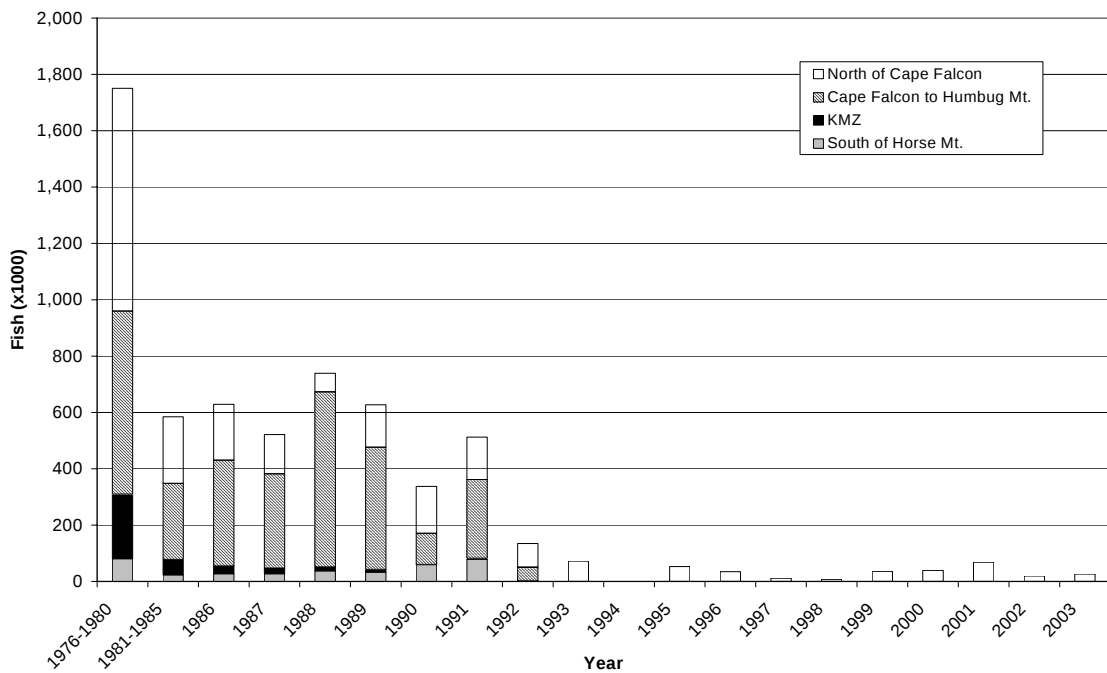


FIGURE 3-4b. Treaty Indian and non-Indian commercial coho landings by zone.

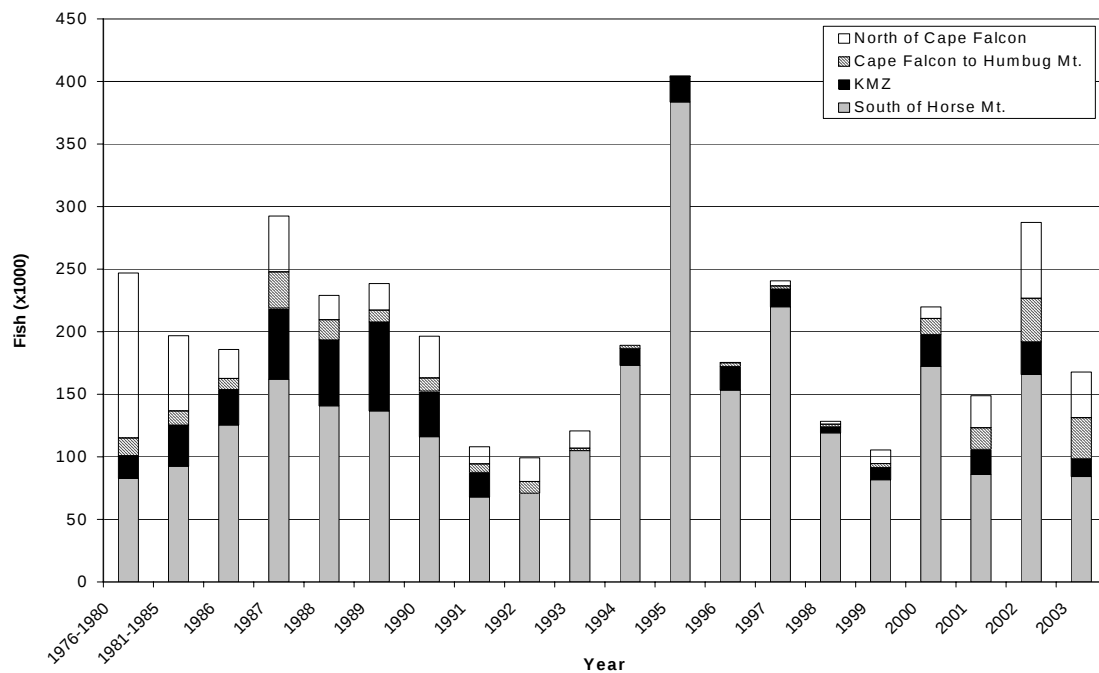


FIGURE 3-5a. Recreational chinook landings by zone.

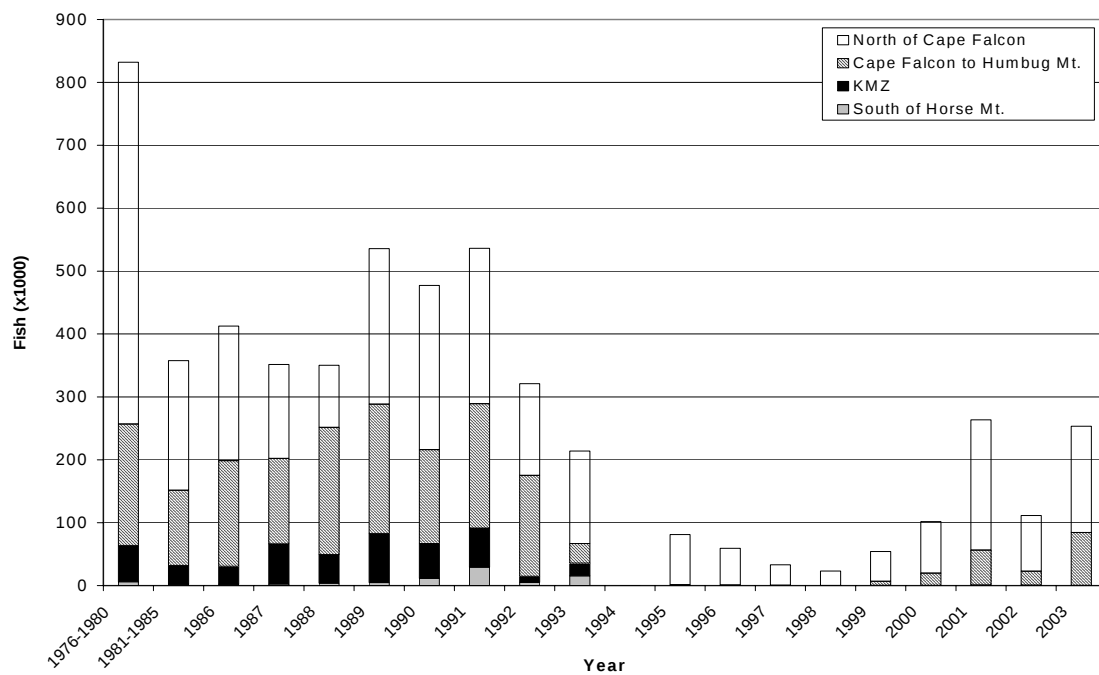


FIGURE 3-5b. Recreational coho landings by zone.

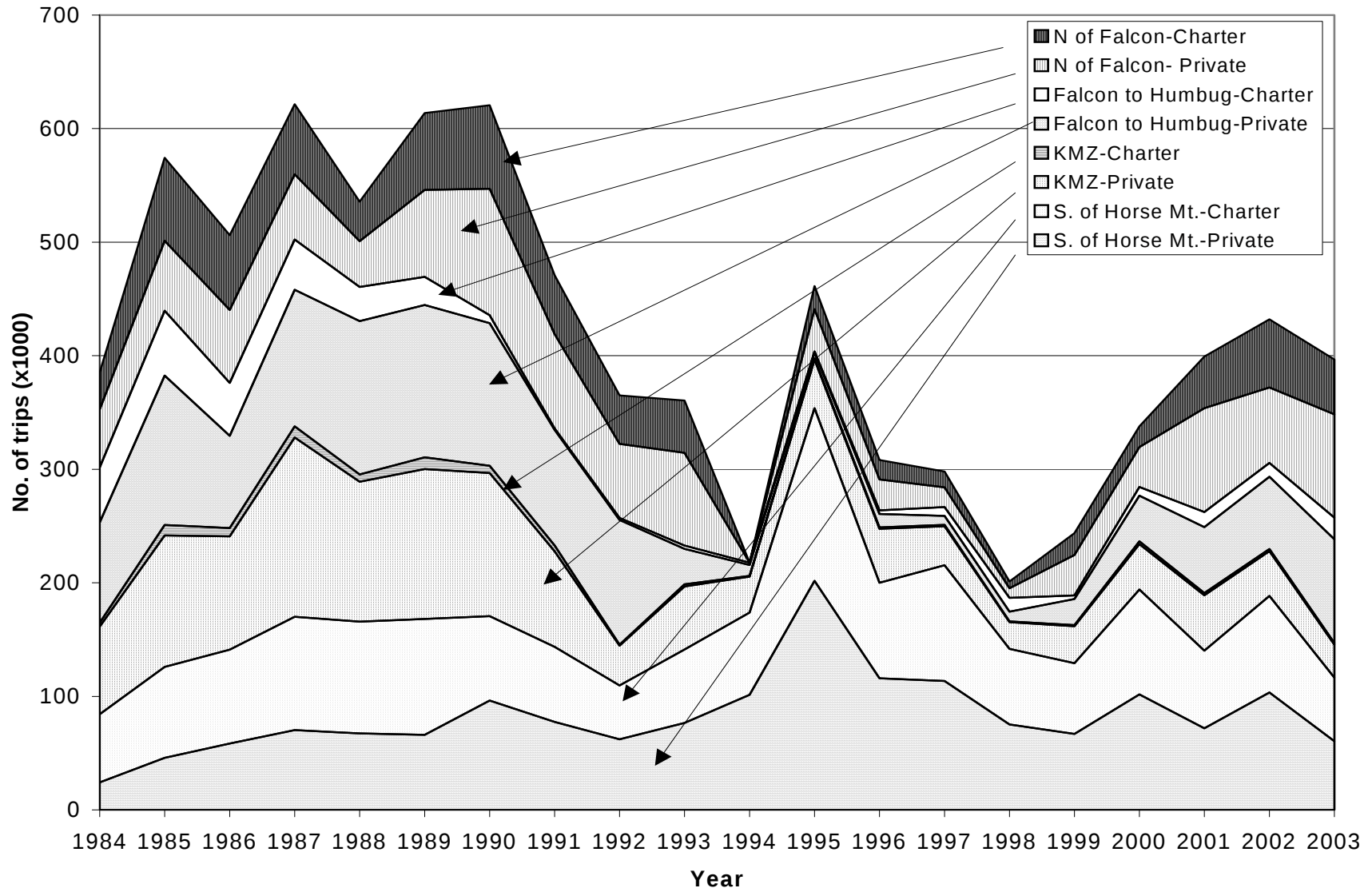


FIGURE 3-6. Recreational fishing effort by zone.

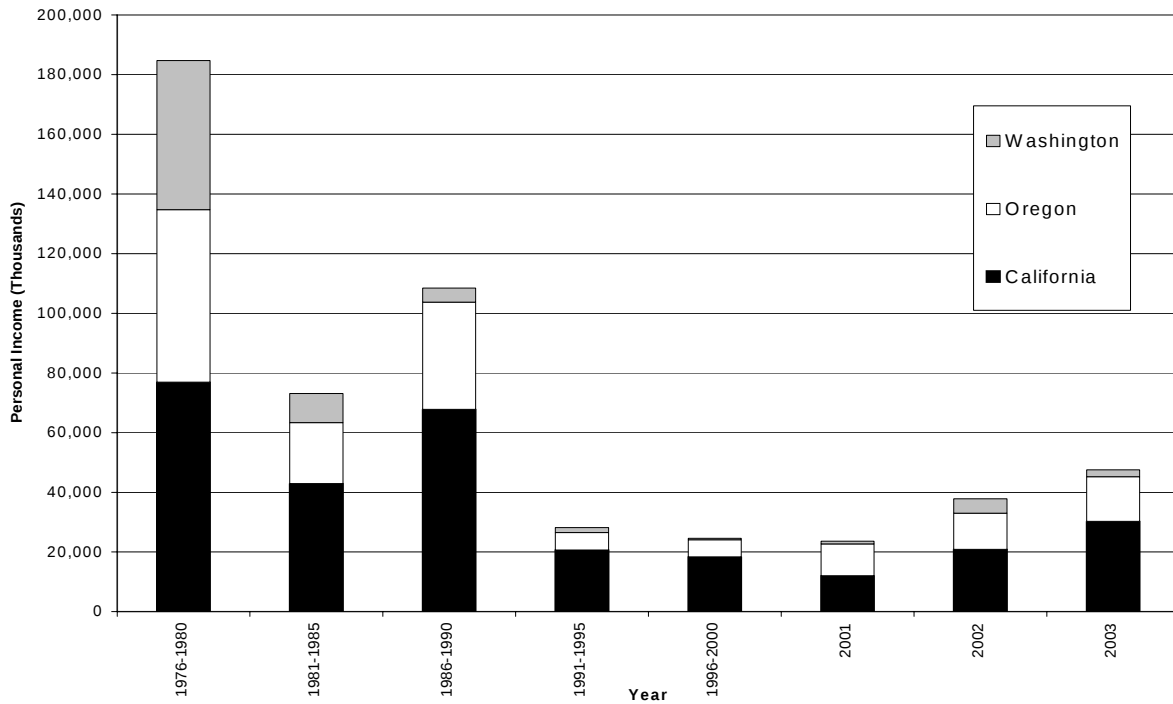


FIGURE 3-7a. Coastal community level personal income impacts associated with Council-area commercial salmon fisheries.

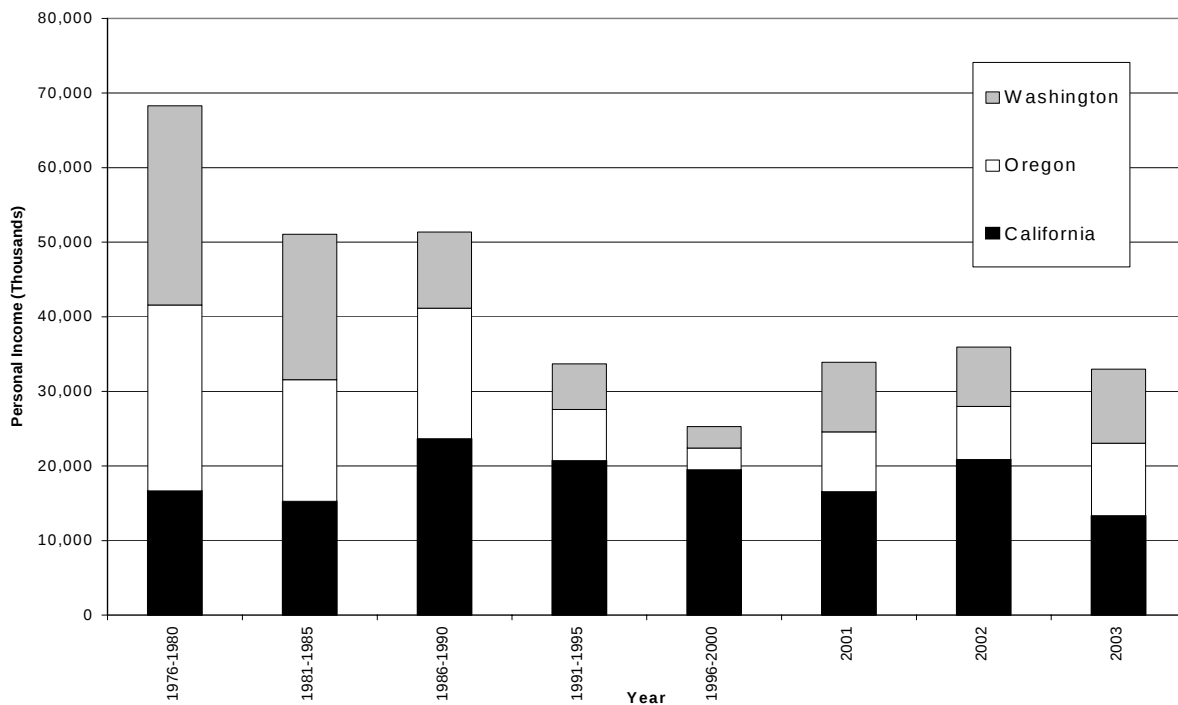


FIGURE 3-7b. Coastal community level personal income impacts associated with Council-area recreational salmon fisheries.

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4.0 Environmental Consequences

The factors evaluated for significance in this EA are those listed in Section 6.02 of NAO 216-6, with specific application to these alternatives as detailed in Section 1.5 of this EA. Some of those factors have already been eliminated from further consideration in this analysis through the screening process applied in Section 1.5 of this EA, including EFH; public health and safety; and biodiversity and ecosystem function. Criteria for evaluating significance of the remaining factors are described in Section 1.5 of this EA.

For purpose of analysis, alternatives are compared to the 2003 fishery as a baseline. Two views of the 2003 fishery are presented, one is the preseason estimates of expected 2003 harvest and impacts (projected) and the other is the postseason estimate of 2003 harvest and impacts (actual). The 2003 projected impacts provide a relevant comparison of the modeled fisheries on which the Council based their decisions. These comparisons are most appropriate for biological factors such as conservation objectives. Actual 2003 impacts provide a more appropriate context for the likely economic impacts of 2004 fisheries, since 2004 projections are based primarily on actual 2003 impacts.

The No Action Alternative is analyzed as application of the previous year's regulations (without any inseason modifications) to the current year's abundance forecasts. The primary purpose of this analysis is to provide context for the current preseason planning process by illustrating which fisheries will require modification to meet Salmon FMP, ESA, and other conservation and allocation objectives. Because of the dynamic nature and life history characteristics of salmon populations, and the numerous stocks that are intercepted in mixed stock ocean fisheries, application of the previous year's regulations is unlikely to meet all the criteria for conservation objectives while optimizing economic benefits from the fisheries.

Figures 4-1 and 4-2 display the projected total fishing mortality^{6/} of each option. In the annual season-setting process and in this EA, this combined mortality is referred to as the impact of management measures. Tables 4-1a through 4-1c compare projected impacts (harvest plus bycatch) of the Preferred Alternative, other alternatives considered, and 2003 projections.^{7/} Table 4-1c summarizes the distribution of impacts by species and fishery sector for each option. Table 4-1d compares projected escapement, harvest rates, and allocations, collectively referred to as conservation objectives associated with the various alternatives. (The 2003 values in the tables and figures are projected harvest impacts, taken from the 2003 *Preseason Report III*. Actual harvest impacts are different.)

4.1 Impacts of the Preferred Alternative

4.1.1 Salmon Fishery FMU

Overall, comparing the projections of the Preferred Alternative for 2004 management measures to a baseline composed of actual 2003 landings for all ocean fisheries Council-area wide, fewer chinook landings (957,500 fish in 2004 versus 1,078,7800 fish in 2003) and coho landings (279,300 fish in 2004 versus fish in 420,000 2003) are expected in 2004.

Differences in the relative and absolute distribution of impacts between areas and commercial versus recreational fisheries can be observed in Tables 4-1a through 4-1c. Council-area wide, more impacts occur

6/ The values in these charts include both catch and bycatch mortality, as given in *Preseason Report II*, Table 6 and *Preseason Report III*, Table 6.

7/ The 2003 projected impacts are not equivalent to the No Action Alternative because they are projected on 2003 stock abundances rather than 2004 abundance.

from commercial fishing than recreational fishing under the Preferred Alternative. This results from the combination of relatively high chinook abundance in areas south of Cape Falcon where commercial fisheries typically dominate the landings and the allocation schedules in the Salmon FMP for areas north of Cape Falcon that emphasize chinook for commercial fisheries and coho for recreational fisheries.

The distribution of chinook impacts under the Preferred Alternative differs from the range of options considered by the Council in a few respects. Impacts for the Preferred Alternative are lower for the KMZ as a result of structuring seasons to reduce impacts on age-three Klamath fall chinook, which are forecast to be at a relatively low abundance for 2004. This age class may severely constrain 2005 fisheries if its status does not improve. Recreational impacts on chinook are slightly higher in areas south of Humbug Mountain, Oregon in comparison to the other options as a result of decreased impacts in commercial fisheries. Commercial and recreational fishery impacts in other areas fall within the range of the other options considered. Coho impacts under the Preferred Alternative fall within the range of options for all areas and for both commercial and recreational fisheries.

The long-term impacts of the alternatives considered vary mainly in terms of their effect on spawning escapement. If inside harvest is adjusted such that total spawning escapement for a particular stock is the same among the alternatives, then higher or lower ocean harvest levels have no long-term impact on that particular stock. However, if there is no inside fishery to adjust, or the magnitude of adjustment is not sufficient to yield a neutral effect on spawning escapement among the options, then there may be differing long-term effects among the options.

The direction of the long-term effect of different spawner escapement levels depends on the size of the escapement relative to the real maximum sustainable yield (MSY) harvest level. If the number of spawners exceeds or is less than the real MSY spawner escapement level, adult recruitment will be less than would be expected at an MSY escapement, assuming a standard Ricker curve spawner-recruit relationship. Because management is inherently imprecise and the spawner escapement level that will produce MSY is uncertain, optimum escapement levels are not always reached. Our understanding of the relationship between salmon stock MSYs and conditions in the biophysical environment, combined with the difficulty in predicting both short- and long-term changes in the biophysical environment, makes it impossible to adjust the estimated MSY spawner escapement level in response to conditions present in a particular year. Spawner escapement goals are often set as proxies for MSY and are generally fixed targets or harvest rates. They are best estimates of the average MSY spawner escapement levels. Since environmental conditions vary from year to year, real MSY spawning escapement levels vary from these fixed proxies.

The Salmon FMP is structured such that in setting annual management measures, most stocks exceed their conservation objectives, while one or a few stocks constrain harvest because they approach their conservation objectives, without exceeding them. In theory then, most stocks experience escapement above the average MSY level (or other criteria) set as their conservation objective, while only the constraining stocks experience optimal escapement levels. In practice, however, some stocks have harvest-rate-based conservation objectives that allow some harvest impacts when escapement is projected to be at less than optimal levels. Target species are generally not constraining stocks, so surplus escapement is usually expected. This may result in some density-dependant effects that could reduce future production but may also contribute to greater ecosystem productivity that could increase future production.

All Salmon FMU stocks meet their conservation objectives under this alternative (Table 4-1d). Therefore, the effects of this alternative on Salmon FMU stocks are considered not to be significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02 for target species.

4.1.2 Non-target Species

As discussed in Section 3.1.2, impacts of the alternatives are related both to the changes in the amount of groundfish caught in the ocean salmon fishery and how this would interact with the trip limit regime governing this fishery and other open access groundfish fisheries. No analysis is available to project groundfish landings based on management measures contained in the Preferred Alternative. But in very general terms it is likely that changes in salmon fishing mortality and incidental catches correlate (assuming a rough correlation between salmon fishing mortality and fishing effort). In comparison to the 2003 baselines, both recreational and commercial chinook fishing mortality for the Preferred Alternative is likely to about the same or less than in 2003. In comparison to the other management options, however, projected commercial and recreational chinook mortality is intermediate between Options I and II for 2004. Because chinook salmon typically occur at greater depths than coho, rockfish incidental catch is more likely when targeting chinook. Therefore, the Preferred Alternative is likely to result in slightly less rockfish catch than occurred in 2003 but slightly greater catches than Options II and III. Projected 2004 coho catches are also less than the 2003 baselines (preseason projections and postseason estimates). Although rockfish are less commonly caught when targeting coho, this opportunity will likely decrease total fishing effort, particularly among recreational fishers who more commonly target coho salmon. However, recreational bag limits, area closures, and seasons have been put in place for overfished rockfish under the Groundfish FMP. This discourages targeting rockfish during a recreational trip (once the salmon bag limit is reached). However, changes in catch per unit effort (CPUE) for both chinook and coho could affect commercial and recreational fishing strategy, potentially increasing incidental rockfish catches. For example, if recreational fishermen take longer to reach their salmon bag limits, incidental groundfish catch opportunity may increase. If commercial fishermen target rockfish less when salmon CPUE is high, decreased salmon catch rates may modify this behavior.

For the above reasons, it is difficult to predict the effect of the Preferred Alternative (and the other alternatives) on groundfish catches. But assuming the correlation between salmon and groundfish harvests, impacts can be generally assessed. For both the recreational and commercial salmon fisheries, salmon harvests are expected to decrease coastwide compared to 2003 because of decreased abundance and fewer available impacts to constraining stocks like Snake River fall chinook, due to increased Canadian and Alaskan fisheries. However, the allocation of Pacific halibut has increased for 2004. Halibut fisheries are more prone to incidental catch of rockfish and lingcod, so combination salmon/halibut trips probably account for a relatively larger impact to groundfish species than salmon-only trips. This may result in a slight increase in groundfish bycatch rates. Therefore, incidental harvest of groundfish associated with combination salmon/halibut trips is likely to be at about the same level in 2003. Any unexpected expansion in incidental groundfish harvest would be taken into account in management of the groundfish open access fishery and appropriate inseason adjustments made to groundfish regulations (e.g., season closures or reduced landing limits).

The likelihood of fewer, or similar, or groundfish landings compared to 2003 under this alternative meet the criteria for non-significance established in Section 1.5 of this EA based on the significance test in NOAA NAO 216-6 Section 6.02 regarding impacts to non-target species.

4.1.3 ESA-listed Salmon

Appendix A to *Preseason Report III* evaluates Council-managed fishery impacts on ESA-listed salmon. In addition, Table 4-1d compares the Preferred Alternative to conservation objectives for Salmon FMU stocks, including consultation standards applicable to ESA-listed stocks. It can be seen that all stocks will achieve their objective under the Preferred Alternative. For chinook these include Lower Columbia River natural tule, Lower Columbia River wild, Snake River, and California Coastal fall runs, and Sacramento winter runs.

Federal-ESA listed coho stocks include OCN, SONCC, and CCC ESUs. There are currently no ESA protections in place for OCN coho as a result of a recent court decision. However, OCN coho continue to be managed under the Salmon FMP harvest matrix upon which NMFS previously based its consultation standards. OCN and Rogue Klamath (R/K) hatchery (surrogate for SONCC coho) stocks are usually important in determining the impacts of management options because their status tends to act as a constraint to allowing more harvest of healthier target stocks. *Preseason Report III*, Table 7 breaks down the total exploitation rate by management area for OCN and R/K stocks. The Preferred Alternative meets the conservation objective for OCN, SONCC, and CCC coho (Table 4-1d).

The long-term effects of different spawning escapement levels on ESA-listed salmon species or other constraining stocks resulting from this alternative are likely to include reduced juvenile production and ecosystem productivity. The level of production associated with escapement expected under this alternative is not expected to substantially affect the recovery of depressed stocks or affect the intrinsic productivity of the stocks. All ESA-listed salmon stocks meet NMFS ESA consultation standards under this alternative. Therefore, the effects of this alternative on ESA-listed salmon stocks are considered not significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02.

4.1.4 Socioeconomic Impacts

Tables 4-2a and 4-2b present information shown in Tables 8 and 9 in *Preseason Report II* and Tables 9 and 10 in *Preseason Report III*, listing socioeconomic impacts in dollar terms. For the commercial fishery, these are expressed as exvessel value. For the recreational fishery, the tables show angler trips and local community income impacts associated with the recreational fishery. Short-term economic effects in the ocean fishery generally correlate with the harvest impacts discussed above. Council-area-wide, under the Preferred Alternative, commercial fishery management regulations result in a projected 18% decrease in exvessel revenue compared to the 2003 postseason baseline and 10% increase in recreational fishery impacts for the same comparison. Coastal community level personal income impacts under this alternative are projected to be \$28.9 million from recreational fisheries and \$33.4 million from commercial fisheries, for a total of \$62.3 million (Table 2-1). This total is slightly more than the 2003 level of \$60.3 million, and substantially greater than the recent year low of \$27.8 million in 1998 (Figure 3-7).

This alternative adheres to the Salmon FMP allocation provisions for sharing of chinook and coho TAC between recreational and commercial fisheries north of Cape Falcon and for sharing the recreational coho allocation among port areas north of Cape Falcon. This alternative also meets the terms of the agreement reached in the *U.S. v. Oregon* forum for allocation of coho destined for areas above Bonneville Dam (Table 4-1d).

Ocean Commercial

This year's management measures are expected to allow somewhat less harvest opportunity than has been the case in recent years, and revenues will continue to be down substantially from the 1976-1990 historical baseline. Comparing the Preferred Alternative to the 2003 postseason baseline (see Table 4-2a), all areas will see decreases in exvessel revenue except the Oregon coast and KMZ. The biggest changes are in the KMZ, where an 83% increase is projected, and the Horse Mountain to Point Arena, California (Fort Bragg) area where a 58% decrease is projected. The increase in the KMZ results from assuming the quota fisheries will take their full quotas in 2004, whereas they took less than half the quotas in 2003. The decrease in the Fort Bragg area is due primarily to elimination of the May fishery, as well as reduced abundance of Sacramento and Klamath fall chinook. Overall, West Coast exvessel value is expected to decrease by 18%.

Council-area wide the Preferred Alternative ranks lower than Option I and higher than Options II and III in revenue. However, the Oregon coast and Northern California areas generally rank higher in this comparison because of 2003 KMZ quota assumptions discussed above and allocation arrangements between Oregon and California.

The landing requirements for commercial fishers north of Cape Falcon in this alternative allow Oregon permitted vessels to transport their fish to buyers outside the port of landing before recording the delivery on a fish receiving ticket. These requirements may allow some additional flexibility over those in Options I and III, and the No Action Alternative. The intent is to allow small scale fishers the opportunity to seek out specialty markets, such as restaurants, where they can obtain higher prices for their catch, which would increase slightly the exvessel revenue projected for this alternative. The landing language could also delay and complicate reporting of catch to track the quota, which could lead to more conservative management and delays in reopening the fishery after closures.

Ocean Recreational

Recreational fishing fares better than commercial fishing when looking at the change in community income impacts from 2003. Under the Preferred Alternative, Council-area-wide community income is projected to increase by 10%. This is still down, however, by 36% from the 1976-1990 historical baseline. Projections for areas south of Cape Falcon, Oregon are very similar to the 2003 actual baseline. The area north of Cape Falcon is projected to have a 28% increase in income impacts, even though the chinook and coho quotas are lower than in 2003. This is because of the relatively high CPUE that occurred in 2003 compared to the average used to project the 2004 income impacts. In other words, anglers were more efficient in 2003 than on average, which reduced estimated income impacts.

In comparison to the other options, the Preferred Alternative shows the same or slightly lower income impacts as Option I, which is generally the most “liberal” option, and substantially greater impacts than Options II and III.

Inside Harvest

Fish not taken in ocean harvest are either available for inside harvest or contribute to additional escapement. Thus, total economic effects may vary more or less between the options than is indicated by the short-term effects on the ocean fisheries described above. Options that provide lower ocean harvest may provide more inside harvest (more commercial revenue or more angler trips) or higher inside CPUE (lower costs for commercial fisheries, higher experience values for recreational fishers). Harvest forgone in ocean fisheries not taken in inside fisheries may have a long-term impact on future production. The direction of the impact will depend on the level of escapement compared to the MSY level of escapement and the nature of the spawner recruitment relationship.

The major allocations between inside and ocean harvest are set in processes coordinated with, but outside of the Council process. For the Columbia River, Washington coast and Puget Sound inside fisheries, allocation of impacts are negotiated through the North of Falcon Forum. This forum involves state, tribal, and Federal managers along with tribal, recreational, and commercial harvesters of ocean and inside fisheries north of Cape Falcon. These negotiations take place primarily between the March and April Council meetings and affect the selection of the Preferred Alternative. For example, in 2004 the negotiations resulted in reducing the impacts on Interior Fraser coho from an exploitation rate in southern U.S. waters of about 13% to the objective of 10% with almost no changes to Council-area coho fisheries. The other major ocean-inside allocation decisions occur with respect to the Klamath River chinook. These decisions are negotiated on a consensus basis through the KFMC. The Preferred Alternative meets the escapement obligations (ocean

harvest level commitments) negotiated through these forums. These negotiation processes are designed to ensure spawning escapement objectives are met, while harvest is allocated between different users based on legal obligations and socioeconomic needs of the participants. Some additional detail on these negotiation processes are provided in Section 3.1 of Appendix B to the Salmon FMP.

Long-term socioeconomic and biological impacts are generally correlated. Changes in population productivity, due to spawning escapement levels and biophysical conditions, determine future harvest opportunity. By achieving established escapement goals, the Preferred Alternative should allow sustained harvests while allowing recovery of depressed and ESA-listed stocks. Under this alternative, the coastal community level personal income impacts fall within the range observed in recent years, and conditions for all relevant allocation agreements are met (Table 4-1d). Therefore, the effects of this alternative on the socioeconomic environment are considered not significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02.N/A

4.1.5 Reasons for Choosing the Preferred Alternative

The Preferred Alternative was chosen because it achieves the most favorable balance of biological, economic, and social benefits in comparison to the other alternatives without a significant impact to the human environment, as stated in the purpose and need for action of this EA (Section 1.2.2). In summary, the Preferred Alternative:

- Will meet conservation goals for all Salmon FMU stocks and NMFS ESA consultation standards for ESA-listed stocks.
- Is unlikely to result in significant direct and indirect impacts on non-target species.
- Provides substantial harvest opportunity within management constraints intended to ensure sustained, long-term productivity of stocks.
- Distributes harvest opportunity among regions and sectors in a balanced fashion.

4.2 Impacts of the No Action Alternative

This section analyzes impacts to the environment based on continuation of 2003 regulations in the 2004 season. Some of the resources analyzed are predicted to have significant impacts if those regulations were re-implemented, however, an EIS was not developed because the alternative selected for implementation was predicted to not have significant impacts.

4.2.1 Salmon FMU Stocks

The STT uses the Coho Fishery Regulation Assessment Model (FRAM) and Klamath Ocean Harvest Model (KOHM) to evaluate the impacts to coho stocks and Klamath River fall chinook, which are reported in *Preseason Report I*. The projected escapement of Sacramento River fall chinook is estimated based on recent year average CVI harvest rates and stock composition, and is also reported in *Preseason Report I*. Impacts to other chinook stocks, primarily those from the Columbia River north, which are modeled with the Chinook FRAM, can not be estimated until later in the preseason planning process. However, impacts under the No Action Alternative to chinook stocks from the Columbia River north were analyzed for this EA.

Sacramento Fall Chinook: The CVI is used to assess the abundance of combined Central Valley chinook stocks. The Sacramento River fall run comprises over 90% of Central Valley chinook stocks. The CVI harvest index, based on the CVI, is a ratio of harvested fish to the population (as measured by harvest and escapement). A repeat of 2003 regulations in 2004 would result in a CVI index value similar to the last five years. Because of the strength of this year's run, the calculated escapement would be 445,800 fish, substantially above the target range of 122,000-180,000 fish.

Klamath River Fall Chinook: The KOHM forecasts a spawning population of approximately 39,700 adults, of which 23,700 would be expected to spawn in natural areas. This is below the conservation objective minimum of 35,000 naturally spawning adults. The river tribal and recreational harvest allocations under this scenario are, respectively, 51.7% (of the overall harvest) and 27.9% (of the non-tribal harvest), which exceed the 2004 allocations for these two sectors of 50% and 15%, respectively.

Oregon Coastal Chinook: The conservation objective of an aggregate 150,000 to 200,000 naturally spawning adults would be met if 2003 regulations were applied.

Columbia River Fall Chinook: All five major stock units (LRW, URB, MCB, SCH, and LRH) would exceed the conservation objectives set for them.

Washington Coast and Puget Sound Chinook: Council-managed fisheries have a minor impact on these stocks, since they are generally distributed further north in Canadian and Alaskan waters. For this reason, an evaluation of impacts was not made.

Oregon Production Index Coho: Ocean escapements into the Columbia River in 2004 would be sufficient to provide inside harvest and meet hatchery egg take goals. The Salmon FMP exploitation rate objective for OCN coho would not be met under this alternative.

Washington Coast and Puget Sound Coho: Under 2003 regulations, ocean escapements for Washington coast and Puget Sound natural coho stocks would be expected to be at levels that would permit attainment of Salmon FMP escapement goals for all stocks. Impacts from inside (e.g., freshwater and Puget Sound) fisheries would ultimately determine levels of anticipated spawning escapements.

All Salmon FMU stocks meet their conservation objectives under this alternative, except for the Klamath fall chinook natural spawning escapement and OCN coho exploitation rate objective (Table 4-1d). Therefore, the effects of this alternative on Salmon FMU stocks are considered significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02 for target species.

4.2.2 Non-target species

The rationale outlined in Section 4.1.2 applies to the other alternatives. The No Action Alternative would not necessarily result in the same level of incidental catch as occurred in 2003 because of changes in the abundance of non-target species stocks and the interaction between salmon CPUE and incidental species catch rates. This alternative allows greater harvest opportunity for chinook and coho, suggesting that it would result in higher rockfish catches in comparison to the other alternatives; however, there is insufficient information to quantify this difference. However, based on the agency staffs' best professional judgment, the availability of such information would not substantially affect this analysis because the incidental nature of salmon fishery impacts on groundfish are minor in comparison to directed groundfish fisheries, and are not expected to increase. This alternative would likely result in similar landings of groundfish as occurred in 2003.

The likelihood of similar or reduced groundfish landings compared to 2003 under this alternative meet the criteria for non-significance established in Section 1.5 of this EA for meeting the requirements of NOAA NAO 216-6 Section 6.02 regarding non-target species.

4.2.3 ESA-listed Salmon

The STT modeled the expected impacts of 2003 regulations on ESA-listed chinook and coho stocks that Council-area fisheries impact at greater than 5%, allowing comparison of the biological consequences of the No Action Alternative with those of the other alternatives. Consultation standards would not be met for Sacramento winter chinook and Snake River fall chinook. NMFS guidance for Oregon Coastal coho would also not be met, although there is currently no ESA protection for OCN coho due to a recent court decision. However, the effects of this alternative on ESA-listed salmon stocks are considered significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02 because the consultation standards for Snake River fall chinook and Sacramento River winter chinook would not be met.

4.2.4 Socioeconomic Impacts

Management measures are tailored to achieve the greatest fishing opportunity, and thus economic return, within the constraints of sustainable management. The 2004 chinook and coho abundances are generally lower coastwide than those expected in 2003. The coastwide economic consequences of applying the 2003 management regulations to 2004 stock abundances are likely positive in the short-term, but negative in the long-term.

This alternative adheres to the Salmon FMP allocation provisions for sharing of chinook and coho TAC between recreational and commercial fisheries north of Cape Falcon and for sharing the recreational coho allocation among port areas north of Cape Falcon. This alternative does not meet the terms of the agreement reached in the *U.S. v. Oregon* forum for allocation of coho destined for areas above Bonneville Dam (Table 4-1d).

Short-Term

Dollar values have not been assigned to the short-term economic effects of this option because it is not considered a viable option, in that it would not meet the conservation objectives indicated in the purpose and need for these management actions (Section 1.2). This option would not be in the range of options discussed in the most recent EIS, prepared for Amendment 14 to the Salmon FMP because it would not meet the natural spawner escapement objective for Klamath fall chinook or NMFS ESA consultation standards for Snake River fall chinook, or Sacramento River winter chinook, or the Salmon FMP objective for OCN coho.

The 2003 management measures would result in an over-harvest of chinook salmon in the ocean fisheries. North of Cape Falcon, abundance projections in 2004 for all stocks on which Council-area fisheries rely are lower than in 2003, which is reflected in preseason catch projections for the two years: 90,000 to 180,000 chinook in 2004 versus 184,000 fish estimated preseason for 2003. A similar situation will occur south of Cape Falcon, with a range of projected catch in 2004 of 614,500 to 624,000 versus a 2003 projection of 820,800. Thus, application of 2003 management measures would result in an over-harvest, providing greater short-term benefits to ocean fishers. Ocean escapement of chinook would be lower for those stocks present in lower abundance. If declines in ocean escapement were not compensated for with reduced inside harvest, there would be long-term adverse effects on stock productivity from under escapement.

The situation for coho is similar to chinook. The preseason projected harvest for 2003 was 478,000 coho coastwide, for commercial and recreational fisheries combined, versus a projected range of 290,100 to 439,600 coho for 2004. The difference between these values does not reflect the actual over-harvest (since other variables in the models are different). But environmentally sustainable harvest would be exceeded for some natural stocks.

This overall picture is further complicated by the implicit and explicit allocation of fishing opportunity among sectors and areas that would result from a repeat of 2003 management measures. Over the short term, relative to what would be allowed under regulations tailored to 2004 abundances, more opportunity to harvest coho will benefit recreational fishers and fisheries north of Cape Falcon, which take a large share of the total coho harvest, more than commercial fishers and fisheries south of Cape Falcon. Greater opportunity to harvest chinook, relative to what would be allowed under regulations tailored to 2004 abundances, would tend to benefit commercial fisheries more and recreational fisheries south of Cape Falcon.

Long-Term

Effects on long-term harvest opportunities depend on the level of escapement relative to the real MSY escapement level given existing environmental conditions (the real MSY escapement is largely an unknown factor). Any substantial over- or under-escapement is likely to result in less future harvest opportunity than would otherwise have occurred. Assuming management targets are, on average, at MSY levels, and a standard Ricker type spawner-recruit relationship, it is likely that any deviation of spawning escapements below the management targets, or above the level associated with maximum production, will result in lower future production than would otherwise occur.

Although a specific analysis was not conducted, the coastal community-level personal income impacts of this alternative likely fall within the range observed in recent years (Figure 3-7). However, this alternative does not meet the allocation agreement for upper Columbia River coho under *U.S. v. Oregon* (Table 4-1d). Therefore, the effects of this alternative on the socioeconomic environment are considered significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02.

4.2.5 Reasons for Rejecting the No Action Alternative

The No Action Alternative would not respond to changes in the status of chinook and coho stocks from 2003, and would, consequently, result in under or over-harvest of individual stocks. In particular, the natural spawning escapement objective for Klamath River fall chinook would not be met, NMFS ESA consultation standards would not be met for Snake River fall chinook and Sacramento River winter chinook, and Salmon FMP conservation objectives for OCN coho would not be met. This would have significant long-term biological and economic impacts because it would reduce population productivity, lowering potential yields over the long-term.

4.3 Impacts of Other Alternatives Considered

This section analyzes impacts of the range of options the Council adopted for public review prior to selection of the Preferred Alternative. Because these options were selected prior to completed negotiations for inside fisheries and before final assumptions for the levels expected in northern fisheries were finalized, some resources were found to have significant impacts. However, these options or elements thereof were used primarily as a comparison for, or as components of, the Preferred Alternative. For example, the recreational mark selective coho fishery area and quota for Oregon south of Cape Falcon in Option I was incorporated

into the Preferred Alternative, but the Option I coho TAC for the area north of Cape Falcon was too high to meet the conservation objective for Interior Fraser coho, and so was reduced in the Preferred Alternative.

4.3.1 Salmon FMU Stocks

Anticipated impacts of the options developed during the March Council meeting are described on pages 11-13 in *Preseason Report II*. Table 4-1d compares key stock escapements, ocean exploitation rates, or other criteria to objectives. All of the options would meet conservation objectives for Salmon FMP stocks, except objectives would not be met under Option I for Snake River fall chinook, and under Options I and II for interior Fraser (Thompson River) coho. In addition to conservation objectives, the allocation objective for upper Columbia River coho would not be met under Option I.

Both commercial and recreational chinook impacts would decrease from a baseline of 2003 projected levels for all three options coastwide (Figure 4-1). Coho impacts in 2004 for both commercial and recreational fisheries would decrease in all areas under all three options compared to 2003 baseline (projected) levels (Figure 4-2). If the option to allow retention of un-marked coho in the commercial fishery north of Cape Falcon is exercised, impacts associated with conservation objectives could not increase over preseason projections, however, landed catch and bycatch mortality would be reduced.

In terms of overall impacts for both chinook and coho, Option I has the greatest impacts, Option II is intermediate, and Option III has the fewest impacts, although the distribution of impacts differs somewhat within the various zones. Chinook impacts in Option II commercial fisheries are lower in central Oregon and south of Point Arena, California, than in Option III. Similarly, coho impacts are greater in the commercial fishery in Option II south of Cape Falcon compared to Option III. Chinook impacts in all recreational options south of Horse Mt., California are the same.

The long-term effects of surplus escapement for Salmon FMU stocks associated with these alternatives would result in some density dependant effects that could reduce future production but may also contribute to greater ecosystem productivity that could increase future production. The long-term effects of under-escapement, although partially compensated for by density-dependant effects, would likely reduce future production and have negative impacts to ecosystem productivity.

All Salmon FMU stocks meet their conservation objectives under Option III, however, under Option I for Snake River fall chinook, and Options I and II for Interior Fraser coho, conservation objectives would not be met (Table 4-1d). Therefore, the effects of Options I and II on Salmon FMU stocks are considered significant based on the criteria established in Section 1.5 of this EA for meeting the requirements of NOAA NAO 216-6 Section 6.02. The effects of Option III are not considered significant.

4.3.2 Non-target Species

Assuming an essentially linear correlation between salmon and non-target species impacts, as discussed previously, Options I, II, and III could result in lower rockfish bycatch than the No Action Alternative. Again, there is insufficient information to determine what these harvest levels might be. It is also possible that management measures in these options intended to reduce salmon catches could distort any correlation between salmon and rockfish catch rates by motivating more targeting on rockfish in response to the limits on salmon harvest opportunity. However, based on the agency staffs' best professional judgment, the availability of such information would not substantially affect this analysis because the incidental nature of salmon fishery impacts on groundfish are minor in comparison to directed groundfish fisheries, and are not expected to increase. These alternatives would likely result in similar to lower landings of groundfish compared to the Preferred Alternative, and likely less than the No Action Alternative.

The likelihood of similar or reduced groundfish landings compared to 2003 under this alternative meet the criteria for non-significance based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02 regarding non-target species.

4.3.3 ESA-listed Salmon Stocks

According to *Preseason Report II* (pages 11-13), consultation standards for most ESA listed salmon species were met by all the options, with the exception of Option I for Snake River fall chinook. The Council adopted Option I as a viable alternative contingent on final preseason expectations for Snake River fall chinook impacts consistent with the NMFS ESA consultation standard, and so elements of Option I could be incorporated into a Preferred Alternative if the consultation standard was not met.

Puget Sound chinook did not have final consultation standards in place at the time *Preseason Report II* was published, although NMFS did provide interim guidance, which for some stocks differed from the RMP submitted by the state and tribal comanagers. It should also be noted that the analyses of impacts in *Preseason Report II* were based on preliminary estimates of inside fisheries, which were still under negotiation. The inside fisheries have significant impacts on these stocks, but it is likely that consultation standards and other management objectives could be met through those negotiations if one of these options were selected as a Preferred Alternative without modification. An analysis of impacts associated with ocean fisheries within the scope presented in the Salmon FMP is included in the NMFS biological opinions. (See Section 5.6 for a list of relevant biological opinions.) NMFS ESA consultation standards are identified in Appendix A of *Preseason Report III*.

The long-term effects of different spawning escapement levels on ESA-listed salmon species or other constraining stocks resulting from Option I, under the preliminary assumptions of Alaskan and Canadian fishery impacts, are likely to include reduced juvenile production and ecosystem productivity. If not effectively allocated to inside fisheries, reduced harvest impacts under Options II and III would allow higher spawning escapement and possibly increase production. However, the level of production associated with escapement expected under these options is not expected to substantially affect the recovery of depressed stocks or affect the intrinsic productivity of the stocks.

All ESA-listed salmon stocks meet NMFS ESA consultation standards under Options II and III. Therefore, the effects of these alternatives on ESA-listed salmon stocks are considered not significant based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02. Option I, however, does not meet the consultation standard for lower Snake River fall chinook. Therefore, Option I does not meet the criteria for non-significance.

4.3.4 Socioeconomic Impacts

Coastal community level personal income impacts from recreational fisheries are projected to range from \$23.6 million for Option III to \$29.1 million for Option I (Table 2-1). The range for commercial fisheries is projected to be from \$32.1 million in Option II to \$34.7 million in Option I. Total income impacts range from \$49.1 million to \$56.1 million, similar to the \$62.3 million projected for the Preferred Alternative. These values fall within the range of recent years (Figure 3-7).

The landing requirements for commercial fishers north of Cape Falcon in Option II may allow some additional flexibility over those in Options I and III, and the No Action Alternative. Option II allows fishers to land fish caught north of Cape Falcon in ports south of Cape Falcon and transport their fish to buyers outside the port of landing before recording the delivery on a fish receiving ticket. The intent is to allow small scale fishers the opportunity to seek out specialty markets, such as restaurants, where they can obtain

higher prices for their catch, which would increase slightly the exvessel revenue projected for Option II. The landing language could also delay and complicate reporting of catch to track the quota, which could lead to more conservative management and delays in reopening the fishery after closures.

Options I, II, and III adhere to the Salmon FMP allocation provisions for sharing of chinook and coho TAC between recreational and commercial fisheries north of Cape Falcon and for sharing the recreational coho allocation among port areas north of Cape Falcon. Option I, however, does not meet the terms of the agreement reached in the *U.S. v. Oregon* forum for allocation of coho destined for areas above Bonneville Dam based on preliminary assumptions for inriver fisheries (Table 4-1d).

Short Term

Tables 4-2a and 4-2b show the short-term ocean area economic impacts of the alternatives in comparison to the 2003 baseline (actual) derived from postseason estimates. For the commercial fishery these are expressed as exvessel value and local community income impacts (in dollar terms). For the recreational fishery the tables show angler trips and local community income impacts. Short-term economic effects in the ocean fishery generally correlate with the harvest impacts discussed above. Under these options, commercial fishers in most areas, and those relying on commercial fisheries, would experience a modest decrease to a modest increase in economic activity in 2004, as compared to the 2003 postseason (actual) baseline (Table 4-2a). The exceptions would be the KMZ, which would experience a substantial increase, and the Fort Bragg area which, would experience a substantial decline. Overall income impacts to commercial sector coastwide, however, would be 15% to 22% less than in 2003.

Recreational fishing and those relying on recreational fisheries would experience activity ranging from a slight decrease to a slight increase, depending on area and the option considered (Table 4-2b). Option I will generate a similar or slight increase in income for all areas compared to 2003, while Option III will generate similar or less of such income in all areas. Option II will generate similar or less recreational fishery-related income in all areas except north of Cape Falcon, where there will be a slight increase. However, Options I and II are not expected to meet some of the NMFS ESA consultation standards or other management objectives.

Long Term

Long-term socioeconomic and biological impacts are generally correlated. Changes in population productivity, due to spawning escapement levels and biophysical conditions, determine future harvest opportunity. By achieving established escapement goals, the Preferred Alternative should allow sustained harvests while allowing recovery of depressed and ESA-listed stocks. Because Options I and II may not meet MSY escapement objectives, they may have adverse effects on stock productivity with long-term consequences that are outside the scope of the Amendment 14 SEIS and may not meet the objectives of the Salmon FMP.

Under these alternatives, the coastal community-level personal income impacts fall within the range observed in recent years, however, Option I does not meet the conditions for the *U.S. v. Oregon* coho allocation agreement (Table 4-1d). Therefore, the effects of Option I on the socioeconomic environment are considered significant, based on the criteria established in Section 1.5 of this EA for meeting the significance test in NOAA NAO 216-6 Section 6.02. The effects of Options II and III are not considered significant.

4.3.5 Reasons for Rejecting Other Alternatives Considered

Option I could have a significant biological impact because conservation objectives for Snake River fall chinook would not be met. In addition, conservation objective for Interior Fraser coho and the allocation objective for upper Columbia coho were not met in Options I and II. While Option III was found to have no significant impacts, it was rejected because of the reduced economic benefits in comparison with the Preferred Alternative.

4.4 Cumulative Impacts

Cumulative effects are caused by the aggregate of past, present, and reasonably foreseeable actions, including impacts outside the scope of the proposed action (in this case annual management measures). Two broad categories of cumulative impacts can be identified for salmon species affected by Council-managed ocean commercial and recreational fisheries. The first category includes other ocean fisheries, some of which are managed by the Council, and so-called inside fisheries prosecuted in internal waters (like Puget Sound) and in rivers as salmon migrate towards their spawning grounds. Fishing mortality also has some broader ecological effects, since it removes salmon that might otherwise be consumed by other ecosystem components. The second category comprises human activities that affect the sustainability of salmon populations. Because salmon spend part of their life cycle in freshwater, they are more vulnerable to a broad range of human activities (since humans spend most of their time on land) that affect the quality of these freshwater environments. These effects are generally well known and diverse. They include physical barriers to migration (dams), changes in water flow and temperature (often a secondary effect of dams or water diversion projects), and degradation of spawning environments due to increased silt in the water from adjacent land use. A very large proportion of the long-term, and often permanent, declines in salmon stocks is attributable to this class of impacts. (For a detailed summary of non-fishing impacts to salmon habitat see Section 3.2.5 of the EFH Appendix A to Amendment 14.)

Consideration of cumulative effects is intrinsic to fishery management. When developing management measures, fishery managers try to account for all sources of mortality in a given population and the productivity of that population. This accounting does not have to be explicit, in that total mortality is exactly partitioned among each cause, except that natural and fishing mortality are distinguished. The aggregation accounts for a wide variety of effects, including past fishing mortality. Future fishing mortality is not accounted for in population models, but it can be broadly anticipated based on limits set by the management regime. Other actions (e.g., habitat degradation) are accounted for in estimates of natural mortality and population productivity. In the case of salmon, fishing mortality is reasonably accounted for because quotas or allocations to other fisheries are known or foreseeable. Natural mortality is estimated and accounts for all non-fishing impacts to a given population. By the same token, productivity estimates include reproductive success and recruitment to the adult, fishable population. This accounts for short- and long-term changes to spawning habitat, among other things. Although salmon's anadromous life cycle is its "Achilles heel" in one sense (because it exposes key life stages to human-induced impacts) it makes the task of stock assessment much easier because reproductive success can be estimated with a fair degree of certainty. Marine survival is harder to measure. But taken together, as part of the stock assessment, these measures effectively account for cumulative effects to salmon targeted by the proposed action. However, the effect of fishing on the ecosystem, due to the shift in balance between fishing and natural mortality, is much harder to predict. Fish removed by fishermen are unavailable to other trophic levels, to be eaten by predators or recycled by decomposers for example. These effects can not be readily assessed, but there is no indication fishing mortality substantially contributes to ecosystem-wide effects.

Despite the effectiveness of these management models in accounting for cumulative impacts, uncertainty by itself can be considered an additional source of cumulative impacts. Although easier for salmon than other

marine species, it is inherently difficult to precisely measure many population parameters. These multiple uncertainties have a compound effect, and in this sense, uncertainty produces cumulative effects that must be accounted for in decision making. For example, drop-off mortality cannot be measured directly and must be estimated. Similarly, mortality from recreational fishing is, in many cases, difficult to estimate because it is hard to monitor fisheries with many thousands of participants fishing in the ocean, rivers and streams. The cumulative effect of error in parameter estimates ultimately determines managers' success in setting management targets that ensure sustained exploitation across all users. The discussion of abundance predictors and comparison of preseason predictions with postseason estimates, found in the *Review of 2003 Ocean Salmon Fisheries*, shows predictions are generally accurate. In comparison to other fisheries, these cumulative errors have not detracted from management performance.

The alternatives do not differ greatly in the context of cumulative impacts, since all other impacts besides those resulting from the proposed action, discussed here, apply equally to each of the alternatives. For this reason, the direct impacts of the alternatives, in this case the level of fishing mortality that would result, correlates directly with cumulative impacts. As a result, alternatives that allow greater harvest (e.g., Option I in comparison to Option III) produce a greater cumulative impact.

Cumulative impacts on salmon stocks and their habitat could be significant if conservation objectives are not met for Salmon FMU stocks, which could result in adversely affecting the productivity of those stocks and associated economic benefits of fisheries, and could diminish the quality of habitat used by juvenile salmon and other terrestrial organisms. The Preferred Alternative meets conservation objectives for all Salmon FMU stocks and therefore would not have significant cumulative effects.

4.5 *Summary and Comparison of Impacts Between Alternatives*

The Preferred Alternative would not have a significant impact on the environment because it meets the conservation objectives, allocation criteria, and other relevant objectives of the Salmon FMP; achieves applicable ESA consultation standards; and complies with obligations under the PST. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, Section 6.02, and found to be not significant. The harvest impacts of the Preferred Alternative are intermediate between Options I and II for both chinook and coho. For the commercial fishery, short-term economic value for this alternative is greater than the Option II, and III Alternatives, but less than the Option I Alternative. For the recreational fishery, short-term economic value is only slightly less than Option I and greater than the other options. The commercial fishery would likely experience a slight economic decrease relative to the 2003 postseason baseline, while the recreational fishery could experience a modest increase relative to this baseline.

The No Action Alternative would have a significant negative impact because it would not respond to changes in chinook and coho stock status, resulting in over-harvest of stocks. Re-application of 2003 management measures would increase impacts on some ESA-listed salmon, and the objective for natural spawning Klamath River fall chinook would not be met. The short-term economic value for this option was not estimated because the alternative does not meet the purpose and need for action. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, Section 6.02, and found to be significant.

Option I has the higher overall harvest impacts to both chinook and coho than the three options or the Preferred Alternative, but would not meet all conservation and management objectives. Short-term commercial and recreational economic value is higher than Options II, III, and the Preferred Alternative. Further, the impacts of this alternative under preseason assumptions were compared to criteria established for determination of significance based on NOAA NAO 216-6, Section 6.02, and found to be significant.

Option II is intermediate in terms of overall harvest impacts. This option would not meet the conservation objective for Interior Fraser (Thompson River, B.C.) coho. The short-term commercial economic value of this option is intermediate between Options I and III, and less than the Preferred Alternative. Further, the impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, Section 6.02, and found to be significant.

Option III has the lowest overall harvest impacts. It would also meet conservation and allocation objectives for all stocks. The short-term commercial and recreational economic value of this option is less than Options I and II, and the Preferred Alternative. The impacts of this alternative were compared to criteria established for determination of significance based on NOAA NAO 216-6, Section 6.02, and found to be not significant.

TABLE 4-1b. Coho harvest impacts (catch and bycatch combined, thousands of fish) and percent distribution within each option. (Page 1 of 1)

[illegible]

TABLE 4-1c. Summary of the distribution of impacts within each alternative (thousands of fish and percent of total). (Page 1 of 1)

	Commercial	Recreational	Total
Preferred Alternative			
Chinook	847 (52.7%)	226.7 (14.1%)	1,073.7 (66.8%)
Coho	189 (11.8%)	345.2 (21.5%)	534.2 (33.2%)
Total	1,036 (64.4%)	571.9 (35.6%)	1,607.9 (100.0%)
2003 Baseline (preseason projection)			
Chinook	822.5 (48.0%)	309.8 (18.0%)	1,132.3 (66.0%)
Coho	213.6 (12.5%)	367.1 (21.5%)	580.7 (34.0%)
Total	1,036.1 (60.5%)	676.9 (39.5%)	1,713.0 (100.0%)
2003 Baseline (postseason estimate)			
Chinook	1,024.9 (73.1%)	186.6 (11.9%)	1,213.5 (76.4%)
Coho	76.1 (4.8%)	297.8 (18.8%)	373.9 (23.6%)
Total	1,101.3 (69.4%)	486.4 (30.6%)	1,587.4 (100.0%)
Option I			
Chinook	666.7 (45.6%)	237.4 (16.2%)	904.1 (61.8%)
Coho	208.9 (14.3%)	349.8 (23.9%)	558.7 (38.2%)
Total	875.6 (59.9%)	587.2 (40.1%)	1,462.8 (100.0%)
Option II			
Chinook	596.0 (46.5%)	219.4 (17.1%)	815.4 (63.6%)
Coho	173.3 (13.5%)	292.4 (22.8%)	467.5 (36.4%)
Total	769.3 (60.0%)	511.8 (40.0%)	1,281.1 (100.0%)
Option III			
Chinook	581.6 (50.4%)	199.4 (17.3%)	781.0 (67.6%)
Coho	139.9 (12.1%)	233.9 (20.3%)	373.8 (32.4%)
Total	721.5 (62.5%)	433.3 (37.5%)	1,154.8 (100.0%)

TABLE 4-1d. Projected **key stock escapements** (thousands of fish) or management criteria adopted by the Council for ocean fishery options, 2004.^{d/} (Page 1 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)					Spawner Objective or Other Comparative Standard as Noted	
CHINOOK							
	Preferred	No Action	Option I	Option II	Option III		
Columbia Upriver Brights	287.0	286.0	291.7	293.4	295.1	57.3	Minimum ocean escapement to attain 46.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
Mid-Columbia Brights	88.8	88.5	90.2	90.7	91.3	16.6	Minimum ocean escapement to attain 5.75 adults for Bonneville Hatchery and 2.0 for Little White Salmon Hatchery egg-take, assuming average conversion and no mainstem harvest.
Columbia Lower River Hatchery Tules	79.0	77.9	80.0	82.6	85.1	31.1	Minimum ocean escapement to attain 14.1 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.
Columbia Lower River Natural Tules ^{c/}	46%	47%	45%	41%	37%	≤49%	ESA guidance met by a total adult equivalent fishery exploitation rate on Coweeman tules (NMFS ESA consultation standard).
Columbia Lower River Wild (threatened)	24.1	24.0	24.3 ^{d/}	24.6 ^{d/}	24.7 ^{d/}	5.7	MSY spawner goal for North Lewis River fall chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	150.0	146.0	144.2	157.0	167.6	11.1	Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) Snake River fall chinook index (SRFI)	70%	72%	74%	68%	63%	≤70.0%	Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Klamath River Fall	35.0	23.7	35.0	35.0	35.0	35.0	Minimum number of adult spawners to natural spawning areas.
Federally-recognized tribal harvest	50.0%	51.7%	50%	50%	50%	50.0%	Equals 31.1, 31.1, and 31.1 (thousand) adult fish for Yurok and Hoopa tribal fisheries for Options I, II, and III.
Age 4 ocean harvest rate	15.0%	15.8%	14.9%	15.0%	14.9%	≤16.0%	NMFS ESA consultation standard for threatened California coastal chinook.
KMZ sport fishery allocation	14.1%	N/A	14.1%	14.1%	14.1%	-	None specified for 2004.
CA:OR troll fishery allocation	51:49	N/A	52:48	51:49	51:49	51:49	KFMC recommendation for 2004.
River recreational fishery allocation	15.0%	27.9%	15.0%	15.0%	15.0%	≥15.0%	Agreed to by California Fish and Game Commission; Equals 4.7, 4.7, and 4.7 (thousand) adult fish for recreational inriver fisheries for Options I, II, and III, respectively.

TABLE 4-1d. Projected **key stock escapements** (thousands of fish) or management criteria adopted by the Council for ocean fishery options, 2004.^{ai} (Page 2 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{bi} or Other Criteria (Council Area Fisheries)					Spawner Objective or Other Comparative Standard as Noted	
CHINOOK (Continued)							
	Preferred	No Action	Option I	Option II	Option III		
Sacramento River Winter (endangered)	Yes	No	Yes	Yes	Yes	Recreational season between Point Arena and Pigeon Point shall open no earlier than the first Saturday in April and close no later than the second Sunday in November; the recreational season between Pigeon Point and the U.S./Mexico Border shall open no earlier than the first Saturday in April and close no later than the first Sunday in October. The minimum size limit shall be at least 20 inches total length. Commercial seasons between Point Arena and the U.S./Mexico border shall open no earlier than May 1 and close no later than September 30, with the exception of an October season conducted Monday through Friday between Point Reyes and Point San Pedro, which shall end no later than October 15. The minimum size limit shall be at least 26 inches total length. (NMFS ESA consultation standard).	
Sacramento River Fall	457.5	451.5	454.5	454.5	454.5	122.0-180.0	Sacramento River fall natural and hatchery adult spawners.
COHO							
PUGET SOUND NATURAL	Preferred	No Action	Option I	Option II	Option III		
Interior Fraser (Thompson River)	10% (5.3%)	>10%	12.0%(6.5%)	10.9%(5.5%)	10.0%(4.4%)	≤10%	Total exploitation rate for all U.S. fisheries south of the U.S./Canada border based on 2002 PSC coho agreement. ^{ci}
Skagit	35% (5.0%) 130.9	129	35%(4.6%) 130.4	35%(4.7%) 131.7	34%(3.9%) 132.9	≤60% 30.0	2004 total exploitation rate ceiling based on 2002 PSC coho agreement ^{ci} MSP level of adult spawners Identified in FMP.
Stillaguamish	39% (6.7%) 26.6	28	37%(8.0%) 27.3	36%(6.7%) 27.7	35%(5.5%) 28.1	≤50% 17.0	2004 total exploitation rate ceiling based on 2002 PSC coho agreement ^{ci} MSP level of adult spawners Identified in FMP.
Snohomish	35% (6.7%) 134.0	139	35%(8.0%) 133.2	34%(6.7%) 135.3	33%(5.5%) 137.3	≤60% 70.0	2004 total exploitation rate ceiling based on 2002 PSC coho agreement ^{ci} MSP level of adult spawners Identified in FMP.
Hood Canal	35% (5.4%) 79.7	80	34%(5.6%) 80.7	31%(4.9%) 81.4	33%(3.9%) 82.3	≤65% 21.5	2004 total exploitation rate ceiling based on 2002 PSC coho agreement ^{ci} MSP level of adult spawners Identified in FMP.
Strait of Juan de Fuca	13% (5.5%) 31.8	32	12%(6.1%) 31.9	11%(5.0%) 32.4	10%(4.0%) 32.7	≤60% 12.8	2004 total exploitation rate ceiling based on 2002 PSC coho agreement ^{ci} MSP level of adult spawners Identified in FMP.
COASTAL NATURAL:							
Quillayute Fall	17.7	18	17.6	18.1	18.5	6.3-15.8	MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.

TABLE 4-1d. Projected **key stock escapements** (thousands of fish) or management criteria adopted by the Council for ocean fishery options, 2004.^{a/} (Page 3 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)					Spawner Objective or Other Comparative Standard as Noted	
COHO (continued)							
	Preferred	No Action	Option I	Option II	Option III		
Hoh	6.6	7	6.5	6.7	6.9	2.0-5.0 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.	
Queets Wild	14.7	14	14.6	15.0	15.4	5.8-14.5 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.	
Queets Supplemental	1.5	1.4	1.5	1.6	1.7	-	
Grays Harbor	101.1	102	102.1	104.0	103.8	35.4 MSP level of adult spawners. Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.	
Oregon Coastal Natural (threatened)	14.7%	18.0%	14.8%	13.2%	12.3%	≤15.0% Marine and freshwater fishery exploitation rate.	
Northern California (threatened)	8.6%	10.5%	8.6%	8.5%	8.1%	≤13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).	
COLUMBIA RIVER:							
Upper Columbia	50%	<50%	45%	53%	58%	50% Minimum percentage of the run to Bonneville Dam.	
Columbia River Hatchery Early	157.0	128	155.9	179.2	194.7	38.7 Minimum ocean escapement to attain hatchery egg-take goal of 16.0 early adult coho, with average conversion and no mainstem or tributary fisheries.	
Columbia River Hatchery Late	84.1	64	83.3	110.4	135.3	19.4 Minimum ocean escapement to attain hatchery egg-take goal of 11.3 late adult coho, with average conversion and no mainstem or tributary fisheries.	

a/ Projections in the table assume a WCVI coho total mortality of 1,400; Southeast Alaska all gear TAC of 373,900 chinook per PST agreement; Northern B.C. sport-troll TAC of 237,800 chinook per PST agreement; WCVI troll and outside sport TAC of 192,500 (162,500 troll) chinook per PST agreement.

b/ Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for OCN coho include impacts of freshwater fisheries.

c/ Annual management objectives may be different than Salmon FMP goals, and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. Total exploitation rate includes Alaskan, Canadian, Council area, Puget Sound, and freshwater fisheries and is calculated as total fishing mortality divided by total fishing mortality plus spawning escapement. These total exploitation rates reflect the initial base package for inside fisheries developed by state and tribal comanagers. It is anticipated that total exploitation rates will be adjusted by state and tribal comanagers during the preseason planning process to comply with stock specific exploitation rate constraints.

d/ includes minor contributions from East Fork Lewis River and Sandy River.

TABLE 4-2a. Preliminary projections of exvessel value for 2004 non-Indian commercial troll regulatory options. (Page 1 of 1)

Management Area	Option	Exvessel Value (thousands of dollars) ^{a/}				
		Projected 2004 ^{b/}	2003 Actual	Percent Change from 2003	1976-1990 Average ^{c/}	Percent Change from 1976-1990 Average
North of Cape Falcon	I	1,483	1,380	7%	5,651	-74%
	II	1,106		-20%		-80%
	III	767		-44%		-86%
	Preferred	1,149		-17%		-80%
Cape Falcon to Humbug Mt.	I	7,302	6,757	8%	15,230	-52%
	II	6,376		-6%		-58%
	III	7,195		6%		-53%
	Preferred	7,154		6%		-53%
Humbug Mt. to Horse Mt.	I	570	242	135%	7,659	-93%
	II	565		133%		-93%
	III	460		90%		-94%
	Preferred	444		83%		-94%
Horse Mt. to Pt. Arena	I	2,487	5,997	-59%	7,105	-65%
	II	2,323		-61%		-67%
	III	2,487		-59%		-65%
	Preferred	2,537		-58%		-64%
South of Pt. Arena	I	5,476	5,913	-7%	14,481	-62%
	II	5,475		-7%		-62%
	III	5,476		-7%		-62%
	Preferred	5,343		-10%		-63%
Total South of Cape Falcon	I	15,836	18,909	-16%	44,475	-64%
	II	14,739		-19%		-66%
	III	15,618		-18%		-65%
	Preferred	15,478		-18%		-65%
West Coast Total	I	17,319	20,289	-15%	50,125	-68%
	II	15,845		-22%		-66%
	III	16,384		-19%		-67%
	Preferred	16,627		-18%		-67%

a/ Exvessel values are not comparable to the community income impacts shown in Table 4-2b

b/ Dollar value estimates are based on expected catches in the **Council management area**, 2003 exvessel prices and 2003 average weight per fish.

c/ Values adjusted to 2003 dollars.

TABLE 4-2b. Preliminary projections of angler trips and coastal community income generated for 2004 recreational ocean salmon fishery regulatory options compared to 2003 and the 1976-1990 average (inflation adjusted). (Page 1 of 1)

Management Area	Option	Angler Trips (thousands)			Coastal Community Income Impacts (thousands of dollars) ^{a/}			Percent Change in Income Impacts	
		Estimates Based on the Options	2003 Actual	1976-1990 Avg.	Estimates Based on the Options	2003 Actual	1976-1990 Avg.	Compared to 2003 Actual	Compared to 1976-1990 Avg.
North of Cape Falcon ^{b/}	I	182	139	271	10,945	8,376	15,863	31%	-31%
	II	149			8,955			7%	-44%
	III	116			6,975			-17%	-56%
	Preferred	178			10,739			28%	-32%
Cape Falcon to Humbug Mt.	I	92	110	184	5,981	5,828	10,147	3%	-41%
	II	85			4,935			-15%	-51%
	III	85			4,542			-22%	-55%
	Preferred	92			5,981			3%	-41%
Humbug Mt. to Horse Mt. ^{c/}	I	29	28	117	1,504	1,465	5,872	3%	-74%
	II	28			1,462			-0%	-75%
	III	26			1,383			-6%	-76%
	Preferred	29			1,304			3%	-74%
Horse Mt. to Pt. Arena	I	23	23	12	1,652	1,652	782	0%	111%
	II	23			1,652			0%	111%
	III	23			1,652			0%	111%
	Preferred	23			1,652			0%	111%
South of Pt. Arena	I	93	93	116	9,006	9,006	12,486	0%	-28%
	II	93			9,006			0%	-28%
	III	93			9,006			0%	-28%
	Preferred	93			8,981			0%	-28%
Total South of Cape Falcon	I	259	255	429	18,143	17,952	29,287	1%	-38%
	II	238			17,055			-5%	-42%
	III	229			16,583			-8%	-43%
	Preferred	258			18,117			1%	-38%
West Coast Total	I	440	394	701	29,088	26,328	45,150	10%	-35%
	II	387			26,010			-1%	-42%
	III	345			23,559			-11%	-47%
	Preferred	437			28,856			10%	-36%

a/ Income impacts are totals for individual communities. Impacts between communities in the management area have not been counted. Income impacts are not comparable to the exvessel values shown in Table 4-2a. All dollar values are adjusted to 2003 real values. For north of Cape Falcon estimates, the most constraining chinook or coho quota was used to estimate total number of trips.

b/ Based on 2003 effort levels for seasons of comparable length, actual effort in the fishery may not be sufficient to take the entire Option I quota. Under such circumstances, the effort level and accompanying economic effects may not be substantially exceed those of Option II. Provisions in the options which allow an inseason decision to switch to full coho retention may allow the fishery to fully utilize available harvest impacts and may encourage more effort in the fishery.

c/ Under Option I a selective fishery for adipose fin clipped coho may result in an increase in effort. To illustrate this possible effect a 10% increase was assumed.

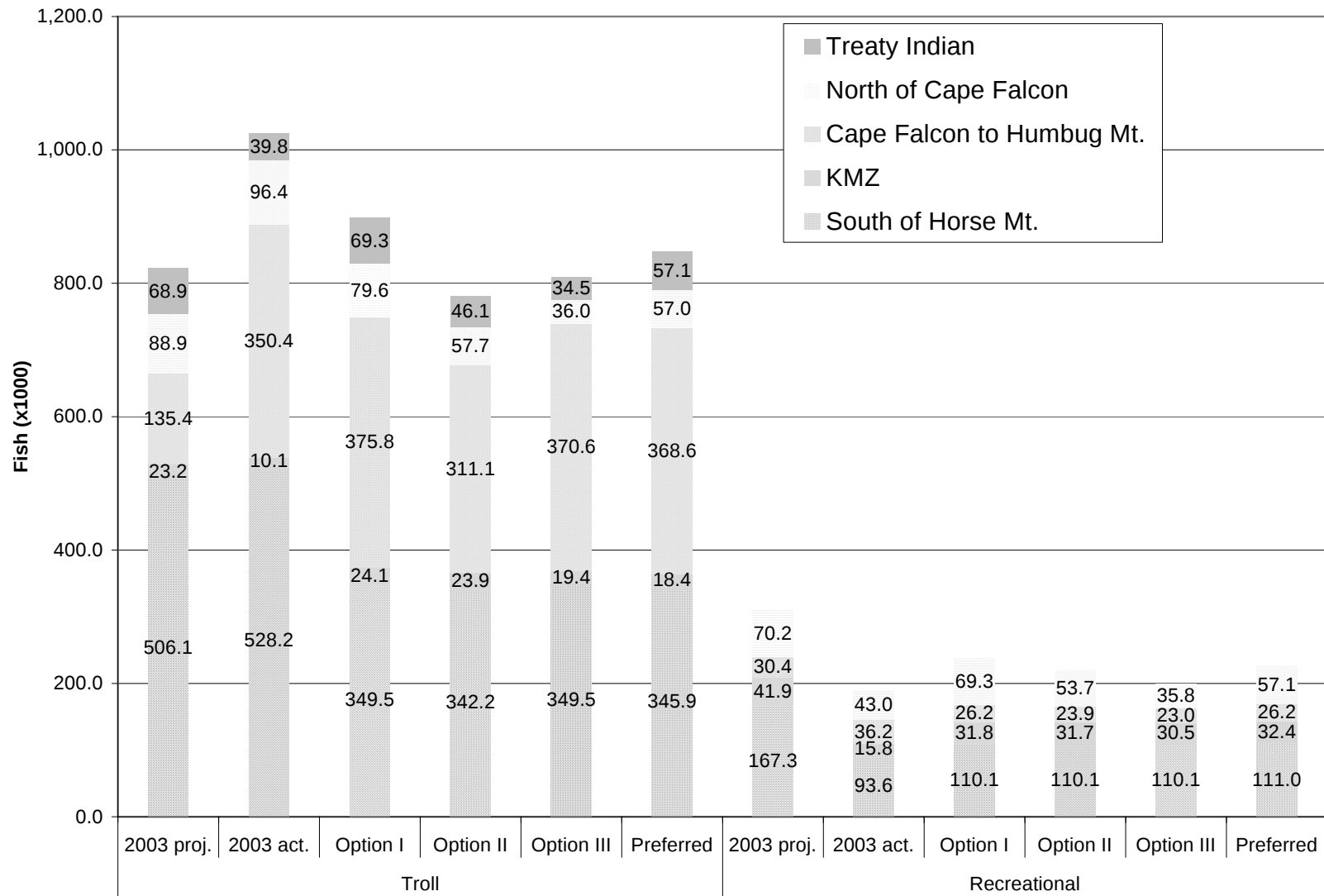


FIGURE 4-1. Chinook harvest impacts (landed catch plus bycatch mortality).

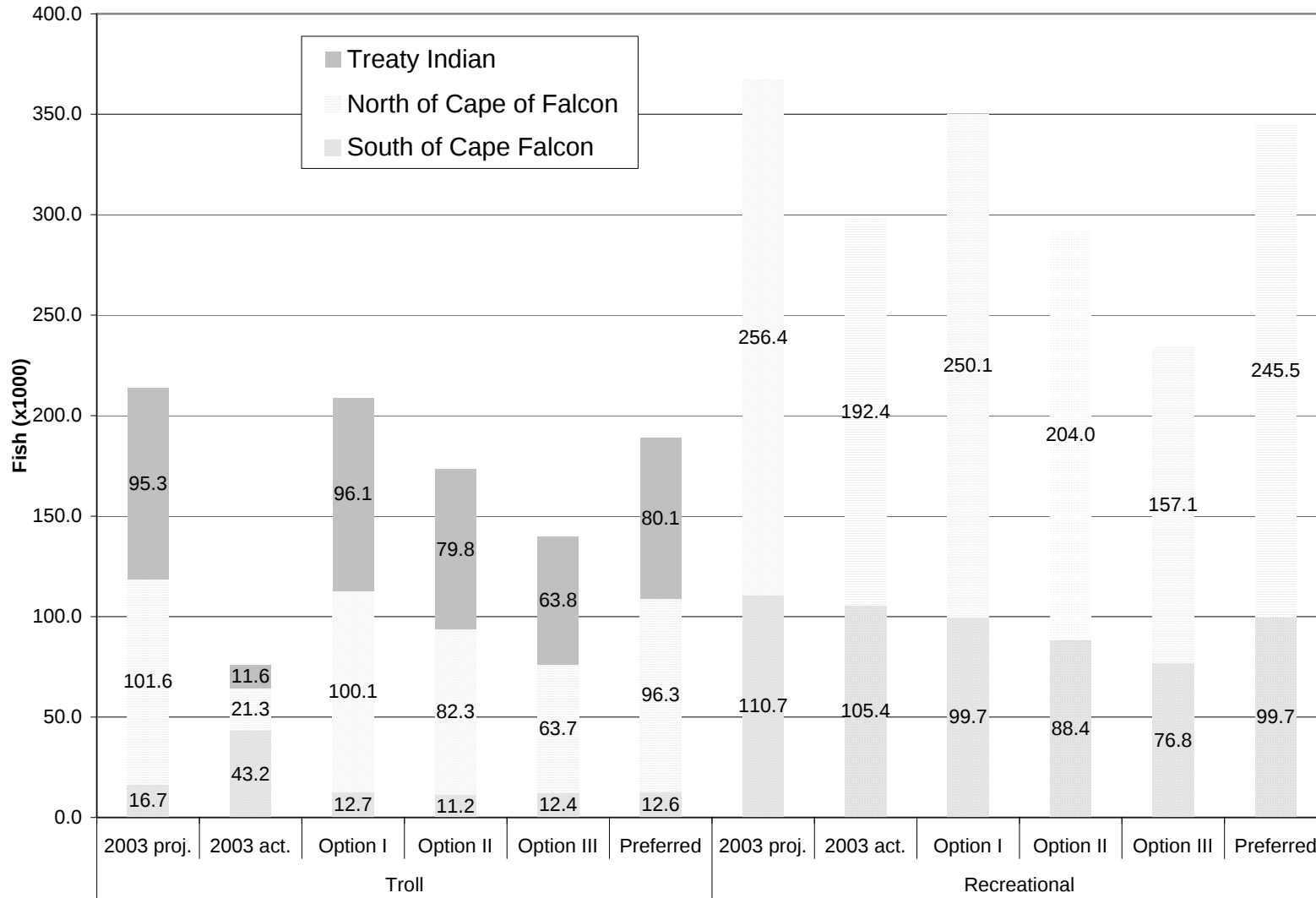


FIGURE 4-2. Coho harvest impacts (landed catch plus bycatch mortality).

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5.0 Consistency with Other Applicable Law

5.1 *Magnuson-Stevens Conservation and Management Act*

The MSA provides parameters and guidance for Federal fisheries management, requiring the Councils and NMFS adhere to a broad array of policy ideals. Overarching principles for fisheries management are found in the MSA's National Standards. In crafting fisheries management regimes, the Councils and NMFS must balance their recommendations to meet these different national standards.

National Standard 1 requires that "Conservation and management measures shall prevent overfishing while achieving on a continuing basis, the optimum yield from each fishery for the United States fishing industry." The 2004 ocean salmon management measures in the Preferred Alternative are specifically designed to meet National Standard 1. Season structure, quotas, and other specifications are expected to allow optimal harvest opportunity given the constraints of achieving all conservation objectives and NMFS ESA consultation objectives for Salmon FMU stocks.

National Standard 2 requires the use of the best available scientific information. The analyses of impacts to Salmon FMU stocks are based on models that have undergone review by the Council's Scientific and Statistical Committee and been approved for use by the Council. Input data are obtained from scientifically designed surveys and data recording systems administered by state, Federal, and tribal agencies, and verified during the preseason planning process by the STT. Most stock forecasts are reviewed by multiagency scientific bodies to ensure accurate and appropriate methodology are used and to facilitate agreement between the relevant parties.

National Standard 3 requires individual stocks of fish to be managed as a unit throughout their ranges and interrelated stocks of fish to be managed as a unit. The conservation objectives are established for individual stocks in the Salmon FMP and are based on either escapement or on total exploitation rate, both of which account for impacts to stocks throughout their range. All Salmon FMU stocks are managed as a unit in Council-area fisheries.

National Standard 4 requires that "Conservation and management measures shall not discriminate between residents of different States." All alternatives meet this standard.

National Standard 5 requires efficiency in the utilization of fishery resources. All alternatives meet this standard.

National Standard 6 requires conservation objectives and management measures to take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches. All alternatives allow for inseason management of Council-area salmon fisheries to meet conservation objectives and preseason management objectives.

National Standard 7 requires that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication. All alternatives meet this standard.

National Standard 8 requires that conservation and management measures shall take into account the importance of fishery resources to fishing communities in order to "(A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities." Fishing communities could be negatively affected by Options II and III, which have substantially lower short term economic benefits than the Preferred Alternative, and by the No Action

Alternative and Option I, which could have reduced long term economic benefits associated with overharvest of stocks of concern.

National Standard 9 requires the reduction of bycatch or bycatch mortality. All alternatives have specifications that reduce both bycatch and bycatch mortality of non-target and sublegal target species.

National Standard 10 requires conservation and management measures to promote the safety of human life at sea. All alternatives meet this standard.

The SEIS for the Salmon FMP concluded that Council-area salmon fisheries would have no significant effects on EFH. The alternatives considered in this EA are within the scope of impacts considered in the SEIS, and therefore, are not expected to have any additional effects on EFH.

5.2 Consistency with the FMP

Similar to the MSA National Standards Guidelines, the goals and objectives of the Salmon FMP are intended to provide a framework to guide the Council's decisions. The Preferred Alternative meets all conservation and management objectives in the Salmon FMP. The SEIS for the Salmon FMP analyzed the effects anticipated Council-area salmon fisheries would have on the biological and socioeconomic environment. The effects of the Preferred Alternative are within the scope of impacts considered in the SEIS.

5.3 Paperwork Reduction Act

None of the alternatives require collection-of-information subject to the Paperwork Reduction Act.

5.4 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) of 1972 is the principle federal legislation that guides marine mammal species protection and conservation policy in the United States. Under the MMPA, NMFS is responsible for the management and conservation of 153 stocks of whales, dolphins, porpoise, as well as seals, sea lions, and fur seals, while the U.S. Fish and Wildlife Service is responsible for walrus, sea otters, and the West Indian manatee.

Off the West Coast, the Steller sea lion (*Eumetopias jubatus*) Eastern stock, Guadalupe fur seal (*Arctocephalus townsendi*), and Southern sea otter (*Enhydra lutris*) California stock are listed as threatened under the ESA, and the sperm whale (*Physeter macrocephalus*) Washington, Oregon, and California (WOC) Stock, humpback whale (*Megaptera novaeangliae*) WOC - Mexico Stock, blue whale (*Balaenoptera musculus*) Eastern north Pacific stock, and Fin whale (*Balaenoptera physalus*) WOC Stock are listed as depleted under the MMPA. Any species listed as endangered or threatened under the ESA is automatically considered depleted under the MMPA.

The West Coast ocean salmon fisheries are considered a Category III fishery, indicating a remote likelihood of or no known serious injuries or mortalities to marine mammals, in the annual list of fisheries published in the *Federal Register*. Based on its Category III status, the incidental take of marine mammals in the West Coast salmon fisheries does not significantly impact marine mammal stocks.

5.5 NEPA

This EA is intended to meet the NEPA requirements that apply to the proposed action.

5.6 Endangered Species Act (ESA)

Compliance with the ESA is addressed in Sections 1.5, 2.1, 3.2, 4.1.3, 4.2.3, and 4.3.3 of this EA. All alternatives would meet NMFS ESA consultation standards for listed salmon stocks except for the No Action Alternative and Option I, which would exceed the exploitation rate for Snake River fall chinook.

The following biological opinions and Section 4(d) determinations have been prepared for West Coast stocks by NMFS.

NMFS' Endangered Species Act consultations and Section 4(d) determinations on ocean fisheries implemented under the Salmon FMP and their duration.

Date	Evolutionarily Significant Unit covered and effective period
March 8, 1996	S Snake River chinook and sockeye (until reinitiated)
April 28, 1999	O Oregon coastal coho, S Southern Oregon/Northern California coastal coho, C Central California coastal coho (until reinitiated) ^{a/}
April 28, 2000	C Central Valley spring chinook and C California coastal chinook (until reinitiated)
April 27, 2001	H Hood Canal summer chum 4(d) limit (until reinitiated)
April 30, 2001	U Upper Columbia River spring chinook and U Upper Willamette River chinook (until reinitiated)
April 30, 2001	L Lower Columbia River chinook, U Upper Willamette chinook, U Upper Columbia spring chinook, L Lake Ozette sockeye, 10 steelhead ESUs, and C Columbia River chum (until reinitiated)
Pending	S Sacramento River winter chinook
Pending	P Puget Sound and L Lower Columbia River chinook

a/ On Feb 4, 2004, the ninth Circuit Court of Appeals dismissed appeals in the *Aalsea Valley Alliance* case. Consequently, there are currently no ESA protections in place for OCN coho.

Many of these documents are available from the NMFS Northwest Region website at:

<http://www.nwr.noaa.gov/1publcat/allbiops.htm>

5.7 Coastal Zone Management Act

Section 307(c)(1) of the Federal Coastal Zone Management Act (CZMA) of 1972 requires all Federal activities that directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. The Preferred Alternative would be implemented in a manner that is consistent to the maximum extent practicable with the enforceable policies of the approved coastal zone management programs of WOC. This determination has been submitted to the responsible state agencies for review under section 307(c)(1) of the CZMA. The relationship of the Salmon FMP with the CZMA is discussed in Section 3.3 of the SEIS for Salmon FMP Amendment 14. The Salmon FMP has been found to be consistent with the WOC coastal zone management programs. The recommended action is consistent and within the scope of the actions contemplated under the framework FMP.

Under the CZMA, each state develops its own coastal zone management program, which is then submitted for Federal approval. This has resulted in programs which vary widely from one state to the next. None of the alternatives are expected to affect any state's coastal management program.

5.8 *Executive Order 13175 – Consultation and Coordination with Indian Tribal Governments*

Executive Order 13175 is intended to ensure regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.

The Secretary recognizes the sovereign status and co-manager role of Indian tribes over shared Federal and tribal fishery resources. At Section 302(b)(5), the MSA reserves a seat on the Council for a representative of an Indian tribe with Federally-recognized fishing rights from California, Oregon, Washington, or Idaho.

The U.S. government formally recognizes that the four Washington Coastal Tribes (Makah, Quileute, Hoh, and Quinault) have treaty rights to fish for salmon within the Council-managed area. Each of the treaty tribes has the discretion to administer their fisheries and to establish their own policies to achieve program objectives. In addition, other tribes with Federally-recognized fishing rights may be impacted by Council-area fisheries, including tribes from Puget sound, the Columbia River, and the Klamath River. Accordingly, tribal allocations and regulations have been developed in consultation with the affected tribe(s) and, insofar as possible, with tribal consensus.

5.9 *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act of 1918 was designed to end the commercial trade of migratory birds and their feathers that, by the early years of the 20th century, had diminished populations of many native bird species. The act states it is unlawful to take, kill, or possess migratory birds and their parts (including eggs, nests, and feathers) and is a shared agreement between the United States, Canada, Japan, Mexico, and Russia to protect a common migratory bird resource. The Migratory Bird Treaty Act prohibits the directed take of seabirds, but the incidental take of seabirds does occur. None of the alternatives are likely to affect the incidental take of seabirds protected by the Migratory Bird Treaty Act.

5.10 *Executive Order 12898 – Environmental Justice*

Executive Order 12898 obligates Federal agencies to identify and address “disproportionately high adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations in the United States” as part of any overall environmental analysis associated with an action. NOAA guidance, NAO 216-6, at §7.02, states that “consideration of Executive Order 12898 should be specifically included in the NEPA documentation for decision making purposes.” Agencies should also encourage public participation—especially by affected communities—as part of a broader strategy to address environmental justice issues.

The environmental justice analysis must first identify minority and low-income groups that live in the project area and may be affected by the action. Typically, census data are used to document the occurrence and distribution of these groups. Agencies should be cognizant of distinct cultural, social, economic or occupational factor that could amplify the adverse effects of the proposed action. (For example, if a particular kind of fish is an important dietary component, fishery management actions affecting the availability or price of that fish could have a disproportionate effect.) In the case of Indian tribes, pertinent treaty or other special rights should be considered. Once communities have been identified and characterized, and potential adverse impacts of the alternatives are identified, the analysis must determine whether these impacts are disproportionate. Because of the context in which environmental justice developed, health effects are usually considered and three factors may be used in an evaluation: whether the effects are deemed significant, as the

term is employed by NEPA; whether the rate or risk of exposure to the effect appreciably exceeds the rate for the general population or some other comparison group; and whether the group in question may be affected by cumulative or multiple sources of exposure. If disproportionately high adverse effects are identified, mitigation measures should be proposed. Community input into appropriate mitigation is encouraged.

The conservation and management objectives established in the Salmon FMP, and by extension, the alternatives considered in this EA, are not expected to affect minority and low-income communities. West Coast Indian tribes are part of the Council's decision-making process on salmon management issues, and tribes with treaty rights to salmon, groundfish, or halibut have a seat on the Council. Available demographic data detailed in the SEIS show that coastal counties where fishing communities are located are variable in terms of social indicators like income, employment, and race and ethnic composition. Generally, the Preferred Alternatives are intended to maintain current fishing practices and schedules while improving Council and NMFS efficiency in implementing specifications and management measures. As a result, the alternatives are not expected to have notable effects on fishing communities in general, nor on minority and low income groups in particular.

5.11 Executive Order 13132 – Federalism

Executive Order 13132 enumerates eight “fundamental federalism principles.” The first of these principles states “Federalism is rooted in the belief that issues that are not national in scope or significance are most appropriately addressed by the level of government closest to the people.” In this spirit, the Executive Order directs agencies to consider the implications of policies that may limit the scope of or preempt states’ legal authority. Preemptive action having such “federalism implications” is subject to a consultation process with the states; such actions should not create unfunded mandates for the states; and any final rule published must be accompanied by a “federalism summary impact statement.”

The Council and process offers many opportunities for states and Indian tribes (through their agencies, Council appointees, consultations, and meetings) to participate in the formulation of management measures. This process encourages states and tribes to institute complementary measures to manage fisheries under their jurisdiction that may affect federally managed stocks.

The proposed actions would not have federalism implications subject to Executive Order 13132.

5.12 Regulatory Impact Review

Executive Order 12866, Regulatory Planning and Review, was signed on September 30, 1993, and established guidelines for promulgating new regulations and reviewing existing regulations. The Executive Order covers a variety of regulatory policy considerations and establishes procedural requirements for analysis of the benefits and costs of regulatory actions. Section 1 of the Order deals with the regulatory philosophy and principles that are to guide agency development of regulations. It stresses that in deciding whether and how to regulate, agencies should assess all of the costs and benefits across all regulatory alternatives. Based on this analysis, approaches should be chosen that maximize net benefits to society, unless a statute requires another regulatory approach.

The regulatory principles in Executive Order 12866 emphasize careful identification of the problem to be addressed. The agency is to identify and assess alternatives to direct regulation, including economic incentives such as user fees or marketable permits, to encourage the desired behavior. Each agency is to assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only after reasoned determination the benefits of the

intended regulation justify the costs. In reaching its decision agency must use the best reasonably obtainable information, including scientific, technical and economic data, about the need for and consequences of the intended regulation. The regulatory impact review (RIR) provides a comprehensive review of the changes in net economic benefits to society associated with proposed regulatory actions. The analysis also provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problems. The purpose of the analysis is to ensure the regulatory agency systematically and comprehensively considers all available alternatives, so the public welfare can be enhanced in the most efficient and cost-effective way. The RIR addresses many of the items in the regulatory philosophy and principles of Executive Order 12866.

The RIR analysis and an environmental analyses required by NEPA have many common elements and they have been combined in this document. The following table shows where the elements of an RIR, as required by Executive Order 12866, are located.

Required RIR Elements	Corresponding Sections
Description of management objectives	Sections 1.2 & 1.3, Tables 2-1 and 4-1d
Description of the fishery ^{a/}	Chapter 3
Statement of the problem	Section 1.2.2
Description of each alternative considered in the analysis	Chapter 2
An analysis of the expected economic effects of each alternative	Sections 4.1.4, 4.2.4, and 4.3.4

a/ In addition to the information in this document, basic economic information is provided annually in the Review of 2003 Ocean Salmon Fisheries

The RIR is designed to determine whether the proposed actions could be considered “significant regulatory actions” according to Executive Order 12866. The Executive Order 12866 test requirements used to assess whether or not an action would be a “significant regulatory action” and the expected outcomes of the proposed management alternative are discussed below. A regulatory program is “economically significant” if it is likely to result in the following effects:

1. Have a annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities.

Income impacts in these fisheries have been less than \$100 million since at least 1991. Combined commercial and recreational coastal community impacts are not expected to be greater than \$100 million under any of the alternatives considered in this analysis.

Risk to Long Term Productivity:

The risk to long term stock productivity is within Magnuson-Stevens Act guidelines under the Preferred Alternative and Option III. Under Options I and II, there is a risk that long term productivity of at least one salmon stock would be adversely impacted

2. Create a serious inconsistency or otherwise interfere with action taken or planned by another agency.

None identified under any of the alternatives.

3. Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof.

None identified under any of the alternatives.

4. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

None identified under any of the alternatives.

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6.0 Reference Material

6.1 Bibliography

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- Pacific Fishery Management Council. 2004. *Preseason report II - Analysis of proposed regulatory options for 2004 ocean salmon fisheries*. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 200, Portland, Oregon 97220-1384.
- Pacific Fishery Management Council. 2004. *Acceptable biological catch and optimum yield specification and management measures for the 2004 Pacific Coast groundfish fishery*. Final environmental impact statement and regulatory analyses. Pacific Fishery Management Council, Portland, OR.

Pacific Fishery Management Council. 2004. *Preseason report III - Analysis of Council adopted management measures for 2004 ocean salmon fisheries*. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 200, Portland, Oregon 97220-1384.

6.2 List of Public Meetings, Agencies, and Persons Consulted

The following public meetings were held as part of the salmon management process (Council-sponsored meetings in bold):

- October 23, 2003: **Salmon Technical Team/Scientific and Statistical Committee Salmon Subcommittee joint meeting**, Portland, Oregon.
- January 20-23: **Salmon Technical Team (Review preparation)**, Portland, Oregon.
- February 5-6: California Fish and Game Commission meeting, Long Beach, California.
- February 6: Washington Fish and Wildlife Commission meeting, Olympia, Washington.
- February 6: Oregon Fish and Wildlife Commission meeting, Portland, Oregon.
- February 17-20: **Salmon Technical Team (Preseason Report I preparation)**, Portland, Oregon.
- February 25: California Department of Fish and Game Public Meeting, Santa Rosa, California.
- March 1: Washington Department of Fish and Wildlife public meeting, Olympia, Washington.
- March 1-3: Klamath Fishery Management Council meeting, Klamath, California.
- March 4: Oregon Salmon Industry Group meeting, Newport, Oregon.
- March 4-5: California Fish and Game Commission meeting, Redding, California.
- March 8-12: Klamath Fishery Management Council meeting concurrent with the Pacific Fishery Management Council, Sacramento, California.
- March 8-12: **Pacific Fishery Management Council meeting**, Tacoma, Washington.
- March 9: Washington Coastal Fisheries Discussion, South Bend, Washington.
- March 11: Puget Sound Fisheries Discussion, Mill Creek, Washington.
- March 16: Columbia River Fisheries Discussion, Portland, Oregon.
- March 17: North of Falcon and *U.S. v. Oregon Forums*, Lynwood, Washington.
- March 19: Oregon Fish and Wildlife Commission meeting, Gold Beach, Oregon.
- March 24: California Fish and Game Commission public hearing to discuss ocean options and Klamath basin river regulations, Crescent City, California.

- March 29-30: **Public hearings on management options** in Westport, Washington; Coos Bay, Oregon; and Fort Bragg, California.
- March 30: North of Falcon and *U.S. v. Oregon Forums*, Seattle, Washington.
- April 1-2: California Fish and Game Commission meeting, Sacramento, California.
- April 2-3: Washington Fish and Wildlife Commission meeting, Spokane, Washington.
- April 4-9: Klamath Fishery Management Council meeting concurrent with the Pacific Fishery Management Council, Vancouver, Washington.
- April 5-9: **Pacific Fishery Management Council meeting**, Sacramento, California.
- April 16: Oregon Fish and Wildlife Commission meeting, Beaverton, Oregon.

The following organizations were consulted and/or participated in preparation of supporting documents:

California Department of Fish and Game
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife

National Marine Fisheries Service, Sustainable Fisheries Division, Northwest Region
National Marine Fisheries Service, Northwest Fisheries Science Center
National Marine Fisheries Service, Southwest Fisheries Science Center
U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office

West Coast Indian Tribes

6.3 *List of Preparers*

Pacific Fishery Management Council:

Mr. Chuck Tracy
Dr. Christopher Dahl
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Salmon Technical Team:

Mr. Dell Simmons, National Marine Fisheries Service
Mr. Allen Grover, California Department of Fish and Game
Dr. Robert Kope, National Marine Fisheries Service
Mr. Craig Foster, Oregon Department of Fish and Wildlife
Mr. Doug Milward, Washington Department of Fish and Wildlife
Mr. Michael Mohr, National Marine Fisheries Service
Dr. Gary Morishima, Northwest Indian Tribes
Dr. Henry Yuen, U.S. Fish and Wildlife Service

National Marine Fisheries Service:

Mr. Chris Wright

Mr. Dan Viele

Mr. Matt Harrington

Appendix A: Detailed Descriptions of Management Alternatives

TABLE A-1a. Council-adopted **non-Indian commercial troll** management measures for ocean salmon fisheries, 2004. (Page 1 of 5)

A. SEASON DESCRIPTION

North of Cape Falcon

Supplementary Management Information:

- Overall non-Indian total allowable catch (TAC): 89,000 chinook and 270,000 coho, with no preseason trade between recreational and commercial fisheries.
- 2. Non-Indian commercial troll TAC: 44,500 chinook and 67,500 coho.
- 3. Treaty Indian commercial ocean troll quotas of: 49,000 chinook (22,500 in May/June; 26,500 for all-salmon season July through September 15 with no rollover allowed from the May/June season); and 75,000 coho.

U.S./Canada Border to Cape Falcon

- May 1 through earlier of June 30 or 29,800 chinook quota. The fishery will be managed to provide a remaining quota of 500 chinook for a June 26 through 30 open period with a 50 fish, per vessel landing limit for the five-day open period. All salmon except coho (C.7). Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3). Washington permitted vessels must land their fish within the area, and within 24 hours of any closure of this fishery. Oregon permitted vessels must land their fish within the area or in Garibaldi, Oregon, and within 24 hours of any closure of this fishery. State regulations require Oregon licensed limited fish sellers and fishers intending to transport and deliver their catch outside the area notify ODFW one hour prior to transport away from the port of landing by calling 541-867-0300 Ext. 271. Notification shall include vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).

U.S./Canada Border to Cape Falcon

- July 8 through earlier of September 15 or 14,700 preseason chinook guideline or a 67,500 coho quota. The 67,500 coho quota includes a subarea quota of 8,000 coho for the area between the U.S./Canada border and the Queets River (C.8). Fishery is open Thursday through Monday prior to August 11, and Wednesday through Sunday thereafter. Landing and possession limit of 125 chinook per vessel per five-day open period. An inseason conference call may occur no later than August 10 to consider reducing the landing and possession limit beginning August 11. All salmon, except no chum retention north of Cape Alava, Washington in August and September (C.7); all retained coho must have a healed adipose fin clip, except an inseason conference call may occur to consider allowing retention of all legal sized coho between Cape Falcon and the Queets River no earlier than September 1. Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3). Washington permitted vessels must land their fish within the area, and within 24 hours of any closure of this fishery. Oregon permitted vessels must land their fish within the area or in Garibaldi, Oregon, and within 24 hours of any closure of this fishery. State regulations require Oregon licensed limited fish sellers and fishers intending to transport and deliver their catch outside the area notify ODFW one hour prior to transport away from the port of landing by calling 541-867-0300 Ext. 271. Notification shall include vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery. Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason (C.8).

South of Cape Falcon

Cape Falcon to Florence South Jetty

- March 15 through June 30; July 7 through 12; July 19 through 27; August 1 through 14; August 19 through 24; and September 1 through October 31 (C.9). All salmon except coho (C.7). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through September 30, and 28 inches total length October 1 through 31 (B). See gear restrictions and definitions (C.2, C.3) and Oregon State regulations for a description of special regulations at the mouth of Tillamook Bay.

In 2005, the season will open March 15 for all salmon except coho, with a 27 inch chinook minimum size limit. This opening could be modified following Council review at its November 2004 meeting.

Florence South Jetty to Humbug Mt.

- March 15 through July 6; July 13 through 18; July 26 through 29; August 1 through 8; August 15 through 22; August 26 through 29; and September 1 through October 31 (C.9). All salmon except coho (C.7). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through September 30, and 28 inches total length October 1 through 31 (B). See gear restrictions and definitions (C.2, C.3).

In 2005, the season will open March 15 for all salmon except coho, with a 27 inch total length chinook minimum size limit. This opening could be modified following Council review at its November 2004 meeting.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

A. SEASON DESCRIPTION (Continued)

Humbug Mt. to OR/CA Border

- March 15 through May 31.
- June 1 through earlier of June 30 or 2,600 chinook quota;
- July 1 through earlier of July 31 or 1,600 chinook quota;
- August 1 through earlier of August 29 or 2,500 chinook quota;
- September 1 through earlier of September 30 or 3,000 chinook quota (C.9)

All salmon except coho. Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through August 29, and 28 inches total length September 1 through 30. No transfer of remaining quota from earlier fisheries allowed (C.9). Possession and landing limit of 50 fish per trip, per vessel June 1 through August 31, and 65 fish per trip per vessel in September. See gear restrictions and definitions (C.2, C.3). For seasons from June 1 through September 30, vessels must land their fish in Gold Beach, Port Orford, or Brookings, Oregon, and within 24 hours of closure. State regulations require fishers intending to transport and deliver their catch to other locations after first landing in one of these ports notify ODFW prior to transport away from the port of landing by calling 541-867-0300 Ext. 271, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery.

In 2005 the season will open March 15 for all salmon except coho, with a 27 inch total length minimum size limit. This opening could be modified following Council review at its November 2004 meeting.

OR/CA Border to Humboldt South Jetty

- September 1 through earlier of September 30 or 6,000 chinook quota.

All salmon except coho. Chinook minimum size limit of 28 inches total length. Possession and landing limit of 30 fish per day per vessel. All fish caught in this area must be landed within the area. See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.). When the fishery is closed between the OR-CA border and Humbug Mt. and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon, prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival.

Horse Mt. to Point Arena (Fort Bragg)

- July 10 through August 29; September 1 through 30.

All salmon except coho. Chinook minimum size limit of 27 inches total length through August 31; 28 inches total length September 1 through 30. Vessels must land and deliver their fish within 24 hours of any closure of this fishery. See gear restrictions and definitions (C.2, C.3).

Point Arena to U.S./Mexico Border

- May 1 through August 29; September 1 through 30.

All salmon except coho. Chinook minimum size limit 26 inches total length prior to July 1 and 27 inches total length beginning July 1 through September 30. Vessels must land and deliver their fish within 24 hours of any closure of this fishery. See gear restrictions and definitions (C.2, C.3).

Point Reyes to Point San Pedro

- October 1; October 4 through 8; and October 11 through 15.

All salmon except coho. Chinook minimum size limit 26 inches total length. See gear restrictions and definitions (C.2, C.3).

TABLE A-1a. Council-adopted **non-Indian commercial troll** management measures for ocean salmon fisheries, 2004. (Page 3 of 5)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

B. MINIMUM SIZE (Inches) (See C.1)					
Area (when open)	Chinook		Coho		Pink
	Total	Head-off	Total	Head-off	
North of Cape Falcon	28.0	21.5	16.0	12.0	None
Cape Falcon to Humbug Mt.					
Prior to May 1, 2004	26.0	19.5	-	-	None
May 1 to September 30, and beginning March 15, 2005	27.0	20.5	-	-	None
October 1 through 31	28.0	21.5	-	-	None
Humbug Mt. to OR/CA Border					
Prior to May 1, 2004	26.0	19.5	-	-	None
May 1 to August 31, and beginning March 15, 2005	27.0	20.5	-	-	None
September 1 through 30	28.0	21.5	-	-	None
OR/CA Border to Point Arena					
July 1 through August 31	27.0	20.5	-	-	None
September 1 through 30	28.0	21.5	-	-	None
Point Arena to U.S./Mexico Border					
May 1 to June 30, and October 1 to 15	26.0	19.5	-	-	None
July 1 through September 30	27.0	20.5	-	-	None

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.

C.2. Gear Restrictions:

- a. Single point, single shank, barbless hooks are required in all fisheries.
- b. *Cape Falcon, Oregon to the OR/CA border:* No more than 4 spreads are allowed per line.
- c. *OR/CA border to U.S./Mexico border:* No more than 6 lines are allowed per vessel, and barbless circle hooks are required when fishing with bait by any means other than trolling.

C.3. Gear Definitions:

- a. *Trolling defined:* Fishing from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
2. *Troll fishing gear defined:* One or more lines that drag hooks behind a moving fishing vessel. In that portion of the fishery management area (FMA) off Oregon and Washington, the line or lines must be affixed to the vessel and must not be intentionally disengaged from the vessel at any time during the fishing operation.
3. *Spread defined:* A single leader connected to an individual lure or bait.
4. *Circle hook defined:* A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

C.4. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll or recreational gear in the water while transiting any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species, and no salmon are in possession.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

C.5. Control Zone Definitions:

- a. *Cape Flattery Control Zone* - The area from Cape Flattery (48°23'00" N. lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to 48°10'00" N. lat. and east of 125°05'00" W. long.
- b. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°14'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- c. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and on the south, by 41°26'48" N. lat. (approximately six nautical miles south of the Klamath River mouth).

C.6. Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board, and the estimated time of arrival.

C.7. Incidental Halibut Harvest: During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. Halibut retained must be no less than 32 inches in total length, measured from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail, and must be landed with the head on. License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone: 206-634-1838). Applicants must apply prior to April 1 of each year. Incidental harvest is authorized only during May and June troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825). ODFW and Washington Department of Fish and Wildlife (WDFW) will monitor landings. If the landings are projected to exceed the 44,554 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to close the incidental halibut fishery.

License holders may land no more than one Pacific halibut per each three chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

A "C-shaped" yelloweye rockfish conservation area is an area to be avoided for salmon trolling. NMFS and the Council request salmon trollers voluntarily avoid this area in order to protect yelloweye rockfish. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (Washington marine area 3), with the following coordinates in the order listed:

48°18' N. lat.; 125°18' W. long.;
 48°18' N. lat.; 124°59' W. long.;
 48°11' N. lat.; 124°59' W. long.;
 48°11' N. lat.; 125°11' W. long.;
 48°04' N. lat.; 125°11' W. long.;
 48°04' N. lat.; 124°59' W. long.;
 48°00' N. lat.; 124°59' W. long.;
 48°00' N. lat.; 125°18' W. long.;
 and connecting back to 48°18' N. lat.; 125°18' W. long.

C.8. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Chinook remaining from the May through June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.
- b. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the SAS.
- c. At the March 2005 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2004).

C.9. Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

- C.10. For the purposes of California Department of Fish and Game (CDFG) Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humbug Mt., Oregon, to Horse Mt., California.
-

A. SEASON DESCRIPTION**North of Cape Falcon****Supplementary Management Information:**

1. Overall non-Indian TAC: 89,000 chinook and 270,000 coho, with no preseason trade between commercial and recreational fisheries.
2. Recreational TAC: 44,500 chinook and 202,500 coho.
3. No Area 4B add-on fishery.
4. Buoy 10 fishery opens August 1, with an expected landed catch of 10,500 coho in August and 4,500 coho in September.

U.S./Canada Border to Cape Alava (Neah Bay Area)

1. June 27 through earlier of September 19 or 21,050 coho subarea quota, with a subarea guideline of 3,700 chinook. Seven days per week. All salmon, except no chum retention August 1 through September 19, two fish per day (C.1), no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions and definitions (C.2, C.3). Beginning August 1, chinook non-retention east of the Bonilla-Tatoosh line (C.4.c) during the Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall recreational TAC for north of Cape Falcon (C.5).

Cape Alava to Queets River (La Push Area)

- June 27 through earlier of September 19 or 5,200 coho subarea quota with a subarea guideline of 1,900 chinook;
 - September 25 through October 10 or 100 coho quota or 100 chinook quota in the area north of 47°50'00" N. lat. and south of 47°58'00" N. lat. in state waters (inside three nautical miles) (C.6).
- Seven days per week. All salmon, two fish per day (C.1), no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.5).

Queets River to Leadbetter Point (Westport Area)

- June 27 through earlier of September 19 or 74,900 coho subarea quota with a subarea guideline of 30,800 chinook. Sun. through Thurs, except there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, two fish per day (C.1), no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.5).

Leadbetter Point to Cape Falcon (Columbia River Area)

- June 27 through earlier of September 30 or 101,250 coho subarea quota with a subarea guideline of 8,000 chinook. Sunday through Thursday, except there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, two fish per day (C.1), no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.a). Closed between Cape Falcon and Tillamook Head beginning August 1. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.5).

South of Cape Falcon**Cape Falcon to Humbug Mt.**

- Except as provided below during the selective fishery, the season will be March 15 through October 31 (C.6). All salmon except coho. Two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).

In 2005 the season will open March 15 for all salmon except coho. Two fish per day (C.1). Same gear restrictions as in 2004. This opening could be modified following Council review at its November 2004 meeting.

Selective fishery: Cape Falcon to OR/CA Border

- June 19 through earlier of August 31 or a landed catch of 75,000 coho. Open seven days per week, all salmon, two fish per day (C.1). All retained coho must have a healed adipose fin clip. Open days may be adjusted inseason to utilize the available quota (C.5). All salmon except coho seasons reopen the earlier of September 1 or attainment of the coho quota.

A. SEASON DESCRIPTION (Continued)**Humbug Mt. to Horse Mt. (Klamath Management Zone)**

- Except as provided above during the selective fishery, the season will be May 15 through September 12 (C.6). All salmon except coho. Seven days per week, two fish per day (C.1). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed August 1 through 31 (C.4.b).

Horse Mt. to Point Arena (Fort Bragg)

- February 14 through November 14. All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 24 inches total length through April 30 and 20 inches total length thereafter (B). See gear restrictions and definitions (C.2, C.3).

In 2005, season opens February 12 (nearest Saturday to February 15) for all salmon except coho. Two fish per day (C.1), chinook minimum size limit 20 inches total length and the same gear restrictions as in 2004.

Point Arena to Pigeon Point (San Francisco)

- April 17 through November 14. All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 24 inches total length through April 30 and 20 inches total length thereafter (B). See gear restrictions and definitions (C.2, C.3).

In 2005, the season will open April 2 for all salmon except coho. Two fish per day (C.1), 20-inch total length minimum size limit and the same gear restrictions as in 2004.

Pigeon Point to U.S./Mexico Border

- April 3 through October 3. All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 24 inches total length through April 30 and 20 inches total length thereafter (B). See gear restrictions and definitions (C.2, C.3).

In 2005, the season will open April 2 for all salmon except coho. Two fish per day (C.1), chinook 20-inch total length minimum size limit and the same gear restrictions as in 2004.

B. MINIMUM SIZE (Total Length in Inches) (See C.1)

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon	26.0	16.0	None
Cape Falcon to Horse Mt.	20.0	16.0	None, except 20.0 off CA
Horse Mountain to U.S./Mexico Border: Prior to May 1, 2004	24.0	-	20.0
Beginning May 1, 2004	20.0	-	20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size and Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.

Ocean Boat Limits: Off the coast of Washington, Oregon, and California, each fisher aboard a vessel may continue to use angling gear until the combined daily limits of salmon for all licensed and juvenile anglers aboard has been attained (additional state restrictions may apply).

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

- C.2. **Gear Restrictions:** All persons fishing for salmon, and all persons fishing from a boat with salmon on board, must meet the gear restrictions listed below for specific areas or seasons.
- a. *U.S./Canada Border to Point Conception, California:* No more than one rod may be used per angler; and single point, single shank, barbless hooks are required for all fishing gear. [Note: ODFW regulations in the state-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]
 - b. *Cape Falcon, Oregon to Point Conception, California:* Anglers must use no more than two single point, single shank, barbless hooks.
 - c. *Horse Mt., California to Point Conception, California:* Single point, single shank, barbless circle hooks (below) must be used if angling with bait by any means other than trolling, and no more than two such hooks shall be used. When angling with two hooks, the distance between the hooks must not exceed five inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.
- C.3. **Gear Definitions:**
- *Recreational fishing gear defined:* Angling tackle consisting of a line with no more than one artificial lure or natural bait attached. Off Oregon and Washington, the line must be attached to a rod and reel held by hand or closely attended; the rod and reel must be held by hand while playing a hooked fish. No person may use more than one rod and line while fishing off Oregon or Washington. Off California, the line must be attached to a rod and reel held by hand or closely attended. Weights directly attached to a line may not exceed four pounds (1.8 kg). While fishing off California north of Point Conception, no person fishing for salmon, and no person fishing from a boat with salmon on board, may use more than one rod and line. Fishing includes any activity which can reasonably be expected to result in the catching, taking, or harvesting of fish.
 - *Trolling defined:* Angling from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
 - 3. *Circle hook defined:* A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.
- C.4. **Control Zone Definitions:**
- a. *Columbia Control Zone:* An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09' N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°14'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
 - b. *Klamath Control Zone:* The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
 - c. *The Bonilla-Tatoosh Line:* A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°28'00" N. lat., 124°45'00" W. long.), then in a straight line to Bonilla Point (48°35'30" N. lat., 124°43'00" W. long.) on Vancouver Island, British Columbia.
- C.5. **Inseason Management:** Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing. NMFS may transfer coho inseason among recreational subareas north of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the SAS recreational representatives north of Cape Falcon. NMFS may also transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the SAS.
- C.6. **Additional Seasons in State Territorial Waters:** Consistent with Council management objectives, the States of Washington and Oregon may establish limited seasons in state waters. Oregon State-water fisheries are limited to chinook salmon. Check state regulations for details.

TABLE A-1c. Council adopted treaty Indian ocean troll salmon fishery management measures, 2004. (Page 1 of 1)

Tribe and Area Boundaries ^{a/}	Open Seasons	Salmon Species	Minimum Size ^{b/} (Inches)		Special Restrictions by Area
			Chinook	Coho	
S'KLALLAM - Washington State Statistical Area 4B (All)	May 1 through earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than eight fixed lines per boat; 72 hook maximum per boat.
	July 1 through earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
MAKAH - Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.	May 1 through earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than eight fixed lines per boat or no more than four hand-held lines per person.
	July 1 through earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
QUILEUTE - That portion of the FMA between 48°07'36" N. lat. (Sand Point) and 47°31'42" N. lat. (Queets River) and east of 125°44'00" W. long.	May 1 through earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than eight fixed lines per boat. ^{d/}
	July 1 through earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
HOH - That portion of the FMA between 47°54'18" N. lat. (Quillayute River) and 47°21'00" N. lat. (Quinault River) and east of 125°44'00" W. long.	May 1 through earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than eight fixed lines per boat. ^{d/}
	July 1 through earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
QUINULT - That portion of the FMA between 47°40'06" N. lat. (Destruction Island) and 46°53'18" N. lat. (Point Chehalis) and east of 125°44'00" W. long.	May 1 through earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than eight fixed lines per boat. ^{d/}
	July 1 through earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	

a/ All boundaries may be changed to include such other areas as may, hereafter, be authorized by a Federal court for that tribe's treaty fishery.

b/ Applicable lengths in inches for dressed, head-off salmon, are 18 inches for chinook and 12 inches for coho. There are no minimum size or retention limits for ceremonial and subsistence harvest.

c/ The overall treaty Indian troll ocean quotas are 49,000 chinook and 75,000 coho. The overall chinook quota is divided into 22,500 chinook in the May/June chinook-directed fishery and 26,500 chinook in the July through September all-salmon season. If the chinook quota for the May/June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 through September 15. If the treaty Indian troll catch taken from areas 4/4B is projected inseason to exceed 55,000 coho, the total treaty Indian troll quota will be adjusted to ensure the exploitation rate impact of the treaty Indian troll fishery on Interior Fraser coho does not exceed the level anticipated under the assumptions employed for impact assessment. The Quileute Tribe will continue a ceremonial and subsistence fishery during the time frame of September 15 through October 15; fish taken during this fishery are to be counted against treaty troll quotas established for the 2004 season.

d/ The area within a six nautical mile radius of the mouths of the Queets River (47°31'42" N. lat.) and the Hoh River (47°45'12" N. lat.) will be closed to commercial fishing. A closure within two nautical miles of the mouth of the Quinault River (47°21'00" N. lat.) may be enacted by the Quinault Nation and/or the State of Washington and will not adversely affect the Secretary of Commerce's management regime.

TABLE A-2a. 2003 commercial management measures.

A. DESCRIPTION

North of Cape Falcon

Supplementary Management Information:

1. Overall non-Indian TAC: 124,000 chinook and 300,000 coho.
2. No trade between recreational and commercial fisheries.
3. Non-Indian Troll TAC: 64,400 chinook and 75,000 coho.
4. Treaty Indian commercial ocean troll quotas of: 60,000 chinook (30,000 in May and June; 30,000 for the all-salmon season in July through September 15, with no rollover allowed from May-June season); and 90,000 coho.

U.S./Canada Border to Cape Falcon

- May 1 through earlier of June 30 or 40,000 chinook quota. The fishery will be managed to provide a remaining quota of 800 chinook for a June 26-30 open period with a 50 fish per vessel landing limit for the five-day open period.

All salmon except coho (B; C.6). Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within the area or in Garibaldi, Oregon, and within 24 hours of any closure of this fishery. State regulations require that fishers south of Cape Falcon intending to fish within this area, and/or fishers fishing within this area intending to land salmon in Garibaldi, Oregon, notify Oregon Department of Fish and Wildlife (ODFW) before transiting the Cape Falcon line (45° 46'00" N. lat.) at the following phone number: (541) 867-0300 Ex. 252. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).

U.S./Canada Border to Cape Falcon

- July 3 through earlier of September 14 or 24,400 preseason chinook guideline (C.7.a), or a 75,000 coho quota. Fishery is 5-days open/2-days closed. Landing limit of 75 chinook per vessel for the period July 3-7; landing limit of 150 chinook per 5-day open period for the remainder of the season. All salmon except no chum retention north of Cape Alava during August and September (B; C.6). All retained coho must have a healed adipose fin clip (C.6). Cape Flattery, and Columbia Control Zones closed; Grays Harbor Control Zone closed beginning August 16 (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within the area or in Garibaldi, Oregon, and within 24 hours of any closure of this fishery. State regulations require fishers south of Cape Falcon intending to fish within this area, and/or fishers fishing within this area intending to land salmon in Garibaldi, Oregon, notify ODFW before transiting the Cape Falcon line (45° 46'00" N. lat.) at the following phone number: (541) 867-0300 Ex. 252. Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason.

South of Cape Falcon

Cape Falcon to Florence South Jetty

- March 15 through July 16; August 1 through August 19 and September 1 through October 31 (C.8). All salmon except coho (C.6). Chinook 26 inch minimum size limit, except 27 inches May 1 through September 30 and 28 inches October 1 through October 31 (B). See gear restrictions (C.2) and Oregon state regulations for a description of the closed area at the mouth of Tillamook Bay.

In 2004, the season will open March 15 for all salmon except coho. Chinook 26 inch minimum size limit. This opening could be modified following Council review at its November 2003 meeting.

TABLE A-2a. 2003 commercial management measures.

A. SEASON DESCRIPTION (Continued)

Florence South Jetty to Humbug Mt.

- March 15 through June 30; July 17 through July 31; August 11 through August 29; and September 1 through October 31 (C.8). All salmon except coho (C.6). Chinook 26 inch minimum size limit, except 27 inches May 1 through September 30 and 28 inches October 1 through October 31 (B). See gear restrictions (C.2).

In 2004, the season will open March 15 for all salmon except coho. Chinook 26 inch minimum size limit. This opening could be modified following Council review at its November 2003 meeting.

Humbug Mt. to OR-CA Border

- March 15 through May 31. All salmon except coho. See gear restrictions (C.2).
- June 1 through earlier of June 30 or 2,500 chinook quota;
- July 1 through earlier of July 31 or 1,200 chinook quota;
- August 1 through earlier of August 29 or 2,500 chinook quota;
- September 1 through earlier of September 30 or 3,000 chinook quota with a chinook 28 inch minimum size limit (B).

No transfer of remaining quota from earlier fisheries allowed (C.8). All salmon except coho. Possession and landing limit of 50 fish per trip June 1 through August 29; 65 fish per trip September 1-30. See gear restrictions (C.2). June 1 through September 30 all salmon must landed and delivered to Gold Beach, Port Orford, or Brookings, and within 24 hours of closure.

In 2004, the season will open March 15 for all salmon except coho. Chinook 26 inch minimum size limit. This opening could be modified following Council review at its November 2003 meeting.

Oregon/California Border to Humboldt South Jetty

- September 1 through earlier of September 30 or 10,000 chinook quota.

All salmon except coho (B). Possession and landing limit of 40 fish per day. All fish caught in this area must be landed within the area and within 24 hours of any closure. See gear restrictions (C.2). Klamath Control Zone closed (C.4.d). When the fishery is closed between the OR-CA border and Humbug Mt. and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon, prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival.

Horse Mt. to Pt. Arena (Fort Bragg)

- May 1 through May 31, July 3 -14; July 18 through September 30.

All salmon except coho (B). No possession or landing limit, or area landing restriction except: July 3 - 14 possession and landing limit of 150 fish per day per vessel and all fish caught in this area must be landed within the area and within 24 hours of any closure. See gear restrictions (C.2).

Pt. Arena to U.S-Mexico Border

- May 1 through September 30.

All salmon except coho (B). See gear restrictions (C.2).

Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)

October 1 through October 17, Monday through Friday. All salmon except coho (B). See gear restrictions (C.2).

TABLE A-2a. 2003 commercial management measures.

B. MINIMUM SIZE (Inches) (See C.1)					
Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	28.0	21.5	16.0	12.0	None
Cape Falcon to Humbug Mt.					
Prior to May 1	26.0	19.5	-	-	None
May 1- September 30	27.0	20.5	-	-	None
October 1-31	28.0	21.5	-	-	None
Humbug Mt. to OR/CA Border					
Prior to September 1	26.0	19.5	-	-	None
September 1-30	28.0	21.5	-	-	None
South of OR/CA Border	26.0	19.5	-	-	None

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.

C.2. Gear Restrictions:

- a. Single point, single shank barbless hooks are required in all fisheries.
- b. *Cape Falcon, Oregon to the Oregon/California border:* No more than 4 spreads are allowed per line.
Spread defined: A single leader connected to an individual lure or bait.
- c. *Oregon/California border to U.S./Mexico border:* No more than 6 lines are allowed per vessel and barbless circle hooks are required when fishing with bait by any means other than trolling.

Circle hook defined: A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

Trolling defined: Fishing from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.

C.3. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll or recreational gear in the water while transiting any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species and no salmon are in possession.

C.4. Control Zone Definitions:

- a. *Cape Flattery Control Zone* - The area from Cape Flattery (48°23'00" N. lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to Cape Alava (48°10'00" N. lat.), and east of 125° 05'00" W. long.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).

TABLE A-2a. 2003 commercial management measures.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

- c. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. Lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
 - d. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
- C.5. Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board and the estimated time of arrival.
- C.6. Incidental Halibut Harvest: During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. Halibut retained must be no less than 32 inches in measured from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail, and must be landed with the head on. License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone 206-634-1838). Applicants must apply prior to April 1 of each year. Incidental harvest is authorized only during May-June troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone 800-662-9825). ODFW and WDFW will monitor landings. If the landings are projected to exceed the 39,300 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to close the incidental halibut fishery.
- License holders may land no more than 1 halibut per each 3 chinook, except 1 halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Halibut retained must be no less than 32 inches in total length (with head on).
- A "C-shaped" yelloweye rockfish conservation area is an area to be avoided for salmon troll fishing. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (WA marine area 3), with the following coordinates in the order listed:
- 48°18' N. lat.; 125°18' W. long;
 - 48°18' N. lat.; 124°59' W. long;
 - 48°11' N. lat.; 124°59' W. long;
 - 48°11' N. lat.; 125°11' W. long;
 - 48°04' N. lat.; 125°11' W. long;
 - 48°04' N. lat.; 124°59' W. long;
 - 48°00' N. lat.; 124°59' W. long;
 - 48°00' N. lat.; 125°18' W. long;
- And connecting back to 48°18' N. lat.; 125°18' W. long.
- C.7. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
- a. Any chinook remaining in the May-June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July-September harvest guideline on a fishery impact equivalent basis.
 - b. At the March 2004 meeting, the Council will consider inseason recommendations to: (1) open commercial seasons for all salmon except coho prior to May 1 in the area between Horse Mt. and Point Arena, California, and (2) identify the areas, season, quota, and special regulations for any experimental April fisheries (experimental fishery proposals must meet Council protocol and be received in November 2003).

TABLE A-2a. 2003 commercial management measures.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

C.8. Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.

C.9. For the purposes of CDFG Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humbug Mt., Oregon to Horse Mt., California.

TABLE A-2b. 2003 recreational management measures.

A. SEASON DESCRIPTION

North of Cape Falcon

Supplementary Management Information:

1. Overall non-Indian TAC: 124,000 chinook and 300,000 coho.
2. No trade between recreational and commercial fisheries.
3. Recreational TAC: 59,600 chinook and 225,000 coho.
4. No Area 4B add-on fishery.
5. Buoy 10 fishery opens August 1 with an expected landed catch of 35,000 coho with healed adipose fin clips.

U.S.-Canada Border to Cape Alava (Neah Bay Area)

- June 22 through earlier of September 14 or 23,400 coho subarea quota with a subarea guideline of 3,900 chinook. All salmon except no chum retention north of Cape Alava August 1 through September 14; open 7 days per week, 2 fish per day plus one additional pink salmon, only one of which may be a chinook (chinook 26-inch minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Chinook non-retention east of the Bonilla-Tatoosh line (C.3.d) during Council managed ocean fishery, except chinook retention allowed July 1 through July 31. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

Cape Alava to Queets River (La Push Area)

- June 22 through earlier of September 14 or 5,750 coho subarea quota with a subarea guideline of 2,300 chinook;
- September 20 through earlier of October 5 or 100 coho quota or 100 chinook quota. Inside area defined by a line from Teahwhit Head (47°52'24" N. lat., 124°36'36" W. long.) northwesterly to "Q" buoy (47°53'08" N. lat., 124°40'34" W. long.) to Cake Rock (47°56'00" N. lat., 124°41'12" W. long.) then true east to the shoreline (C.5). All salmon, open 7 days per week, 2 fish per day plus one additional pink salmon, only one of which may be a chinook (chinook 26-inch minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

Queets River to Leadbetter Pt. (Westport Area)

- June 22 through earlier of September 14 or 83,250 coho subarea quota with a subarea guideline of 40,600 chinook. Open Sunday through Thursday All salmon, 2 fish per day, only one of which may be a chinook (chinook 26-inch minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Grays Harbor Control Zone closed beginning August 16 (C.3.b). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

Leadbetter Pt. to Cape Falcon (Columbia River Area)

- June 29 through earlier of September 30 or 112,500 coho subarea quota with a subarea guideline of 12,700 chinook. Open Sunday through Thursday A conference call will be scheduled for a day no later than August 6 to discuss opening 7 days per week. All salmon. Two fish per day, only one of which may be a chinook (chinook 26-inch minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Columbia Control Zone closed (C.3.a). Closed between Cape Falcon and Tillamook Head beginning August 1. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

TABLE A-2b. 2003 recreational management measures.

A. SEASON DESCRIPTION (Continued)

South of Cape Falcon

Cape Falcon to Humbug Mt.

- Except as provided below during the mark selective fishery, the season will be: March 15 through October 31 (C.5). All salmon except coho (B). Open 7 days per week, 2 fish per day. See gear restrictions (C.2.). See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay (C.5).

In 2004, the season will open March 15 for all salmon except coho. Open 7 days per week, 2 fish per day. This opening could be modified following Council review at its November 2003 meeting.

Selective fishery for marked coho:

- June 21 through earlier of August 24 or a landed catch of 88,000 coho. Open 7 days per week. All salmon (B). 2 fish per day. All retained coho must have a healed adipose fin clip. Open days may be adjusted inseason to utilize the available quota (C.4). All salmon except coho season reopens the earlier of August 25 or attainment of the coho quota.

Humbug Mt. to Horse Mt. (Klamath Management Zone)

- May 17 through September 14. All salmon except coho (B). Open 7 days per week, 2 fish per day. See gear restrictions (C.2). Klamath Control Zone closed (C.3.c).

Horse Mt. to Pt. Arena (Fort Bragg)

- February 15 through November 16. All salmon except coho. Open 7 days per week, 2 fish per day. Chinook minimum size limit 24 inches through April 30, and 20 inches thereafter (B). See gear restrictions (C.2).

In 2004, season opens February 14 (nearest Saturday to February 15) for all salmon except coho. Open 7 days per week, 2 fish per day, chinook 24-inch minimum size limit (B) and the same gear restrictions as in 2003 (C.2).

Pt. Arena to Pigeon Pt. (San Francisco)

- April 12 through November 9. All salmon except coho. Open 7 days per week, 2 fish per day. Chinook minimum size limit 24 inches through April 30, and 20 inches thereafter (B). See gear restrictions (C.2).

In 2004, the season will open April 17 for all salmon except coho. Open 7 days per week, 2 fish per day, chinook 24-inch minimum size limit (B) and the same gear restrictions as in 2003 (C.2).

Pigeon Pt. to U.S.-Mexico Border

- March 29 through September 28. All salmon except coho. Open 7 days per week, 2 fish per day. Chinook minimum size limit 24 inches through April 30, and 20 inches thereafter (B). See gear restrictions (C.2).

In 2004, the season will open April 3 for all salmon except coho. Open 7 days per week, 2 fish per day, chinook 24-inch minimum size limit (B) and the same gear restrictions as in 2003 (C.2).

TABLE A-2b. 2003 recreational management measures.

B. MINIMUM SIZE (Total Length in Inches) (See C.1)			
Area (when open)	Chinook	Coho	Pink
North of Cape Falcon	26.0	16.0	None
Cape Falcon to Horse Mt.	20.0	16.0	None, except 20.0 off CA
South of Horse Mt. Prior to May 1	24.0	-	20.0
Beginning May 1	20.0	-	20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Compliance with Minimum Size and Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished, and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.

C.2. Gear Restrictions: All persons fishing for salmon, and all persons fishing from a boat or floating device with salmon on board must meet the gear restrictions listed below for specific areas or seasons.

- a. *U.S./Canada Border to Pt. Conception, California*: No more than one rod may be used per angler and single point, single shank barbless hooks are required for all fishing gear. [Note: ODFW regulations in the state-waters fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]
- b. *Cape Falcon, Oregon to Pt. Conception, California*: Anglers must use no more than 2 single point, single shank barbless hooks.
- c. *Horse Mt., California to Pt. Conception, California*: Single point, single shank, barbless circle hooks (below) must be used if angling with bait by any means other than trolling and no more than 2 such hooks shall be used. When angling with 2 hooks, the distance between the hooks must not exceed 5 inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

Circle hook defined: A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

Trolling defined: Angling from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.

C.3. Control Zone Definitions:

- a. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. Lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" West. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.

TABLE A-2b. 2003 recreational management measures.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124° 12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124° 10'51" W. long.).
 - c. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
 - d. The Bonilla-Tatoosh Line is defined as: A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°28'00" N. lat., 124°45'00" W. long.), then in a straight line to Bonilla Point (48°35'30" N. lat., 124°43'00" W. long.) on Vancouver Island, B.C.
- C.4. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. Actions could include modifications to bag limits or days open to fishing, and extensions or reductions in areas open to fishing. NMFS may transfer coho inseason among recreational subareas north of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with the states, Council, representatives of the affected ports, and the Salmon Advisory Subpanel recreational representatives north of Cape Falcon.
- C.5. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the states of Washington and Oregon may establish limited seasons in state waters. Oregon state-water fisheries are limited to chinook salmon. Check state regulations for details.

TABLE A-2c. 2003 Treaty Indian management measures.

Tribe and Area Boundaries ^{a/}	Open Seasons	Salmon Species	Minimum Size ^{b/} (Inches)		Special Restrictions by Area
			Chinook	Coho	
<u>S'KLALLAM</u> - Washington State Statistical Area 4B (All)	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat; 72 hook maximum per boat.
	July 1 thru earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>MAKAH</u> - Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat or no more than 4 hand-held lines per person.
	July 1 thru earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>QUILEUTE</u> - That portion of the FMA between 48°07'36" N. lat. (Sand Pt.) and 47°31'42" N. lat. (Queets River) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat. ^{d/}
	July 1 thru earliest of September 15 or chinook or coho quota. ^{c/d/}	All	24	16	
<u>HOH</u> - That portion of the FMA between 47°54'18" N. lat. (Quillayute River) and 47°21'00" N. lat. (Quinault River) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat. ^{d/}
	July 1 thru earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>QUINAULT</u> - That portion of the FMA between 47°40'06" N. lat. (Destruction Island) and 46°53'18" N. lat. (Point Chehalis) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat. ^{d/}
	July 1 thru earliest of September 15 or chinook or coho quota. ^{c/}	All	24	16	

a/ All boundaries may be changed to include such other areas as may hereafter be authorized by a Federal court for that tribe's treaty fishery.

b/ Applicable lengths, in inches, for dressed, head-off salmon, are 18 inches for chinook and 12 inches for coho. There are no minimum size or retention limits for ceremonial and subsistence harvest.

c/ The overall treaty troll ocean quotas are: 60,000 chinook and 90,000 coho. The overall chinook quota is divided into 30,000 chinook for the May/June chinook-directed fishery and 30,000 chinook for the July through September all-salmon season. If the chinook quota for the May/June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 through September 15.

d/ The Quileute Tribe will continue a ceremonial and subsistence fishery during the time frame of September 15 through October 15 in the same manner as in 2002; fish taken during this fishery are to be counted against treaty Indian ocean troll quotas established for the July through September 2003 season (see c/ above).

e/ The area within a 6 nautical mile radius of the mouths of the Queets River (47°31'42" N. lat.) and the Hoh River (47°45'12" N. lat.) will be closed to commercial fishing. A closure within 2 nautical miles of the mouth of the Quinault River (47°21'00" N. lat.) may be enacted by the Quinault Nation and/or the State of Washington and will not adversely affect the Secretary of Commerce's management regime.

TABLE A-3a. **Commercial troll** management options adopted by the Council for of non-Indian ocean salmon fisheries, 2004. (Page 1 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
The fisheries in this option will need to be restructured if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an SRFI at or below 0.70 as required by the NMFS ESA consultation standard. North of Cape Falcon Supplemental Management Information: - Overall non-Indian TAC: 120,000 chinook and 275,000 coho. Trade: May be considered at the April Council meeting. - Non-Indian commercial troll TAC: 62,000 chinook and 68,750 coho. - Treaty Indian commercial ocean troll quotas of: 60,000 chinook (30,000 in May and June; 30,000 for all-salmon season July through Sept. 15 with no rollover allowed from chinook season); and 90,000 coho. - Overall chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of final preseason catch expectations for Canadian and Alaskan fisheries.	North of Cape Falcon Supplemental Management Information: - Overall non-Indian TAC: 90,000 chinook and 225,000 coho. Trade: May be considered at the April Council meeting. - Non-Indian commercial troll TAC: 45,000 chinook and 56,250 coho. - Treaty Indian commercial ocean troll quotas of: 40,000 chinook (20,000 in May and June; 20,000 for all-salmon season July through Sept. 15 with no rollover allowed from chinook season); and 75,000 coho. - Overall chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of final preseason catch expectations for Canadian and Alaskan fisheries.	North of Cape Falcon Supplemental Management Information: - Overall non-Indian TAC: 60,000 chinook and 175,000 coho Trade: May be considered at the April Council meeting. - Non-Indian commercial troll TAC: 30,000 chinook and 43,750 coho. - Treaty Indian commercial ocean troll quotas of: 30,000 chinook (15,000 in May and June; 15,000 for all-salmon season July through Sept. 15 with no rollover allowed from chinook season); and 60,000 coho. - Overall chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of final preseason catch expectations for Canadian and Alaskan fisheries.
U.S./Canada Border to Cape Falcon May 1 through earlier of June 30 or 41,800 chinook quota. The fishery will be managed to provide a remaining quota of 800 chinook for a June 26-30 open period with a 75 fish per vessel landing limit for the five-day open period. All salmon except coho (C.6). Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within the area or in Garibaldi, OR, and within 24 hours of any closure of this fishery. State regulations require that fishers south of Cape Falcon intending to fish within this area, and/or fishers fishing within this area intending to land salmon in Garibaldi, OR, notify Oregon Department of Fish and Wildlife (ODFW) before transiting the Cape Falcon line (45°46'00" N. lat.) at the following phone number (541) 867-0300 Ext. 271. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).	U.S./Canada Border to Cape Falcon May 1 through earlier of June 30 or 30,000 chinook quota. All salmon except coho (C.6). Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within 24 hours of any closure of this fishery except Oregon licensed limited fish sellers are not required to offload catch within 24 hours. These vessels are required to provide updated catch information to the Oregon Department of Fish and Wildlife at (541) 867-0300 Ext. 271 within 24 hours of any closure of the fishery. Notification shall include vessel name and number and number of salmon by species. Any vessel intending to land or deliver in Oregon south of Cape Falcon must notify the Oregon Department of Fish and Wildlife one hour prior to landing or transporting fish outside the area. Notification shall be made by calling (541) 867-0300 Ext. 271 with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).	U.S./Canada Border to Cape Falcon May 1 through earlier of June 30 or 25,000 chinook quota. All salmon except coho (C.6). Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within the area or in Garibaldi, OR, and within 24 hours of any closure of this fishery. State regulations require that fishers south of Cape Falcon intending to fish within this area, and/or fishers fishing within this area intending to land salmon in Garibaldi, OR, notify Oregon Department of Fish and Wildlife (ODFW) before transiting the Cape Falcon line (45°46'00" N. lat.) at the following phone number (541) 867-0300 Ext. 271. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).

TABLE A-3a. **Commercial troll** management options adopted by the Council for of non-Indian ocean salmon fisheries, 2004. (Page 2 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
U.S./Canada Border to Cape Falcon July 2 through earlier of Sept. 15 or 20,200 preseason chinook guideline (C.7.a) or a 68,750 coho quota. The 68,750 coho quota includes a subarea quota of 10,000 coho for the area between the U.S./Canada border and the Queets River. Fishery is 5-days open/2-days closed. Landing and possession limit of 150 chinook per vessel per 5-day open period. All salmon (C.6). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than August 1 to consider allowing retention of all legal sized coho. Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within the area or in Garibaldi, OR, and within 24 hours of any closure of this fishery. State regulations require that fishers south of Cape Falcon intending to fish within this area, and/or fishers fishing within this area intending to land salmon in Garibaldi, OR, notify ODFW before transiting the Cape Falcon line (45°46'00" N. lat.) at the following phone number (541) 867-0300 Ext. 271.). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason (C.7.a, b).	U.S./Canada Border to Cape Falcon July 9 through earlier of Sept. 15 or 15,000 preseason chinook guideline (C.7.a) or a 56,250 coho quota. Fishery is 5-days open/2-days closed. Landing and possession limit of 150 chinook per vessel per 5-day open period. All salmon (C.6). All retained coho must have a healed adipose fin clip. Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within 24 hours of any closure of this fishery except Oregon licensed limited fish sellers are not required to offload catch within 24 hours. These vessels are required to provide updated catch information to ODFW at (541) 867-0300 Ext. 271 within 24 hours of any closure of the fishery. Notification shall include vessel name and number and number of salmon by species. Any vessel intending to land or deliver in Oregon south of Cape Falcon must notify ODFW one hour prior to landing or transporting fish outside the area. Notification shall be made by calling (541) 867-0300 Ext. 271 with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery. Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason (C.7.a, b).	U.S./Canada Border to Cape Falcon July 9 through earlier of Sept. 15 or 5,000 preseason chinook guideline (C.7.a) or a 43,750 coho quota. Fishery is 5-days open/2-days closed. Landing and possession limit of 50 chinook per vessel per 5-day open period. All salmon (C.6). All retained coho must have a healed adipose fin clip. Cape Flattery and Columbia Control Zones closed (C.4). See gear restrictions (C.2). Vessels must land and deliver their fish within the area or in Garibaldi, OR, and within 24 hours of any closure of this fishery. State regulations require that fishers south of Cape Falcon intending to fish within this area, and/or fishers fishing within this area intending to land salmon in Garibaldi, OR, notify ODFW before transiting the Cape Falcon line (45°46'00" N. lat.) at the following phone number (541) 867-0300 Ext. 271.). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason (C.7.a, b).

TABLE A-3a. **Commercial troll** management options adopted by the Council for of non-Indian ocean salmon fisheries, 2004. (Page 3 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
South of Cape Falcon Cape Falcon to Florence South Jetty - March 15 through July 17; Aug. 1 through Aug. 20 and Sept. 1 through Oct. 31 (C.8). All salmon except coho (C.6). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches May 1 through Sept. 30, and 28 inches October 1-31 (B). See gear restrictions (C.2) and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2005, the season will open March 15 for all salmon except coho, with a 27 inch chinook minimum size limit. This opening could be modified following Council review at its November 2004 meeting. Florence South Jetty to Humbug Mt. - March 15 through June 30; July 16 through July 31; Aug. 10 through Aug. 29; and Sept. 1 through Oct. 31 (C.8). All salmon except coho (C.6). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Sept. 30, and 28 inches total length October 1-31 (B). See gear restrictions (C.2). In 2005, the season will open March 15 for all salmon except coho, with a 27 inch chinook minimum size limit. This opening could be modified following Council review at its November 2004 meeting.	South of Cape Falcon Cape Falcon to Florence South Jetty - March 15 through July 6; July 10-13, 17-20, 24-27, 31-Aug. 3; Aug. 7-10, 14-17, 21-24; and Aug. 28 through Oct. 31 (C.8). All salmon except coho (C.6). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches May 1 through Sept. 30, and 28 inches October 1-31 (B). See gear restrictions (C.2) and Oregon state regulations for a description of the closed area at the mouth of Tillamook Bay. In 2005, same as Option I. Florence South Jetty to Humbug Mt. - March 15 through July 6; July 10-13, 17-20, 24-27, July 31-Aug. 3; Aug. 7-10, 14-17, 21-24; and Aug. 28 through Oct. 31 (C.8). All salmon except coho (C.6). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Sept. 30, and 28 inches total length October 1-31 (B). See gear restrictions (C.2). In 2005, same as Option I.	South of Cape Falcon Cape Falcon to Florence South Jetty - March 15 through July 15; Aug. 1 through Aug. 20 and Sept. 1 through Oct. 31 (C.8). All salmon except coho (C.6). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Sept. 30, and 28 inches total length October 1-31 (B). See gear restrictions (C.2) and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2005, same as Option I. Florence South Jetty to Humbug Mt. - March 15 through June 30; July 17 through July 31; Aug. 10 through Aug. 29; and Sept. 1 through Oct. 31 (C.8). All salmon except coho (C.6). Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Sept. 30, and 28 inches total length October 1-31 (B). See gear restrictions (C.2). In 2005, same as Option I.

TABLE A-3a. **Commercial troll** management options adopted by the Council for of non-Indian ocean salmon fisheries, 2004. (Page 4 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Humbug Mt. to OR/CA Border - March 15 through May 31. All salmon except coho. - June 1 through earlier of June 30 or 2,600 chinook quota; - July 1 through earlier of July 31 or 1,400 chinook quota; - Aug. 1 through earlier of Aug. 29 or 2,500 chinook quota; - Sept. 1 through earlier of Sept. 30 or 4,000 chinook quota (C.8) All salmon except coho. Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Aug. 29, and 28 inches total length Sept. 1-30. No transfer of remaining quota from earlier fisheries allowed (C.8). Possession and landing limit of 50 fish per day per vessel prior to Sept. 1; 100 fish per day in Sept. See gear restrictions (C.2). For seasons from June 1 through Sept. 30, vessels must land and deliver their fish in Gold Beach, Port Orford, or Brookings, OR, and within 24 hours of closure, except that fishers may transport and deliver their catch to other locations after first landing in one of these ports if they notify ODFW prior to transport away from the port of landing by calling (541) 867-0300 Ext. 271, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery. In 2005 the season will open March 15 for all salmon except coho with a 27 inch total length minimum size limit. This opening could be modified following Council review at its November 2004 meeting. OR/CA Border to Humboldt South Jetty - Sept. 1 through earlier of Sept. 30 or 10,000 chinook quota. All salmon except coho. Chinook minimum size limit of 26 inches total length. Possession and landing limit of 40 fish per day per vessel. All fish caught in this area must be landed within the area. See compliance requirements (C.1) and gear restrictions (C.2). Klamath Control Zone closed (C.4).	Humbug Mt. to OR/CA Border - March 15 through May 31. All salmon except coho. - June 1 through earlier of June 30 or 2,400 chinook quota; - July 1 through earlier of July 31 or 1,300 chinook quota; - Aug. 1 through earlier of Aug. 29 or 2,600 chinook quota; - Sept. 1 through earlier of Sept. 30 or 4,000 chinook quota (C.8) All salmon except coho. Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Aug. 29, and 28 inches total length Sept. 1-30. No transfer of remaining quota from earlier fisheries allowed (C.8). Possession and landing limit of 50 fish per day per vessel prior to Sept. 1; 100 fish per day in Sept. See gear restrictions (C.2). All salmon must landed and delivered to Gold Beach, Port Orford, or Brookings, OR, and within 24 hours of closure. In 2005, same as Option I. OR/CA Border to Humboldt South Jetty - Same as Option I.	Humbug Mt. to OR/CA Border - March 15 through May 31. All salmon except coho. - June 1 through earlier of June 30 or 2,600 chinook quota; - July 1 through earlier of July 31 or 2,000 chinook quota; - Aug. 1 through earlier of Aug. 29 or 2,700 chinook quota; - Sept. 1 through earlier of Sept. 30 or 4,000 chinook quota (C.8) All salmon except coho. Chinook 26 inch total length minimum size limit prior to May 1, 27 inches total length May 1 through Aug. 29, and 28 inches total length Sept. 1-30. No transfer of remaining quota from earlier fisheries allowed (C.8). Possession and landing limit of 50 fish per day per vessel prior to Sept. 1; 100 fish per day in Sept. See gear restrictions (C.2). All salmon must landed and delivered to Gold Beach, Port Orford, or Brookings, OR, and within 24 hours of closure. In 2005, same as Option I. OR/CA Border to Humboldt South Jetty - Sept. 1 through earlier of Sept. 30 or 5,000 chinook quota. All salmon except coho. Chinook minimum size limit of 26 inches total length. Possession and landing limit of 30 fish per day per vessel. All fish caught in this area must be landed within the area. See compliance requirements (C.1) and gear restrictions (C.2). Klamath Control Zone closed (C.4).

TABLE A-3a. **Commercial troll** management options adopted by the Council for of non-Indian ocean salmon fisheries, 2004. (Page 5 of 7)

A. SEASON OPTION DESCRIPTIONS

OPTION I	OPTION II	OPTION III
Horse Mt. to Pt. Arena (Fort Bragg) July 14 through Sept. 30. All salmon except coho. Chinook minimum size limit of 26 inches total length. See gear restrictions (C.2).	Horse Mt. to Pt. Arena (Fort Bragg) May 1 through May 22, and Aug. 1 through Sept. 30. All salmon except coho. Chinook minimum size limit of 26 inches total length. See gear restrictions (C.2).	Horse Mt. to Pt. Arena (Fort Bragg) July 1 through July 7 and July 21 through Sept. 30. All salmon except coho. Chinook minimum size limit of 26 inches total length. All fish caught in this area must be landed within the area. See gear restrictions (C.2).
Pt. Arena to U.S./Mexico Border May 1 through Sept. 30. All salmon except coho. Chinook minimum size limit 26 inches total length. See gear restrictions (C.2).	Pt. Arena to U.S./Mexico Border Same as Option I.	Pt. Arena to U.S./Mexico Border Same as Option I.
Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) Oct. 1 through Oct. 15 Monday through Friday. Inside 3 nautical miles. All salmon except coho. Chinook minimum size limit 26 inches total length. See gear restrictions (C.2).	Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) Oct. 1 through Oct. 15 Monday through Friday. All salmon except coho. Chinook minimum size limit 26 inches total length. See gear restrictions (C.2). Same as Option I	Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) Same as Option II

B. MINIMUM SIZE (Inches)

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	28.0	21.5	16.0	12.0	None
Cape Falcon to Humbug Mt.					
Prior to May 1, 2004	26.0	19.5	-	-	None
May 1 to Sept. 30, and beginning March 15, 2005	27.0	20.5	-	-	None
Oct. 1-31	28.0	21.5	-	-	None
Humbug Mt. to OR/CA Border					
Prior to May 1, 2004	26.0	19.5	-	-	None
May 1 to Aug. 31, and beginning March 15, 2005	27.0	20.5	-	-	None
Sept. 1-30	28.0	21.5	-	-	None
OR/CA Border to US/Mexico Border	26.0	19.5	-	-	None

TABLE A-3a. **Commercial troll** management options adopted by the Council for non-Indian ocean salmon fisheries, 2004. (Page 6 of 7)**C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS**

- C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.
- C.2. Gear Restrictions:
- a. Single point, single shank barbless hooks are required in all fisheries.
 - b. *Cape Falcon, Oregon to the Oregon/California border*: No more than 4 spreads are allowed per line.
Spread defined: A single leader connected to an individual lure or bait.
 - c. *Oregon/California border to U.S./Mexico border*: No more than 6 lines are allowed per vessel and barbless **circle** hooks are required when fishing with bait by any means other than trolling.
Circle hook defined: A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.
Trolling defined: Fishing from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
- C.3. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll or recreational gear in the water while transiting any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species and no salmon are in possession.
- C.4. Control Zone Definitions:
- a. *Cape Flattery Control Zone*: - The area from Cape Flattery (48° 23'00" N lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to 48°10'00" N. lat. and east of 125°05'00" W. long.
 - b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).
 - c. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N lat., 124°03'07" W long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°14'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
 - d. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
- C.5. Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board and the estimated time of arrival.

TABLE A-3a. **Commercial troll** management options adopted by the Council for non-Indian ocean salmon fisheries, 2004. (Page 7 of 7)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (cont'd)

C.6. Incidental Halibut Harvest: During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone: 206-634-1838). Applicants must apply prior to April 1 of each year. Incidental harvest is authorized only during **May and June** troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825). ODFW and WDFW will monitor landings. If the landings are projected to exceed the 44,554 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to close the incidental halibut fishery.

Option 1a: License holders may land no more than 1 halibut per each 3 chinook, except 1 halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Halibut retained must be no less than 32 inches in total length (with head on).

Option 1b: License holders may land no more than 1 halibut per each 3 chinook, except 1 halibut may be landed without meeting the ratio requirement, and no more than 25 halibut may be landed per trip. Halibut retained must be no less than 32 inches in total length (with head on).

Option 2: Designate a "C-shaped" yelloweye rockfish conservation area is an area to be avoided for salmon troll fishing. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (WA marine area 3), with the following coordinates in the order listed:

48°18' N. lat.; 125°18' W. long;
48°18' N. lat.; 124°59' W. long;
48°11' N. lat.; 124°59' W. long;
48°11' N. lat.; 125°11' W. long;
48°04' N. lat.; 125°11' W. long;
48°04' N. lat.; 124°59' W. long;
48°00' N. lat.; 124°59' W. long;
48°00' N. lat.; 125°18' W. long;
And connecting back to 48°18' N. lat.; 125°18' W. long.

NOTE: Option 2 may be combined with either Option 1a or 1b.

C.7. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Chinook remaining from the May-June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July-September harvest guideline on a fishery impact equivalent basis.
- b. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the Salmon Advisory Subpanel.
- c. At the March 2005 meeting, the Council will consider inseason recommendations for special regulations for any experimental April fisheries (proposals must meet Council protocol and be received in November 2004).

C.8. Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.

C.9. For the purposes of CDFG Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humbug Mt., Oregon, to Horse Mt., California.

TABLE A-3b. **Recreational** management options adopted by the Council for ocean salmon fisheries, 2004. (Page 1 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
The fisheries in this option will need to be restructured if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an SRFI at or below 0.70 as required by the NMFS ESA consultation standard. North of Cape Falcon Supplemental Management Information: - Overall non-Indian TAC: 120,000 chinook and 275,000 coho. Trade: May be considered at the April Council meeting. - Recreational TAC: 58,000 chinook and 206,250 coho. - No Area 4B add-on fishery. - Buoy 10 fishery opens Aug. 1 with an expected landed catch of 10,500 coho in Aug. and 4,500 coho in Sept. - All retained coho must have a healed adipose fin clip except as noted below. - Overall chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of final preseason catch expectations for Canadian and Alaskan fisheries.	North of Cape Falcon Supplemental Management Information: - Overall non-Indian TAC: 90,000 chinook and 225,000 coho. Trade: May be considered at the April Council meeting. - Recreational TAC: 45,000 chinook and 168,750 coho. - No Area 4B add-on fishery. - Buoy 10 fishery opens Aug. 1 with an expected landed catch of 14,000 coho in Aug. and 6,000 coho in Sept. - All retained coho must have a healed adipose fin clip except as noted below. - Overall chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of final preseason catch expectations for Canadian and Alaskan fisheries.	North of Cape Falcon Supplemental Management Information: - Overall non-Indian TAC: 60,000 chinook and 175,000 coho. Trade: May be considered at the April Council meeting. - Recreational TAC: 30,000 chinook and 131,250 coho. - Area 4B add-on fishery of 6,000 coho with chinook non-retention opens upon ocean closure (C.5). - Buoy 10 fishery opens Aug. 1 with an expected landed catch of 17,500 coho in Aug. and 7,500 coho in Sept. - All retained coho must have a healed adipose fin clip. - Overall chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of final preseason catch expectations for Canadian and Alaskan fisheries.
U.S./Canada Border to Cape Alava (Neah Bay) June 20 through earlier of Sept. 30 or 21,450 coho subarea quota with a subarea guideline of 4,800 chinook. Seven days per week. All salmon except no chum retention Aug. 1 through Sept. 14, , two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than September 1 to consider allowing retention of all legal sized coho beginning Sept. 7. See gear restrictions (C.2). Chinook retention east of the Bonilla-Tatoosh line in July only (C.3.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).	U.S./Canada Border to Cape Alava (Neah Bay) June 27 through earlier of Sept. 19 or 17,550 coho subarea quota with a subarea guideline of 4,100 chinook. Seven days per week. All salmon, except no chum retention August 1 through Sept. 14, two fish per day, no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than September 1 to consider allowing retention of all legal sized coho beginning Sept. 7. See gear restrictions (C.2). Chinook non-retention east of the Bonilla-Tatoosh line (C.3.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).	U.S./Canada Border to Cape Alava (Neah Bay) July 4 through earlier of Sept. 12 or 12,550 coho subarea quota (not adjusted for Area 4B add-on) with a subarea guideline of 3,000 chinook. Seven days per week. All salmon, except no chum retention August 1 through Sept. 14, two fish per day, no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Chinook non-retention east of the Bonilla-Tatoosh line (C.3.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

TABLE A-3b. **Recreational** management options adopted by the Council for ocean salmon fisheries, 2004. (Page 2 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Cape Alava to Queets River (La Push) 1. June 20 through earlier of Sept. 24 or 5,300 coho subarea quota with a subarea guideline of 2,450 chinook. 2. Sep. 25 through Oct. 10 or 100 coho quota or 100 chinook quota: In the area north of 47° 50'00 N. Lat. and south of 48°00'00" N. Lat. (C.5). Seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than September 1 to consider allowing retention of all legal sized coho beginning Sept. 7. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4). Queets River to Leadbetter Pt. (Westport) 1. June 20 through earlier of Sept. 30 or 76,300 coho subarea quota with a subarea guideline of 40,350 chinook. Sun. through Thurs, except: there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than September 1 to consider allowing retention of all legal sized coho beginning Sept. 7. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).	Cape Alava to Queets River (La Push) - June 27 through earlier of Sept. 19 or 4,300 coho subarea quota with a subarea guideline of 1,850 chinook; - Sep. 25 through Oct. 10 or 100 coho quota or 100 chinook quota: Inside area defined by a line from Teahwhit Head northwesterly to "Q" buoy to Cake Rock then true east to the shoreline (C.5). Seven days per week. All salmon,, two fish per day, no more than one of which may be a chinok (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than September 1 to consider allowing retention of all legal sized coho beginning Sept. 7. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4). Queets River to Leadbetter Pt. (Westport) 2. June 27 through earlier of Sept. 19 or 62,400 coho subarea quota with a subarea guideline of 30,700 chinook. Sun. through Thurs, except: there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than September 1 to consider allowing retention of all legal sized coho beginning Sept. 7. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).	Cape Alava to Queets River (La Push) - July 4 through earlier of Sept.12 or 3,400 coho subarea quota with a subarea guideline of 1,200 chinook. - Sep. 25 through Oct. 10 or 100 coho quota or 100 chinook quota: In the area north of 47° 50'00 N. Lat. and south of 48°00'00" N. Lat. (C.5). Seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 26-inch totla length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4). Queets River to Leadbetter Pt. (Westport) 3. July 11 through earlier of Sept. 12. or 49,600 coho subarea quota, with a subarea guideline of 20,500 chinook. Sun. through Thurs, except: there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

TABLE A-3b. **Recreational** management options adopted by the Council for ocean salmon fisheries, 2004. (Page 3 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Leadbetter Pt. to Cape Falcon (Columbia River) 1. June 27 through earlier of Sept. 30 or 103,100 coho subarea quota with a subarea guideline of 10,300 chinook. Sun. through Thurs, except: there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, 2 fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than Sept. 15 to consider allowing retention of all legal sized coho. See gear restrictions (C.2). Columbia Control Zone closed (C.3.a). Closed between Cape Falcon and Tillamook Head beginning Aug.1. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).	Leadbetter Pt. to Cape Falcon (Columbia River) July 4 through earlier of Sept. 30 or 84,400 coho subarea quota with a subarea guideline of 8,250 chinook. Sun. through Thurs, except: there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, 2 fish per day, no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip, except an inseason conference call may occur no earlier than Sept. 15 to consider allowing retention of all legal sized coho. See gear restrictions (C.2). Columbia Control Zone closed (C.3.a). Closed between Cape Falcon and Tillamook Head beginning Aug.1. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).	Leadbetter Pt. to Cape Falcon (Columbia River) July 11 through earlier of Sept. 30 or 65,600 coho subarea quota with a subarea guideline of 5,200 chinook. Sun. through Thurs, except: there may be a conference call no later than July 28 to consider opening seven days per week. All salmon, 2 fish per day, no more than one of which may be a chinook (chinook 26-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Columbia Control Zone closed (C.3.a). Closed between Cape Falcon and Tillamook Head beginning Aug.1. Inseason management may be used to sustain season length and keep harvest within the overall chinook recreational TAC for north of Cape Falcon (C.4).

TABLE A-3b. **Recreational** management options adopted by the Council for ocean salmon fisheries, 2004. (Page 4 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I South of Cape Falcon	OPTION II South of Cape Falcon	OPTION III South of Cape Falcon
Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be Mar. 15 through Oct. 31 (C.5). All salmon except coho. Two fish per day. See gear restrictions (C.2.). See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2005 the season will open March 15 for all salmon except coho. Two fish per day. Same gear restrictions as in 2004. This opening could be modified following Council review at its November 2004 meeting. <u>Selective fishery: Cape Falcon to OR/CA Border</u> - June 19 through earlier of Aug. 31 or a landed catch of 75,000 coho. Open seven days per week, all salmon, two fish per day. All retained coho must have a healed adipose fin clip. Open days may be adjusted inseason to utilize the available quota (C.4). All salmon except coho season reopens the earlier of Sept. 1 or attainment of the coho quota. Humbug Mt. to Horse Mt. (KMZ) - Except as provided above during the selective fishery, the season will be May 15 through Sept. 12 (C.5). All salmon except coho. Seven days per week, two fish per day. See gear restrictions (C.2). Klamath Control Zone closed Aug. 1-31 (C.3.b). Horse Mt. to Pt. Arena (Fort Bragg) - Feb. 14 through Nov. 14. All salmon except coho. Two fish per day. Chinook minimum size 24 inches total length through April 30 and 20 inches total length thereafter (B). See gear restrictions (C.2). In 2005, season opens Feb. 12 (nearest Sat. to Feb. 15) for all salmon except coho. Two fish per day, chinook 20-inch total length minimum size limit through April 30; same gear restrictions as in 2004.	Cape Falcon to Humbug Mt - Same as Option I In 2005, same as Option I. <u>Selective fishery: Cape Falcon to Humbug Mt.</u> - June 19 through earlier of Aug. 31 or a landed catch of 65,000 coho. Open seven days per week, all salmon, two fish per day. All retained coho must have a healed adipose fin clip. Open days may be adjusted inseason to utilize the available quota (C.4). All salmon except coho season reopens the earlier of Sept. 1 or attainment of the coho quota. Humbug Mt. to Horse Mt. (KMZ) - May 15 through Sept. 12 (C.5). All salmon except coho. Seven days per week, two fish per day. See gear restrictions (C.2). Klamath Control Zone closed Aug. 1-31 (C.3.b). Horse Mt. to Pt. Arena (Fort Bragg) - Same as Option I. In 2005, same as Option I.	Cape Falcon to Humbug Mt - Same as Option I In 2005, same as Option I. <u>Selective fishery: Cape Falcon to Humbug Mt.</u> - July 1 through earlier of Aug. 31 or a landed catch of 55,000 coho. Open five days per week (Tuesday-Saturday), all salmon, two fish per day. All retained coho must have a healed adipose fin clip. Two days per week (Sunday and Monday) all salmon except coho, two fish per day. Open days may be adjusted inseason to utilize the available quota (C.4). All salmon except coho season reopens the earlier of Sept. 1 or attainment of the coho quota. Humbug Mt. to Horse Mt. (KMZ) - May 15 through Sept. 6 (C.5). All salmon except coho. Seven days per week, two fish per day. See gear restrictions (C.2). Klamath Control Zone closed Aug. 1-31 (C.3.b). Horse Mt. to Pt. Arena (Fort Bragg) - Same as Option I. In 2005, same as Option I.

TABLE A-3b. **Recreational** management options adopted by the Council for ocean salmon fisheries, 2004. (Page 5 of 7)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Pt. Arena to Pigeon Pt. - April 17 through Nov. 14. All salmon except coho. Two fish per day. Chinook minimum size limit 24 inches total length through April 30 and 20 inches total length thereafter (B). See gear restrictions (C.2). In 2005, the season will open Apr. 2 for all salmon except coho. Two fish per day, 20-inch total length minimum size limit and the same gear restrictions as in 2004. Pigeon Pt. to U.S./Mexico Border - April 3 through Oct. 3. All salmon except coho. Two fish per day. Chinook minimum size limit 24 inches total length through April 30 and 20 inches total length thereafter (B). See gear restrictions (C.2). In 2005, the season will open Apr. 2 for all salmon except coho. Two fish per day, chinook 20-inch total length minimum size limit and the same gear restrictions as in 2004.	Pt. Arena to Pigeon Pt. - Same as Option I In 2005, same as Option I. Pigeon Pt. to U.S./Mexico Border - Same as Option I. In 2005, same as Option I.	Pt. Arena to Pigeon Pt. - Same as Option I In 2005, same as Option I. Pigeon Pt. to U.S./Mexico Border - Same as Option I. In 2005, same as Option I.

TABLE A-3b. **Recreational** management options adopted by the Council for ocean salmon fisheries, 2004. (Page 6 of 7)

B. MINIMUM SIZE (Total Length in Inches)			
Area (when open)	Chinook	Coho	Pink
North of Cape Falcon:			
Option I	24.0	16.0	None
Options II & II	26.0	16.0	None
Cape Falcon to Horse Mt.	20.0	16.0	None, except 20.0 off CA
Horse Mountain to Pt. Arena: Prior to May 1, 2004	24.0	-	20.0
Beginning May 1, 2004, through April 30, 2005	20.0	-	20.0
South of Pt. Arena: Prior to May , 2004	24.0	-	20.0
Beginning May , 2004, through April 30, 2005	20.0	-	20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size and Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.
- C.2. Gear Restrictions: All persons fishing for salmon, and all persons fishing from a boat with salmon on board, must meet the gear restrictions listed below for specific areas or seasons.
- U.S./Canada Border to Pt. Conception, California*: No more than one rod may be used per angler and single point, single shank barbless hooks are required for all fishing gear. **[Note:** ODFW regulations in the state-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]
 - Cape Falcon, Oregon to Pt. Conception, California*: Anglers must use no more than 2 single point, single shank barbless hooks.
 - Horse Mt., California to Pt. Conception, California*: Single point, single shank, barbless **circle** hooks (below) must be used if angling with bait by any means other than trolling and no more than 2 such hooks shall be used. When angling with 2 hooks, the distance between the hooks must not exceed 5 inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.
Circle hook defined: A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.
Trolling defined: Angling from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.

TABLE A-3b. **Recreational** management options for analysis of STT for ocean salmon fisheries, 2004. (Page 7 of 7)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

C.3. Control Zone Definitions:

- a. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09' N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°14'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).
- c. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
- d. *The Bonilla-Tatoosh Line* is defined as: A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°28'00" N. lat., 124°45'00" W. long.), then in a straight line to Bonilla Point (48°35'30" N. lat., 124°43'00" W longitude) on Vancouver Island, BC

C.4. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines and season duration. Actions could include modifications to bag limits or days open to fishing, and extensions or reductions in areas open to fishing. NMFS may transfer coho inseason among recreational subareas north of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Salmon Advisory Subpanel recreational representatives north of Cape Falcon. NMFS may also transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the Salmon Advisory Subpanel.

C.5. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the states of Washington and Oregon may establish limited seasons in state waters. Oregon state-water fisheries are limited to chinook salmon. Check state regulations for details.

TABLE A-3c. Treaty Indian ocean troll salmon fishery management measures adopted by the Council, 2004. (Page 1 of 1)

Tribe and Area Boundaries ^{a/}	Open Seasons	Salmon Species	Minimum Size ^{b/} (Inches)		Special Restrictions by Area
			Chinook	Coho	
<u>S'KLALLAM</u> - Washington State Statistical Area 4B (All)	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat; 72 hook maximum per boat.
	July 1 thru earliest of Sept. 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>MAKAH</u> - Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat or no more than 4 hand-held lines per person.
	July 1 thru earliest of Sept. 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>QUILEUTE</u> - That portion of the FMA between 48°07'36" N. latitude (Sand Pt.) and 47°31'42" N. lat. (Queets River) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat. ^{c/}
	July 1 thru earliest of Sept. 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>HOH</u> - That portion of the FMA between 47°54'18" N. lat. (Quillayute River) and 47°21'00" N. lat. (Quinault River) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat. ^{c/}
	July 1 thru earliest of Sept. 15 or chinook or coho quota. ^{c/}	All	24	16	
<u>QUINAULT</u> - That portion of the FMA between 47°40'06" N. lat. (Destruction Island) and 46°53'18" N. lat. (Point Chehalis) and east of 125°44'00" W. long.	May 1 thru earlier of June 30 or chinook quota. ^{c/}	All except coho	24	-	Barbless hooks. No more than 8 fixed lines per boat. ^{c/}
	July 1 thru earliest of Sept. 15 or chinook or coho quota. ^{c/}	All	24	16	

a/ All boundaries may be changed to include such other areas as may hereafter be authorized by a federal court for that tribe's treaty fishery.

b/ Applicable lengths, in inches, for dressed, head-off salmon, are 18 inches for chinook and 12 inches for coho. There are no minimum size or retention limits for ceremonial and subsistence harvest.

c/ The overall treaty troll ocean quotas are:

Option I: 60,000 chinook and 90,000 coho;
Option II: 40,000 chinook and 75,000 coho; and
Option III: 30,000 chinook and 60,000 coho.

The overall chinook quota is divided into 50% of the chinook quota for the May/June chinook-directed fishery and 50% of the chinook quota for the July through Sept. all-salmon season. If the chinook quota for the May/June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 thru Sept. 15. The Quileute Tribe will continue a ceremonial and subsistence fishery during the time frame of September 15 through October 15; fish taken during this fishery are to be counted against treaty troll quotas established for the 2004 season. **Note:** The fisheries in Option I will need to be restructured if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an SRFI at or below 0.70 as required by the NMFS ESA consultation standard.

d/ The area within a 6 nautical mile radius of the mouths of the Queets River (47°31'42" N. lat.) and the Hoh River (47°45'12" N. lat.) will be closed to commercial fishing. A closure within 2 nautical miles of the mouth of the Quinault River (47°21'00" N. lat.) may be enacted by the Quinault Nation and/or the State of Washington and will not adversely affect the Secretary of Commerce's management regime.