

PRESEASON REPORT II
PROPOSED ALTERNATIVES
AND
ENVIRONMENTAL ASSESSMENT PART 2
FOR 2013
OCEAN SALMON FISHERY
REGULATIONS

REGULATION IDENTIFIER NUMBER 0648-XC438



Pacific Fishery Management Council
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MARCH 2013

PUBLIC HEARINGS ON SALMON ALTERNATIVES

All Hearings Begin at 7 p.m.

Monday, March 25
Chateau Westport
Beach Room
710 W Hancock
Westport, WA 98595
(360) 268-9101

Monday, March 25
Red Lion Hotel
South Umpqua Room
1313 N Bayshore Drive
Coos Bay, OR 97420
(541) 267-4141

Tuesday, March 26
Red Lion Hotel Eureka
Humboldt Bay Room
1929 Fourth Street
Eureka, CA 95501
(707) 445-0844

*Public comment on the Alternatives will also be accepted during the April Council meeting on Saturday, April 6, during the public comment period for Agenda Item E.1 at the Sheraton Portland Airport Hotel, 8235 NE Airport Way, Portland, OR 97220 Phone: 503-281-2500. **Written comments** received at the Council office **by midnight, on Monday, March 31, 2013** will be distributed to all Council members.*

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TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	iii
LIST OF FIGURES	iii
LIST OF ACRONYMS AND ABBREVIATIONS.....	iv
1.0 INTRODUCTION.....	1
1.1 Purpose and Need.....	1
2.0 SELECTION OF FINAL MANAGEMENT MEASURES	2
3.0 SALMON TECHNICAL TEAM CONCERNS.....	3
3.1 Short Closures	3
3.2 Need for Landing Requirements.....	3
4.0 SALMON FISHERY MANAGEMENT PLAN REQUIREMENTS.....	4
5.0 SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT.....	5
6.0 OBLIGATIONS UNDER THE PACIFIC SALMON TREATY	6
6.1 Chinook Salmon Management	6
6.2 Coho Salmon Management	7
7.0 DESCRIPTION OF THE ALTERNATIVES	8
7.1 Commercial	8
7.2 Recreational.....	9
7.3 Treaty Indian	10
8.0 AFFECTED ENVIRONMENT AND ANALYSIS OF IMPACTS.....	10
8.1 Salmon Stocks in the Fishery	11
8.1.1 Chinook Salmon.....	11
8.1.1.1 North of Cape Falcon	11
8.1.1.2 South of Cape Falcon	12
8.1.2 Coho Salmon	13
8.1.3 Pink Salmon	15
8.1.4 Summary of Environmental Impacts on Target Stocks.....	15
8.1.4.1 Targeted Salmon Stocks.....	15
8.1.4.2 ESA Listed Salmon Stocks	15
8.2 Socioeconomics.....	16
8.2.1 Alternative I	17
8.2.2 Alternative II.....	18
8.2.3 Alternative III.....	18
8.2.4 Summary of Impacts on the Socioeconomic Environment	19
8.3 Non-target Fish Species.....	19
8.4 Marine Mammals.....	20
8.5 ESA Listed Species	20
8.6 Seabirds	21
8.7 Biodiversity and Ecosystem Function	21
8.8 Ocean and Coastal Habitats.....	21

TABLE OF CONTENTS (continued)

	<u>Page</u>
8.9 Public Health and Safety	21
8.10 Cumulative Impacts	21
9.0 CONCLUSION	23
10.0 LIST OF AGENCIES AND PERSONS CONSULTED	24
11.0 REFERENCES	25
APPENDIX A: PROJECTED IMPACT RATES AND HARVEST FOR AGE-3 SACRAMENTO RIVER WINTER CHINOOK AND AGE-4 KLAMATH RIVER FALL CHINOOK	59
APPENDIX B: NEPA AND ESA ANALYSES INCORPORATED BY REFERENCE	61
APPENDIX C: KLAMATH OCEAN HARVEST MODEL CONTACT RATE PER UNIT EFFORT PREDICTOR DATA MODIFICATION	65

LIST OF TABLES

	<u>Page</u>
TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013	26
TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013.	36
TABLE 3. Treaty Indian troll management Alternatives adopted by the Council for ocean salmon fisheries, 2013.....	45
TABLE 4. Chinook and coho harvest quotas and guidelines (*) for 2013 ocean salmon fishery management Alternatives adopted by the Council.....	47
TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2013 ocean fishery Alternatives adopted by the Council.....	48
TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2013 ocean salmon fishery management Alternatives adopted by the Council.	51
TABLE 7. Expected coastwide lower Columbia Natural (LCN), Oregon coastal natural (OCN), and Rogue/Klamath (RK) coho, and Lower Columbia River (LCR) natural tule Chinook exploitation rates by fishery for 2013 ocean fisheries management Alternatives adopted by the Council.....	53
TABLE 8. Projected coho mark rates for 2013 fisheries under base period fishing patterns (percent marked)	54
TABLE 9. Preliminary projected exvessel value under Council-adopted 2013 non-Indian commercial troll regulatory Alternatives	55
TABLE 10. Preliminary projected angler trips and coastal community income impacts generated under Council-adopted 2013 recreational ocean salmon fishery regulatory Alternatives	56

LIST OF FIGURES

	<u>Page</u>
FIGURE 1. Projected community income impacts associated with the Council adopted 2013 commercial fishery Alternatives	57
FIGURE 2. Projected community income impacts associated with the Council adopted 2013 recreational fishery Alternatives	58

LIST OF ACRONYMS AND ABBREVIATIONS

AABM	Aggregate Abundance Based Management
ABC	acceptable biological catch
ACL	annual catch limit
AEQ	adult equivalent
BO	biological opinion
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Commission
CO	central Oregon (Florence south jetty to Humbug Mt.)
Council	Pacific Fishery Management Council
CPUE	catch per unit effort
CWT	coded-wire tag
DPS	Distinct Population Segment
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FB	Fort Bragg (Horse Mt. to Point Arena)
FRAM	Fishery Regulation Assessment Model
FMP	fishery management plan
FONSI	finding of no significant impact
GSI	genetic stock identification
IPHC	International Pacific Halibut Commission
ISBM	Individual Stock Based Management
KMZ	Klamath Management Zone (the ocean zone between Humbug Mountain and Horse Mountain where management emphasis is on Klamath River fall Chinook)
KRFC	Klamath River fall Chinook
LCN	lower Columbia River natural (coho)
LCR	lower Columbia River (natural tule Chinook)
LRH	lower river hatchery (tule fall Chinook returning to hatcheries below Bonneville Dam)
LRW	Lower Columbia River wild fall Chinook, (bright fall Chinook returning primarily to the North Fork Lewis River).
MO	Monterey (Pigeon Point south)
NEPA	National Environmental Policy Act
MSA	Magnuson-Stevens Act
MSY	maximum sustainable yield
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
OFL	overfishing limit
OPI	Oregon Production Index
OY	optimum yield
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RER	rebuilding exploitation rate
RMP	Resource Management Plan
RK	Rogue/Klamath (hatchery coho)
S _{ACL}	annual catch limit spawner abundance
SCH	Spring Creek Hatchery (tule fall Chinook returning to Spring Creek Hatchery)

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

SEAK	Southeast Alaska
S _{MSY}	MSY spawning escapement
SET	spawning escapement target
SF	San Francisco (Point Arena to Pigeon Point)
SI	Sacramento index
SONCC	Southern Oregon/Northern California Coast (coho ESU)
SRFC	Sacramento River fall Chinook
SRFI	Snake River fall (Chinook) index
SRW	Snake River wild fall Chinook
SRWC	Sacramento River winter Chinook
STT	Salmon Technical Team
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife

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1.0 INTRODUCTION

This document has been prepared by the staff of the Pacific Fishery Management Council (Council) and the Salmon Technical Team (STT) to describe the Council's proposed ocean salmon management Alternatives for 2013 and characterize their expected impacts on ocean salmon fisheries and the stocks which support them. The Council solicits public comments on the proposed management Alternatives in preparation for adopting final management recommendations at its April meeting. Oral and written comments may be presented at public hearings at the times and locations displayed on the inside front cover of this report. Additional comment will be accepted during the April Council meeting at the Sheraton Portland Airport Hotel, 8235 NE Airport Way, Portland, Oregon. Written comments received at the Council office by March 31, 2013 will be copied and distributed to all Council members (Council staff cannot assure distribution of comments received after March 31).

This report also constitutes the second part of an Environmental Assessment (EA) to comply with National Environmental Policy Act (NEPA) requirements for the 2013 ocean salmon regulations. An EA is used to determine whether an action being considered by a Federal agency has significant environmental impacts. This part of the EA includes a statement of the purpose and need, a description of the affected environment, a description of 2013 ocean salmon regulation Alternatives being considered, and an analysis of the effects of those Alternatives on the affected environment. The first part of the EA (Preseason Report I; PFMC 2013b) included a description of the No-Action Alternative and an analysis of the effects of the No-Action Alternative on salmon stocks managed under the Pacific Coast Salmon Fishery Management Plan (FMP), which is one component of the affected environment. Along with the description and analysis of the Proposed Action in Preseason Report III (developed after the Council makes a final recommendation in April 2013), these three parts of the EA will provide the necessary components to determine if a finding of no significant impact (FONSI) or Environmental Impact Statement (EIS) is warranted.

1.1 *Purpose and Need*

The purpose of this action, implementation of the 2013 ocean salmon fishery management measures, is to allow fisheries to harvest surplus production of healthy natural and hatchery salmon stocks within the constraints specified under the Salmon FMP, the Pacific Salmon Treaty (PST), and consultation standards established for salmon stocks listed under the Endangered Species Act (ESA). In achieving this purpose, management measures must take into account the allocation of harvest among different user groups and port areas. Without this action, 2012 management measures would be in effect, which do not consider changes in abundance of stocks in the mixed stock ocean salmon fisheries. Therefore, this action is needed to ensure constraining stocks are not overharvested and that harvest of abundant stocks can be optimized and achieve the most overall benefit to the nation.

The Salmon FMP 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 and annual catch limits, specified ESA consultation or recovery 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. Maintain ocean salmon fishing seasons that support established recreational and commercial fisheries, while meeting salmon harvest allocation objectives among ocean and inside recreational and commercial

fisheries that are fair and equitable, and in which 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 achieving 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 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 consultation standards 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 Fishery Conservation and Management Act (MSA) and the National Standards Guidelines.

2.0 SELECTION OF FINAL MANAGEMENT MEASURES

The Council's final ocean salmon season recommendations will be based on the range of Alternatives presented in this report and guidance received from deliberations at management fora such as the north of Cape Falcon planning process (sponsored by the States of Washington and Oregon and the treaty Indian tribes in that area), Pacific Salmon Commission (PSC), and from public hearings sponsored by the Council and the States of Washington, Oregon, and California. Final recommendations concerning season dates, catch quotas, and exploitation rates may vary from the range of Alternatives presented in this report depending upon determination of allocations, allowable harvest levels, public comment, or the final impact analyses completed by the STT. Elements of the Alternatives may be recombined to alter season patterns and quotas, or measures such as bag limits, days of fishing per week, special landing restrictions, and other specific regulatory details may also change. In addition, inseason modification of management measures may be used to ensure achievement of the Council's management objectives.

Specific details pertaining to season structure and special management measures for the treaty Indian troll fishery north of Cape Falcon are established in tribal regulations. Chinook and coho quota levels for the treaty Indian troll fishery may be adjusted if significant changes in incidental fishing mortality result from tribal regulations, preseason or inseason.

The impact analyses presented in this document reflect uncertainties and limitations of information available at the time of the March 2013 Council meeting. At this point in the planning cycle, the STT's impact assessments reflect four key assumptions relative to stocks impacted by Canadian and Alaskan fisheries: (1) abundance levels for Canadian Chinook and coho stocks identical to 2012 forecasts; (2)

fishing effort for southeast Alaskan (SEAK), north-central British Columbia, and West Coast Vancouver Island (WCVI) fisheries equal to the levels under the 2012 catch ceilings established under the aggregate abundance based management (AABM) provisions of the 2009 PST Agreement, with minimum size limits identical to those in place for 2012; (3) 2012 observed catch levels and size limits for Canadian fisheries operating under individual stock based management (ISBM) regimes pursuant to the 2009 PST Agreement; and (4) base packages for management of Southern U.S. inside fisheries. In mid-March, U.S. and Canadian fishery managers will exchange information regarding preseason expectations for fisheries and the status of Chinook and coho stocks. Following this exchange, the PSC's Chinook Model will be calibrated by the PSC Chinook Technical Committee to determine the allowable catch ceilings under the 2009 PST Agreement. Abundances and fishery expectations will be adjusted in the Council's fishery planning models prior to the April Council meeting, and inside fisheries will be shaped by state and tribal co-managers both prior to and during the April Council meeting.

The adjustments of stock abundances and fishery expectations, and the shaping of inside fisheries as described above, may result in estimated stock impacts in the final regulations adopted by the Council that differ from those presented in this report. The final regulations adopted by the Council in April are intended to be consistent with Council's Salmon FMP objectives (including rebuilding plans), guidance provided by the National Marine Fisheries Service (NMFS), obligations under the PST, and other applicable law. This part of the EA analyzes the range of effects within which the final management measures are expected to fall; however, the final recommendations will be analyzed in Preseason Report III (the final part of this EA), whether or not they fall outside the range of Alternatives analyzed in this Report.

Any Alternative considered for adoption that deviates from Salmon FMP objectives or other applicable laws will require implementation by emergency rule. If an emergency rule appears to be necessary, the Council must clearly identify and justify the need for such an action consistent with emergency criteria established by the Council and NMFS.

3.0 SALMON TECHNICAL TEAM CONCERNS

3.1 *Short Closures*

Alternative I for the recreational fishery south of Point Arena, California contains closures for very short periods on a weekly basis (i.e., Monday and Tuesday closed). In quota managed fisheries, such season structures are used primarily to allow for better monitoring of the catch. However, in days-open fisheries, such seasons could contribute to forecasting errors.

Harvest models forecast effort in non-quota fisheries based on the number of open days per month, area, and fishery. These effort forecasts do not specifically account for different patterns of open and closed days within the month. The STT is concerned that very short closures, on the order of 1-3 days per week, will have negligible effects on actual fishing effort. Such season structures could lead to substantial effort forecast errors and under predicted catch and exploitation rates.

3.2 *Need for Landing Requirements*

The STT recommends that landing restrictions be employed to require landings within the area where the fish are caught. Unless such restrictions are adopted, fleet mobility increases the difficulty of inseason management by compromising catch accountability and interpretation of biological data such as genetic stock identification (GSI) samples or coded-wire-tag (CWT) recoveries.

4.0 SALMON FISHERY MANAGEMENT PLAN REQUIREMENTS

The Council's Salmon FMP includes objectives for setting annual management measures to regulate ocean salmon fisheries between the U.S./Canada border and the U.S./Mexico border. The objectives include biological, administrative, and allocation requirements. In recommending final management measures, the Council attempts to meet all objectives in a fair and balanced manner, while maintaining established priorities.

Biological objectives for stocks originating in the Council area and impacted by Council area ocean fisheries are listed in Table 3-1 of the Salmon FMP. The objectives generally consist of meeting spawning escapement numbers associated with maximum sustainable yield (S_{MSY}), overfishing limits (OFL), acceptable biological catch (ABC), and annual catch limits (ACL), or exploitation rate limits designed to support recovery of depressed stocks or to rebuild overfished stocks, while encompassing a long term average harvest approximating MSY.

Administrative objectives are requirements for meeting other applicable law outside of the Salmon FMP. These requirements include ESA consultation standards, international treaties, and tribal trust responsibilities. The Salmon FMP defers to NMFS consultation standards for salmon stocks listed under the ESA in regards to biological conservation objectives. Section 5.0 of this document provides greater detail on ESA listed stocks, while impacts of the Council adopted salmon management measures on ESA listed stocks are included in Table 5.

The Salmon FMP requires compliance with relevant terms of the PST. Section 6.0 of this document provides greater detail on PST provisions and stocks, while impacts of the Council adopted salmon management measures on those stocks are included in Table 5.

Treaty trust responsibilities of the Salmon FMP require the Council to abide by Court orders in the *U.S. v. Washington* (Puget Sound), *Hoh v. Baldrige* (Washington coast), and *U.S. v. Oregon* (Columbia River) cases, and the Solicitor General opinion (Klamath River) governing allocation and management of shared salmon resources. Much of the North of Falcon forum is dedicated to annual negotiations establishing allocation among the tribes, non-Indian fishing sectors, and ocean and inside interests. The results of these negotiations allow the Council to complete final management measure recommendations while meeting its biological, administrative, and allocation objectives.

The Columbia River treaty tribes establish periodic management agreements with the state co-managers and Federal agencies. These agreements are approved pursuant to provisions of *U.S. v. Oregon* procedures. Recent agreements have included an entitlement for the treaty tribes of 50 percent of the coho return destined for areas upstream from Bonneville Dam. Council area fisheries are shaped in order to meet this requirement in some years.

The Yurok and Hoopa Valley tribes are entitled to 50 percent of the total Klamath River fall Chinook (KRFC) harvest, which is calculated as a harvest of KRFC equal to that taken in all non-Indian fisheries. The Council must account for all harvest impacts when assessing the achievement of KRFC conservation objectives.

In addition to the allocation objectives associated with sharing between treaty Indian and non-Indian sectors, the Salmon FMP includes formulas for sharing Chinook and coho quotas north of Cape Falcon between commercial and recreational sectors, and among recreational port subareas, and for coho south of Cape Falcon between commercial and recreational sectors. Alternatives for the 2013 salmon management measures adopted by the Council meet the allocation requirements for fisheries north of Cape Falcon in the Salmon FMP. There are insufficient coho available for directed commercial harvest south of Cape Falcon; therefore, the FMP allocation schedule guidance is to determine allocation during the preseason process.

5.0 SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT

Since 1989, NMFS listed the following 17 Evolutionarily Significant Units (ESUs) of salmon under the ESA:

ESU	Status	Federal Register Notice			
		Most Recent		Original Listing	
Chinook					
Sacramento River Winter	Endangered	76 FR 50447	8/15/2011	54 FR 32085	8/1/1989
Snake River Fall	Threatened	76 FR 50448	8/15/2011	57 FR 14653	4/22/1992
Snake River Spring/Summer	Threatened	76 FR 50448	8/15/2011	57 FR 14653	4/22/1992
Puget Sound	Threatened	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
Lower Columbia River	Threatened	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
Upper Willamette River	Threatened	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
Upper Columbia River Spring	Endangered	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
Central Valley Spring	Threatened	76 FR 50447	8/15/2011	64 FR 50394	9/16/1999
California Coastal	Threatened	76 FR 50447	8/15/2011	64 FR 50394	9/16/1999
Chum					
Hood Canal Summer-Run	Threatened	76 FR 50448	8/15/2011	64 FR 14508	3/25/1999
Columbia River	Threatened	76 FR 50448	8/15/2011	64 FR 14508	3/25/1999
Coho					
Central California Coastal	Endangered	76 FR 50447	8/15/2011	61 FR 56138	10/31/1996
S. Oregon/ N. California Coastal	Threatened	76 FR 50447	8/15/2011	62 FR 24588	5/6/1997
Oregon Coastal	Threatened	76 FR 50448	8/15/2011	63 FR 42587	8/10/1998
Lower Columbia River	Threatened	76 FR 50448	8/15/2011		
Sockeye					
Snake River	Endangered	76 FR 50448	8/15/2011	56 FR 58619	11/20/1991
Ozette Lake	Threatened	76 FR 50448	8/15/2011	64 FR 14528	3/25/1999

As the listings have occurred, NMFS has initiated formal consultations and issued biological opinions (BOs) that consider the impacts resulting from implementation of the Salmon FMP, or from annual management measures, to listed salmonid species. NMFS has also reinitiated consultation on certain ESUs when new information has become available on the status of the stocks or on the impacts of the Salmon FMP on the stocks. The consultation standards referred to in this document include (1) reasonable and prudent alternatives, (2) conservation objectives for which NMFS conducted Section 7 consultations and arrived at a no-jeopardy conclusion, and (3) NMFS requirements under Section 4(d) determinations.

A list of current BOs in effect, the species they apply to, and their duration follows:

Date	Evolutionarily Significant Unit covered and effective period
8-Mar-96	Snake River spring/summer and fall Chinook and sockeye (until reinitiated)
28-Apr-99	Oregon Coastal natural coho, Southern Oregon/ Northern California coastal coho, Central California coastal coho (until reinitiated)
28-Apr-00	Central Valley spring Chinook (until reinitiated)
27-Apr-01	Hood Canal summer chum 4(d) limit (until reinitiated)
30-Apr-01	Upper Willamette Chinook, Upper Columbia spring Chinook, Lake Ozette sockeye, Columbia River chum, and 10 steelhead ESUs (until reinitiated)
30-Apr-10	Sacramento River winter Chinook (until reinitiated)
30-Apr-04	Puget Sound Chinook (until reinitiated)
13-Jun-05	California coastal Chinook (until reinitiated)
28-Apr-08	Lower Columbia River natural coho (until reinitiated)
30-Apr-10	Lower Columbia River Chinook (until reinitiated)

Amendment 12 to the Salmon FMP added the generic category “species listed under the ESA” to the list of stocks in the salmon management unit and modified respective escapement goals to include “manage consistent with NMFS jeopardy standards or recovery plans to meet immediate conservation needs and

long-term recovery of the species.” Amendment 14 specified those listed ESUs and clarified which stocks in the FMP management unit were representative of the ESUs.

In a letter received by the Council on February 28, 2013, NMFS provided guidance on protective measures for species listed under the ESA during the 2013 fishing season. The letter summarized the requirements of NMFS’ BOs on the effects of potential actions under the salmon FMP on listed salmon and provided the anticipated consultation standards of the BOs in preparation for the 2013 management season, as well as further guidance and recommendations for the 2013 management season.

The ESA consultation standards, exploitation rates, and other criteria in place for the 2013 management season are presented in Table 5. Some listed stocks are either rarely caught in Council fisheries (e.g., spring Chinook from the upper Columbia River) or already receive sufficient protection from other salmon FMP and ESA standards (e.g., Central Valley spring Chinook). NMFS has determined that management actions designed to limit catch from these ESUs, beyond what will be provided by harvest constraints for other stocks, are not necessary.

Of the listed Chinook and coho, Council-managed fisheries have a substantive impacts on Sacramento River winter Chinook (SRWC), Central Valley spring Chinook, California coastal Chinook, Snake River wild (SRW) fall Chinook, lower Columbia River (LCR) fall Chinook, and all of the coho stocks. Additional listed salmonid ESUs found within the Council area, but not substantively impacted by Council managed fisheries, include:

Chinook	
Snake River spring/summer (threatened)	Puget Sound (threatened)
Upper Willamette (threatened)	Upper Columbia River spring (endangered)
Sockeye	
Snake River (endangered)	Ozette Lake Sockeye (threatened)
Chum	
Columbia River (threatened)	Hood Canal summer (threatened)
Steelhead	
Southern California (endangered)	Central Valley, California (threatened)
South-central California coast (threatened)	Central California coast (threatened)
Upper Columbia River (endangered)	Upper Willamette River (threatened)
Middle Columbia River (threatened)	Lower Columbia River (threatened)
Snake River Basin (threatened)	Northern California (threatened)
Puget Sound (threatened)	

6.0 OBLIGATIONS UNDER THE PACIFIC SALMON TREATY

In 1985 the PST was signed, setting long-term goals for the benefit of the shared salmon resources of the United States and Canada. The PSC is the body formed by the governments of Canada and the United States to implement the Pacific Salmon Treaty.

6.1 Chinook Salmon Management

A new agreement under the PST was negotiated in 2008 and formally accepted by both the U.S. and Canada in December of 2008. This new agreement took effect on January 1, 2009, and includes a 30 percent reduction in the catch ceilings for AABM fisheries off the West Coast Vancouver Island and a 15 percent reduction in the catch ceilings for AABM fisheries in Southeast Alaska Chinook relative to the catch ceilings in effect for these fisheries since 1999. Under the terms of the 2009 PST Agreement, Council fisheries for Chinook salmon continue to be subject to the ISBM provisions of Annex 4, Chapter 3, adopted in 1999. These provisions require the combined adult equivalent (AEQ) exploitation rate by

all U.S. fisheries south of the U.S./Canada border be reduced by 40 percent from the 1979-1982 base period for a specified set of Chinook indicator stocks, substantively impacted in U.S. ISBM fisheries, if they are not expected to achieve their management objectives.

Many Chinook stocks of concern to the Council are affected by fisheries off Canada and Alaska. Maximum allowable catches by AABM fishery complexes off the WCVI, Northern British Columbia, and Southeast Alaska are determined through the annual calibration of the PSC Chinook Model. Canadian fisheries that are not included in AABM complexes are managed under ISBM constraints, which require a 36.5 percent reduction in AEQ exploitation rates relative to the 1979-1982 base period on specified Chinook indicator stocks that are not expected to achieve their management objectives. Expectations for Canadian and Alaskan fisheries harvest and stock abundance forecasts are incorporated into the Chinook Fishery Regulation Assessment Model (FRAM) to estimate total exploitation rate impacts from all marine fisheries (Table 5).

Key considerations for Canadian domestic fishery management for Chinook in 2013 include, (1) meeting domestic conservation obligations for WCVI, Strait of Georgia, and Fraser River spring stocks; (2) Chinook harvests by native fisheries; and (3) incidental impacts during commercial and native fisheries directed at sockeye, and chum salmon. It is anticipated that the details of the fishery regulatory package off WCVI will be driven by levels of allowable impact on WCVI and Lower Strait of Georgia Chinook and Interior Fraser (Thompson River) coho.

6.2 Coho Salmon Management

In 2002, the PSC adopted a management plan for coho salmon originating in Washington and Southern British Columbia river systems. The plan is directed at the conservation of key management units, four from Southern British Columbia (Interior Fraser, Lower Fraser, Strait of Georgia Mainland, and Strait of Georgia Vancouver Island) and nine from Washington (Skagit, Stillaguamish, Snohomish, Hood Canal, Strait of Juan de Fuca, Quillayute, Hoh, Queets, and Grays Harbor). Exploitation rate limits for intercepting fisheries are established for individual management units through formulas specified in the 2002 PST Southern Coho Management Plan, and are based on total allowable fishery exploitation rates.

The categorical status of U.S. coho management units is reported to comply with obligations pursuant to the 2002 PST Southern Coho Management Plan. Categorical status is employed by the PSC under the 2002 PST Southern Coho Management Plan to indicate general ranges of allowable total exploitation rates for U.S. and Canadian coho management units. Three categories are employed: low (total exploitation rate less than 20 percent), moderate (total exploitation rate 20 percent to 40 percent), and abundant (total exploitation rate greater than 40 percent). For the Puget Sound management units, the 2002 PST Southern Coho Management Plan uses the thresholds and stepped harvest rate goals from the Comprehensive Coho Agreement, developed by Washington and the Puget Sound tribes, and adopted by the Council as FMP conservation objectives in November 2009. Actual exploitation rate constraints for Canadian fisheries on U.S. coho management units are determined by formulas that specify sharing of allowable exploitation rates and a “composite rule.” The composite rule adjusts constraints for Canadian fishery exploitation rates based on the number of U.S. management units which fall in a given category. For example, if only one Washington coastal coho management unit is in low status, Canadian fisheries are constrained to a total exploitation rate on that unit of 12 percent; if two or more Washington coastal management units are in low status, the constraint becomes 10 percent. The most restrictive exploitation rate limit for Canadian fishery impacts on U.S. coho management units is 10 percent.

For Washington coastal coho management units, a range is reported for the allowable exploitation rates based on the relationship between the pre-season abundance forecast and the upper and lower values of the spawning escapement ranges corresponding to MSY production. Maximum exploitation rates are

computed using the lower end of the escapement range and minimum exploitation rates are computed using the upper end of the escapement range. For purposes of reporting the categorical status, an allowable exploitation rate is computed using the mid-point of the MSY escapement range. However, the maximum allowable exploitation rate allowed under the PST is 65 percent.

For 2013, Puget Sound and Washington coast coho constraints are as follows:

PST Southern Coho Management Plan

U.S. Management Unit	Total Exploitation Rate Constraint ^{a/}	Categorical Status ^{b/}
Skagit	60%	Abundant
Stillaguamish	50%	Abundant
Snohomish	60%	Abundant
Hood Canal	45%	Moderate
Strait of Juan de Fuca	40%	Moderate
Quillayute Fall	40%	Moderate
Hoh	65%	Abundant
Queets	65%	Abundant
Grays Harbor	65%	Abundant

a/ Preliminary. For Puget Sound and Washington Coast management units, the exploitation rate constraints reflect application of the 2002 PST Southern Coho Management Plan.

b/ Categories (abundant, moderate, low) correspond to the general exploitation rate ranges depicted in paragraph 3(a) of the 2002 PST Southern Coho Management Plan. For Washington Coast stocks, categorical status is determined by taking the midpoint of the range of exploitation rates associated with achieving the escapement goal ranges. The exploitation rate ranges are based on preseason abundance forecasts and the upper and lower ends of the escapement goal ranges. Maximum exploitation rates are computed using the lower end of the escapement range; minimum exploitation rates are computed using the upper end of the escapement range.

Key considerations for Canadian fishery management for coho in 2013 are expected to include, (1) meeting domestic conservation obligations for Interior Fraser (including Thompson River) coho; (2) coho harvests by First Nations fisheries; (3) incidental impacts during commercial and First Nations fisheries directed at pink, Chinook, sockeye, and chum salmon; and (4) the desire to provide increased opportunity for sport fisheries through mark-selective retention regulations. The Canadian fishery regimes affecting coho will be driven by Canadian domestic allowable impacts on the Thompson River component of the Interior Fraser management unit (in previous years, Canadian fisheries were managed so as not to exceed a three percent maximum exploitation rate).

The projected status of Canadian coho management units in 2013 indicates continuing concerns for the condition of Interior Fraser coho. The Interior Fraser coho management unit is anticipated to remain in low status, resulting in a requirement to constrain the total mortality fishery exploitation rate for 2013 Southern U.S. fisheries to a maximum of 10.0 percent.

7.0 DESCRIPTION OF THE ALTERNATIVES

Detailed information on the proposed ocean salmon regulation Alternatives are presented in Tables 1 (non-Indian commercial), 2 (recreational), and 3 (treaty Indian). Significant changes from recent seasons are highlighted below.

7.1 Commercial

Alternatives for the area north of Cape Falcon reflect a lower relative abundance of Chinook and a slightly higher relative abundance of coho compared to 2012, with low abundance of Lower Columbia River hatchery coho. In 2013, allowable catch of Chinook will likely be decreased due to a lower relative abundance of LCR natural tule Chinook with an exploitation rate limit identical to 2012. Coho catch quotas will be similar to 2012.

All Alternatives north of Cape Falcon assign two-thirds of the troll Chinook quota to the May-June Chinook directed fishery. In all Alternatives, the May-June fishery opens initially seven days per week with no landing and possession limit. The summer all-salmon fisheries for all Alternatives include Chinook and coho landing and possession limits. Coho retention regulations are similar to recent years, except that Alternative I includes a possible non-mark-selective period after September 1 if sufficient quota remains.

Large Sacramento River fall Chinook (SRFC) and KRFC abundance forecasts will allow for substantial commercial fishing opportunity south of Cape Falcon in 2013. Constraints on commercial fishing opportunity in this region include the California coastal Chinook consultation standard that limits the KRFC age-4 ocean harvest rate to a maximum of 16 percent and the exploitation rate limit on ESA listed LCR tule Chinook. Commercial fisheries south of Point Arena will also be constrained by the maximum allowable age-3 impact rate of 12.9 percent on ESA listed SRWC.

For the North and Central Oregon coast south of Cape Falcon, all Alternatives for Chinook fisheries open on April 1 and generally run through October. All Alternatives have weekly landing and possession limits for the months of September and October.

For the Oregon Klamath Management Zone (KMZ), all Alternatives have April and May open, and then have monthly quota fisheries with daily landing and possession limits for June, July, and August. All Alternatives also allow transfer of unused or exceeded quota to subsequent quota periods through August on an impact neutral basis. Alternatives II and III have quota fisheries in September with daily landing and possession limits.

For the California KMZ, Alternatives I and III are limited to September quota fisheries. Alternative II features monthly quotas with daily landing and possession limits for May through September. Inseason transfer of unused or exceeded quota to subsequent quota periods through August on an impact neutral basis may occur. The May and June quotas in Alternative II would represent the first commercial fisheries during these months in the California KMZ since the late 1980s.

All Alternatives in the Fort Bragg area include open fisheries for portions of May through September with differences in the allocation of fishing opportunity for the months of May, June, and July. May and June fisheries in Fort Bragg have occurred very infrequently since the late 1980s.

In the San Francisco and Monterey areas, the fishery will open in May and run through September, with closures in June and July that vary in timing and duration among the Alternatives. The October fall area target zone fishery from Point Reyes to Point San Pedro is included in all Alternatives.

7.2 Recreational

In the area between the U.S. Canada Border and the Queets River, Alternatives I and II include Chinook directed recreational fisheries in May and June; Alternatives I and II include Chinook directed recreational fisheries in June only in the area between the Queets River and Cape Falcon. Both Alternatives have an area-wide mark-selective Chinook quota.

Alternatives I and II for subareas north of the Queets River are open seven days per week, Alternative III is open five days per week. For the Westport subarea, all Alternatives are open five days per week; the Grays Harbor Control Zone is open all season in Alternatives I and II due to the high forecast of Grays Harbor coho. For the Columbia River subarea, all Alternatives are open seven days per week. In Alternative III in all subareas, beginning September 1, any remaining subarea coho quota converts to non-mark-selective coho retention.

For the North and Central Oregon coast south of Cape Falcon, all Alternatives for Chinook fisheries open March 15 and run through October. All Alternatives have a mark-selective coho quota fishery in July including the Oregon KMZ area and a non-mark-selective coho fishery in September for the Cape Falcon to Humbug Mt. area. Non-mark-selective coho quotas are being considered because of the relatively high Oregon Coast natural (OCN) coho and moderate Oregon Production Index (OPI) hatchery coho forecasts, which tend to reduce expected mark rates and increase the number of release mortalities on natural stocks. A modeling run was performed for Alternative I to assess fishery impacts from a potential rollover of coho from the Cape Falcon to Oregon/California Border hatchery mark-selective recreational fishery in July to the Cape Falcon to Humbug Mountain non-mark-selective recreational fishery in September. Alternative I was modeled with the entire 12,000 marked coho quota in July rolled into the 16,000 non-mark-selective coho quota in September. The resulting 28,000 non-mark-selective coho quota in September in this simulation did not result in an increase to the projected impacts for LCN coho, but impacts for OCN coho increased by 2.5 percent for a total of 24.0 percent. The primary purpose of this preseason modeling exercise was to quantify the impact of a potential future inseason rollover action to ensure that Alternative I would remain impact neutral on the most limiting stock (LCN coho), would remain under the preseason expected exploitation rate for OCN coho (24 percent), and meets the OCN coho ESA consultation standard of less than 30 percent should any or all of the July quota be rolled into the September fishery.

Chinook fishing in both the Oregon and California KMZ will run at least from Memorial Day weekend through Labor Day (Alternative III). Alternatives I and II allow for longer seasons, beginning earlier in May and lasting later into September. Minimum size limits range from 22 to 24 inches in the Oregon KMZ and 20 to 24 inches in the California KMZ.

South of the KMZ, the season will begin on April 6. In the Fort Bragg area, the seasons extend into October or November, depending on the Alternative, with a 20 inch minimum size limit. For both the San Francisco and Monterey areas, Alternative I specifies a 24 inch size limit for the entire season, which would run through either November 10 (San Francisco) or October 6 (Monterey). Fishing would be limited to Wednesday through Sunday between the dates of June 1 and July 9, and seven days per week outside of this June/July period. For Alternative II, the San Francisco area season duration is the same as Alternative I, but fishing would be allowed for seven days per week and the minimum size limit would be reduced from 24 to 20 inches on August 1. In the Monterey area, Alternative II would also feature seven days per week fishing, but the size limits would be 24 inches in April and May, 26 inches in June and July, and 20 inches from August through October. For Alternative III, the San Francisco and Monterey areas would have the same season start and end dates as the other Alternatives, with the exception of a five day closure for San Francisco in June and a 17 day closure for Monterey in July. The size limits under this Alternative would be 24 inches through July and 20 inches thereafter.

7.3 Treaty Indian

Alternatives are generally similar in structure and quotas to recent years. All Alternatives have the provision that if the Chinook quota for the May-June fishery is exceeded, the excess will be deducted from the later all-salmon season.

8.0 AFFECTED ENVIRONMENT AND ANALYSIS OF IMPACTS

Based on National Oceanic and Atmospheric Administration (NOAA) Administrative Order (NAO) 216-6 Section 6.02, the affected environment may consist of the following components:

- Target (FMP) species
- Social or economic environments
- Non-target species

- Essential Fish Habitat
- Public health or safety
- ESA listed (non-salmon) species or critical habitat
- Marine mammals
- Biodiversity or ecosystem function

8.1 *Salmon Stocks in the Fishery*

Target stocks include Chinook, coho, and pink salmon stocks identified in Appendix A, Table A-1 of Preseason Report I (Part 1 of this EA; PFMC 2013b), which includes several ESA listed Chinook and coho stocks. These ESA listed stocks are not targeted in Council area salmon fisheries, but will be included in the analysis of effects on target species because they are impacted coincidentally with targeted salmon stocks and frequently constrain access to targeted stocks. Environmental impacts to other ESA listed species (e.g., marine mammals) from the Alternatives will be analyzed in a later section of this EA.

A description of the historical baseline for this component of the affected environment is presented in the Review of 2012 Ocean Salmon Fisheries (PFMC 2013a). A more general description of salmon life history and population characteristics is presented in PFMC 2006. The current status (2013 ocean abundance forecasts) of the environmental components expected to be affected by the 2013 ocean salmon fisheries regulation Alternatives (FMP salmon stocks) are described in PFMC 2013b. The criteria used to evaluate whether there are significant effects from the Alternatives on target stocks are achievement of conservation objectives, rebuilding criteria, and ESA consultation standards for salmon FMP stocks. The Salmon FMP conservation objectives are based on the best available science and are intended to prevent overfishing while achieving optimum yield from West Coast salmon fisheries as required by the MSA. The ESA consultation standards are likewise based on the best available science and are intended to ensure that fishery impacts do not appreciably reduce the likelihood of survival and recovery of listed species in the wild. FMP conservation objectives also include criteria for rebuilding overfished stocks. Therefore conservation objectives and consultation standards are appropriate indicators for determining the significance of fishery management actions referred to in NAO 216-6, Section 6.02.

8.1.1 **Chinook Salmon**

8.1.1.1 *North of Cape Falcon*

Abundance projections important to Chinook harvest management north of Cape Falcon in 2013 are:

- *Columbia River hatchery tules.* Combined production of Lower River Hatchery (LRH) and Spring Creek Hatchery (SCH) stocks returning to the Columbia River is predicted to be 126,000, which is lower than the 2012 preseason expectation of 190,800. The 2013 LRH forecast abundance is 88,000, lower than the forecast of 127,000 in 2011. The 2013 SCH forecast abundance is 38,000, which is lower than last year's forecast of 63,800.

The primary Chinook salmon management objectives shaping the Alternatives north of Cape Falcon are:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 5.0 above. Relevant stocks for the area north of Cape Falcon include LCR natural tule Chinook, Columbia Lower River Wild (LRW) fall Chinook, and SRW fall Chinook.

Fishery quotas under the Alternatives are presented in Table 4. Stock-specific management criteria and their forecast values under the Alternatives are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality under the Alternatives are summarized in Table 6. Table 7 provides a breakdown

of impacts by fishery and area for LCR natural tule Chinook. Descriptions pertaining to the achievement of key objectives for Chinook salmon management north of Cape Falcon are found below.

- *LCR natural tule fall Chinook.* The Alternative 1 exploitation rate of 43.3 percent exceeds the 41.0 percent NMFS consultation standard maximum for all fisheries. The exploitation rates in Alternatives II and III are less than the maximum, assuming river fisheries are structured similarly to last year. Additional shaping of PSC fisheries prior to the April Council meeting may result in Alternative I reaching compliance with the ESA consultation standard. LCR tules are the constraining Chinook stock for fisheries north of Cape Falcon in 2013.
- *LRW fall Chinook:* Alternatives have projected spawning escapements of at least 14,000 adults in the North Fork Lewis River, which exceeds the ESA consultation standard of an adult spawning escapement of at least 5,700 in the North Fork Lewis River. LRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2013.
- *SRW fall Chinook.* Alternatives have ocean exploitation rates of 53.3 percent or less of the base period exploitation rates, which is less than the ESA consultation standard of no more than 70 percent of the 1988-1993 base period exploitation rate for all ocean fisheries. SRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2013.

All of the Alternatives for Chinook fisheries north of Cape Falcon satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for relevant Chinook stocks other than those listed above (Table 5).

8.1.1.2 South of Cape Falcon

Status of Chinook stocks important to 2013 Chinook harvest management south of Cape Falcon are:

- *SRFC.* The Sacramento Index (SI) forecast is 834,200, which is slightly higher than the average postseason-estimated SI for years 1983-2012.
- *KRFC.* The age-3 forecast is 390,700 KRFC, which is above average. The age-4 forecast is 331,200 fish, which is well above average; since 1985 the postseason estimate of age-4 abundance has only exceeded this level once. The age-5 forecast is 5,700. Last year's preseason forecast was 1,567,600 age-3, 79,600 age-4, and 4,600 age-5 fish.
- *SRWC.* No abundance forecast is made for this stock. The geometric mean of the most recent three years of escapement is 1,521 fish. The geometric mean of the previous three years of escapement has been in decline since 2007.

Key Chinook salmon management objectives shaping the Alternatives south of Cape Falcon are:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 5.0 above. Relevant stocks for the area south of Cape Falcon include SRWC, California coastal Chinook, SRW fall Chinook, and LCR natural tule Chinook.
- SRFC hatchery and natural-area spawner escapement goal of 122,000 to 180,000 adults (FMP conservation objective). Fisheries must also be designed to achieve, in expectation, an escapement greater than or equal to the S_{ACL} . For 2013, the preseason S_{ACL} is 250,262 hatchery and natural area adult spawners.

- KRFC natural area spawning escapement of at least 40,700 adults, a spawner reduction rate not to exceed 68 percent (FMP conservation objective), and 50:50 tribal-non-tribal sharing of adult harvest (Department of Interior Solicitor Opinion). Fisheries must be designed to achieve, in expectation, an escapement greater than or equal to the S_{ACL} . For 2013, the preseason S_{ACL} is 73,751 natural area adult spawners.

Fishery quotas under the Alternatives are presented in Table 4. Stock-specific management criteria and their forecast values under the Alternatives are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality under the Alternatives are summarized in Table 6. Table 7 provides a breakdown of impacts by fishery and area for LCR tule Chinook. Appendix A presents tables of SRWC impacts and age-4 KRFC harvest, by fishery/time/area under the three Alternatives. Descriptions pertaining to the achievement of key objectives for Chinook salmon management south of Cape Falcon are found below.

- *California coastal Chinook*. The ESA consultation standard that limits the forecast KRFC age-4 ocean harvest rate to a maximum of 16.0 percent is met by each of the Alternatives.
- *SRWC*. The ESA consultation standard that (1) limits the forecast age-3 impact rate in 2013 fisheries south of Point Arena to a maximum of 12.9 percent and (2) specifies time/area closures and minimum size limit constraints south of Point Arena, is met by each of the Alternatives.
- *KRFC*. The preseason S_{ACL} of 73,751 natural area adult spawners, as well as the conservation objective, is met by each of the Alternatives.
- *SRFC*. The preseason S_{ACL} of 250,262 hatchery and natural area adult spawners, as well as the conservation objective, is met by each of the Alternatives.
- *LCR natural tule fall Chinook*. The Alternative 1 exploitation rate of 43.3 percent exceeds the 41.0 percent NMFS consultation standard maximum for all fisheries. The exploitation rates in Alternatives II and III are less than the maximum, assuming river fisheries are structured similarly to last year. Additional shaping of PSC fisheries prior to the April Council meeting may result in Alternative I reaching compliance with the ESA consultation standard.
- *SRW fall Chinook*. SRW Chinook will not constrain ocean fisheries south of Cape Falcon in 2013.

All of the Alternatives for Chinook fisheries south of Cape Falcon satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for relevant Chinook stocks other than those listed above (Table 5).

8.1.2 Coho Salmon

Abundance projections important to coho harvest management in Council area fisheries are:

- *OPI Hatchery coho*. The 2013 forecast for hatchery coho from the Columbia River and the coast south of Cape Falcon of 525,400 is higher than the 2012 forecast of 341,700. The Columbia River early coho forecast is 331,600 compared to the 2012 forecast of 229,800 and the Columbia River late coho forecast is 169,500, compared to the 2012 forecast of 87,400.
- *OCN coho*. The 2013 OCN forecast is 191,000 compared to the 2012 forecast of 291,000.
- *LCN coho*. The 2013 LCN forecast is 46,500 compared to the 2012 forecast of 30,100.

- *Puget Sound coho.* Among Puget Sound natural stocks, Skagit, Snohomish, and Stillaguamish are in the normal category in 2013, and Hood Canal and Strait of Juan de Fuca are in the low category.
- *Interior Fraser (Thompson River) coho.* This Canadian stock continues to be depressed, and will continue to constrain 2013 ocean coho fisheries north of Cape Falcon.

Key coho salmon management objectives shaping the Alternatives are:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 5.0 above. Relevant stocks include Central California Coast coho (south of the Oregon/California border), Southern Oregon/Northern California Coastal (SONCC) coho, OCN coho, and LCN coho. Based on this guidance, the maximum allowable exploitation rates for 2013 are: a combined marine/freshwater exploitation rate not to exceed 30.0 percent for OCN coho, a combined exploitation rate in marine-area and mainstem Columbia River fisheries not to exceed 15.0 percent for LCN coho, and a marine exploitation rate not to exceed 13.0 percent for Rogue/Klamath hatchery coho, used as a surrogate for the SONCC coho ESU. Furthermore, coho retention is prohibited in all California ocean fisheries.
- Salmon FMP conservation objectives and obligations under the 2002 PST Southern Coho Management Plan for stocks originating along the Washington coast, Puget Sound, and British Columbia as provided in Section 6.2 above. Because of the generally favorable forecasts for coho stocks in 2013, Interior Fraser and Hood Canal coho are the only key management stocks for ocean fisheries north of Cape Falcon. The majority of the exploitation on these stocks occur in Puget Sound and will be addressed in development of fishing seasons for inside waters during the North of Falcon co-management process by the State and Tribes prior to the April Council meeting. Because of their abundance status, Interior Fraser coho are subject to an exploitation rate ceiling of 10.0 percent in southern U.S. fisheries under the 2002 PST Southern Coho Management Plan. The allowable harvest rate on Hood Canal coho is 45% in 2013.

Fishery quotas under the Alternatives are presented in Table 4. Stock-specific management criteria and their forecast values under the Alternatives are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality under the Alternatives are summarized in Table 6. Table 7 provides a breakdown of impacts by fishery and area for LCN, OCN, and RK coho. Table 8 provides expected coho mark rates for west coast fisheries by month.

- *LCN coho.* Alternatives II and III satisfy the maximum 15.0 percent exploitation rate when 2013 projected marine impacts are combined with the 2012 preseason modeled impacts for mainstem Columbia River fisheries. Marine exploitation rates projected for 2013 Alternatives range from 11.7 percent in Alternative I to 9.5 percent in Alternative III. However, exploitation rates in ocean fisheries and the mainstem Columbia River fisheries combined are limited to 15.0 percent and further shaping will occur before final management measures are adopted.
- *Hood Canal coho.* Southern U.S. exploitation rates in all Alternatives exceed the 45.0 percent maximum required by the PST Southern Coho Management Plan. Shaping of the State and Tribal inside fisheries will occur during the North of Falcon process, and ocean fisheries may require further shaping before final management measures are adopted in order to comply with the PST limit.

- *Interior Fraser coho.* Southern U.S. exploitation rates in all Alternatives exceed the 10.0 percent maximum required by the PST Southern Coho Management Plan. Shaping of the State and Tribal inside fisheries will occur during the North of Falcon process, and ocean fisheries may require further shaping before final management measures are adopted in order to comply with the PST limit.

All of the Alternatives for coho fisheries satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for relevant coho stocks other than those listed above (Table 5).

8.1.3 Pink Salmon

Pink salmon are sufficiently abundant to merit management consideration in 2013. Impacts on Chinook and coho in pink-directed fisheries may be part of negotiations to reach a final agreement in North of Cape Falcon ocean and Puget Sound fisheries.

8.1.4 Summary of Environmental Impacts on Target Stocks

Stock forecasts for some Canadian stocks and the actual PST limits on AABM fisheries are not known at this time, and preliminary values have been used in the analyses presented in this report. These forecasts and limits will be available prior to the April Council meeting. Negotiations in the North of Falcon process will not be completed until the April Council meeting. These negotiations affect allocation of stock impacts primarily among inside fisheries (State, Tribal, recreational, various commercial sectors, etc.) but also between inside and ocean fisheries.

Environmental impacts on salmon stocks are assessed based on compliance with conservation objectives, ACLs, rebuilding plans, and ESA consultation standards. As noted in the description of the Alternatives (Tables 1, 2, and 3), if analyses using the updated values and the results of these negotiations do not result in compliance with FMP conservation objectives or ESA consultation standards, some Alternatives will not be viable and impacts in Council-area fisheries will need to be reduced to comply with all applicable objectives and standards. If updated values and negotiations result in compliance with applicable objectives and standards, Council area fishery impacts would not increase; therefore, the analysis of effects would include the upper bound of a reasonable range of effects under the Alternatives considered for 2013 Council area salmon fisheries.

8.1.4.1 Targeted Salmon Stocks

Based on current assumptions regarding Canadian, Alaskan, and inside fishery impacts, all target salmon stocks (non-ESA listed) meet their FMP conservation objectives under Alternatives I, II, and III except Interior Fraser (Thompson River) coho (Table 5). Impacts in Council area fisheries alone are well below maximum allowed exploitation rates for Interior Fraser coho, and further shaping of inside fisheries will be required to comply with the PST Southern Coho Management Plan.

8.1.4.2 ESA Listed Salmon Stocks

Based on current assumptions regarding Canadian, Alaskan, and inside fishery impacts, all ESA listed salmon stocks meet their ESA consultation standards under Alternative I except LCR natural tule Chinook and the ocean exploitation rate for LCN coho under Alternative I, which, when combined with 2012 pre-season freshwater harvest rates, will exceed the total allowable exploitation rate of 15.0 percent (Table 5). Impacts in ocean fisheries alone are less than the maximum allowed exploitation rates for both stocks; however, under current assumptions for northern and inside fisheries, total exploitation rates exceed the allowed rates. Further shaping of Canadian, Alaskan, and inside fisheries may result in compliance with the ESA consultation standard; however, additional restrictions to Council area fisheries may be necessary to meet both consultation standards and inside fishery needs.

ESA consultation standards are met for all stocks under Alternative II; however, additional restrictions to Council area fisheries may be necessary to meet both ESA consultation standards for LCN coho and inside fishery needs (Table 5). Impacts on LCN coho necessary to prosecute Columbia River mainstem fisheries have not yet been estimated, although currently available impacts under Alternative II are greater than the impacts allocated in 2012.

ESA consultation standards are met for all stocks under Alternative III and impacts on LCN coho available to shape Columbia River mainstem fisheries are greater than the impacts allocated in 2012 (Table 5).

Council-area fisheries have a minor impact on ESA-listed Puget Sound Chinook and on most Chinook stocks subject to the 2009 PST Agreement. At this point there appears to be sufficient flexibility within Council and inside area fisheries as a whole to achieve protection for the Puget Sound Chinook ESU.

8.2 *Socioeconomics*

In general the Council manages the salmon fishery to meet escapement objectives for rebuilding stocks and stocks that are expected to achieve optimum yields. While analysis of biological impacts is organized around salmon stocks that spawn in particular rivers, socioeconomic impacts under the regulatory Alternatives are analyzed by ocean fishery management areas as described in the Salmon FMP. These areas correlate to some extent with the ocean distribution of salmon stocks, although the various stocks are mixed in offshore waters. From north to south, the fishery management 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./Mexico border. There are also numerous subdivisions within these areas that are used to further balance stock conservation and harvest allocation needs. A map of the boundaries of these areas, also showing the main salmon ports, appears on the inside back cover of this report. The following analysis of impacts on fishing communities is organized around these broad management areas.

The Review of 2012 Ocean Salmon Fisheries (PFMC 2013a) provides an historical description of the salmon fishery affected environment. In addition to stock status assessments, the document reports socioeconomic impacts of historical fisheries and analyzes the current socioeconomic status of West Coast salmon fisheries. For the purpose of characterizing the economic impact of Council-area ocean salmon fisheries, commercial exvessel value and community level personal income impacts resulting from economic activity generated by commercial salmon landings and recreational angler fishing trips are used.

The short-term economic effects of the proposed Alternatives for non-Indian fisheries are shown in Tables 9 and 10. Table 9 shows projected commercial troll impacts expressed in terms of estimated potential exvessel value. Table 10 shows projected recreational fisheries impacts in terms of the number of projected angler-trips and community personal income impacts generated by those activities. Note that exvessel values shown under the Alternatives for the commercial troll fishery in Table 9 and income impact values shown for the recreational fishery in Table 10 are not directly comparable. More directly comparable measures of short-term economic impacts from commercial and recreational salmon fisheries appear in Figures 1 and 2, which show estimated community income impacts under the commercial troll and recreational fishery Alternatives, respectively, compared to historic impacts in inflation-adjusted dollars. These income impacts are estimates of the total amount of personal income generated by the economic linkages associated with fisheries activities. Although reductions in income impacts may not

necessarily measure net losses in a community, they do likely indicate losses to businesses and individuals engaged in fisheries activities for livelihood.

Total economic effects under the Alternatives may vary more or less than is indicated by the short-term impacts on ocean fisheries reported below. Salmon that are not harvested in the ocean do not necessarily represent an economic loss, as they may become available to augment inside harvest or provide additional spawning escapement. Alternatives that restrict ocean harvests may increase opportunities for inside harvesters (e.g., higher commercial revenue or more angler trips) or contribute to higher inside catch per unit effort (CPUE) (i.e., lower costs for commercial harvesters and/or higher success rates for recreational fishers). Harvest forgone by both ocean fisheries and inside fisheries may impact future production, although the magnitude of that effect is uncertain depending on the resulting escapement level compared to MSY escapement and the nature of the spawner-recruit relationship.

Fishing effort estimates for the recreational fishery south of Cape Falcon are based on measures developed by the STT for modeling biological impacts. STT estimates for south of Cape Falcon use multi-year averages to predict effort for the coming year. Consequently, if the multi-year average for a particular time period and area happens to be higher than for the previous year, then the model may forecast an increase in effort for the coming year even though the fishery management measures may actually be relatively more constraining, or *vice-versa*. Recreational fishery effort north of Cape Falcon was estimated using historical CPUE estimates applied to the salmon quotas under the Alternatives. For the summer mark-selective coho fishery, average 2010-2012 summer coho CPUE by area was applied to the coho quota under each Alternative. For the June Chinook fisheries under Alternatives I and II, the average 2010-2012 Washington June Chinook CPUE was used.

The expected harvests used to model commercial fishery impacts are taken from Table 6. The prior year's exvessel prices were assumed to be the best indicator of prices expected in the coming season. The 2012 average West Coast ocean harvest Chinook price of \$5.31 per pound was the fifth highest in nominal terms reported since 1979, but trending lower over the past four years. Relaxation of supply constraints in 2011 and 2012 contributed to increased commercial harvests and lower average exvessel prices. Total commercial Chinook harvests are projected to be somewhat higher under the Alternatives than in 2012, although the distribution of catch will vary regionally. If average exvessel prices this year exceed last year's level then income impacts reported below may be underestimates, and *vice versa*.

8.2.1 Alternative I

Under Alternative I, coastwide community personal income impacts from commercial salmon fisheries are projected to exceed last year's (2012) level by 21 percent and the recent (2008-2012) inflation-adjusted average by more than three times (+206 percent). Coastwide recreational income impacts are projected to exceed last year's level by 12 percent and the inflation-adjusted 2008-2012 average by 71 percent.

Commercial fisheries income impacts are projected to exceed the inflation-adjusted 2008-2012 average in all management areas, and to exceed last year's level in all areas except south of Point Arena. Recreational fisheries income impacts are projected to exceed the inflation-adjusted 2008-2012 average in all management areas, and to exceed last year's level in all areas except KMZ and south of Point Arena.

Commercial fisheries income impacts north of Cape Falcon are projected to be 9 percent higher than in 2012 and 41 percent above the 2008-2012 inflation-adjusted average. Similarly, projected income

impacts from recreational fisheries north of Cape Falcon are 29 percent higher than in 2012 and 32 percent above the 2008-2012 inflation-adjusted average.

The area south of Cape Falcon would see commercial fisheries income impacts that are 270 percent above the 2008-2012 inflation-adjusted average and 23 percent above last year. However the area south of Point Arena would see a 28 percent reduction compared with last year. Income impacts from recreational salmon fisheries south of Cape Falcon are three percent above last year, and more than double, the 2008-2012 inflation-adjusted average (+112 percent). However compared with last year recreational income impacts south of Cape Falcon are projected to be lower in KMZ (-13 percent) and south of Point Arena (-1 percent).

Income impacts under Alternative I are not projected to be significant. Compared with recent years aggregate commercial and recreational income impacts in all management areas are either positive or are within the observed historical range of impact levels.

8.2.2 Alternative II

Under Alternative II, coastwide community personal income impacts from commercial salmon fisheries are projected to exceed last year's level by 16 percent and the recent 2008-2012 inflation-adjusted average by nearly three times (+195 percent). Coastwide recreational income impacts are projected to exceed last year's level by 13 percent and the inflation-adjusted 2008-2012 average by 72 percent.

Commercial fisheries income impacts are projected to exceed the inflation-adjusted 2008-2012 average in all management areas, and to exceed last year's level in all areas except north of Cape Falcon and south of Point Arena. Recreational fisheries income impacts are projected to exceed the inflation-adjusted 2008-2012 average in all management areas, and to exceed last year's level in all areas except KMZ.

Commercial fisheries income impacts north of Cape Falcon are projected to be 13 percent lower than in 2012 but 13 percent higher than the 2008-2012 inflation-adjusted average. Projected income impacts from recreational fisheries north of Cape Falcon are 22 percent higher than in 2012 and 25 percent above their 2008-2012 inflation-adjusted average.

While the area south of Cape Falcon would see total commercial fisheries income impacts that are 265 percent above the 2008-2012 inflation-adjusted average, the area south of Point Arena would see a 29 percent reduction compared with last year. Recreational income impacts south of Cape Falcon are 121 percent higher than the 2008-2012 inflation-adjusted average, and seven percent above last year, although 15 percent lower than last year in KMZ.

Income impacts under Alternative II are not projected to be significant. Compared with recent years aggregate commercial and recreational income impacts in all management areas are either positive or are within the observed historical range of impact levels.

8.2.3 Alternative III

Under Alternative III, coastwide community personal income impacts from commercial salmon fisheries are projected to exceed last year's level by 15 percent and the recent 2008-2012 inflation-adjusted average by nearly three times (+192 percent). Coastwide recreational income impacts are projected to be one percent below last year's level but to exceed the inflation-adjusted 2008-2012 average by 52 percent.

Commercial fisheries income impacts are projected to exceed the inflation-adjusted 2008-2012 average in all management areas except north of Cape Falcon, and to exceed last year's level in all areas except north of Cape Falcon and south of Point Arena. Recreational fisheries income impacts are projected to

exceed the inflation-adjusted 2008-2012 average in all management areas except north of Cape Falcon, and to exceed last year's level in all areas except north of Cape Falcon and KMZ.

Commercial fisheries income impacts north of Cape Falcon are projected to be 30 percent lower than in 2012 and 9 percent below the 2008-2012 inflation-adjusted average. Projected income impacts from recreational fisheries north of Cape Falcon are six percent lower than in 2012 and four percent below their 2008-2012 inflation-adjusted average.

While the area south of Cape Falcon would see total commercial fisheries income impacts that are 270 percent above the 2008-2012 inflation-adjusted average, and 22 percent higher than last year, the area south of Point Arena is projected to see a reduction of 23 percent compared with last year. Projected recreational income impacts south of Cape Falcon are two percent higher than last year and more than double (+111 percent) the 2008-2012 inflation-adjusted average. However income impacts from recreational fisheries in KMZ are projected to be 24 percent lower than last year.

Income impacts under Alternative III are not projected to be significant. Compared with recent years aggregate commercial and recreational income impacts in all management areas are either positive or are within the observed historical range of impact levels.

8.2.4 Summary of Impacts on the Socioeconomic Environment

The commercial fishery Alternatives are projected to generate higher coastwide aggregate income impacts than in 2012 and compared with the 2008-2012 inflation-adjusted average. However this result masks regional differences along the coast. Income impacts from commercial fisheries south of Cape Falcon are projected to be substantially higher than the 2008-2012 inflation-adjusted averages in all areas under all three Alternatives, and above last year's levels in all areas except south of Point Arena, which is projected to be lower under all three Alternatives. North of Cape Falcon income impacts from commercial fisheries are projected to increase compared with last year under Alternative I but decrease under Alternatives II and III. Compared with the north of Cape Falcon 2008-2012 inflation-adjusted average, increases are projected under Alternatives I and II, but a decrease is projected under Alternative III.

Aggregate coastwide income impacts from recreational fisheries are projected to be higher than the 2008-2012 inflation-adjusted average under all three Alternatives, but higher than last year's level only under Alternatives I and II (decreasing slightly under Alternative III). Income impacts from recreational fisheries north of Cape Falcon are projected to decrease under Alternative III compared with both last year and the 2008-2012 inflation-adjusted average. South of Cape Falcon, the area south of Point Arena is projected to see a small reduction from last year under Alternative I. The KMZ is projected to see reduced income impacts from recreational fisheries compared with last year under all three Alternatives, although the levels are substantially above the 2008-2012 inflation-adjusted average.

8.3 *Non-target Fish Species*

Prior NEPA analyses have considered the effects of the ocean salmon fisheries on non-target fish species. Since then, ocean salmon fisheries have not changed substantially in terms of season length, areas, depth, bag limits, etc. Nor is there any new information to suggest that the incidental nature of encounters of non-target species in ocean salmon fisheries has changed. Therefore, conclusions from previous environmental analyses indicating that effects on non-target fish species are low and not significant are still applicable, as discussed below. The differences between the Alternatives for the 2013 salmon fishery are not discernible with respect to their effect on non-target fish species.

Impacts to groundfish stocks from salmon troll fisheries continue to be managed as part of the open access groundfish fishery sector, and are at similar levels compared to recent years. Previous

environmental analysis concluded that the amount of groundfish taken incidentally in the salmon fishery is very low and is not substantially altered by changes in the salmon fishery. (NMFS 2003; Appendix B). The 2013 ocean salmon regulation Alternatives are not expected to differ substantially from fisheries analyzed previously with respect to groundfish impacts; therefore, effects from the Alternatives to groundfish stocks are not significant.

Impacts to Pacific halibut from salmon troll fisheries continue to be managed under limits established through the International Pacific Halibut Commission (IPHC) process and under the Area 2A (Council area) catch sharing plan. Previous environmental analysis stated that data on the commercial segment of salmon fisheries show the co-occurrence rates for salmon and halibut, coastal pelagic species, highly migratory species, and non-Council managed fish species are low (NMFS 2003; Appendix B). The 2013 ocean salmon regulation Alternatives include Pacific halibut landing restrictions within the range enacted in the past, and are not expected to differ substantially from earlier analyses with respect to Pacific halibut impacts; therefore, effects from the Alternatives to Pacific Halibut are not significant. Likewise, there are no changes to the salmon fishery for 2013 that would change impacts to other non-salmon fish species compared to previous analyses, therefore, effects from the Alternatives to these species are not expected to be significant.

8.4 Marine Mammals

The commercial salmon troll fisheries off the coasts of Washington, Oregon, and California are classified as Category III fisheries, indicating a remote or no likelihood causing of incidental mortality or serious injury to marine mammals (75 FR 68468). Recreational salmon fisheries use similar gear and techniques as the commercial fisheries and are assumed to have similar encounter rates and impacts. The non-ESA listed marine mammal species that are known to interact with ocean salmon fisheries are California sea lion and harbor seals. Populations of both these species are at stable and historically high levels. There is no new information to suggest that the nature of interactions between California sea lions or harbor seals in ocean salmon fisheries has changed since the Category III determination. Therefore, the impacts from the 2013 salmon regulation Alternatives to non-ESA listed marine mammals are not expected to be significant, and there is no discernible difference between the effects of the Alternatives on these resources.

8.5 ESA Listed Species

Stellar sea lion interaction with the Pacific Coast salmon fisheries is rare and NMFS has determined mortality and serious injury incidental to commercial salmon troll fishing operations have a negligible effect on this species (NMFS 2003; Appendix B). Available information indicates that Pacific Coast salmon fisheries are not likely to jeopardize the existence of the Guadalupe fur seal (NMFS 2003; Appendix B). No sea turtles have been reported taken by the ocean salmon fisheries off Washington, Oregon, or California, and NMFS has determined that commercial fishing by Pacific Coast salmon fisheries would pose a negligible threat to Pacific turtle species (NMFS 2003; Appendix B). There is no discernible difference between the effects of the Alternatives on these resources

The NMFS BO on Southern Resident killer whale distinct population segment (NMFS 2008; Appendix B) concluded that ocean salmon fisheries were not likely to jeopardize the continued existence of the Southern Resident killer whales or adversely modify their critical habitat. NMFS has initiated a five year review of the Southern Resident killer whale ESA listing. There is new information that indicates Chinook salmon abundance may correlate with killer whale population growth rate, and while this information is under review, it is possible that future consultation standards for Puget Sound and possibly Council area fisheries will change as a result of this new information. However, the 2013 ocean salmon regulations are covered by the NMFS 2008 BO, and on that basis it is expected that the 2013 regulations

would not have significant impacts to Southern Resident killer whales. There is no discernible difference between the effects of the Alternatives on killer whales.

Other ESA listed salmonid species present in Council area waters include sockeye and chum salmon, and steelhead trout. These species are rarely encountered in ocean salmon fisheries, and Alternatives for 2013 Council area ocean salmon fisheries are in compliance with applicable BOs for listed ESUs of these species as listed in Chapter 5 of this document. Because anticipated impacts are negligible, there are no significant impacts expected on listed sockeye or chum salmon or steelhead trout from the Alternatives analyzed in this EA, and there is no discernible difference between the effects of the Alternatives on these resources.

8.6 Seabirds

The types of vessels used in ocean salmon fisheries and the conduct of the vessels are not conducive to collisions or the introduction of rats other non-indigenous species to seabird breeding colonies. Other types of accidental bird encounters are a rare event for commercial and recreational ocean salmon fisheries (NMFS 2003; Appendix B). Therefore, there are no significant impacts expected on seabirds from the Alternatives analyzed in this EA, and there is no discernible difference between the effects of the Alternatives on seabirds.

8.7 Biodiversity and Ecosystem Function

The removal of adult salmon by the ocean fisheries is not considered to significantly affect the lower trophic levels or the overall marine ecosystem because salmon are not the only or primary predator in the marine environment (NMFS 2003; Appendix B). Therefore, no significant impacts are expected on biodiversity or ecosystem function from the Alternatives analyzed in this EA, and there is no discernible difference between the effects of the Alternatives on these resources.

8.8 Ocean and Coastal Habitats

Council Area salmon fisheries do not employ bottom contact gear, and there is no evidence of direct gear effects on fish habitat from Council-managed salmon fisheries on EFH for salmon or other managed species (PFMC 2006; Appendix B). Critical habitat for ESA listed salmon does not include Council area ocean water. Because Council area salmon fisheries are conducted at sea and without bottom contact gear, there is no interaction with unique geographic characteristics or other cultural, scientific, or historical resources such as those that might be listed on the National Register of Historical Places.

8.9 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 Salmon FMP, however, has provisions to adjust management measures if unsafe weather affected fishery access. The Alternatives for 2013 ocean salmon regulations have season structures similar to those employed in previous salmon seasons and are not expected to result in any significant increase in the risk to human health or safety at sea (PFMC 2006; Appendix B). There are also no discernible differences between the effects of the Alternatives on the risk to human health or safety at sea.

8.10 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 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 fresh water, they are more vulnerable to a broad range of human activities (since humans spend most of their time on land) that affect the quantity and 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 (such as 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. Fishing mortality beyond the upcoming season 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 historical harvest is used to forecast expected harvest impacts based on proposed management Alternatives and quotas or allocations to other fisheries are known or foreseeable. Natural mortality is estimated and accounts for 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 exposes key life stages to human-induced impacts, it makes the task of stock assessment much easier because spawning escapement 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 cannot 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, estimating mortality from recreational fishing may be less precise than from commercial fishing because it is logistically more difficult 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 pre-season predictions with post-season estimates, found in the Pre-season Report I, 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 produce a greater cumulative impact.

Cumulative impacts on salmon stocks and their habitat could be significant if conservation objectives are not met, 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 final action, which will be analyzed in Preseason Report III, is expected to meet conservation objectives for all Salmon stocks in the FMP.

9.0 CONCLUSION

This analysis has identified no significant environmental impacts that would result from the 2013 ocean salmon regulation Alternatives, from final regulations selected from within the range presented in these Alternatives.

10.0 LIST OF AGENCIES AND PERSONS CONSULTED

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

- October 10-11, 2012: **Salmon Technical Team/Scientific and Statistical Committee Salmon Subcommittee joint meeting**, Portland, Oregon.
- January 11-12: Washington Fish and Wildlife Commission meeting, Olympia, Washington.
- January 22-25, 2013: **Salmon Technical Team (Review preparation)**, Portland, Oregon.
- February 6: California Fish and Game Commission meeting, Sacramento, California.
- February 19-22: **Salmon Technical Team (Preseason Report I preparation)**, Portland, Oregon.
- February 28: California Department of Fish and Wildlife public meeting, Santa Rosa, California.
- Oregon Salmon Industry Group meeting, Newport, Oregon.
- March 1: Washington Department of Fish and Wildlife public meeting, Olympia, Washington.
- Washington Fish and Wildlife Commission meeting, Moses Lake, Washington.
- March 6: California Fish and Game Commission meeting, Mount Shasta, California.
- March 6-11: **Pacific Fishery Management Council meeting**, Tacoma, Washington.
- March 8: Oregon Fish and Wildlife Commission meeting, Salem, Oregon.
- March 12: North of Falcon and *U.S. v. Oregon Forums*, Vancouver, Washington.
- March 13-14: North of Falcon, Ocean fisheries, Puget Sound, and *U.S. v. Oregon Forums*, Olympia, Washington.
- March 25-26: **Public hearings on management options** in Westport, Washington; Coos Bay, Oregon; and Eureka, California.
- March 26-28: North of Falcon, Ocean fisheries, Puget Sound, and *U.S. v. Oregon Forums*, Lynnwood, Washington.
- April 1: North of Falcon, Ocean fisheries, and *U.S. v. Oregon Forums*, Olympia, Washington.
- April 5-11: **Pacific Fishery Management Council meeting**, Portland, Oregon.
- April 12-13: Washington Fish and Wildlife Commission meeting, Olympia, WA.
- April 17-18: California Fish and Game Commission meeting, Santa Rosa, California.
- May 10: Oregon Fish and Wildlife Commission meeting, Salem, Oregon.

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

California Department of Fish and Wildlife
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, Sustainable Fisheries Division, Southwest 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

Northwest Indian Fish Commission
Columbia River Intertribal Fish Commission
West Coast Indian Tribes

11.0 REFERENCES

- National Marine Fisheries Service (NMFS). 2003. Final Programmatic environmental impact statement for Pacific salmon fisheries management off the coasts of Southeast Alaska, Washington, Oregon, and California, and in the Columbia River basin. National Marine Fisheries Service Northwest Region, Seattle.
- NMFS. 2008. Endangered Species Act-section 7 formal consultation biological opinion: Effects of the 2008 Pacific Coast salmon plan fisheries on the southern resident killer whale distinct population segment (*Orcinus orca*) and their critical habitat. National Marine Fisheries Service Northwest Region, Seattle.
- Pacific Fishery Management Council (PFMC). 2006. Environmental assessment for the proposed 2006 management measures for the ocean salmon fishery managed under the Pacific Coast salmon plan. Pacific Fishery Management Council, Portland, Oregon.
- PFMC. 2013a. Review of 2012 ocean salmon fisheries. Pacific Fishery Management Council, Portland, Oregon.
- PFMC. 2013b. Preseason Report I: Stock abundance analysis and environmental assessment part 1 for 2013 ocean salmon fishery management measures. Pacific Fishery Management Council, Portland, Oregon.

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013 (Page 1 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
North of Cape Falcon	North of Cape Falcon	North of Cape Falcon
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall non-Indian TAC: 99,000 (non-mark-selective equivalent of 95,000) Chinook and 90,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 47,500 Chinook and 14,400 marked coho.</p> <p>3. Trade: May be considered at the April Council meeting.</p> <p>4. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 79,000 (non-mark-selective equivalent of 75,000) Chinook and 85,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 37,500 Chinook and 13,600 marked coho.</p> <p>3. Trade: May be considered at the April Council meeting.</p> <p>4. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 60,000 Chinook and 75,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 30,000 Chinook and 12,000 marked coho.</p> <p>3. Trade: May be considered at the April Council meeting.</p> <p>4. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> • May 1 through earlier of June 30 or 31,700 Chinook quota. <p>Seven days per week (C.1). All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total (B), C.1). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.4, C.5, C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). An inseason conference call will occur when it is projected that 23,775 Chinook have been landed to consider modifying the open period to five days per week and adding landing and possession limits to ensure the guideline is not exceeded.</p>	<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> • May 1 through earlier of June 30 or 25,000 Chinook quota. <p>Seven days per week (C.1). All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total (B), C.1). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.4, C.5, C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). An inseason conference call will occur when it is projected that 18,750 Chinook have been landed to consider modifying the open period to five days per week and adding landing and possession limits to ensure the guideline is not exceeded.</p>	<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> • May 1 through earlier of June 30 or 20,000 Chinook quota. <p>Seven days per week (C.1). All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total (B), C.1). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.4, C.5, C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). An inseason conference call will occur when it is projected that 15,000 Chinook have been landed to consider modifying the open period to five days per week and adding landing and possession limits to ensure the guideline is not exceeded.</p>
<p>Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5). Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels fishing or in possession of salmon while fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing or in possession of salmon while fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon must notify ODFW within one hour of delivery or prior to transport away from the port of landing by either calling 541-867-0300 Ext. 271 or sending notification via e-mail to nfalcon.trollreport@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and 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.</p>		

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 2 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 1 through earlier of September 17 or 15,800 preseason Chinook guideline (C.8) or a 14,400 marked coho quota (C.8.d) <p>July 1-9 then Friday through Tuesday July 12-August 27 with a landing and possession limit of 60 Chinook and 40 coho per vessel per open period; Friday through Tuesday August 30-September 17 with a landing and possession limit of 20 Chinook and 50 coho per vessel per open period (C.1). No earlier than September 1, if at least 5,000 marked coho remain on the quota, inseason action may be considered to allow non-selective coho retention (C.8). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). Chinook minimum size limit of 28 inches total (B), C.1). All coho must be marked except as noted above (C.8.d). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>	<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 5 through earlier of September 30 or 12,500 preseason Chinook guideline (C.8) or a 13,600 marked coho quota (C.8.d) <p>Friday through Tuesday through August 27 with a landing and possession limit of 40 Chinook and 40 coho per vessel per open period; Friday through Tuesday August 30-September 30, with a landing and possession limit of 20 Chinook and 50 coho per vessel per open period (C.1). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). Chinook minimum size limit of 28 inches total (B), C.1). All coho must be marked (C.8.d). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>	<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 6 through earlier of September 18 or 10,000 preseason Chinook guideline (C.8) or a 12,000 marked coho quota (C.8.d) <p>Saturday through Wednesday through August 28 with a landing and possession limit of 35 Chinook and 40 coho per vessel per open period; Saturday through Wednesday August 31-September 18, with a landing and possession limit of 10 Chinook and 30 coho per vessel per open period (C.1). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). Chinook minimum size limit of 28 inches total (B), C.1). All coho must be marked (C.8.d). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>
<p>Mandatory Yelloweye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones, and beginning August 1, Grays Harbor Control Zone Closed (C.5). Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Vessels fishing or in possession of salmon while fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing or in possession of salmon while fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Under state law, vessels must report their catch on a state fish receiving ticket. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon must notify ODFW within one hour of delivery or prior to transport away from the port of landing by either calling 541-867-0300 Ext. 271 or sending notification via e-mail to nfalcon.trollreport@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and 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.</p>		

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 3 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Sacramento River Basin recreational fishery catch assumption: 74,988 adult Sacramento River fall Chinook.</p> <p>2. Sacramento River fall Chinook spawning escapement of 460,643 adults.</p> <p>3. Klamath River recreational fishery allocation: 39,617 adult Klamath River fall Chinook.</p> <p>4. Klamath tribal allocation: 114,913 adult Klamath River fall Chinook.</p> <p>5. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.</p>	<p>1. Sacramento River Basin recreational fishery catch assumption: 74,526 adult Sacramento River fall Chinook.</p> <p>2. Sacramento River fall Chinook spawning escapement of 457,800 adults.</p> <p>3. Klamath River recreational fishery allocation: 39,945 adult Klamath River fall Chinook.</p> <p>4. Klamath tribal allocation: 114,831 adult Klamath River fall Chinook.</p> <p>5. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.</p>	<p>1. Sacramento River Basin recreational fishery catch assumption: 73,968 adult Sacramento River fall Chinook.</p> <p>2. Sacramento River fall Chinook spawning escapement of 454,377 adults.</p> <p>3. Klamath River recreational fishery allocation: 39,553 adult Klamath River fall Chinook.</p> <p>4. Klamath tribal allocation: 114,957 adult Klamath River fall Chinook.</p> <p>5. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.</p>
<p>Cape Falcon to Humbug Mountain</p> <ul style="list-style-type: none"> • April 1-August 29; • September 1-October 31 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total (B, C.1). All vessels fishing in the area must land their fish in the State of Oregon. 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.</p> <p>Beginning September 1, no more than 150 Chinook per vessel per calendar week.</p> <p>In 2014, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length (B, C.1) Gear restrictions same as in 2013. This opening could be modified following Council review at its March 2014 meeting.</p>	<p>Cape Falcon to Humbug Mountain</p> <ul style="list-style-type: none"> • April 1-August 29; • September 1-October 31 (C.9). <p>Seven day per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their fish in the State of Oregon. 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.</p> <p>Beginning September 1, no more than 100 Chinook per vessel per calendar week.</p> <p>In 2014, same as Alternative I</p>	<p>Cape Falcon to Humbug Mountain</p> <ul style="list-style-type: none"> • April 1-August 29; • September 4-October 31 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their fish in the State of Oregon. 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.</p> <p>Beginning September 1, landing and possession limit of 75 Chinook per vessel per landing week (Wed.-Tues.).</p> <p>In 2014, same as Alternative I</p>

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 4 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Humbug Mountain to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • April 1- May 31; • June 1 through earlier of June 30, or a 4,000 Chinook quota; • July 1 through earlier of July 31, or a 3,000 Chinook quota; • August 1 through earlier of August 29, or a 2,000 Chinook quota (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook 28 inch total length minimum size limit (B, C.1). Prior to June 1, all fish caught in this area must be landed and delivered in the State of Oregon. June 1 through August 29 landing and possession limit of 30 Chinook per vessel per day. Any remaining portion of the June and/or July Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8). All vessels fishing in this area must land and deliver all fish within this area or Port Orford, within 24 hours of any closure in this fishery, and prior to fishing outside of this area (C.1, C.6). Oregon State regulations require all fishers landing salmon from any quota managed season within this area to notify Oregon Dept. of Fish and Wildlife (ODFW) within 1 hour of delivery or prior to transport away from the port of landing by either calling (541) 867-0300 ext. 252 or sending notification via e-mail to KMZOR.trollreport@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, the season will open March 15 for all salmon except coho, with a 28 inch Chinook minimum size limit. This opening could be modified following Council review at its March 2014 meeting.</p>	<p>Humbug Mountain to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • April 1 - May 31; • June 1 through earlier of June 30, or a 3,000 Chinook quota; • July 1 through earlier of July 31, or a 2,000 Chinook quota; • August 1 through earlier of August 29, or a 1,500 Chinook quota; • September 1 through earlier of September 30 or a 1,000 Chinook quota (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook 28 inch total length minimum size limit (B, C.1). Prior to June 1, all fish caught in this area must be landed and delivered in the State of Oregon. June 1 through August 29, landing and possession limit of 30 Chinook per vessel per day. September 1-30 landing and possession limit of 25 Chinook per vessel per day. Any remaining portion of the June and/or July Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8). All vessels fishing in this area must land and deliver all fish within this area or Port Orford, within 24 hours of any closure in this fishery, and prior to fishing outside of this area. Oregon State regulations require all fishers landing salmon from any quota managed season within this area to notify Oregon Dept. of Fish and Wildlife (ODFW) within 1 hour of delivery or prior to transport away from the port of landing by calling (541) 867-0300 ext. 252. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative I</p>	<p>Humbug Mountain to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • April 1 - May 31; • June 1 through earlier of June 30, or a 2,000 Chinook quota; • July 1 through earlier of July 31, or a 1,500 Chinook quota; • August 1 through earlier of August 29, or a 1,000 Chinook quota; • September 16 through earlier of September 30 or a 1,000 Chinook quota (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook 28 inch total length minimum size limit (B, C.1). Prior to June 1, all fish caught in this area must be landed and delivered in the State of Oregon. June 1 – August 29 landing and possession limit of 30 Chinook per vessel per day. September 16-30 landing and possession limit of 20 Chinook per vessel per day Any remaining portion of the June and/or July Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8). All vessels fishing in this area must land and deliver all fish within this area or Port Orford, within 24 hours of any closure in this fishery, and prior to fishing outside of this area. 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. 252, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery. See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative I</p>

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 5 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> September 1 through earlier of September 30, or 10,000 Chinook quota (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). Landing and possession limit of 30 Chinook per vessel per day (C.8.g). All fish caught in this area must be landed within the area and within 24 hours of any closure of the fishery and prior to fishing outside the area (C.10). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.e). See California State regulations for additional closures adjacent to the Smith and Klamath rivers. When the fishery is closed between the OR/CA border and Humbug Mountain 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 (C.6.).</p>	<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> May 1 through earlier of May 31, or a 3,000 Chinook quota; June 1 through earlier of June 30, or a 3,000 Chinook quota; July 1 through earlier of July 31, or a 2,000 Chinook quota; August 1 through earlier of August 29, or a 1,500 Chinook quota;. September 1 through earlier of September 30, or 6,000 Chinook quota (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). Landing and possession limit of 20 Chinook per vessel per day (C.8.g). Any remaining portion of the May, June and/or July Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8.c). All fish caught in this area must be landed within the area and within 24 hours of any closure of the fishery and prior to fishing outside the area (C.10). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.e). See California State regulations for additional closures adjacent to the Smith and Klamath rivers. When the fishery is closed between the OR/CA border and Humbug Mountain 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 (C.6.).</p>	<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> September 16 through earlier of September 30, or 3,000 Chinook quota (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). Landing and possession limit of 15 Chinook per vessel per day (C.8.g). All fish caught in this area must be landed within the area and within 24 hours of any closure of the fishery and prior to fishing outside the area (C.10). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.e). See California State regulations for additional closures adjacent to the Smith and Klamath rivers. When the fishery is closed between the OR/CA border and Humbug Mountain 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 (C.6.).</p>
<p>Humboldt South Jetty to Horse Mountain Closed.</p>	<p>Humboldt South Jetty to Horse Mountain Closed.</p>	<p>Humboldt South Jetty to Horse Mountain Closed.</p>

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 6 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Horse Mountain to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • May 15-31; • June 1-9 and 22-30; • July 10-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mountain (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, the season will open April 16-30 for all salmon except coho, with a 27 inch Chinook minimum size limit and the same gear restrictions as in 2013. All fish caught in the area must be landed in the area. This opening could be modified following Council review at its March 2014 meeting.</p>	<p>Horse Mountain to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • May 21-31; • June 1-8 and 23-30; • July 13-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mountain (C.6). During September, all fish must be landed north of Point Arena (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Same as Alternative I</p>	<p>Horse Mountain to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • May 24-31; • June 1-5, 14-18, 24-30; • July 6-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mountain (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Same as Alternative I</p>
<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> • May 1-31; • June 1-9 and 22-30; • July 10-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Point Reyes to Point San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 1-4, 7-11, and 14-15. <p>All salmon except coho (C.4, C.7). Chinook minimum size limit of 26 inches total length (B, C.1). All fish caught in this area must be landed between Point Arena and Pigeon Point (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>	<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> • May 1-31; • June 1-8 and 23-30; • July 13-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length prior to September 1, 26 inches thereafter (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). During September, all fish must be landed south of Point Arena (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Point Reyes to Point San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 1-4, 7-11, and 14-15. <p>All salmon except coho (C.4, C.7). Chinook minimum size limit of 26 inches total length (B, C.1). All fish caught in this area must be landed between Point Arena and Pigeon Point (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>	<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> • May 1-31; • June 1-5, 14-18, 24-30; • July 6-31, • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Point Reyes to Point San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 1-4, 7-11, and 14-15. <p>All salmon except coho (C.4, C.7). Chinook minimum size limit of 26 inches total length (B, C.1). All fish caught in this area must be landed between Point Arena and Pigeon Point (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 7 of 10)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Pigeon Point to U.S./Mexico Border (Monterey South)</p> <ul style="list-style-type: none"> • May 1-31; • June 1-9 and 22-30; • July 10-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>	<p>Pigeon Point to U.S./Mexico Border (Monterey South)</p> <ul style="list-style-type: none"> • May 1-31; • June 1-8 and 23-30; • July 13-31; • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length prior to September 1, 26 inches thereafter (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). During September, all fish must be landed south of Point Arena (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>	<p>Pigeon Point to U.S./Mexico Border (Monterey South)</p> <ul style="list-style-type: none"> • May 1-31; • June 1-5, 14-18, 24-30; • July 6-31, • August 1-29; • September 1-30 (C.9). <p>Seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.6). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>
<p>California State regulations require all salmon be made available to a CDFW representative for sampling immediately at port of landing. Any person in possession of a salmon with a missing adipose fin, upon request by an authorized agent or employee of the CDFW, shall immediately relinquish the head of the salmon to the state. (California Fish and Game Code §8226)</p>		

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 OR/CA Border	28.0	21.5	-	-	None
OR/CA Border to Humboldt South Jetty	27.0	20.5	-	-	None
Horse Mountain to Point Arena	27.0	20.5	-	-	None
Point Arena to Pigeon Point	Alt. I & Alt. III ≤ September 30	27.0	20.5	-	None
	Alt. I & Alt. III ≥ Oct. 1	26.0	19.5	-	None
	Alt. II ≤ August 29	27.0	20.5	-	None
	Alt. II ≥ September 1	26.0	19.5	-	None
Pigeon Point to U.S./Mexico Border	Alt. I & Alt. III	27.0	20.5	-	None
	Alt. II ≤ August 29	27.0	20.5	-	None
	Alt. II ≥ September 1	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, landing/possession limit, or other special requirements for the area being fished and the area in which they are landed if the area is open or has been closed less than 96 hours for that species of salmon. Salmon may be landed in an area that has been closed for a species of salmon more than 96 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the area in which they were caught. ~~Salmon may be landed in an area that has been closed less than 96 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the areas in which they were caught and landed.~~

States may require fish landing/receiving tickets be kept on board the vessel for 90 days after landing to account for all previous salmon landings.

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 8 of 10)

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

C.2. Gear Restrictions:

- a. Salmon may be taken only by hook and line using single point, single shank, barbless hooks.
- 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:

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.

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.

Spread defined: A single leader connected to an individual lure and/or 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.

C.4. Vessel Operation in Closed Areas with Salmon on Board:

- a. Except as provided under C.4.b below, it is unlawful for a vessel to have troll or recreational gear in the water while in 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.
- b. When Genetic Stock Identification (GSI) samples will be collected in an area closed to commercial salmon fishing, the scientific research permit holder shall notify NOAA OLE, USCG, CDFW and OSP at least 24 hours prior to sampling and provide the following information: the vessel name, date, location and time collection activities will be done. Any vessel collecting GSI samples in a closed area shall not possess any salmon other than those from which GSI samples are being collected. Salmon caught for collection of GSI samples must be immediately released in good condition after collection of samples.

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 Cape Alava (48°10'00" N. lat.) and east of 125°05'00" W. long.
- b. *Mandatory Yelloweye Rockfish Conservation Area* – The area in Washington Marine Catch Area 3 from 48°00.00' N. lat.; 125°14.00' W. long. to 48°02.00' N. lat.; 125°14.00' W. long. to 48°02.00' N. lat.; 125°16.50' W. long. to 48°00.00' N. lat.; 125°16.50' W. long. and connecting back to 48°00.00' N. lat.; 125°14.00' W. long.
- c. *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° 55'36" N. lat., 124°10'51" W. long.).
- d. *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.
- e. *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).

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 9 of 10)

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

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, the estimated time of arrival, and the specific reason the vessel is not able to meet special management area landing restrictions.

In addition to contacting the U.S. Coast Guard, vessels fishing south of the Oregon/California border must notify CDFW within one hour of leaving the management area by calling 800-889-8346 and providing the same information as reported to the U.S. Coast Guard. All salmon must be offloaded within 24 hours of reaching port.

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 4~~ April 1, 2013 for 2013 permits and mid-March 2014 (exact date to be set by the IPHC in early 2014) for 2014 permits of each year. Incidental harvest is authorized only during May and June of the 2013 troll seasons and April, May, and June of the 2014 troll seasons and after June 30 ~~in 2013 or 2014~~ 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 30,568 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to prohibit retention of halibut in the non-Indian salmon troll fishery.

Alternative I - Beginning May 1, 2013, license holders may land or possess no more than one Pacific halibut per each three Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio requirement, and no more than 20 halibut may be possessed or landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

Alternative II - Beginning May 1, 2013, license holders may land or possess no more than one Pacific halibut per each four Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio requirement, and no more than 15 halibut may be possessed or landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

Alternative III - Beginning May 1, 2013, license holders may land or possess no more than one Pacific halibut per each five Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio requirement, and no more than 10 halibut may be possessed or landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

Incidental Pacific halibut catch regulations in the commercial salmon troll fishery adopted for 2013 will be in effect when incidental Pacific halibut retention opens on April 1, 2014 unless otherwise modified by inseason action.

a. "C-shaped" yelloweye rockfish conservation area is an area to be voluntarily 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. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

- 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 if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - b. Chinook remaining from the June and/or July non-Indian commercial troll quotas in the Oregon KMZ may be transferred to the Chinook quota for the next open period if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - c. Chinook remaining from the May, June and/or July non-Indian commercial troll quotas in the California KMZ may be transferred to the Chinook quota for the next open period if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - d. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the areas' representatives on the Salmon Advisory Subpanel (SAS), and if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - e. At the March 2014 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2013).
 - f. If retention of unmarked coho is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected impacts on all stocks is not exceeded.
 - g. Landing limits may be modified inseason to sustain season length and keep harvest within overall quotas.
- C.9. State Waters Fisheries: Consistent with Council management objectives:
- a. The State of Oregon may establish additional late-season fisheries in state waters.
 - b. The State of California may establish limited fisheries in selected state waters.
Check state regulations for details.
- C.10. For the purposes of California Fish and Game Code, Section 8232.5, the definition of the Klamath Management Zone (KMZ) for the ocean salmon season shall be that area from Humbug Mountain, Oregon, to Horse Mountain, California.

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 1 of 9)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
North of Cape Falcon	North of Cape Falcon	North of Cape Falcon
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall non-Indian TAC: 99,000 (non-mark-selective equivalent of 95,000) Chinook and 90,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 51,500 (non-mark selective equivalent of 47,500) Chinook and 75,600 marked coho; all retained coho must be marked.</p> <p>3. Trade: May be considered at the April Council meeting.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 12,000 marked coho in August and September.</p> <p>6. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 79,000 (non-mark-selective equivalent of 75,000) Chinook and 85,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 41,500 (non-mark selective equivalent of 37,500) Chinook and 71,400 marked coho; all retained coho must be marked.</p> <p>3. Trade: May be considered at the April Council meeting.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 13,000 marked coho in August and September.</p> <p>6. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1 Overall non-Indian TAC: 60,000 Chinook and 75,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 30,000 Chinook and 63,000 marked coho; all retained coho must be marked.</p> <p>3. Trade: May be considered at the April Council meeting.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 14,000 marked coho in August and September.</p> <p>6. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>
<p>U.S./Canada Border to Queets River</p> <ul style="list-style-type: none"> • May 10-12, May 17-19, and June 15-28 or a coastwide marked Chinook quota of 8,000 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). 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.5).</p>	<p>U.S./Canada Border to Queets River</p> <ul style="list-style-type: none"> • May 17-19, and June 15-21 or a coastwide marked Chinook quota of 8,000 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). 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.5).</p>	<p>U.S./Canada Border to Queets River</p>
<p>Queets River to Leadbetter Point</p> <ul style="list-style-type: none"> • June 8 through earlier of June 22 or a coastwide marked Chinook quota of 8,000 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). 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.5).</p>	<p>Queets River to Leadbetter Point</p> <ul style="list-style-type: none"> • June 15 through earlier of June 29 or a coastwide marked Chinook quota of 8,000 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). 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.5).</p>	<p>Queets River to Leadbetter Point</p>

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 2 of 9)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Leadbetter Point to Cape Falcon</p> <ul style="list-style-type: none"> June 8 through earlier of June 21 or a coastwide marked Chinook quota of 8,000 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). 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.5).</p>	<p>Leadbetter Point to Cape Falcon</p> <ul style="list-style-type: none"> June 15 through earlier of June 21 or a coastwide marked Chinook quota of 8,000 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). 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.5).</p>	<p>Leadbetter Point to Cape Falcon</p>
<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> June 29 through earlier of September 22 or 7,860 marked coho subarea quota with a subarea guideline of 5,300 Chinook (C.5). <p>Seven days per week. All salmon except no chum beginning August 1; two fish per day, plus one additional pink salmon. All coho must be marked (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. 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 and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> June 22 through earlier of September 22 or 7,430 marked coho subarea quota with a subarea guideline of 4,100 Chinook (C.5). <p>Seven days per week. All salmon except no chum beginning August 1. Two fish per day, only one of which can be a Chinook, plus two additional pink salmon. All retained coho must be marked (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. 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).</p>	<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> June 28 through earlier of September 15 or a 6,550 marked coho subarea quota with a subarea guideline of 3,700 Chinook. Beginning September 1 any remaining subarea coho quota converts to non-mark-selective coho retention. (C.5). <p>Five days per week (Tues.-Sat.). All salmon except no chum beginning August 1. Two fish per day, only one of which can be a Chinook, plus three additional pink salmon. All retained coho must be marked (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. 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).</p>
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 29 through earlier of September 22 or 1,970 marked coho subarea quota with a subarea guideline of 1,800 Chinook (C.5). <p>Seven days per week. All salmon, two fish per day; two fish per day, plus one additional pink salmon. All coho must be marked (see <i>Ocean Boat Limits</i>, C.1). 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 and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 22 through earlier of September 22 or 1,810 marked coho subarea quota with a subarea guideline of 1,350 Chinook (C.5). September 28 through earlier of October 13 or 50 marked coho quota or 50 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat. <p>Seven days per week. All salmon, two fish per day, only one of which can be a Chinook, plus two additional pink salmon. All retained coho must be marked (see <i>Ocean Boat Limits</i>, C.1). 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).</p>	<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 28 through earlier of September 15 or 1,590 marked coho subarea quota with a subarea guideline of 1,150 Chinook. Beginning September 1 any remaining subarea coho quota converts to non-mark-selective coho retention. (C.5). September 21 through earlier of October 6 or 50 non-marked coho quota or 50 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat. <p>Five days per week (Tues.-Sat.). All salmon, two fish per day, only one of which can be a Chinook, plus three additional pink salmon. All retained coho must be marked (see <i>Ocean Boat Limits</i>, C.1). 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).</p>

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 3 of 9)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> • June 23 through earlier of September 30 or 27,970 marked coho subarea quota with a subarea guideline of 25,600 Chinook (C.5). <p>Sunday through Thursday. All salmon; two fish per day, no more than one of which can be a Chinook. All coho must be marked (C.1). 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 and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> • June 30 through earlier of September 22 or 26,410 marked coho subarea quota with a subarea guideline of 19,700 Chinook (C.5). <p>Sunday through Thursday. All salmon, two fish per day, only one of which can be a Chinook. All retained coho must be marked (C.1). 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).</p>	<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> • June 30 through earlier of September 22 or 23,310 marked coho subarea quota with a subarea guideline of 17,700 Chinook. Beginning September 1 any remaining subarea coho quota converts to non-mark-selective coho retention. (C.5) <p>Sunday through Thursday. All salmon, two fish per day, only one of which can be a Chinook. All retained coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Grays Harbor Control Zone closed beginning August 1 (C.4). 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).</p>
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> • June 22 through earlier of September 30 or 37,800 marked coho subarea quota with a subarea guideline of 10,800 Chinook (C.5). <p>Seven days per week. All salmon, two fish per day, only one of which can be a Chinook. All coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> • June 22 through earlier of September 30 or 35,700 marked coho subarea quota with a subarea guideline of 8,300 Chinook (C.5). <p>Seven days per week. All salmon, two fish per day, only one of which can be a Chinook. All retained coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4). 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).</p>	<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> • June 29 through earlier of September 30 or 31,500 marked coho subarea quota with a subarea guideline of 7,400 Chinook. Beginning September 1 any remaining subarea coho quota converts to non-mark-selective coho retention. (C.5). <p>Seven days per week. All salmon, two fish per day, only one of which can be a Chinook. All retained coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4). 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).</p>

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 4 of 9)

A. SEASON ALTERNATIVE DESCRIPTIONS		
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Sacramento River Basin recreational fishery catch assumption: 74,988 adult Sacramento River fall Chinook.</p> <p>2. Sacramento River fall Chinook spawning escapement of 460,643 adults.</p> <p>3. Klamath River recreational fishery allocation: 39,617 adult Klamath River fall Chinook.</p> <p>4. Klamath tribal allocation: 114,913 adult Klamath River fall Chinook.</p> <p>5. Overall recreational coho TAC: 12,000 mark-selective coho fishery and 16,000 in the non-mark-selective coho fishery.</p> <p>6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.</p>	<p>1. Sacramento River Basin recreational fishery catch assumption: 74,526 adult Sacramento River fall Chinook.</p> <p>2. Sacramento River fall Chinook spawning escapement of 457,800 adults.</p> <p>3. Klamath River recreational fishery allocation: 39,945 adult Klamath River fall Chinook.</p> <p>4. Klamath tribal allocation: 114,831 adult Klamath River fall Chinook.</p> <p>5. Overall recreational coho TAC: 10,000 mark-selective coho fishery and 15,000 in the non-mark-selective coho fishery.</p> <p>6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.</p>	<p>1. Sacramento River Basin recreational fishery catch assumption: 73,968 adult Sacramento River fall Chinook.</p> <p>2. Sacramento River fall Chinook spawning escapement of 454,377 adults.</p> <p>3. Klamath River recreational fishery allocation: 39,553 adult Klamath River fall Chinook.</p> <p>4. Klamath tribal allocation: 114,957 adult Klamath River fall Chinook.</p> <p>5. Overall recreational coho TAC: 10,000 mark-selective coho fishery and 12,000 in the non-mark-selective coho fishery.</p> <p>6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.</p>
<p>Cape Falcon to Humbug Mountain</p> <ul style="list-style-type: none"> March 15 through October 31 (C.6), except as provided below during the July all-salmon mark-selective and September non-mark-selective coho fisheries. <p>Seven days per week. All salmon except coho; two fish per day (C.1). Chinook minimum size limit of 24 inches total length. See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> Non-mark-selective coho fishery: September 1 through the earlier of September 30 or a landed catch of 16,000 non-mark-selective coho quota (C.5). <p>September 1-2, then Thursday through Saturday thereafter; all salmon, two fish per day (C.5); September 3-4, then Sunday through Wednesday thereafter; all salmon except coho, two fish per day. The all salmon except coho season reopens the earlier of October 1 or attainment of the coho quota. Open days may be adjusted inseason to utilize the available coho quota (C.5).</p> <p>In 2014, the season between Cape Falcon and Humbug Mountain will open March 15 for all salmon except coho, two fish per day (B, C.1, C.2, C.3).</p>	<p>Cape Falcon to Humbug Mountain</p> <ul style="list-style-type: none"> March 15 through October 31 (C.6), except as provided below during the July all-salmon mark-selective and September non-mark-selective coho fisheries. <p>Seven days per week. All salmon except coho; two fish per day. (C.1). Chinook minimum size limit of 24 inches total length. See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> Non-mark-selective coho fishery: September 1 through the earlier of September 30 or a landed catch of 15,000 non-mark-selective coho quota (C.5). <p>September 1-2, then Thursday through Saturday thereafter; all salmon, two fish per day (C.5); September 3-4, then Sunday through Wednesday thereafter; all salmon except coho, two fish per day. The all salmon except coho season reopens the earlier of October 1 or attainment of the coho quota. Open days may be adjusted inseason to utilize the available coho quota (C.5).</p> <p>In 2014, same as Alternative I</p>	<p>Cape Falcon to Humbug Mountain</p> <ul style="list-style-type: none"> March 15 through October 31 (C.6), except as provided below during the July all-salmon mark-selective and September non-mark-selective coho fisheries. <p>Seven days per week. All salmon except coho; two fish per day (C.1). Chinook minimum size limit of 22 inches total length. See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> Non-mark-selective coho fishery: September 1 through the earlier of September 30 or a landed catch of 12,000 non-mark-selective coho quota (C.5). <p>September 1-2, then Thursday through Saturday thereafter; all salmon, two fish per day (C.5); September 3-4, then Sunday through Wednesday thereafter; all salmon except coho, two fish per day. The all salmon except coho season reopens the earlier of October 1 or attainment of the coho quota. Open days may be adjusted inseason to utilize the available coho quota (C.5).</p> <p>In 2014, same as Alternative I</p>
<p>Fishing in the Stonewall Bank yelloweye rockfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (call the halibut fishing hotline 1-800-662-9825 for specific dates) (C.3.b, C.4.d).</p>		

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 5 of 9)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Cape Falcon to OR/CA Border</p> <ul style="list-style-type: none"> • All-salmon mark-selective coho fishery: July 1 through earlier of July 31 or a landed catch of 12,000 marked coho. <p>Seven days per week. All salmon, two fish per day. All retained coho must be marked (C.1). Any remainder of the mark selective coho quota will be transferred on an impact neutral basis to the September non-selective coho quota from Cape Falcon to Humbug Mountain. The all salmon except coho season reopens the earlier of August 1 or attainment of the coho quota.</p> <p>Fishing in the Stonewall Bank yelloweye rockfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (call the halibut fishing hotline 1-800-662-9825 for specific dates) (C.3.b, C.4.d).</p>	<p>Cape Falcon to OR/CA Border</p> <ul style="list-style-type: none"> • All-salmon mark-selective coho fishery: July 1 through earlier of July 31 or a landed catch of 10,000 marked coho. <p>Seven days per week. All salmon, two fish per day. All retained coho must be marked (C.1). Any remainder of the mark selective coho quota will be transferred on an impact neutral basis to the September non-selective coho quota from Cape Falcon to Humbug Mountain. The all salmon except coho season reopens the earlier of August 1 or attainment of the coho quota.</p> <p>Fishing in the Stonewall Bank yelloweye rockfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (call the halibut fishing hotline 1-800-662-9825 for specific dates) (C.3.b, C.4.d).</p>	<p>Cape Falcon to OR/CA Border</p> <ul style="list-style-type: none"> • All-salmon mark-selective coho fishery: July 1 through earlier of July 31 or a landed catch of 10,000 marked coho. <p>Seven days per week. All salmon, two fish per day. All retained coho must be marked (C.1). Any remainder of the mark selective coho quota will be transferred on an impact neutral basis to the September non-selective coho quota from Cape Falcon to Humbug Mountain. The all salmon except coho season reopens the earlier of August 1 or attainment of the coho quota.</p> <p>Fishing in the Stonewall Bank yelloweye rockfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (call the halibut fishing hotline 1-800-662-9825 for specific dates) (C.3.b, C.4.d).</p>
<p>Humbug Mountain to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • May 1 through September 8 except as provided above during the all-salmon mark-selective coho fishery (C.6). <p>All salmon except coho, except as noted above in the all-salmon mark-selective coho fishery. Seven days per week, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>	<p>Humbug Mountain to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • May 4 through September 8 except as provided above during the all-salmon mark-selective coho fishery (C.6). <p>All salmon except coho, except as noted above in the all-salmon mark-selective coho fishery. Seven days per week, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>	<p>Humbug Mountain to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • May 25 through September 2 except as provided above during the all-salmon mark-selective coho fishery. (C.6). <p>All salmon except coho, except as noted above in the all-salmon mark-selective coho fishery. Seven days per week, two fish per day (C.1). Chinook minimum size limit of 22 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>OR/CA Border to Horse Mountain (California KMZ)</p> <ul style="list-style-type: none"> • May 1 through September 8 (C.6). <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath rivers.</p>	<p>OR/CA Border to Horse Mountain (California KMZ)</p> <ul style="list-style-type: none"> • May 4 through September 8 (C.6). <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath rivers.</p>	<p>OR/CA Border to Horse Mountain (California KMZ)</p> <ul style="list-style-type: none"> • May 25 through September 2 (C.6). <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath rivers.</p>

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 6 of 9)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Horse Mountain to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> April 6 through November 10. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, season opens April 5 for all salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B); and the same gear restrictions as in 2013 (C.2, C.3).</p>	<p>Horse Mountain to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> April 6 through October 27. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative 1.</p>	<p>Horse Mountain to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> April 6 through October 13. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative 1.</p>
<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> April 6 through November 10 <p>Open five days per week (Weds.-Sun.) June 1 through July 9, seven days per week otherwise. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, season opens April 5 for all salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2013 (C.2, C.3).</p>	<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> April 6 through November 10 <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length through July 31; 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative 1.</p>	<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> April 6 through June 2; June 8 through November 10. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length through July 31; 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative 1.</p>
<p>Pigeon Point to U.S./Mexico Border (Monterey South)</p> <ul style="list-style-type: none"> April 6 through October 6. <p>Open five days per week (Weds.-Sun.) June 1 through July 9, seven days per week otherwise. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, season opens April 5 for all salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2013 (C.2, C.3).</p>	<p>Pigeon Point to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> April 6 through October 6. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length through May 31, 26 inches June 1 through July 31, 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative 1.</p>	<p>Pigeon Point to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> April 6 through July 14; August 1 through October 6. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length through July 14; 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2014, same as Alternative 1.</p>
<p>California State regulations require all salmon be made available to a CDFW representative for sampling immediately at port of landing. Any person in possession of a salmon with a missing adipose fin, upon request by an authorized agent or employee of the CDFW, shall immediately relinquish the head of the salmon to the state. (California Fish and Game Code §8226)</p>		

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 7 of 9)

B. MINIMUM SIZE (Inches) (see C.1)

Area (when open)		Chinook	Coho	Pink
North of Cape Falcon		24.0	16.0	None
Cape Falcon to Humbug Mountain	Alt. I & II	24.0	16.0	None
	Alt. III	22.0	16.0	None
Humbug Mountain to OR/CA Border	Alt. I & II	24.0	16.0	None
	Alt. III	22.0	16.0	None
OR/CA Border to Horse Mountain	Alt. I	20.0	-	20.0
	Alt. II & III	24.0	-	24.0
Horse Mountain to Point Arena		20.0	-	20.0
Point Arena to Pigeon Point	Alt I	24.0	-	24.0
	Alt II & III ≤ July 31	24.0	-	24.0
Pigeon Point to U.S./Mexico Border:	Alt II & III ≥ August 1	20.0	-	20.0
	Alt I	24.0	-	24.0
	Alt II ≤ May 31	24.0	-	24.0
	Alt II June 1-July 31	26.0	-	26.0
	Alt II ≥ August 1	20.0	-	20.0
	Alt III ≤ July 14	24.0	-	24.0
	Alt III ≥ August 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.

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 Chinook and coho salmon for all licensed and juvenile anglers aboard ~~has~~ have been attained (additional state restrictions may apply).

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 8 of 9)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.2. **Gear Restrictions:** Salmon may be taken only by hook and line using barbless hooks. 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 no more than two 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. *Horse Mountain, California, to Point Conception, California:* Single point, single shank, barbless circle hooks (see gear definitions below) are required when fishing 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:**

- a. *Recreational fishing gear defined:* ~~Angling tackle consisting of a line with no more than one artificial lure and/or natural bait attached.~~ Off Oregon and Washington, angling tackle consists of a single line that ~~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.
- b. *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. *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. *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.
- 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° 55'36" 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°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. *Stonewall Bank Yelloweye Rockfish Conservation Area:* The area defined by the following coordinates in the order listed:
 44°37.46' N. lat.; 124°24.92' W. long.;
 44°37.46' N. lat.; 124°23.63' W. long.;
 44°28.71' N. lat.; 124°21.80' W. long.;
 44°28.71' N. lat.; 124°24.10' W. long.;
 44°31.42' N. lat.; 124°25.47' W. long.;
 and connecting back to 44°37.46' N. lat.; 124°24.92' W. long.
- e. *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).

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2013. (Page 9 of 9)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.5. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
- Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
 - Coho may be transferred 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 Council's SAS recreational representatives north of Cape Falcon, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the Salmon Advisory Subpanel (SAS), and if the transfer would not result in exceeding preseason impact expectations on any stocks.

Alternative I & II:

- Fishery managers may consider inseason action permitting the retention of unmarked coho. Such a consideration may also include a change in bag limit of two salmon, no more than one of which may be a coho. If retention of unmarked coho is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected impacts on all stocks is not exceeded.

Alternative III

- Fishery managers may consider inseason action ~~permitting the retention of unmarked coho~~ modifying regulations restricting retention of unmarked coho. To ensure that preseason projected impacts of the fishery are not exceeded, any inseason action shall consider, if significant, the difference between observed and preseason forecasted mark rates. Such a consideration may also include a change in bag limit of two salmon, no more than one of which may be a coho. ~~If retention of unmarked coho is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected impacts on all stocks is not exceeded.~~
- Marked coho remaining from the July Cape Falcon to OR/CA border recreational coho quota may be transferred inseason to the September Cape Falcon to Humboldt Mountain non-mark-selective recreational fishery if the transfer would not result in exceeding preseason impact expectations on any stocks.

- C.6. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the States of Washington, Oregon, and California may establish limited seasons in state waters. Check state regulations for details.

TABLE 3. Treaty Indian troll management Alternatives adopted by the Council for ocean salmon fisheries, 2013. (Page 1 of 2)

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall Treaty-Indian TAC: 55,000 Chinook and 50,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall Treaty-Indian TAC: 47,500 Chinook and 47,500 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall Treaty-Indian TAC: 40,000 Chinook and 40,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>
<ul style="list-style-type: none"> • May 1 through the earlier of June 30 or 33,000 Chinook quota. <p>All salmon except coho. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season (C.5). See size limit (B) and other restrictions (C).</p> <ul style="list-style-type: none"> • July 1 through the earlier of September 15, or 22,000 preseason Chinook quota, or 50,000 coho quota. <p>All Salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> • May 1 through the earlier of June 30 or 23,750 Chinook quota. <p>All salmon except coho. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season. See size limit (B) and other restrictions (C).</p> <ul style="list-style-type: none"> • July 1 through the earlier of September 15, or 23,750 preseason Chinook quota, or 47,500 coho quota. <p>All salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> • May 1 through the earlier of June 30 or 20,000 Chinook quota. <p>All salmon except coho. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season. See size limit (B) and other restrictions (C).</p> <ul style="list-style-type: none"> • July 1 through the earlier of September 15, or 20,000 preseason Chinook quota, or 40,000 coho quota. <p>All salmon. See size limit (B) and other restrictions (C).</p>

TABLE 3. Treaty Indian troll management Alternatives adopted by the Council for ocean salmon fisheries, 2013. (Page 2 of 2)

B. MINIMUM SIZE (Inches)					
Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	24.0 (61.0 cm)	18.0 (45.7 cm)	16.0 (40.6 cm)	12.0 (30.5 cm)	None

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Tribe and Area Boundaries. 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.

S'KLALLAM - Washington State Statistical Area 4B (All).

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.

QUILEUTE - 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.

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.

QUINAULT - 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.

C.2. Gear restrictions

- a. Single point, single shank, barbless hooks are required in all fisheries.
- b. No more than eight fixed lines per boat.
- c. No more than four hand held lines per person in the Makah area fishery (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.)

C.3. Quotas

- a. The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 through September 15.
- b. 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 2004-2012. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2013 season (estimated harvest during the October ceremonial and subsistence fishery: 100 Chinook; 200 coho).

C.4. Area Closures

- a. 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.
- b. 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.

C.5. 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 treaty-Indian ocean troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.

TABLE 4. Chinook and coho harvest quotas and guidelines (*) for 2013 ocean salmon fishery management Alternatives adopted by the Council.

Fishery or Quota Designation	Chinook for Alternative			Coho for Alternative		
	I	II	III	I	II	III
NORTH OF CAPE FALCON						
TREATY INDIAN OCEAN TROLL ^{a/}						
U.S./Canada Border to Cape Falcon (All Except Coho)	33,000	23,750	20,000	-	-	-
U.S./Canada Border to Cape Falcon (All Species)	22,000	23,750	20,000	50,000	47,500	40,000
Subtotal Treaty Indian Ocean Troll	55,000	47,500	40,000	50,000	47,500	40,000
NON-INDIAN COMMERCIAL TROLL ^{b/}						
U.S./Canada Border to Cape Falcon (All Except Coho)	31,700	25,000	20,000	-	-	-
U.S./Canada Border to Cape Falcon (All Species)	15,800	12,500	10,000	14,400	13,600	12,000
Subtotal Non-Indian Commercial Troll	47,500	37,500	30,000	14,400	13,600	12,000
RECREATIONAL						
U.S./Canada Border to Cape Falcon (All Except Coho) ^{c/}	8,000 *	8,000 *	-	-	-	-
U.S./Canada Border to Cape Alava ^{b/}	5,300 *	4,100 *	3,700	7,860	7,430	6,550
Cape Alava to Queets River ^{b/}	1,800 *	1,400 *	1,200	1,970	1,860	1,640
Queets River to Leadbetter Pt. ^{b/}	25,600 *	19,700 *	17,700	27,970	26,410	23,310
Leadbetter Pt. to Cape Falcon ^{b/d/}	10,800 *	8,300 *	7,400	37,800	35,700	31,500
Subtotal Recreational	51,500	41,500	30,000	75,600	71,400	63,000
TOTAL NORTH OF CAPE FALCON	154,000	126,500	100,000	140,000	132,500	115,000
SOUTH OF CAPE FALCON						
COMMERCIAL TROLL ^{a/}						
Humbug Mt. to OR/CA Border	9,000	7,500	5,500	-	-	-
OR/CA Border to Humboldt South Jetty	10,000	15,500	3,000	-	-	-
Subtotal Commercial Troll	19,000	23,000	8,500	-	-	-
RECREATIONAL						
Cape Falcon to Oregon/California Border	-	-	-	28,000 ^{e/}	25,000 ^{e/}	22,000 ^{e/}
TOTAL SOUTH OF CAPE FALCON	19,000	23,000	8,500	28,000	25,000	22,000

a/ Quotas are non-mark selective for both Chinook and coho.

b/ Quotas are non-mark-selective for Chinook and mark-selective for coho.

c/ Quotas are mark-selective for Chinook, equivalent to unmarked quotas of 4,000.

d/ Does not include Buoy 10 fishery. Expected catch in August and September: Alternative I - 12,000 marked coho; Alternative II - 13,000 marked coho; Alternative III - 14,000 marked coho.

e/ The quota consists of both mark-selective and non-mark-selective quotas: 12,000 and 16,000 in Alternative 1; 10,000 and 15,000 in Alternative II; 10,000 and 12,000 in Alternative III, respectively.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2013 ocean fishery Alternatives adopted by the Council.^{a/} (Page 1 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Impacts in Parenth)			Spaw ner Objective or Other Comparative Standard as Noted
	Alternative I	Alternative II	Alternative III	
CHINOOK				
Columbia Upriver Brights	420.8	421.7	422.4	74.0 Minimum ocean escapement to attain 60.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
Mid-Columbia Brights	102.4	102.6	102.8	11.0 Minimum ocean escapement to attain 4.7 adults for Bonneville Hatchery and 2.0 for Little White Salmon Hatchery egg-take, assuming average conversion and no mainstem harvest.
Columbia Low er River Hatchery Tules	84.8	87.4	90.7	23.8 Minimum ocean escapement to attain 10.3 adults for hatchery egg-take, with average conversion and no low er river mainstem or tributary harvest.
Columbia Low er River Natural Tules (threatened)	43.3%	40.7%	38.5%	≤ 41.0% Total adult equivalent fishery exploitation rate (2013 NMFS ESA guidance).
Columbia Low er River Wild ^{c/} (threatened)	14.1	14.2	14.2	6.9 Minimum ocean escapement to attain MSY spaw ner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	35.0	37.5	39.8	8.2 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) SRFI	53.3%	51.0%	47.5%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Klamath River Fall	73.8	73.8	73.8	≥ 73.8 2013 preseason ACL.
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0% Equals 114.9, 114.8, and 115.0 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Spaw ner Reduction Rate	68.0%	68.0%	68.0%	≤ 68.0% FMP; equals 156.7, 156.7, and 156.7 (thousand) fewer natural area adult spaw ners due to fishing.
Adult river mouth return	272.1	272.3	272.1	NA Total adults.
Age 4 ocean harvest rate	16.0%	16.0%	16.0%	≤ 16.0% NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	9.6%	9.4%	8.7%	No Council guidance for 2013.
River recreational fishery share	34.5%	34.8%	34.4%	NA Equals 39.6, 39.9, and 39.6 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	12.9%	12.5%	12.8%	≤ 12.9% Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: <u>Recreational</u> - Pt. Arena to Pigeon Pt. between the first Saturday in April and the second Sunday in November; Pigeon Pt. to the U.S./Mexico Border between the first Saturday in April and the first Sunday in October. Minimum size limit ≥ 20 inches total length. <u>Commercial</u> - Pt. Arena to the U.S./Mexico border between May 1 and September 30, except Pt. Reyes to Pt. San Pedro between October 1 and 15. Minimum size limit ≥ 26 inches total length (NMFS 2013 ESA Guidance).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2013 ocean fishery Alternatives adopted by the Council.^{a/} (Page 2 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Impacts in Prens)			Spaw ner Objective or Other Comparative Standard as Noted
	Alternative I	Alternative II	Alternative III	
Sacramento River Fall	460.6	457.8	454.4	≥ 250.3 2013 preseason ACL.
Sacramento Index exploitation rate	44.8%	45.1%	45.5%	≤ 70.0% FMP.
Ocean commercial impacts	202.0	198.6	208.9	All Alternatives include fall (Sept-Dec) 2012 impacts (23.5 thousand SRFC).
Ocean recreational impacts	96.6	103.3	97.0	All Alternatives include fall 2012 impacts (7.8 thousand SRFC).
River recreational impacts	75.0	74.5	74.0	No guidance in 2013.
Hatchery spaw ner goal	Met	Met	Met	22.0 Aggregate number of adults to achieve egg take goals at Coleman, Feather River, and Nimbus hatcheries.
COHO				
Interior Fraser (Thompson River)	12.0% (4.8%)	11.6% (4.5%)	10.9% (3.8%)	≤ 10.0% 2013 Southern U.S. exploitation rate ceiling; 2002 PSC coho agreement.
Skagit	37.2% (4.5%)	37.0% (4.2%)	36.5% (3.5%)	≤ 60.0% 2013 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	29.9% (3.1%)	29.7% (2.9%)	29.3% (2.4%)	≤ 50.0% 2013 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	27.2% (3.1%)	27.0% (2.9%)	26.6% (2.4%)	≤ 60.0% 2013 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	52.3% (5.0%)	52.0% (4.6%)	51.6% (3.9%)	≤ 45.0% 2013 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	16.2% (4.0%)	16.0% (3.8%)	15.4% (3.1%)	≤ 40.0% 2013 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	15.9	15.9	16.1	6.3 FMP MSY adult spaw ner estimate ^{d/} . Value depicted is ocean escapement.
Hoh	7.2	7.3	7.4	2.5 FMP MSY adult spaw ner estimate ^{d/} . Value depicted is ocean escapement.
Queets Wild	18.9	19.2	19.5	5.8 FMP MSY adult spaw ner estimate ^{d/} . Value depicted is ocean escapement.
Grays Harbor	178.7	179.4	180.7	24.4 FMP MSY adult spaw ner estimate ^{d/} . Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	11.7%	10.9%	9.5%	≤ 15.0% Total marine and mainstem Columbia River fishery exploitation rate (2013 NMFS ESA guidance). Value depicted is ocean fishery exploitation rate only. Bolded values identify ocean exploitation rates that, when combined with 2012 freshwater harvest rates, will exceed the total allowable exploitation rate of 15.0 percent.
Upper Columbia ^{e/}	>50%	>50%	>50%	≥ 50% Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	255.2	258.2	263.3	36.7 Minimum ocean escapement to attain hatchery egg-take goal of 14.3 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	119.4	122.0	126.7	9.6 Minimum ocean escapement to attain hatchery egg-take goal of 6.0 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	24.0% ^{f/}	20.7%	19.5%	≤ 30.0% Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	7.6%	7.7%	7.1%	≤ 13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2013 ocean fishery Alternatives analyzed by the STT.^{a/} (Page 3 of 3)

a/ Projections in the table assume a WCVI mortality for coho of the 2012 preseason level. Chinook fisheries in Southeast Alaska, North Coast BC, and WCVI troll and outside sport fisheries were assumed to have the same exploitation rates as expected preseason in 2012, as modified by the 2008 PST agreement. Assumptions for these Chinook fisheries will be changed prior to the April meeting when allowable catch levels for 2013 under the PST are known.

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 LCN coho include all marine impacts prior to the Buoy 10 fishery. Exploitation rates for OCN coho include impacts of freshwater fisheries. Values reported for Klamath River fall Chinook are natural area adult spawners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spawners.

c/ Includes minor contributions from East Fork Lewis River and Sandy River.

d/ Annual management objectives may be different than 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.

e/ Includes projected impacts of inriver fisheries that have not yet been shaped.

f/ Modeled as if the 12,000 marked coho quota in July was rolled into the 16,000 non-mark-selective coho quota in September. The resulting 28,000 non-mark-selective coho quota in September in this simulation did not result in an increase to the projected impacts for LCN coho, but impacts for OCN coho increased by 2.5 percent.

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2013 ocean salmon fishery management Alternatives adopted by the Council. (Page 1 of 2)

Area and Fishery	2013 Catch Projection			2013 Bycatch Mortality ^{a/} Projection			2013 Bycatch Projection ^{b/}			Observed in 2012	
	I	II	III	I	II	III	I	II	III	Catch	Bycatch Mortality
OCEAN FISHERIES^{c/}:											
CHINOOK (thousands of fish)											
NORTH OF CAPE FALCON											
Treaty Indian Ocean Troll	55.0	47.5	40.0	7.9	6.8	5.7	22.9	19.8	16.6	56.2	8.6
Non-Indian Commercial Troll	47.5	37.5	30.0	12.7	10.0	7.9	42.7	33.6	26.8	45.3	10.3
Recreational	51.5	41.5	30.0	7.6	6.5	3.3	38.3	33.4	14.2	35.4	4.7
CAPE FALCON TO HUMBUG MT.											
Commercial Troll	147.9	147.8	146.7	27.2	27.2	27.0	74.5	74.5	73.9	59.2	18.4
Recreational	9.4	9.3	9.4	1.1	1.1	1.1	4.0	4.0	4.0	7.8	1.5
HUMBUG MT. TO HORSE MT.											
Commercial Troll	20.2	24.2	9.7	3.7	4.5	1.8	10.2	12.2	4.9	10.7	3.8 ^{d/}
Recreational	31.4	30.5	27.3	3.7	3.6	3.2	13.3	12.9	11.6	48.6	4.8 ^{d/}
SOUTH OF HORSE MT.											
Commercial	196.0	187.9	205.5	36.1	34.6	37.8	98.7	94.7	103.5	209.6	36.0 ^{d/}
Recreational	94.2	101.8	96.9	11.1	12.0	11.4	34.8	37.5	35.8	83.6	10.6 ^{d/}
TOTAL OCEAN FISHERIES											
Commercial Troll	466.6	444.9	431.9	87.5	83.0	80.2	249.0	234.7	225.6	381.0	77.1
Recreational	186.5	183.1	163.6	23.5	23.1	19.0	90.4	87.8	65.5	175.4	21.6
INSIDE FISHERIES:											
Area 4B	-	-	-	-	-	NA	-	-	NA	-	-
Buoy 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.6	1.8 ^{d/}

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2012 ocean salmon fishery management Alternatives adopted by the Council. (Page 2 of 2)

Area and Fishery	2013 Catch Projection			2013 Bycatch Mortality ^{a/} Projection			2013 Bycatch Projection ^{b/}			Observed in 2012	
	I	II	III	I	II	III	I	II	III	Catch	Bycatch Mortality
COHO (thousands of fish)											
NORTH OF CAPE FALCON											
Treaty Indian Ocean Troll ^{e/}	50.0	47.5	40.0	4.0	3.4	2.9	8.1	6.4	5.4	37.3	2.8
Non-Indian Commercial Troll ^{e/}	14.4	13.6	12.0	16.1	13.6	11.3	57.4	48.0	39.8	3.9	3.8
Recreational ^{e/}	75.6	71.4	63.0	19.4	18.3	15.4	91.3	86.0	70.9	33.1	12.4
SOUTH OF CAPE FALCON											
Commercial Troll	-	-	-	9.8	10.0	9.4	37.9	38.6	36.2	0.0	8.7
Recreational ^{e/}	28.0	25.0	22.0	11.6	11.0	10.4	57.4	54.6	52.3	14.4	8.3
TOTAL OCEAN FISHERIES											
Commercial Troll	64.4	61.1	52.0	29.9	27.0	23.6	103.4	93.0	81.4	41.2	15.3
Recreational	103.6	96.4	85.0	31.0	29.3	25.8	148.7	140.6	123.2	47.5	20.7
INSIDE FISHERIES:											
Area 4B	-	-	-	-	-	-	-	-	-	-	-
Buoy 10	12.0	13.0	14.0	2.6	2.7	2.9	10.1	10.8	11.5	7.4	2.2 ^{d/}

a/ The bycatch mortality reported in this table consists of drop-off mortality (includes predation on hooked fish) plus hook-and-release mortality of Chinook and coho salmon in Council-area fisheries. Drop-off mortality for both Chinook and coho is assumed to be equal to 5% of total encounters. The hook-and-release mortality (HRM) rates used for both chinook and coho are:

Commercial: 26%.

Recreational, north of Pt. Arena: 14%.

Recreational, south of Pt. Arena: 18% (based on the expected proportion of fish that will be caught using mooching versus trolling gear, and the HRMs of 42.2% and 14% for these two respective gear types).

b/ Bycatch calculated as dropoff mortality plus fish released.

c/ Includes Oregon territorial water, late season Chinook fisheries.

d/ Based on reported released Chinook or coho.

e/ Includes fisheries that allow retention of all legal sized coho.

TABLE 7. Expected coastwide lower Columbia Natural (LCN), Oregon coastal natural (OCN), and Rogue/Klamath (RK) coho, and Lower Columbia River (LCR) natural tule Chinook exploitation rates by fishery for 2013 ocean fisheries management Alternatives adopted by the Council.

Fishery	Exploitation Rate (Percent)											
	LCN Coho			OCN Coho			RK Coho			LCR Tule Chinook		
	I	II	III	I	II	III	I	II	III	I	II	III
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	2.7%	2.7%
BRITISH COLUMBIA	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	12.1%	12.4%	12.6%
PUGET SOUND/STRAIT	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%
NORTH OF CAPE FALCON												
Treaty Indian Ocean Troll	2.2%	2.1%	1.8%	0.5%	0.5%	0.4%	0.0%	0.0%	0.0%	7.2%	6.1%	5.2%
Recreational	4.5%	4.2%	3.6%	0.8%	0.7%	0.6%	0.0%	0.0%	0.0%	3.6%	2.9%	2.3%
Non-Indian Troll	1.9%	1.6%	1.4%	0.5%	0.4%	0.4%	0.0%	0.0%	0.0%	7.8%	6.2%	5.0%
SOUTH OF CAPE FALCON												
Recreational:										0.1%	0.1%	0.1%
Cape Falcon to Humbug Mt.	1.8%	1.6%	1.4%	8.5%	5.6%	4.7%	0.2%	0.2%	0.2%			
Humbug Mt. to OR/CA border (KMZ)	0.1%	0.0%	0.0%	0.3%	0.3%	0.3%	0.7%	0.6%	0.6%			
OR/CA border to Horse Mt. (KMZ)	0.1%	0.1%	0.1%	0.4%	0.4%	0.4%	2.2%	2.1%	1.9%			
Fort Bragg	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%	1.2%	1.2%	1.2%			
South of Pt. Arena	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.7%	0.8%	0.6%			
Troll:										2.0%	2.0%	2.0%
Cape Falcon to Humbug Mt.	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.1%	0.1%	0.1%			
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%			
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.2%	0.5%	0.2%			
Fort Bragg	0.0%	0.0%	0.0%	0.7%	0.6%	0.6%	1.6%	1.3%	1.5%			
South of Pt. Arena	0.0%	0.0%	0.0%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%			
BUOY 10	0.7%	0.7%	0.8%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	7.5%	7.9%	8.2%
ESTUARY/FRESHWATER	N/A	N/A	N/A	10.0%	9.8%	10.0%	0.2%	0.2%	0.2%			
TOTAL^{a/}	11.7%	10.9%	9.5%	24.0%^{b/}	20.7%	19.5%	7.6%	7.7%	7.1%	43.3%	40.7%	38.5%

a/ Totals do not include estuary/freshwater for LCN coho. Bolded values for LCN coho identify ocean exploitation rates that, when combined with 2012 freshwater harvest rates, will exceed the total allowable exploitation rate of 15.0 percent.

b/ Modeled as if the 12,000 marked coho quota in July was rolled into the 16,000 non-mark-selective coho quota in September. The resulting 28,000 non-mark-selective coho quota in September in this simulation did not result in an increase to the projected impacts for LCN coho, but impacts for OCN coho increased by 2.5 percent for a total exploitation rate of 24.0 percent.

TABLE 8. Projected coho mark rates for 2013 fisheries under base period fishing patterns (percent marked).

Area	Fishery	June	July	August	September
Canada					
Johnstone Strait	Recreational	-	29%	28%	-
West Coast Vancouver Island	Recreational	37%	32%	30%	29%
North Georgia Strait	Recreational	38%	39%	38%	34%
South Georgia Strait	Recreational	39%	42%	37%	41%
Juan de Fuca Strait	Recreational	40%	42%	44%	39%
Johnstone Strait	Troll	44%	37%	33%	37%
NW Vancouver Island	Troll	37%	36%	35%	36%
SW Vancouver Island	Troll	41%	41%	41%	42%
Georgia Strait	Troll	43%	44%	45%	42%
Puget Sound					
Strait of Juan de Fuca (Area 5)	Recreational	49%	46%	43%	46%
Strait of Juan de Fuca (Area 6)	Recreational	48%	44%	44%	43%
San Juan Island (Area 7)	Recreational	30%	40%	38%	32%
North Puget Sound (Areas 6 & 7A)	Net	-	48%	38%	37%
Council Area					
Neah Bay (Area 4/4B)	Recreational	37%	46%	44%	47%
LaPush (Area 3)	Recreational	50%	49%	51%	45%
Westport (Area 2)	Recreational	56%	54%	51%	44%
Columbia River (Area 1)	Recreational	64%	62%	58%	60%
Tillamook	Recreational	55%	50%	45%	34%
New port	Recreational	51%	47%	44%	32%
Coos Bay	Recreational	43%	40%	30%	18%
Brookings	Recreational	37%	27%	24%	11%
Neah Bay (Area 4/4B)	Troll	43%	44%	44%	42%
LaPush (Area 3)	Troll	44%	49%	45%	45%
Westport (Area 2)	Troll	45%	47%	49%	47%
Columbia River (Area 1)	Troll	56%	55%	52%	53%
Tillamook	Troll	51%	49%	49%	45%
New port	Troll	49%	47%	45%	43%
Coos Bay	Troll	42%	40%	35%	23%
Brookings	Troll	32%	33%	36%	50%
Columbia River					
Buoy 10	Recreational	-	-	-	61%

TABLE 9. Preliminary projected exvessel value under Council-adopted 2013 non-Indian commercial troll regulatory Alternatives compared to 2012 and the 2008-2012 average (in inflation adjusted dollars).

Management Area	Alternative	Exvessel Value (thousands of dollars) ^{a/}				
		2013 Projected ^{b/}	2012 Actual	Percent Change from 2012	2008-2012 Average ^{c/}	Percent Change From 2008-2012 Average
North of Cape Falcon	I	3,016	2,847	+6%	2,313	+30%
	II	2,411		-15%		+4%
	III	1,944		-32%		-16%
Cape Falcon to Humbug Mt.	I	8,897	3,463	+157%	1,534	+480%
	II	8,892		+157%		+480%
	III	8,826		+155%		+475%
Humbug Mt. to Horse Mt.	I	1,126	584	+93%	188	+498%
	II	1,350		+131%		+616%
	III	541		-7%		+187%
Horse Mt. to Pt. Arena	I	3,958	2,043	+94%	1,174	+237%
	II	3,627		+77%		+209%
	III	3,969		+94%		+238%
South of Pt. Arena	I	8,952	10,712	-16%	2,660	+237%
	II	8,808		-18%		+231%
	III	9,625		-10%		+262%
Total South of Cape Falcon	I	22,934	16,802	+36%	5,557	+313%
	II	22,677		+35%		+308%
	III	22,961		+37%		+313%
West Coast Total	I	25,950	19,649	+32%	7,870	+230%
	II	25,088		+28%		+219%
	III	24,905		+27%		+216%

a/ Exvessel values are not comparable to the community income impacts shown in Table 10.

b/ Dollar value estimates are based on expected catches in the Council management area, 2012 exvessel prices and 2012 average weight per fish.

c/ Values are inflation-adjusted to 2012 dollars.

TABLE 10. Preliminary projected angler trips and coastal community income impacts generated under Council-adopted 2013 recreational ocean salmon fishery regulatory Alternatives compared to 2012 and the 2008-2012 average (in inflation adjusted dollars).

Management Area	Alternative	Angler Trips (thousands)			Community Income Impacts (thousands of dollars) ^{a/}			Percent Change in Income Impacts	
		Estimates Based on the	2012	2008-2012	Estimates Based on the	2012	2008-2012	Compared to	Compared to
		Options	Actual	Avg.	Options	Actual	Avg.	2012 Actual	2008-2012 Avg.
North of Cape Falcon	I	103	80	80	10,498	8,165	7,969	+29%	+32%
	II	98			9,989			+22%	+25%
	III	75			7,641			-6%	-4%
Cape Falcon to Humbug Mt.	I	51	44	41	3,072	2,647	2,511	+16%	+22%
	II	51			3,072			+16%	+22%
	III	51			3,072			+16%	+22%
Humbug Mt. to Horse Mt.	I	43	50	19	2,409	2,773	1,066	-13%	+126%
	II	43			2,368			-15%	+122%
	III	38			2,113			-24%	+98%
Horse Mt. to Pt. Arena	I	21	15	7	1,598	1,122	557	+42%	+187%
	II	21			1,598			+42%	+187%
	III	21			1,598			+42%	+187%
South of Pt. Arena	I	100	101	40	9,118	9,197	3,507	-1%	+160%
	II	108			9,882			+7%	+182%
	III	102			9,349			+2%	+167%
Total South of Cape Falcon	I	215	209	108	16,197	15,740	7,640	+3%	+112%
	II	222			16,919			+7%	+121%
	III	212			16,132			+2%	+111%
West Coast Total	I	317	289	188	26,696	23,904	15,610	+12%	+71%
	II	320			26,908			+13%	+72%
	III	287			23,773			-1%	+52%

a/ Income impacts are not comparable to the exvessel values shown in Table 9. All dollar values are inflation-adjusted to 2012 dollars.

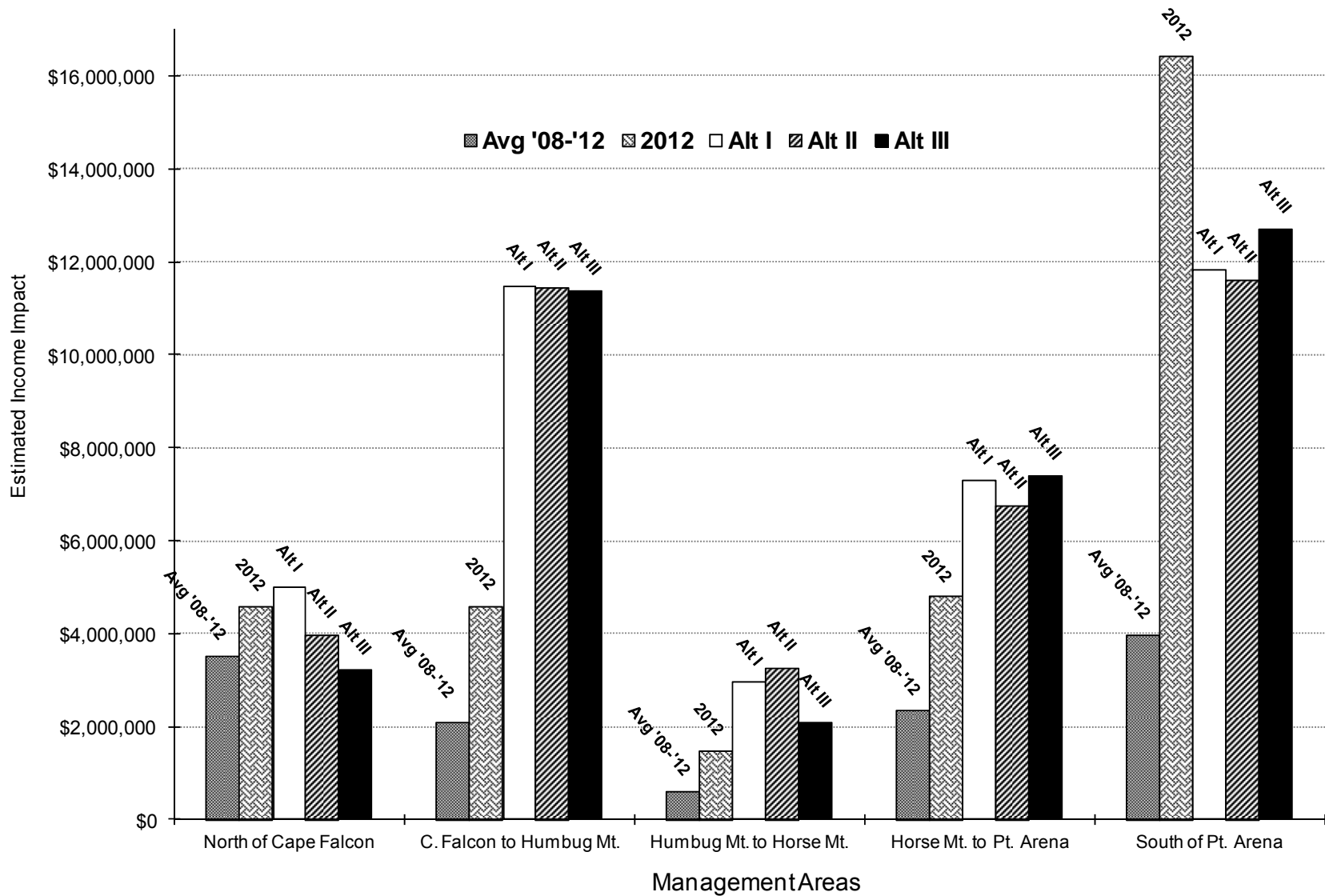


FIGURE 1. Projected community income impacts associated with the Council adopted 2013 commercial fishery Alternatives compared to 2012 and the 2008-2012 average (in inflation adjusted dollars).

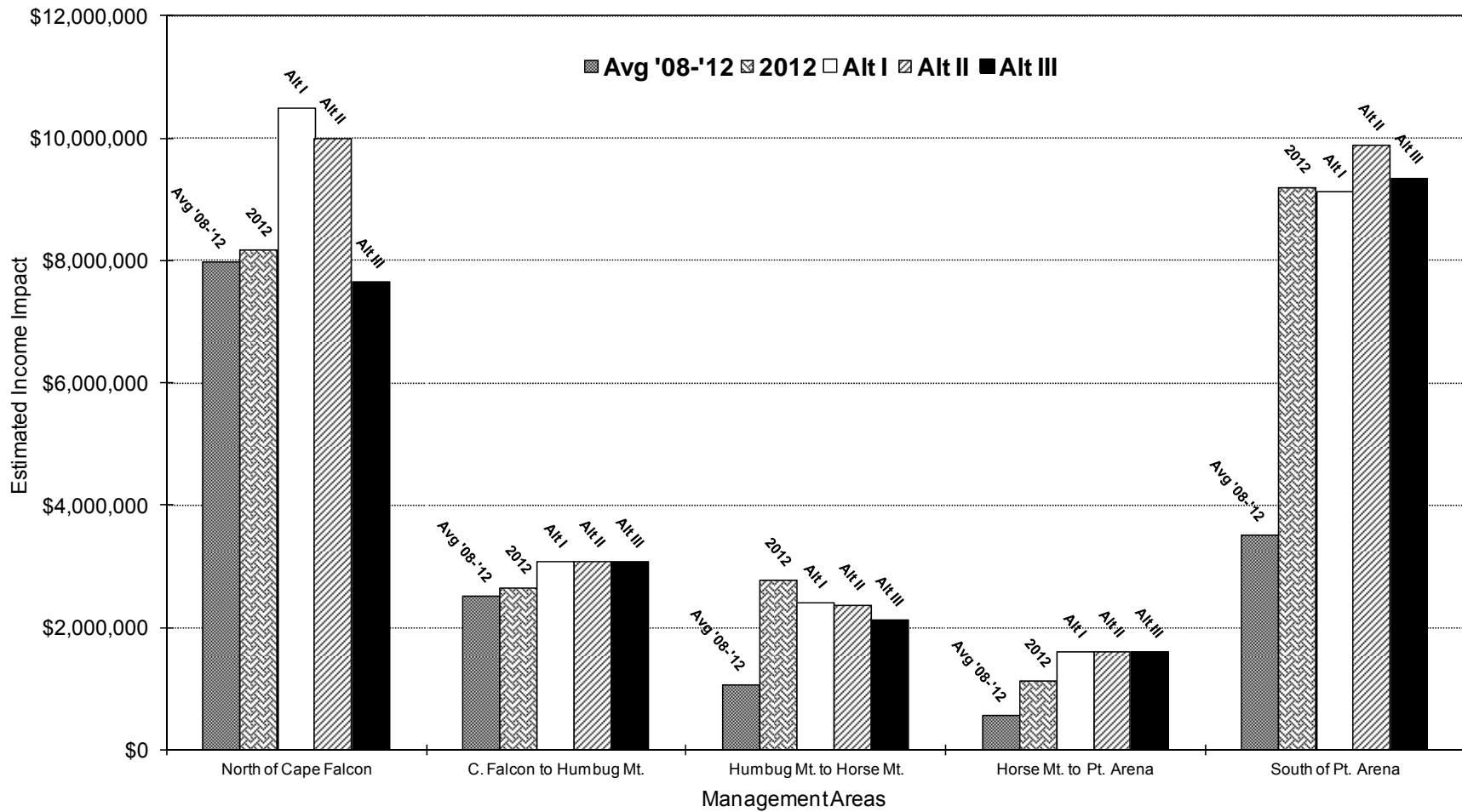


FIGURE 2. Projected community income impacts associated with the Council adopted 2013 recreational fishery Alternatives compared to 2012 and the 2008-2012 average (in inflation adjusted dollars).

APPENDIX A: PROJECTED IMPACT RATES AND HARVEST FOR AGE-3 SACRAMENTO RIVER WINTER CHINOOK AND AGE-4 KLAMATH RIVER FALL CHINOOK

TABLE A-1. Sacramento River winter Chinook age-3 impact rate forecasts, stratified by fishery, Alternative, management area, and month.

Commercial											
Alternative I		12.9 Total (Comm. + Rec.)									
Port	Area	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
	SF	NA	0.20	0.49	0.36	0.17	0.01	0.00	-	-	1.23
	MO	NA	0.37	0.60	0.43	0.25	0.00	-	-	-	1.64
	Total	NA	0.57	1.09	0.78	0.42	0.01	0.00			2.87
Alternative II		12.5 Total (Comm. + Rec.)									
	SF	NA	0.21	0.44	0.31	0.18	0.01	0.00	-	-	1.14
	MO	NA	0.41	0.53	0.37	0.25	0.00	-	-	-	1.56
	Total	NA	0.62	0.97	0.68	0.43	0.01	0.00			2.70
Alternative III		12.8 Total (Comm. + Rec.)									
	SF	NA	0.22	0.46	0.42	0.17	0.01	0.00	-	-	1.28
	MO	NA	0.43	0.57	0.50	0.25	0.00	-	-	-	1.75
	Total	NA	0.65	1.03	0.92	0.42	0.01	0.00			3.03
Recreational											
Alternative I		12.9 Total (Comm. + Rec.)									
	SF	0.18	0.42	0.71	1.37	0.61	0.06	0.20	0.04	-	3.58
	MO	1.08	0.66	1.19	2.56	0.87	0.10	0.03	-	-	6.50
	Total	1.26	1.08	1.90	3.93	1.48	0.16	0.22	0.04		10.07
Alternative II		12.5 Total (Comm. + Rec.)									
	SF	0.18	0.42	0.97	1.57	0.70	0.06	0.20	0.04	-	4.14
	MO	1.08	0.66	0.92	1.90	0.98	0.11	0.03	-	-	5.69
	Total	1.26	1.08	1.89	3.47	1.69	0.17	0.23	0.04		9.83
Alternative III		12.8 Total (Comm. + Rec.)									
	SF	0.18	0.42	0.81	1.56	0.70	0.06	0.20	0.04	-	3.97
	MO	1.08	0.66	1.63	1.32	0.98	0.11	0.03	-	-	5.81
	Total	1.26	1.08	2.43	2.88	1.68	0.17	0.23	0.04		9.77

SF = Pt. Arena to Pigeon Pt. (San Francisco)

MO = Pigeon Pt. to the U.S./Mexico Border (Monterey)

TABLE A-2. Klamath River fall Chinook **age-4 ocean harvest forecasts** by month, area, fishery, and Alternative. In 2013, a harvest of 53,000 age-4 KRFC results in a 16% ocean harvest rate.

Commercial											Recreational											
Alternative I 16.0%											Alternative I											
Port Area	Fall 2012		Summer 2013						Summer Total	Year Total	Port Area	Fall 2012			Summer 2013						Summer Total	Year Total
	Sept	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	395	132	-	513	1,002	343	338	1,084	3,280	3,807	NO	109	0	-	0	0	0	0	40	7	47	156
CO	396	0	-	1,296	1,547	1,138	1,779	3,183	8,943	9,339	CO	14	0	0	0	0	8	18	103	35	164	178
KO	159	0	-	-	124	921	818	499	2,362	2,521	KO	547	45	-	-	-	12	94	201	725	1,032	1,624
KC	739	-	-	-	-	-	-	-	-	739	KC	634	-	-	-	-	426	536	487	918	2,367	3,001
FB	0	-	-	-	2,603	5,759	10,845	3,369	22,576	22,576	FB	0	0	0	-	10	99	228	298	70	705	705
SF	0	0	-	-	1,326	1,725	3,497	439	6,987	6,987	SF	0	0	0	-	95	57	164	186	9	511	511
MO	0	-	-	-	325	195	335	4	859	859	MO	0	0	-	-	71	15	20	46	6	158	158
Total	1,689	132	-	1,808	6,928	10,081	17,612	8,579	45,008	46,829	Total	1,304	45	0	0	176	618	1,060	1,360	1,768	4,982	6,331
14.1%											1.9%											
Alternative II 16.0%											Alternative II											
Port Area	Fall 2012		Summer 2013						Summer Total	Year Total	Port Area	Fall 2012			Summer 2013						Summer Total	Year Total
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	395	132	-	513	1,002	342	336	1,087	3,280	3,807	NO	109	0	-	0	0	0	0	39	7	46	155
CO	396	0	-	1,296	1,547	1,133	1,769	3,190	8,935	9,331	CO	14	0	0	0	0	8	18	102	35	163	177
KO	159	0	-	-	124	688	545	374	1,731	1,890	KO	547	45	-	-	-	11	93	200	726	1,030	1,622
KC	739	-	-	-	1,987	1,297	551	467	4,302	5,041	KC	634	-	-	-	-	385	533	484	920	2,322	2,956
FB	0	-	-	-	1,685	5,097	9,313	3,376	19,471	19,471	FB	0	0	0	-	10	99	227	296	70	702	702
SF	0	0	-	-	1,396	1,526	3,004	440	6,366	6,366	SF	0	0	0	-	95	57	223	212	9	596	596
MO	0	-	-	-	362	172	288	4	826	826	MO	0	0	-	-	71	15	26	52	6	170	170
Total	1,689	132	-	1,808	8,103	10,254	15,806	8,938	44,909	46,730	Total	1,304	45	0	0	176	575	1,121	1,386	1,772	5,030	6,379
14.1%											1.9%											
Alternative III 16.0%											Alternative III											
Port Area	Fall 2012		Summer 2013						Summer Total	Year Total	Port Area	Fall 2012			Summer 2013						Summer Total	Year Total
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	395	132	-	513	1,002	345	342	1,084	3,286	3,813	NO	109	0	-	0	0	0	0	40	7	47	156
CO	396	0	-	1,296	1,547	1,145	1,796	3,181	8,965	9,361	CO	14	0	0	0	0	0	0	104	35	139	153
KO	159	0	-	-	124	463	410	250	1,247	1,406	KO	547	45	-	-	-	3	94	203	724	1,024	1,616
KC	739	-	-	-	-	-	-	-	-	739	KC	634	-	-	-	-	96	539	491	917	2,043	2,677
FB	0	-	-	-	1,225	5,473	12,941	3,367	23,006	23,006	FB	0	0	0	-	10	99	230	300	70	709	709
SF	0	0	-	-	1,431	1,639	4,174	439	7,683	7,683	SF	0	0	0	-	95	57	187	215	9	563	563
MO	0	-	-	-	380	185	400	4	969	969	MO	0	0	-	-	71	15	27	24	6	143	143
Total	1,689	132	-	1,808	5,710	9,250	20,062	8,324	45,154	46,975	Total	1,304	45	0	0	176	278	1,096	1,378	1,767	4,695	6,044
14.2%											1.8%											

APPENDIX B: NEPA AND ESA ANALYSES INCORPORATED BY REFERENCE

Several documents supporting the analyses of effects to the environment from the Alternatives have been incorporated by reference. Those documents are described and passages relevant to analyses contained in this EA are excerpted below.

NMFS 2003: West Coast Salmon Harvest Programmatic EIS

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.

This document includes the following statements relative to Council area salmon fisheries:

While the levels of salmon catch fluctuate from year to year, the amount of groundfish taken as incidental catch is very low so that changes in the salmon fishery do not substantially alter the projections for harvest-related mortality in the groundfish fishery.

Other Council managed species such as halibut, highly migratory species (draft FMP), 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 show 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 the non-salmon stocks

The commercial troll fishery off the coasts of Washington, Oregon, and California is classified as a Category III fishery, indicating a remote or no likelihood of known incidental mortality or serious injury of marine mammals. In general, recreational fishery uses the same gear and techniques as the commercial fisheries and can be assumed to have similar rates of encounters and results.

After excluding ESA listed marine mammals, only three species of marine mammals are defined as strategic under MMPA within the coverage area: short-finned pilot whales, mesoplodont beaked whales, and Minke whales (Barlow et al. 1997). This strategic classification denotes that projected human-caused mortality exceeds the species' annual potential biological removal estimate under MMPA standards. As with ESA listed marine mammal species, there is no record of these three species being affected by the ocean salmon fisheries managed by the Council.

Steller sea lion interaction with the Pacific Coast salmon fisheries is rare and NMFS has determined mortality and serious injury incidental to commercial fishing operations would have a negligible effect. Available information indicates that Pacific Coast salmon fisheries are not likely to jeopardize the existence of the Guadalupe fur seal. No sea turtles have been reported

taken by the ocean salmon fisheries off Washington, Oregon, or California. NMFS has determined that commercial fishing by Pacific Coast fisheries would pose a negligible threat to the Pacific species.

Short-term effects on seabirds are minimal, if any. The types of vessels used in the fishery and the conduct of the vessels are not conducive to collisions or the introduction of rats other non-indigenous species to seabird breeding colonies. Anecdotal information suggests accidental bird encounters are a rare event for commercial and recreational ocean salmon fisheries (Council 1999a). Long-term effects on seabirds from the ocean salmon fisheries are also minimal.

The removal of adult salmon by the ocean fisheries is not considered to significantly affect the lower trophic levels or the overall marine ecosystem because salmon are not the only or primary predator in the marine environment.

PFMC 2006: EA for 2006 Ocean Salmon Management Measures

The 2006 regulations EA analyzes the environmental and socioeconomic impacts of proposed management measures for ocean salmon fisheries occurring off the coasts of Washington, Oregon, and California. The document evaluated the 2006 annual salmon ocean harvest management measures with respect to compliance with the terms of the Salmon FMP, obligations under the Pacific Salmon Treaty (PST), and the level of protection required by all consultation standards for salmon species listed under the ESA. The range of alternatives analyzed in the 2006 Regulations EA included the effects of three levels of *de minimis* fishing strategies on KRFC when the stock was projected to fall below the 35,000 natural spawner floor for the third consecutive year. The escapement floor for naturally spawning KRFC was projected to not be attained even with complete closure of ocean salmon fisheries between Cape Falcon, Oregon, and Point Sur, California; therefore, the management measures required implementation by emergency rule. The NMFS-recommended 2006 salmon fishery management measures did not completely close fisheries between Cape Falcon and Point Sur, but limited fisheries to provide a minimum of 21,100 natural spawning adult KRFC in 2006. The 2006 EA supported NMFS' Finding of No Significant Impacts (FONSI) for the 2006 ocean salmon regulations.

Appendix A of Amendment 14 (EFH Appendix A) describes salmon EFH and fishing and non-fishing impacts to this habitat. It found no evidence of direct gear effects on this habitat from Council-managed salmon fisheries. ... 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.

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 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.

NMFS 2008: Biological Opinion on 2008 Ocean Fisheries Effects on Southern Resident Killer Whales

This document constitutes the National Marine Fisheries Service's (NMFS) biological opinion regarding the effects of the 2008-2009 Pacific coast salmon fisheries on the Southern Resident killer whale distinct population segment. The fisheries assessed by this Opinion are fisheries are managed under the

jurisdiction of the Pacific Fisheries Management Council (PFMC) and target primarily Chinook and coho salmon, and pink salmon.

After reviewing the current status of the endangered population of Southern Resident killer whales and their critical habitat, the environmental baseline for the action area, the effects of the proposed actions, and cumulative effects, it is NMFS's biological opinion that the proposed action is not likely to jeopardize the continued existence of the Southern Resident killer whales or adversely modify critical habitat.

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APPENDIX C: KLAMATH OCEAN HARVEST MODEL CONTACT RATE PER UNIT EFFORT PREDICTOR DATA MODIFICATION

In 2006, owing to three consecutive years of under forecasting the Klamath River fall Chinook age-4 harvest rate, an adjustment was made to the data used in the Klamath Ocean Harvest Model (KOHM) contact rate per unit effort predictor module.¹ It was noted that for the commercial fishery in the Fort Bragg (FB), San Francisco (SF), and Monterey (MO) management areas, contact rates per unit effort were fairly consistently above predicted values for 2003-2005. As a result, beginning in the 2006 management year, the commercial fishery contact rate per unit effort forecasts for the FB, SF, and MO areas in months May-August were made using a ratio estimator fit to data from 2003-2005 instead of the full 1983-2005 dataset. This modification to the data range resulted in substantial increases in predicted age-4 contact rates per unit effort in those areas and months. The practice of using data from 2003-forward to predict commercial fishery contact rates per unit effort in the aforementioned areas and months continued through the 2012 management year.

In the three most recent years (2010-2012), the age-4 ocean harvest rate has been over forecast, prompting an investigation into factors that could have led to these prediction errors. The two major components of harvest rate forecasting in the KOHM are the effort forecast component and the contact rate per unit effort forecast component.

Effort forecasts for many of the month, management area, and fishery strata were over predicted in 2010, 2011, and to a lesser degree in 2012. The problem of over prediction of fishing effort was addressed prior to the 2012 management year by limiting the effort forecasting dataset to years 1998-forward; prior to this change, effort was forecast using data from 1991-forward. This modification to the effort forecast module had the effect of lowering effort per day open forecasts for most month, management area, and fishery strata.

The 2013 re-evaluation of the KOHM contact rate per unit effort forecast module was focused on the practice of limiting the dataset used for prediction to years 2003-forward in FB, SF, and MO commercial fisheries. Individual area- and month-specific forecast errors (observed / predicted) for commercial fisheries occurring from 2006-2012 are displayed in Figure C-1. For the MO management area, observed contact rates per unit effort for most month and year combinations were zero. Because contact rate per unit effort predictions made using the 2003-forward dataset are larger than those made using the 1983-forward dataset, the magnitude of over prediction would have been lower in most cases if the 1983-forward dataset were used. Use of the 1983-forward dataset in SF for May and June would also have resulted in better predictions. In contrast, use of the 2003-forward dataset for SF and FB in July and August appears to still be warranted at this time. Fisheries in FB have not been open in May and June since 2006 which precluded an evaluation of contact rates per unit effort for those months.

Based on results described above, in 2013 the STT returned to using a ratio estimator fit to 1983-2012 data for forecasting contact rate per unit effort for MO, May-August, and for SF, May-June. Data from 2003-2012 were used for forecasting contact rates per unit effort for FB, May-August, and for SF, July-August. Figure C-2 displays the age-4 contact rate per unit effort predictors used for the 2013 management year. Black lines in Figure C-2 depict age-4 contact rate per unit effort estimated from 1983-2012 data and grey lines are predictors based on 2003-2012 data in the month and area strata where these predictors were employed.

¹ Pacific Fishery Management Council (PFMC). 2006. Preseason Report II: Analysis of Proposed Regulatory Options for 2006 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.

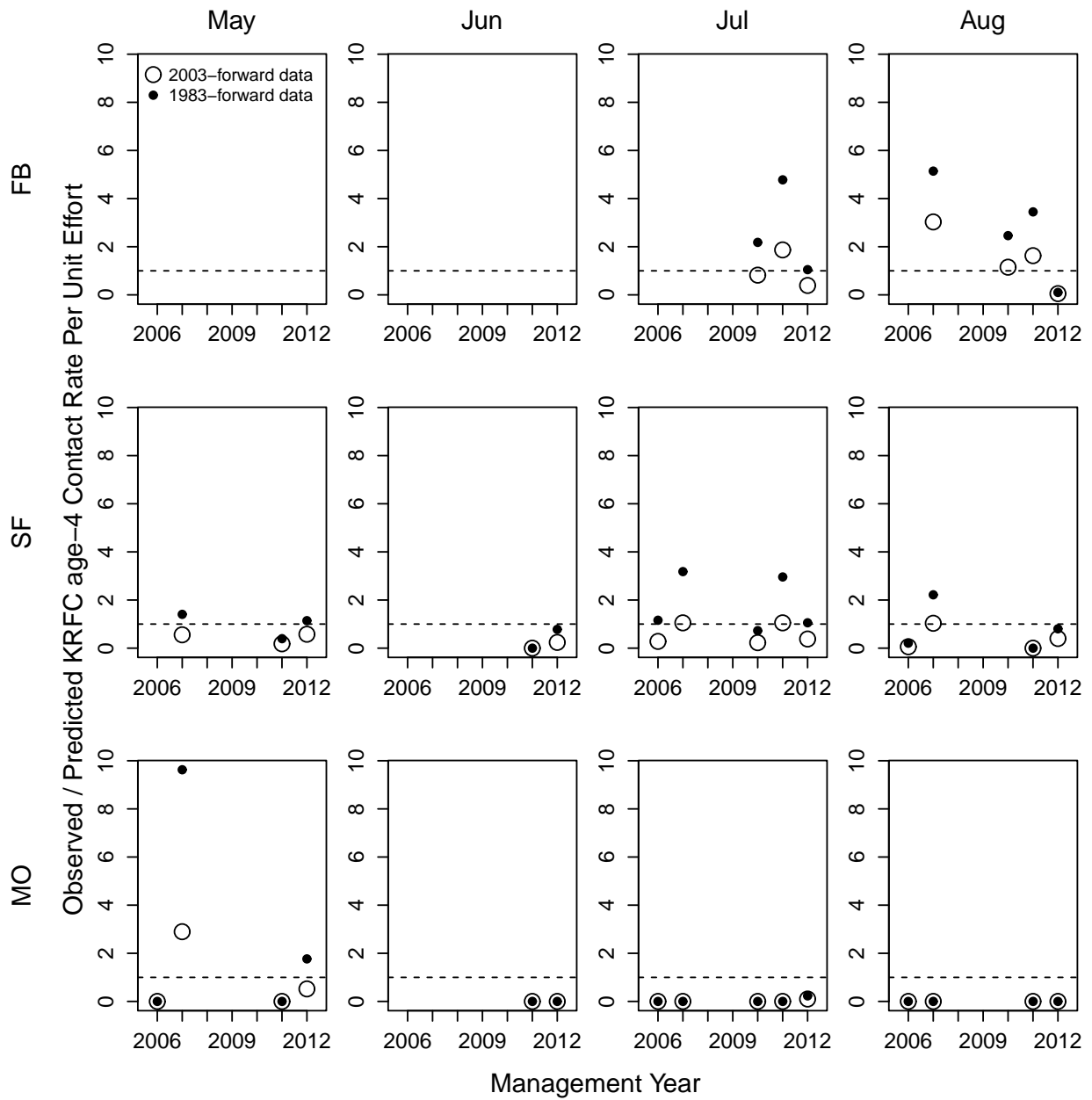


FIGURE C-1. Observed / predicted contact rates per unit effort for the commercial fishery in Fort Bragg (FB), San Francisco (SF), and Monterey (MO). Open circles denote values associated with prediction of contact rates per unit effort using data from 2003 up to management year - 1. Filled circles denote values derived from using data from 1983 to management year - 1. The horizontal dashed line indicates when observed equals predicted.

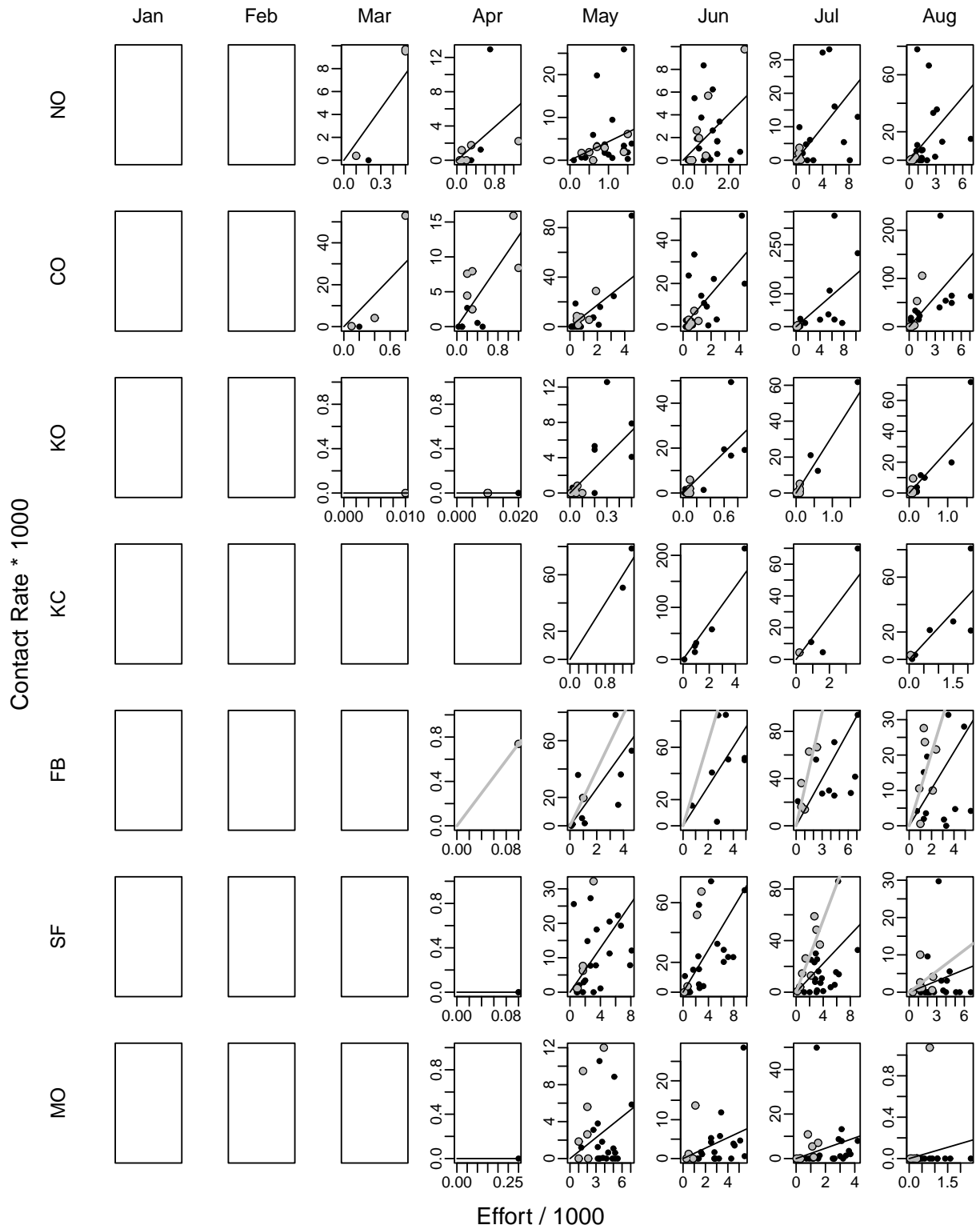
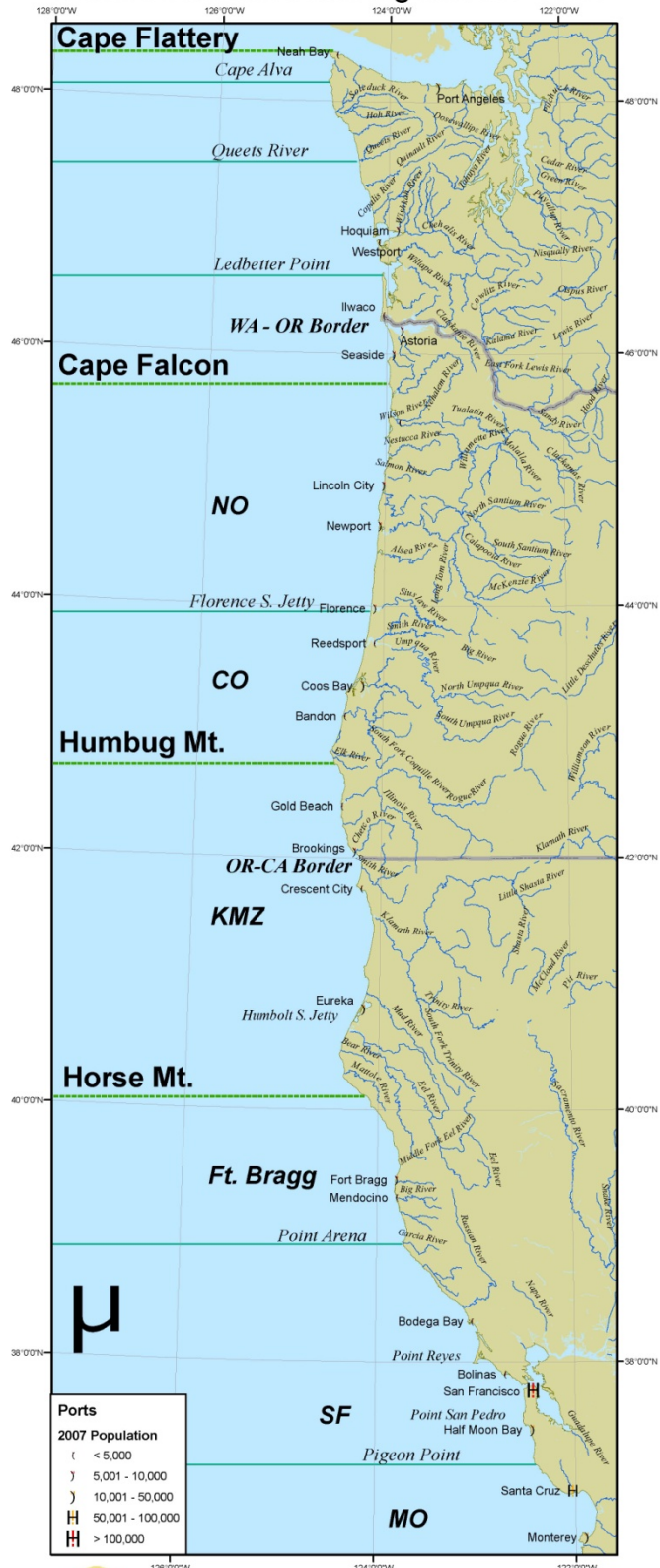


FIGURE C-2. Contact rate and effort estimates, and contact rate per unit effort predictors, used in the 2013 Klamath Ocean Harvest Model. Grey circles denote contact rate and effort data for 2003-2012 and black circles denote data from 1983-2012. Grey lines are contact rate per unit effort predictors fit to 2003-2012 data for strata in which this data range was used for prediction. Black lines are predictors fit to all data.

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Marine Fisheries Management Zones



0 25 50 100 km
 Projection: UTM Zone 10, NAD83

Andrew Weiss
 Fish Program
 Biological Data Systems
 Feb. 2009