

**PRESEASON REPORT II**  
**PROPOSED ALTERNATIVES**  
**AND**  
**ENVIRONMENTAL ASSESSMENT PART 2**  
**FOR 2011 OCEAN SALMON FISHERY**  
**REGULATIONS**

REGULATION IDENTIFIER NUMBER 0648-XA184



**Pacific Fishery Management Council**  
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**MARCH 2011**

# PUBLIC HEARINGS ON SALMON ALTERNATIVES

*All Hearings Begin at 7 p.m.*

***Monday, March 28***

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

***Monday, March 28***

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

***Tuesday, March 29***

Red Lion Hotel Eureka  
Evergreen Room  
1929 Fourth Street  
Eureka, CA 95501  
(707) 445-0844

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*Public comment on the Alternatives will also be accepted during the April Council meeting on Sunday, April 10, during the public comment period for Agenda Item G.2 at the San Mateo Marriott, 1770 South Amphlett Boulevard, San Mateo, CA 94402, Phone: 650-653-6000. **Written comments** received at the Council office **by midnight, on Wednesday, April 3, 2011** will be distributed to all Council members.*

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## LIST OF ACRONYMS AND ABBREVIATIONS

AABM	Aggregate Abundance Based Management
AEQ	adult equivalent
BO	biological opinion
CDFG	California Department of Fish and Game
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)
MO	Monterey (Pigeon Point to Point Sur)
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)
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)
SCH	Spring Creek Hatchery (tule fall Chinook returning to Spring Creek Hatchery)
SET	spawning escapement target
SF	San Francisco (Point Arena to Pigeon Point)
SI	Sacramento index
SONCC	Southern Oregon/Northern California Coast (coho ESU)

## **LIST OF ACRONYMS AND ABBREVIATIONS (continued)**

SRFC	Sacramento River fall Chinook
SRFI	Snake River fall (Chinook) index
SRW	Snake River wild fall 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 2011 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 San Mateo Marriott, 1770 South Amphlett Boulevard, San Mateo, CA 94402, 650-653-6000. Written comments received at the Council office by April 3, 2011 will be copied and distributed to all Council members (Council staff cannot assure distribution of comments received after April 3).

This report also constitutes the second part of an Environmental Assessment (EA) to comply with National Environmental Policy Act (NEPA) requirements for the 2011 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 2011 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; STT 2011) 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. Together, these two 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 2011 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 Endangered Species Act (ESA) listed salmon stocks. In achieving this goal, management measures must take into account the allocation of harvest among different user groups and port areas. The Salmon FMP also establishes nine more general harvest-related objectives:

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

5. Manage and regulate fisheries, so the OY encompasses the quantity and value of food produced, the recreational value, and the social and economic values of the fisheries.
6. Develop fair and creative approaches to managing fishing effort and evaluate and apply effort management systems as appropriate to achieve these management objectives.
7. Support the enhancement of salmon stock abundance in conjunction with fishing effort management programs to facilitate 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 Act (MSA) and the National Standards Guidelines.

Implementation of 2011 management measures will allow fishermen to harvest surplus production of healthy natural and hatchery salmon stocks within the constraints specified under the Salmon FMP, consultation standards established for ESA-listed salmon stocks, and other applicable law.

## **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, 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 2011 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 2010 forecasts; (2) catch levels for southeast Alaskan, north-central British Columbia, and West Coast Vancouver Island (WCVI) fisheries equal to 2010 catch ceilings established under the aggregate abundance based management (AABM) provisions of the PST 2008 Agreement (WCVI outside sport catch assumed to

equal the average of the 2008-2010 level), with minimum size limits identical to those in place for 2010; (3) 2010 observed catch levels and size limits for Canadian fisheries operating under individual stock based management (ISBM) regimes pursuant to the 2008 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 Pacific Salmon Commission's (PSC's) Chinook Model will be calibrated by the PSC Chinook Technical Committee to determine the allowable catch ceilings under the 2008 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, guidance provided by the National Marine Fisheries Service (NMFS), obligations under the PST, and other applicable law. This EA analyzes the range of effects within which the final management measures will fall.

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 *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 or 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 (MSY), or exploitation rate limits designed to support recovery of depressed 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. The Council considers the ESA requirements sufficient to meet the intent of FMP conservation objectives for the annual management measures as well as the MSA overfishing provisions requiring rebuilding of depressed stocks to MSY levels. 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. Among the annual agreements reached by the co-managers in the North of Falcon forum are conservation objectives for Puget Sound and Washington coastal stocks. These objectives can supersede the Salmon FMP conservation objectives for annual management measures and for Council action when a Conservation Alert is triggered; however, they cannot be used in place of the FMP objectives for determination of an Overfishing Concern; nor can they supersede ESA consultation standards. In recent years, the annual agreed to conservation objectives for Puget Sound coho have been based on the Comprehensive Coho Agreement. In November 2009, the Council adopted permanent FMP conservation objectives for Puget Sound coho consistent with the Comprehensive Coho Agreement

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 up to 50 percent of the total KRFC harvest, which is calculated as a harvest of Klamath River fall Chinook (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 areas, and for coho south of Cape Falcon between commercial and recreational sectors. Alternatives for the 2011 salmon management measures adopted by the Council meet the allocation requirements for fisheries north of Cape Falcon in the Salmon FMP.

## 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:

Species	ESU	Status	Federal Register Notice			
			Most Recent		Original Listing	
Chinook Salmon ( <i>O. tshawytscha</i> )	Sacramento River Winter	Endangered	70 FR 37160	6/28/2005	54 FR 32085	8/1/1989
	Snake River Fall	Threatened	70 FR 37160	6/28/2005	57 FR 14653	4/22/1992
	Snake River Spring/Summer	Threatened	70 FR 37160	6/28/2005	57 FR 14653	4/22/1992
	Puget Sound	Threatened	70 FR 37160	6/28/2005	64 FR 14308	3/24/1999
	Lower Columbia River	Threatened	70 FR 37160	6/28/2005	64 FR 14308	3/24/1999
	Upper Willamette River	Threatened	70 FR 37160	6/28/2005	64 FR 14308	3/24/1999
	Upper Columbia River Spring	Endangered	70 FR 37160	6/28/2005	64 FR 14308	3/24/1999
	Central Valley Spring	Threatened	70 FR 37160	6/28/2005	64 FR 50394	9/16/1999
Chum Salmon ( <i>O. keta</i> )	California Coastal	Threatened	70 FR 37160	6/28/2005	64 FR 50394	9/16/1999
Coho Salmon ( <i>O. kisutch</i> )	Hood Canal Summer-Run	Threatened	70 FR 37160	6/28/2005	64 FR 14508	3/25/1999
	Columbia River	Threatened	70 FR 37160	6/28/2005	64 FR 14508	3/25/1999
Coho Salmon ( <i>O. kisutch</i> )	Central California Coastal	Endangered	70 FR 37160	6/28/2005	61 FR 56138	10/31/1996
	S. Oregon/ N. California Coastal	Threatened	70 FR 37160	6/28/2005	62 FR 24588	5/6/1997
	Oregon Coastal	Threatened	73 FR 7816	2/11/2008	63 FR 42587	8/10/1998
	Lower Columbia River	Threatened	70 FR 37160	6/28/2005		
Sockeye Salmon ( <i>O. nerka</i> )	Snake River	Endangered	70 FR 37160	6/28/2005	56 FR 58619	11/20/1991
	Ozette Lake	Threatened	70 FR 37160	6/28/2005	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 (April 30, 2012)

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 March 3, 2011, NMFS provided guidance on protective measures for species listed under the ESA during the 2011 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 2011 management season, as well as further guidance and recommendations for the 2011 management season.

The ESA consultation standards, exploitation rates, and other criteria in place for the 2011 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 significant impact on Sacramento River winter Chinook, 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 significantly impacted by Council managed fisheries, include:

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**Chinook**

Slope River spring/summer (threatened)	Puget Sound (threatened)
Upper Willamette (threatened)	Upper Columbia River spring (endangered)

**Sockeye**

Slope River (endangered)	Ozette Lake Sockeye (threatened)
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**Chum**

Columbia River (threatened)	Hood Canal summer (threatened)
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**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)
Slope River Basin (threatened)	Northern California (threatened)
Puget Sound (threatened)	Northern California (threatened)

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## 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 30 percent reductions 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 2008 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 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 Chinook stocks failing to achieve escapement goals adopted by the PSC.

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 Chinook stocks that are not expected to achieve agreed MSY spawning escapement goals. 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 2011 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 pink, 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. Based on preseason abundance forecasts, total allowable exploitation rates for U.S. management units in 2011 are summarized in the table below.

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.

Some confusion may arise from the methods employed to report the categorical status for Washington coastal coho management units. For these 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. For 2011, Puget Sound and Washington coast coho constraints are as follows:

U.S. Management Unit	Total Exploitation Rate Constraint <sup>a/</sup>	Categorical Status <sup>b/</sup>
Skagit	60%	Abundant
Stillaguamish	50%	Abundant
Snohomish	60%	Abundant
Hood Canal	65%	Abundant
Strait of Juan de Fuca	40%	Moderate
Quillayute Fall <sup>c/</sup>	44%-78% (61%)	Abundant
Hoh <sup>c/</sup>	57%-83% (70%)	Abundant
Queets <sup>c/</sup>	0%-56% (24%)	Moderate
Grays Harbor	60%	Abundant

- a/ Preliminary, total mortality exploitation rate ceilings. Constraints will ultimately be determined through preseason planning processes. For Puget Sound management units, the exploitation rate constraints reflect application of Comprehensive Coho Agreement rules. For the Quillayute, Hoh, and Queets management units, exploitation rate constraints represent the potential range associated with escapement goal ranges (the values in parentheses reflect the exploitation rate associated with the mid-point of the spawning escapement goal range).
- b/ Category titles correspond to the general exploitation rate ranges depicted in paragraph 3(a) of the 2002 PST Southern Coho Management Plan or the exploitation rate status determinations exchanged during the negotiations that culminated in the 2002 Southern Coho Agreement. For Puget Sound management units, the categorical status categories reflect application of Comprehensive Coho Agreement rules. No formal status classification system has yet been developed for Washington coastal management units; the categorical status levels are based on exploitation rate values depicted in parentheses.
- c/ For Washington Coastal coho management units, spawning escapement ranges correspond to estimates for MSY escapements. The exploitation rate ranges for these management units are based on preseason abundance forecasts and the upper and lower ends of the 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. The categorical status is determined based on the mid-point of the escapement range. Note that the exploitation rates used to report categorical status do not represent maximum allowable rates for the management units.

Key considerations for Canadian fishery management for coho in 2011 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 Chinook, sockeye, pink, 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 2011 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 2011 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 similar relative abundance of Chinook and coho as in 2010, with low abundance of Oregon Production Index (OPI) hatchery coho and higher abundance of tule fall Chinook. However, in 2011, allowable catch of Chinook will be decreased due to the lower abundance of tule Chinook from Spring Creek Hatchery, and a reduced exploitation rate limit for LCR natural tule Chinook. Coho catch quotas will be slightly reduced relative to 2010 due to reduced abundance of OPI hatchery coho.

Alternative I north of Cape Falcon assigns three-fourths of the troll Chinook quota to the May-June Chinook directed fishery to increase access when Chinook are more available to the fishery, which opens initially seven days per week with no landing and possession limit. In Alternative II, two-thirds of the troll Chinook quota is assigned to the May-June fishery, which opens initially five days per week with an area-wide landing and possession limit. In Alternative III one half of the troll Chinook quota is assigned to the May-June fishery, which opens initially five days per week with an area-wide landing and possession limit. The summer all-salmon fisheries for all Alternatives include Chinook and coho landing and possession limits for areas north and south of Leadbetter Point. Coho retention regulations are similar to recent years, except that Alternative III includes both mark-selective and non-mark-selective periods, before and after mid-August, respectively.

For areas south of Cape Falcon in 2011, there is the potential for greater commercial fishing opportunity relative to recent years. A relatively high SRFC abundance forecast will result in this stock not constraining fisheries as it has for the past three years. Constraints on fishing opportunity south of Falcon will be due to 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 tule Chinook.

For the North and Central Oregon coast south of Cape Falcon, all Alternatives for Chinook fisheries open in April and generally run through August. Alternatives I and II reopen for the month of October with weekly landing and possession limits.

For the Oregon KMZ, all Alternatives have May open, and then have monthly quota fisheries with daily landing and possession limits for June, July, and August. Alternative I also allows transfer of unused quota to subsequent quota periods.

For the California KMZ, Alternative I has four quota fisheries: late June, early July, early August, and late September. Alternative II has two quota periods: early July and early August, with reduced quota sizes relative to Alternative I. Alternative III is closed.

Alternatives in the Fort Bragg area include quota fisheries concurrent with the KMZ fisheries in June and July for Alternative I and in July for Alternative II. Alternative I also allows transfer of unused quota from June to the July quota. All three Alternatives include open season in August and September.

In the San Francisco and Monterey areas, all Alternatives have the fishery opening in May and generally running through September, with June mostly or entirely closed. Alternative I also includes a period in July with fisheries alternating five days open and two days closed. Alternatives I and II require landing of fish south of Point Arena when the Fort Bragg quota fisheries are open. The fall area target zone fishery is included in Alternative I during early October.

## 7.2 *Recreational*

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

quota; in Alternative I however, the subarea south of Leadbetter Point opens one week later than subareas to the north.

Alternatives I and II for subareas north of the Queets River are open seven days per week, Alternative II is open five days per week. For the Westport subarea, all Alternatives are open five days per week, and for the Columbia River subarea, all Alternatives are open seven days per week. Subareas north of Leadbetter Point also have Alternatives that allow additional pink salmon retention above the normal two fish per day bag limit. There is an area 4B add-on fishery in Alternative III to help provide the Neah Bay subarea additional opportunity under the limited coho quota.

For the North and Central Oregon coast south of Cape Falcon, all Alternatives for Chinook fisheries open March 15 and run through early September to late October. Alternative I has a mark-selective coho quota fishery running from late June to early September that also includes the Oregon KMZ area. Alternative II has both mark-selective and non-mark selective coho quota fisheries, and Alternative III only has a non-mark-selective coho quota fishery. Non-mark-selective coho quotas are being considered because of the relatively high OCN and low OPI hatchery coho forecasts, which tend to reduce expected mark rates and increase the number of release mortalities on natural stocks.

Chinook fishing in both the Oregon and California KMZ will open in early to late May and run through Labor Day.

South of the KMZ, all Alternatives open April 2. In the Fort Bragg and San Francisco areas, seasons run through mid-November for Alternative I, mid-October for Alternative II and mid-September for Alternative III. In the Monterey area, seasons run through early October, mid-September, and early September for Alternatives I, II, and III, respectively. The minimum size limit for Chinook in recreational fisheries coast-wide is 24 inches.

### **7.3 *Treaty Indian***

Alternatives are generally similar in structure as in recent years.

## **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 consists 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 2011b), 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 2010 Ocean Salmon Fisheries (PFMC 2011a). A more general description of salmon life history and population characteristics is presented in PFMC 2006. The current status (2011 ocean abundance forecasts) of the environmental components expected to be affected by the 2011 ocean salmon fisheries regulation Alternatives (FMP salmon stocks) are described in PFMC 2011b. The criteria used to evaluate whether there are significant effects from the Alternatives on target stocks are achievement of conservation objectives 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, as are ESA consultation standards. Therefore conservation standards and consultation standards are appropriate indicators for determining the significance of fishery management actions referred to in NOA6.02.

### **8.1.1 Chinook Salmon**

#### **8.1.1.1 North of Cape Falcon**

Abundance projections relevant to Chinook harvest management north of Cape Falcon are:

- *Columbia River hatchery tules.* Combined production of Lower River Hatchery (LRH) and Spring Creek Hatchery (SCH) stocks is predicted to be 249,900 which is slightly lower than the 2010 preseason expectation of 259,600. The 2011 LRH forecast abundance is 133,500 up significantly from 90,600 in 2010. The 2011 SCH forecast abundance is 116,400, which is down from last year's record high forecast of 169,000 but similar to the actual return to the river of 130,800 in 2010.

The key Chinook 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 for the area north of Cape Falcon include Columbia Lower River wild fall Chinook, LCR natural tule Chinook, SRW fall Chinook, and Puget Sound natural 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 tule Chinook.

- *LCR natural tule fall Chinook.* The Alternative 1 exploitation rate of 39.3 percent exceeds the 37.0 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 similar to last year. LCR tules are the constraining Chinook stock for fisheries north of Cape Falcon in 2011.
- *SRW fall Chinook.* SRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2011.
- *Puget Sound Chinook.* Council-area fisheries have a minor impact on ESA-listed Puget Sound Chinook and *negligible* impacts on most other Chinook stocks subject to the 2008 PST Agreement. At this point there appears to be sufficient flexibility within Council and inside area fisheries as a whole to achieve compliance with NMFS consultation standards for the Puget Sound Chinook ESU.

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 other relevant Chinook stocks listed in Table 5.

#### 8.1.1.2 *South of Cape Falcon*

Status of Chinook stocks relevant to 2011 Chinook harvest management south of Cape Falcon are:

- *SRFC*. The SI forecast is 729,900 SRFC adults, which is slightly lower than the average Sacramento Index (SI) for years 1983-2010.
- *KRFC*. The age-3 forecast is 304,600 KRFC, which is very close to average for the years 1985-2010. The age-4 forecast is 61,600 fish, which is below average. The age-5 forecast is 5,000 fish. Last year's preseason forecast was 223,400 age-3, 106,300 age-4, and 1,800 age-5 fish.
- *Sacramento River Winter Chinook*. No forecast is made for this stock, but returns continue to decline.

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 Sacramento River winter Chinook, 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). NMFS also provided guidance that management Alternatives for 2011 should, at a minimum, target a spawner escapement around the upper end of the FMP conservation objective.
- KRFC natural area spawning escapement of at least 35,000 adults and spawner reduction rate not to exceed 66.7 percent (FMP conservation objective), 50:50 tribal-non-tribal sharing of adult harvest (Department of Interior Solicitor Opinion).

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 SRFC and KRFC impacts, 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 three Alternatives.
- *Sacramento River Winter Chinook*. The ESA consultation standard was met in all Alternatives with appropriate season dates and minimum size limits in fisheries south of Point Arena.
- *KRFC*. The natural-area escapement of at least 35,000 adults, as well as the maximum spawner reduction rate conservation objective of 66.7 percent, is met by each of the three Alternatives.

- *SRFC*. The conservation objective of targeting the upper end of the 122,000 to 180,000 natural and hatchery adult spawner range is met by each of the three Alternatives.
- *LCR natural tule fall Chinook*. The Alternative 1 exploitation rate of 39.3 percent exceeds 37.0 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 similar to last year.
- *SRW fall Chinook*. SRW Chinook will not constrain ocean fisheries south of Cape Falcon in 2011.

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 other relevant Chinook stocks listed in Table 5.

### 8.1.2 Coho Salmon

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

- *OPI Hatchery coho*. The 2011 forecast for hatchery coho from the Columbia River and the coast south of Cape Falcon of 375,100 is slightly lower than the 2010 forecast of 408,000. The Columbia River early coho forecast is 216,000 compared to the 2010 forecast of 245,300 and the Columbia River late coho forecast is 146,500 and nearly identical to the 2010 forecast of 144,200.
- *OCN coho*. The 2011 OCN forecast of 249,900 is 70 percent higher than the 2010 forecast of 148,000.
- *LCN coho*. The 2011 LCN forecast is 22,700 compared to the 2010 forecast of 15,100.
- *Puget Sound coho*. All Puget Sound natural stocks are in the abundant category for 2011 except for Strait of Juan de Fuca, which is in the moderate category.
- *Interior Fraser (Thompson River) coho*. This Canadian stock continues to be depressed, and will continue to constrain 2011 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 2011 are: a combined marine/freshwater exploitation rate not to exceed 15.0 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 overall favorable forecasts for coho stocks in 2011, Interior Fraser coho is the only key management stock for the area north of Cape

Falcon. Because of their abundance status, Interior Fraser coho are subject to an exploitation rate ceiling of 10 percent in southern U.S. fisheries under the 2002 PST Southern Coho Management Plan.

- Minimum escapement of 50 percent of Upper Columbia coho above Bonneville Dam (U.S. v. Oregon annual management agreement).
- Providing sufficient escapement of Columbia River early and late coho to meet hatchery egg take goals and inriver harvest objectives.

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.* All Alternatives satisfy the maximum 15.0 percent exploitation rate for combined marine and mainstem Columbia River fisheries, with marine exploitation rates ranging from 12.8 percent to 8.8 percent. However, marine exploitation rates greater than 10 percent are unlikely to provide sufficient impacts to meet the needs of mainstem Columbia River fisheries, and will likely require further shaping before final management measures are adopted.
- *Interior Fraser coho.* Southern U.S. exploitation rates in Alternatives I and II exceed the 10.0 percent maximum required by the PST Southern Coho Management Plan. Alternative III is at the 10.0 percent maximum.
- All of the Alternatives for all fisheries satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for other relevant coho stocks listed in Table 5.

### 8.1.3 Pink Salmon

Pink salmon are sufficiently abundant to merit management consideration only in odd numbered years. Abundance projections relevant to pink salmon harvest management in 2011 Council area fisheries are:

- *Puget Sound pink.* The 2011 forecast is 5.98 million, the highest forecast since at least 2001.
- *Fraser River pink.* The 2011 forecast is 17.5 million, similar to the 2009 forecast and near the recent year average.

The key pink salmon management objectives shaping the Alternatives are:

- Salmon FMP conservation objective of 900,000 natural spawners for Puget Sound pink salmon.
- PST Fraser River Panel objective of 6 million spawning escapement target (SET) for Fraser River pink salmon in 2011.

Council area fisheries have negligible impacts on pink salmon stocks, although recreational regulations generally provide additional opportunity to retain pink salmon in odd years. Inside fisheries are managed primarily through the Fraser River Panel of the PSC in order to achieve conservation objectives established by Fisheries and Oceans Canada. All Alternatives provide sufficient ocean escapement of pink salmon to meet conservation objectives for Puget Sound and Fraser River pink salmon and to support substantial inside fishing opportunity.

#### **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 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 2011 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 objective under Alternatives I and II except Interior Fraser (Thompson River) coho (Table 5). Impacts in Council area fisheries alone are well below maximum allowed exploitation rate, and further shaping of inside fisheries will be required to comply with the PST Southern Coho Management Plan.

Based on current assumptions regarding Canadian, Alaskan, and inside fishery impacts, all target salmon stocks (non-ESA listed) meet their FMP conservation objective under Alternative III (Table 5).

##### **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 standard under Alternative I except LCR natural tule Chinook and LCN coho (Table 5). Impacts in ocean fisheries alone are less than significant and below maximum allowed exploitation rate for both stocks and further shaping of 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 consultation standards for LCN coho and inside fishery needs (Table 5). Impacts on LCN coho necessary to prosecute Columbia River mainstem fisheries has not yet been estimated, although available impacts under Alternative II are within the range of impacts allocated in 2009 and 2010 and are less than significant.

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 the range of impacts allocated in 2009 and 2010 (Table 5).

Council-area fisheries have a less than significant impact on ESA-listed Puget Sound Chinook and on most Chinook stocks subject to the 1999 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

While analysis of impacts to target stocks is organized around salmon stocks that spawn in particular rivers, the social dimension, including regulation Alternatives, is organized around ocean management areas, as described in the Salmon FMP. These areas also correspond to some extent with the ocean distribution of salmon stocks, although stocks are mixed in offshore waters. Broadly, from north to south these areas are (1) from the U.S./Canada border to Cape Falcon (45°46' N. lat.), which is on the Oregon coast south of the Columbia River mouth; (2) between Cape Falcon and Humbug Mountain (42°40' 30" N. lat.) on Oregon's southern coast; (3) the Klamath Management Zone, which covers ocean waters from Humbug Mountain in southern Oregon to Horse Mountain (40°05' N. lat.) in northern California; and (4) from Horse Mountain to the U.S./Mexico border. There are also numerous subdivisions within these areas used to further balance stock conservation and harvest allocation needs. The boundaries of these areas and the main salmon ports appear on the inside back cover of this report. The following description of the fisheries and fishing communities is organized around these areas and is derived from the Review of 2010 Ocean Salmon Fisheries (PFMC 2011), which provides an historical description of the salmon fishery-affected environment, including stock status and socioeconomic impacts, and represents the current status of the socioeconomic component of the affected environment. For the purpose of characterizing the economic impact of Council area salmon fisheries, exvessel value and coastal community level personal income impacts were used.

The short-term economic effects of the proposed alternatives for non-Indian fisheries are shown in Tables 9 and 10. Table 9 shows troll impacts expressed in terms of estimates of potential exvessel value. Table 10 shows recreational impacts in terms of trips generated and community personal income impacts associated with the recreational fishery under each Alternative. The exvessel values provided for the troll fishery Alternatives in Table 9 and income impact values provided for the recreational fishery Alternatives in Table 10 are not directly comparable. Long-term social and economic effects are dependent on the impacts of this year's harvest on future production. In general the Council manages to meet escapement objectives for salmon that are expected to achieve optimum yields and rebuild depressed stocks.

Fishing effort estimates for the recreational fishery south of Cape Falcon are based on the effort estimates developed by the STT for modeling of biological impacts. STT estimates for this area use multi-year averages to predict effort for the coming year. If the multi-year average effort for a particular time period and area is higher than effort for the previous year in that stratum then the estimate may forecast an increase in effort for the coming year even though the fishery management measures may be more constrained than the previous year, or *vice-versa*. North of Cape Falcon, recreational fishery average catch per unit effort (CPUE) is applied to quotas to estimate total effort. For the summer mark-selective coho fishery, average 2009 CPUE 2009 was applied to the available coho quotas. For the June Chinook fisheries in Alternatives I and II, CPUE for the 2002 fishery was used, adjusted for the estimated increased effort required to reach a bag limit under mark-selective restrictions. Both estimates were then further adjusted for the difference in the number of trips observed in 2010 versus 2009. The expected harvests used to model effects on the commercial fishery are taken from Table 6. Additionally, last year's prices were assumed to be the best indicator of prices expected in the coming season. Commercial exvessel Chinook prices were at relatively high levels in 2010, as they have been for the past few years. To the degree that these prices were driven by the limited local supply in prior years, and harvests increase this year, then prices in 2011 may actually be lower than projected, which means that salmon exvessel revenue and commercial fisheries income impacts may be overstated. For southern areas where the commercial fishery was very limited or closed in 2010, per-fish weights and per-pound prices were projected using observed ratios between these areas and more northern areas from previous years.



Figures 1 and 2 show estimated community income impacts for the commercial troll and recreational Alternatives, respectively, compared to historic impacts in real (inflation adjusted ) dollars. In general, income impact estimates provide information on the amount of income associated with a particular activity. While reductions in income impacts may not necessarily reflect net losses to a community, they are likely to correlate with losses to those businesses and individuals with income dependence on the activity. However, fish not taken in ocean harvest are either available for inside harvest or contribute to additional escapement. Thus, total economic effects may vary more or less between the Alternatives than is indicated by the short-term effects on the ocean fisheries described above. Alternatives that provide lower ocean harvest may provide more inside harvest (more commercial revenue or more angler trips) or higher inside CPUE (lower costs for commercial fisheries, higher success rates for recreational fishers). Harvest forgone by ocean fisheries that is also not taken in inside fisheries may have a long-term impact on future production. The direction of the impact will depend on the level of escapement compared to the MSY level of escapement, and the nature of the spawner-recruit relationship.

### **8.2.1 Alternative I**

Under Alternative I, aggregated coastwide community-level commercial personal income impacts would exceed levels of last year (2010) and the recent inflation-adjusted average (2006-2010). Aggregated coastwide recreational income impacts would also be much higher. However there are notable regional differences along the coast. Compared with 2010, the area north of Cape Falcon would experience a 14 percent reduction in commercial fisheries income impacts, but this would be 70 percent higher than the 2006-2010 inflation-adjusted average, and would be partially offset by increased impacts from recreational fisheries. All areas south of Cape Falcon would see both commercial and recreational fisheries income impacts that are substantially higher than in the recent past.

There are projected to be no significant impacts under this Alternative as combined commercial and recreational community income impacts are either positive relative to recent year averages or within the historical range.

### **8.2.2 Alternative II**

Under Alternative II, aggregated coastwide community-level commercial personal income impacts would exceed levels of last year (2010) and the recent average (2006-2010). Aggregated coastwide recreational income impacts would also be much higher. However there are notable regional differences along the coast. Compared with 2010, the area north of Cape Falcon would experience a 33 percent reduction in commercial fisheries income impacts, but this would be 33 percent higher than the 2006-2010 average. Recreational fisheries income impacts are slightly lower than last year but slightly higher than the recent average (2006-2010). All areas south of Cape Falcon would see both commercial and recreational fisheries income impacts that are substantially higher than in the recent past.

There are projected to be no significant impacts under this Alternative as combined commercial and recreational community income impacts are either positive relative to recent year averages or within the historical range.

### **8.2.3 Alternative III**

Under Alternative III, aggregated coastwide community-level commercial personal income impacts would exceed levels of last year (2010) and the recent average (2006-2010). Aggregated coastwide recreational income impacts are also higher. However there are notable regional differences along the coast. Compared with 2010, areas north of Cape Falcon would experience a 51 percent reduction in commercial fisheries income impacts, but would still be slightly higher than the 2006-2010 average. Income impacts from recreational fisheries north of Cape Falcon would be below 2010 levels and also below the 2006-2010 average. South of Cape Falcon, all areas would see increased commercial fisheries

income impacts, and all areas except Cape Falcon to Humbug Mountain would see increased recreational fisheries income impacts. Cape Falcon to Humbug Mountain would experience a reduction of nearly one-half compared with 2010 income impacts, and a reduction of more than 60 percent compared with the recent years' average (2006-2010).

There are projected to be no significant impacts under this Alternative as combined commercial and recreational community income impacts are either positive relative to recent year averages or within the historical range.

#### **8.2.4 Summary of Impacts on the Socioeconomic Environment**

In aggregate coastwide, the Alternatives for the commercial fishery are expected to generate more revenue and income than in 2010, and more than the 2006-2010 average. However this result masks regional differences along the coast. While revenues and income impacts from commercial fisheries south of Cape Falcon are substantially higher than in the recent past for all areas under all three Alternatives, north of Cape Falcon revenues and income impacts are lower than in 2010 under all three Alternatives, and under Alternative III they are lower than the 2006-2010 average. Recreational income impacts are projected to be considerably higher in aggregate coastwide than in 2010 and the 2006-2010 average. However ports North of Cape Falcon may see reductions under Alternatives II and III; and under Alternative III the Cape Falcon to Humbug Mountain region shows a relatively large decrease compared to the recent past.

#### **8.3 *Non-target 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. The 2011 ocean salmon regulation Alternatives are not expected to differ substantially from earlier analyses with respect to groundfish impacts (NMFS 2003; Appendix B); 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. The 2011 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 (NMFS 2003; Appendix B); therefore, effects from the Alternatives to Pacific Halibut are not significant.

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, the impacts from the 2011 salmon regulation Alternatives to non-target species such as groundfish, Pacific halibut, highly migratory species, and coastal pelagic species are not expected to be significant, and there is no discernable difference between the effects of the Alternatives on these resources.

#### **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. Therefore, the impacts from the 2011 salmon regulation Alternatives to non-ESA listed marine mammals are not expected to be significant, and there is no discernable difference between the effects of the Alternatives on these resources.

### **8.5 *ESA Listed Species***

Steller 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. 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. There is no discernable difference between the effects of the Alternatives on these resources

The NMFS BO on Southern Resident killer whale DPS (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 salmon abundance in Puget Sound 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 2011 ocean salmon regulations are covered by the NMFS 2008 BO, and on that basis it is expected that the 2011 regulations would not have significant impacts to Southern Resident killer whales. There is no discernable difference between the effects of the alternatives on these resources

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 2011 Council area ocean salmon fisheries are in compliance with applicable BOs 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 discernable 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 discernable difference between the effects of the Alternatives on these resources.

### **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 discernable 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 2011 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 discernable differences between the effects of the Alternatives on the risk to human health or safety at sea.

## **9.0     CONCLUSION**

Based on this environmental assessment for the 2011 ocean salmon regulation Alternatives and the requisite outcome of the Council's preseason planning and decision process, no significant environmental impacts will result 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 23, 2010: **Salmon Technical Team/Scientific and Statistical Committee Salmon Subcommittee joint meeting**, Portland, Oregon.
- January 18-21, 2011: **Salmon Technical Team (Review preparation)**, Portland, Oregon.
- February 2-3: California Fish and Game Commission meeting, Sacramento, California.
- February 4-5: Washington Fish and Wildlife Commission meeting, Olympia, Washington.
- February 22-25: **Salmon Technical Team (Preseason Report I preparation)**, Portland, Oregon.
- March 1: California Department of Fish and Game Public Meeting, Santa Rosa, California.  
  
Washington Department of Fish and Wildlife public meeting, Olympia, Washington.
- March 2: Oregon Salmon Industry Group meeting, Newport, Oregon.
- March 3: California Fish and Game Commission meeting, Los Angeles, California.
- March 4-5: Washington Fish and Wildlife Commission meeting, Spokane, Washington.
- March 4-9: **Pacific Fishery Management Council meeting**, Vancouver, Washington.
- March 14: California Fish and Game Commission teleconference meeting.
- March 15: North of Falcon and *U.S. v. Oregon Forums*, Olympia, Washington.
- March 16-17: Oregon Fish and Wildlife Commission meeting, Newport, Oregon.
- March 28-29: **Public hearings on management options** in Westport, Washington; Coos Bay, Oregon; and Eureka, California.
- April 5: North of Falcon and *U.S. v. Oregon Forums*, Lynwood, Washington.
- April 6-7: California Fish and Game Commission meeting, Folsom, California.
- April 8-14: **Pacific Fishery Management Council meeting**, San Mateo, California.
- April 15: Washington Fish and Wildlife Commission teleconference meeting.
- April 21: California Fish and Game Commission teleconference meeting.
- April 22: 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 Game  
Oregon Department of Fish and Wildlife  
Washington Department of Fish and Wildlife

National Marine Fisheries Service, Sustainable Fisheries Division, Northwest Region  
National Marine Fisheries Service, 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. 2011a. Review of 2010 ocean salmon fisheries. Pacific Fishery Management Council, Portland, Oregon.
- PFMC. 2011b. Preseason Report I: Stock abundance analysis and environmental assessment part 1 for 2011 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, 2011 (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: 97,000 (non-mark-selective equivalent of 90,000) Chinook and 95,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 45,000 Chinook and 15,200 marked coho.</p> <p>3. Trade of Chinook or coho between non-Indian commercial and recreational fisheries: 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: 77,000 (non-mark-selective equivalent of 70,000) Chinook and 80,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 35,000 Chinook and 12,800 marked coho.</p> <p>3. Trade of Chinook or coho between non-Indian commercial and recreational fisheries: 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: 57,000 (non-mark-selective equivalent of 50,000) Chinook and <b>a quota equivalent to 65,000 coho marked</b> with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 25,000 Chinook, a coho TAC consisting of a 6,262 mark-selective quota and a 2,800 non-mark-selective quota (<b>equivalent to a 10,400 marked coho TAC</b>).</p> <p>3. Trade of Chinook or coho between non-Indian commercial and recreational fisheries: 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><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>May 1 through earlier of June 30 or 33,750 Chinook quota.</li> </ul> <p>Seven days per week (C.1). All salmon except coho (C.7). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3). An inseason conference call will occur when it is projected that 22,500 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><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>May 1 through earlier of June 30 or 23,450 Chinook quota.</li> </ul> <p>Friday through Tuesday, landing and possession limit of 120 Chinook per open period (C.1). All salmon except coho (C.7). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3). An inseason conference call will occur when it is projected that 15,600 Chinook have been landed to consider modifying the open period, landing, and possession limits to extend the fishery through the end of June.</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>May 1 through earlier of June 30 or 16,750 Chinook quota.</li> </ul> <p>Saturday through Tuesday, landing and possession limit of 100 Chinook per open period (C.1). All salmon except coho (C.7). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3).</p>
<p>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 nfallcon.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 (C.8).</p>		

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 2 of 10)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 15 or 11,250 preseason Chinook guideline (C.8) or a 15,200 marked coho quota (C.8.d).</li> </ul> <p>Friday through Tuesday; landing and possession limit of 100 Chinook and 90 coho per vessel per open period north of Leadbetter Point or 100 Chinook and 90 coho south of Leadbetter Point (C.1). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). All coho must be marked (C.8.d). See gear restrictions and definitions (C.2, C.3). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5).</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 15 or 11,550 preseason Chinook guideline (C.8) or a 12,800 marked coho quota (C.8.d).</li> </ul> <p>Friday through Tuesday; landing and possession limit of 70 Chinook and 80 coho per vessel per open period north of Leadbetter Point or 70 Chinook and 80 coho south of Leadbetter Point (C.1). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). All coho must be marked (C.8.d). See gear restrictions and definitions (C.2, C.3). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5).</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 15 or 8,250 preseason Chinook guideline (C.8) or <b>a coho quota equivalent to 10,400 marked coho</b> (C.8.d).</li> </ul> <p>Saturday through Tuesday; landing and possession limit of 60 Chinook and 65 marked coho per vessel per open period north of Leadbetter Point or 60 Chinook and 65 marked coho south of Leadbetter Point through August 15, 40 Chinook and 75 coho (<b>non-mark-selective</b>) per vessel per open period north of Leadbetter Point or 40 Chinook and 75 coho (<b>non-mark-selective</b>) south of Leadbetter Point thereafter (C.1). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). See gear restrictions and definitions (C.2, C.3). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5).</p>
<p>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 <a href="mailto:nfalcon.trollreport@state.or.us">nfalcon.trollreport@state.or.us</a>. 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 (C.8).</p>		



TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (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
<ol style="list-style-type: none"> <li>1. Sacramento River Basin recreational fishery catch assumption: 61,100 adult Sacramento River fall Chinook.</li> <li>2. Sacramento River fall Chinook spawning escapement of 375,300 adults.</li> <li>3. Klamath River recreational fishery allocation: 7,800 adult Klamath River fall Chinook.</li> <li>4. Klamath tribal allocation: 34,800 adult Klamath River fall Chinook.</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Sacramento River Basin recreational fishery catch assumption: 61,300 adult Sacramento River fall Chinook.</li> <li>2. Sacramento River fall Chinook spawning escapement of 376,800 adults.</li> <li>3. Klamath River recreational fishery allocation: 9,100 adult Klamath River fall Chinook.</li> <li>4. Klamath tribal allocation: 34,600 adult Klamath River fall Chinook.</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Sacramento River Basin recreational fishery catch assumption: 60,000 adult Sacramento River fall Chinook.</li> <li>2. Sacramento River fall Chinook spawning escapement of 368,700 adults.</li> <li>3. Klamath River recreational fishery allocation: 9,100 adult Klamath River fall Chinook.</li> <li>4. Klamath tribal allocation: 34,500 adult Klamath River fall Chinook.</li> <li>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.</li> </ol>
<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>• April 15 through August 31; October 1-31 (C.9). Seven days per week. All salmon except coho; landing and possession limit of 50 Chinook per vessel per calendar week in October (C.7). 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.</li> </ul> <p>In 2012, the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its March 2012 meeting.</p>	<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>• April 15 through July 9, July 18 through August 31, October 1-31. (C.9). Seven days per week. All salmon except coho; landing and possession limit of 50 Chinook per vessel per calendar week in October (C.7). 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.</li> </ul> <p>In 2012, same as Alternative I</p>	<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>• April 15 through July 9, July 18 through August 13, August 21-31 (C.9). Seven days per week. All salmon except coho (C.7). 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.</li> </ul> <p>In 2012, same as Alternative I</p>

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 4 of 10)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• May 1-31;</li> <li>• June 1 through earlier of June 30, or a 2,000 Chinook quota;</li> <li>• July 1 through earlier of July 31, or a 1,200 Chinook quota;</li> <li>• Aug. 1 through earlier of Aug. 31, or a 1,000 Chinook quota (C.9).</li> </ul> <p>Seven days per week. All salmon except coho (C.7). Chinook 28 inch total length minimum size limit (B). June 1 through August 31, 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 gear restrictions and definitions (C.2, C.3).</p> <p>In 2012, 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 2012 meeting.</p>	<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• May 1-31;</li> <li>• June 1 through earlier of June 30, or a 1,000 Chinook quota;</li> <li>• July 1 through earlier of July 31, or a 1,200 Chinook quota;</li> <li>• Aug. 1 through earlier of Aug. 31, or a 1,500 Chinook quota (C.9).</li> </ul> <p>Seven days per week. All salmon except coho (C.7). Chinook 28 inch total length minimum size limit (B). June 1 through August 31, landing and possession limit of 30 Chinook per vessel per day. 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 gear restrictions and definitions (C.2, C.3).</p> <p>In 2012, same as Alternative I.</p>	<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• May 1-31;</li> <li>• June 1 through earlier of June 30, or a 1,000 Chinook quota;</li> <li>• July 1 through earlier of July 31, or a 1,000 Chinook quota;</li> <li>• Aug. 1 through earlier of Aug. 31, or a 1,000 Chinook quota (C.9).</li> </ul> <p>Seven days per week. All salmon except coho (C.7). Chinook 28 inch total length minimum size limit (B). June 1 through August 31, landing and possession limit of 30 Chinook per vessel per day and 90 Chinook per vessel per calendar week. 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 gear restrictions and definitions (C.2, C.3).</p> <p>In 2012, same as Alternative I.</p>

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 5 of 10)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<b>OR/CA Border to Humboldt South Jetty (California KMZ)</b> <ul style="list-style-type: none"> <li>• June 25 through earlier of June 30, or a 1,500 Chinook quota;</li> <li>• July 2-6 and 9-13 or attainment of a 1,500 Chinook quota;</li> <li>• Aug. 1 through earlier of Aug. 10, or a 1,500 Chinook quota</li> <li>• Sept. 15 through earlier of Sept 30, or a 4,000 Chinook quota (C.9).</li> </ul> <p>Seven days per week except in July. All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). Landing and possession limit of 15 Chinook per vessel during June, July, and August quota fisheries; 30 Chinook per vessel per day during the September quota fishery. All vessels fishing in this area must land and deliver all fish within this area, within 24 hours of any closure in this fishery, and prior to fishing outside of this area (C.1, C.6). 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 Mt. and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival.</p>	<b>OR/CA Border to Humboldt South Jetty (California KMZ)</b> <ul style="list-style-type: none"> <li>• July 1 through earlier of July 10, or a 750 Chinook quota;</li> <li>• Aug. 1 through earlier of Aug. 10, or a 750 Chinook quota (C.9).</li> </ul> <p>Seven days per week. All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). Landing and possession limit of 15 Chinook per vessel per day. All vessels fishing in this area must land and deliver all fish within this area, within 24 hours of any closure in this fishery, and prior to fishing outside of this area (C.1, C.6). See 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 Mt. and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival.</p>	<b>OR/CA Border to Humboldt South Jetty</b> Closed.
<b>Humboldt South Jetty to Horse Mt.</b> Closed.	<b>Humboldt South Jetty to Horse Mt.</b> Closed.	<b>Humboldt South Jetty to Horse Mt.</b> Closed.
State regulations require all salmon be made available to a CDFG 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 CDFG, shall immediately relinquish the head of the salmon to the state. (California Fish and Game Code §8226)		

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 6 of 10)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<b>Horse Mt. to Point Arena (Fort Bragg)</b> <ul style="list-style-type: none"> <li>• June 25 through earlier of June 30, or a 1,500 Chinook quota;</li> <li>• July 2-6 and 9-13 or attainment of a 1,500 Chinook quota;</li> <li>• Aug. 1-29;</li> <li>• Sept. 1-30 (C.9).</li> </ul> <p>Seven days per week except in July. All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). Landing and possession limit of 15 Chinook per vessel per day during quota fisheries. Any remaining portion of the June Chinook quota may be transferred inseason on an impact neutral basis to the July quota (C.8). All vessels fishing in this area during quota fisheries must land and deliver all fish within this area, within 24 hours of any closure in this fishery, and prior to fishing outside of this area. In August and September, all fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p>	<b>Horse Mt. to Point Arena (Fort Bragg)</b> <ul style="list-style-type: none"> <li>• July 1 through earlier of July 10, or a 1,200 Chinook quota;</li> <li>• Aug. 1-29;</li> <li>• Sept. 1-30 (C.9).</li> </ul> <p>Seven days per week. All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). Landing and possession limit of 15 Chinook per vessel per day in the July quota fishery. All vessels fishing in this area must land and deliver all fish within this area, within 24 hours of any closure in this fishery, and prior to fishing outside of this area. In August and September, all fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p>	<b>Horse Mt. to Point Arena (Fort Bragg)</b> <ul style="list-style-type: none"> <li>• Aug. 1-29;</li> <li>• Sept. 1-15 (C.9)</li> </ul> <p>Seven days per week. All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B ). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p>
State regulations require all salmon be made available to a CDFG 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 CDFG, shall immediately relinquish the head of the salmon to the state. (California Fish and Game Code §8226)		

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 7 of 10)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>Pt. Arena to Pigeon Pt. (San Francisco)</b></p> <ul style="list-style-type: none"><li>• May 1-31</li><li>• June 25 through July 6</li><li>• July 9-27</li><li>• July 30 through Aug. 29</li><li>• September 1-30 (C.9).</li></ul> <p>Seven days per week through July 6; Saturday through Wednesday July 9-27; Seven days per week thereafter. All salmon except coho (C.7). Chinook minimum size limit of 27 inches total length (B). All fish must be landed in California and offloaded within 24 hours of the August 29 closure. All fish caught in the area when the Fort Bragg quota fisheries are open must be landed south of Point Arena (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p> <p><b>Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)</b></p> <ul style="list-style-type: none"><li>• October 3-14.</li></ul> <p>Monday through Friday. All salmon except coho (C.1). Chinook minimum size limit 27 inches total length (B). All vessels fishing in this area must land and deliver all fish between Point Arena and Pigeon Point (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pt. Arena to Pigeon Pt. (San Francisco)</b></p> <ul style="list-style-type: none"><li>• May 1-31</li><li>• July 1 through Aug. 29</li><li>• September 1-30 (C.9).</li></ul> <p>Seven days per week. All salmon except coho (C.7). Chinook minimum size limit of 27 inches total length (B). All fish must be landed in California and offloaded within 24 hours of the August 29 closure. All fish caught in the area when the Fort Bragg quota fisheries are open must be landed south of Point Arena (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pt. Arena to Pigeon Pt. (San Francisco)</b></p> <ul style="list-style-type: none"><li>• May 1 through June 7</li><li>• July 1 through Aug. 29</li><li>• September 1-15 (C.9).</li></ul> <p>Seven days per week. All salmon except coho (C.7). Chinook minimum size limit of 27 inches total length (B). All fish must be landed in California and offloaded within 24 hours of the August 29 closure (C.1, C.6). See gear restrictions and definitions (C.2, C.3).</p>
<p><b>Pigeon Pt. to U.S./Mexico Border (Monterey)</b></p> <p>Same as Pt. Arena to Pigeon Pt.</p>	<p><b>Pigeon Pt. to U.S./Mexico Border (Monterey)</b></p> <p>Same as Pt. Arena to Pigeon Pt.</p>	<p><b>Pigeon Pt. to U.S./Mexico Border (Monterey)</b></p> <p>Same as Pt. Arena to Pigeon Pt.</p>
<p>State regulations require all salmon be made available to a CDFG 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 CDFG, 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 U.S./Mexico Border	27.0	20.5	-	-	None

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 8 of 10)

**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. Salmon may be landed in an area that has been closed 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.

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

C.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. and connecting back 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. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09' N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- d. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 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, 2011. (Page 9 of 10)
<b>C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)</b>

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 CDFG 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 1 of each year. Incidental harvest is authorized only during May and June troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825). ODFW and Washington Department of Fish and Wildlife (WDFW) will monitor landings. If the landings are projected to exceed the 25,035 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, license holders may land no more than one Pacific halibut per each 2 Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

*Alternative II*: Beginning May 1, license holders may land no more than one Pacific halibut per each 3 Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

*Alternative III*: Beginning May 1, license holders may land no more than one Pacific halibut per each 4 Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 25 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

A "C-shaped" yelloweye rockfish conservation area is an area to be 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.

TABLE 1. Commercial troll management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 10 of 10)
<b>C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)</b>

- C.8. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
- a. Chinook remaining from the May through June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.
  - b. 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 on a fishery impact equivalent basis.
  - c. Chinook remaining from the June non-Indian commercial troll quota in the Fort Bragg area may be transferred to the July Fort Bragg quota on a fishery impact equivalent basis.
  - d. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon on a fishery impact equivalent basis if there is agreement among the areas' representatives on the Salmon Advisory Subpanel (SAS).
  - e. At the March 2012 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2011).
  - f. If retention of unmarked coho is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected mortality of critical 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 Department of Fish and Game (CDFG) Code, Section 8232.5, the definition of the Klamath Management Zone (KMZ) for the ocean salmon season shall be that area from Humbug Mt., Oregon, to Horse Mt., California.



TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (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: 97,000 (non-mark-selective equivalent of 90,000) Chinook and 95,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 52,000 (non-mark selective equivalent of 45,000) Chinook and 79,800 marked coho; all retained coho must be marked.</p> <p>3. Trade of Chinook or coho between non-Indian commercial and recreational fisheries: May be considered at the April Council meeting.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 6,000 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: 77,000 (non-mark-selective equivalent of 70,000) Chinook and 80,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 42,000 (non-mark selective equivalent of 35,000) Chinook and 67,200 marked coho; all retained coho must be marked.</p> <p>3. Trade of Chinook or coho between non-Indian commercial and recreational fisheries: May be considered at the April Council meeting.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 6,000 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: 57,000 (non-mark-selective equivalent of 50,000) Chinook and <b>a quota equivalent to 65,000 coho marked</b> with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 32,000 (non-mark selective equivalent of 25,000) Chinook and 54,600 marked coho; all retained coho must be marked.</p> <p>3. Trade of Chinook or coho between non-Indian commercial and recreational fisheries: May be considered at the April Council meeting.</p> <p>4. Area 4B add-on fishery of with a quota of 4,000 marked coho following the closure of the Neah Bay fishery (C.6).</p> <p>5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 7,000 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><b>U.S./Canada Border to Leadbetter Point</b></p> <ul style="list-style-type: none"> <li>June 4 through earlier of June 25 or a <b>coastwide marked Chinook quota of 12,000</b> (equivalent to a 5,000 non-selective Chinook quota) (C.5).</li> </ul> <p>Seven days per week. Two fish per day, all salmon except coho, <b>all Chinook must be marked with a healed adipose fin clip (C.1)</b>. 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><b>U.S./Canada Border to Leadbetter Point</b></p> <ul style="list-style-type: none"> <li>June 11 through earlier of June 30 or a coastwide <b>marked Chinook quota of 12,000</b>(C.5).</li> </ul> <p>Seven days per week. Two fish per day, all salmon except coho, <b>all Chinook must be marked with a healed adipose fin clip (C.1)</b>. 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><b>Leadbetter Point to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>June 11 through earlier of June 25 or a <b>coastwide marked Chinook quota of 12,000</b> (equivalent to a 5,000 non-selective Chinook quota) (C.5).</li> </ul> <p>Seven days per week. Two fish per day, all salmon except coho, <b>all Chinook must be marked with a healed adipose fin clip (C.1)</b>. 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><b>Leadbetter Point to Cape Falcon</b></p> <p>Same as Alternative 1</p>	

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 2 of 9)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>June 26 through earlier of September 18 or 8,300 marked coho subarea quota with a subarea guideline of 4,400 Chinook (C.5).</li> </ul> <p>Seven days per week. All salmon except no chum beginning August 1; two fish per day plus two additional pink salmon; 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><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 18 or 6,990 marked coho subarea quota with a subarea guideline of 3,300 Chinook (C.5).</li> </ul> <p>Seven days per week. All salmon except no chum beginning August 1; two fish per day, no more than one of which can be a Chinook plus one additional pink salmon; 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><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 18 or 4,940 marked coho subarea quota with subarea guidelines of 1,340 marked Chinook prior to July 23 and 2,200 non-mark selective Chinook thereafter. (C.5).</li> </ul> <p>Tuesday through Saturday. All salmon, two fish per day; beginning July 26 no more than one Chinook can be retained. All coho must be marked. All Chinook must be marked prior to July 24 (C.1). See gear restrictions (C.2). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>
<p><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>June 26 through earlier of September 18 or 2,020 marked coho subarea quota with a subarea guideline of 1,850 Chinook (C.5).</li> <li>September 24 through earlier of October 9 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.</li> </ul> <p>Seven days per week. All salmon; two fish per day plus two additional pink salmon; 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><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 18 or 1,700 marked coho subarea quota with a subarea guideline of 1,450 Chinook (C.5).</li> <li>September 24 through earlier of October 9 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.</li> </ul> <p>Seven days per week. All salmon; two fish per day, no more than one of which can be a Chinook plus one additional pink salmon; 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><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 18 or 1,420 marked coho subarea quota with subarea guidelines of 560 marked Chinook prior to July 23 and 900 non-mark selective Chinook thereafter. (C.5).</li> <li>September 24 through earlier of October 9 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.</li> </ul> <p>Tuesday through Saturday. All salmon, two fish per day; beginning July 26 no more than one Chinook can be retained. All coho must be marked. All Chinook must be marked prior to July 24 (C.1). 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>

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 3 of 9)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>June 26 through earlier of September 18 or 29,530 marked coho subarea quota with a subarea guideline of 23,400 Chinook (C.5).</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day plus two additional pink salmon; all retained coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Grays Harbor Zone closed beginning August 1 (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>July 3 through earlier of September 18 or 24,860 marked coho subarea quota with a subarea guideline of 17,500 Chinook (C.5).</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which can be a Chinook plus one additional pink salmon; all retained coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Grays Harbor Zone closed beginning August 1 (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>June 26 through earlier of September 18 or 20,890 marked coho subarea quota with subarea guidelines of 7,000 marked Chinook prior to July 22 and 11,675 non-mark selective Chinook thereafter (C.5).</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day; beginning July 24 no more than one Chinook can be retained. All coho must be marked. All Chinook must be marked prior to July 22 (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><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>June 26 through earlier of September 30 or 39,900 marked coho subarea quota with a subarea guideline of 10,300 Chinook (C.5).</li> </ul> <p>Seven days per week. All salmon, two fish per day. All retained coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.c). 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><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>June 26 through earlier of September 30 or 33,600 marked coho subarea quota with a subarea guideline of 7,700 Chinook (C.5).</li> </ul> <p>Seven days per week. All salmon, two fish per day, no more than 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.c). 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><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>July 3 through earlier of September 30 or 27,300 marked coho subarea quota with subarea guidelines of 3,100 marked Chinook prior to July 22 and 5,175 non-mark selective Chinook thereafter (C.5).</li> </ul> <p>Seven days per week in July and September; Sunday through Thursday in August. All salmon, two fish per day; beginning July 23 no more than one Chinook can be retained. All coho must be marked. All Chinook must be marked prior to July 22 (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.c). 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, 2011. (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
1. Sacramento River Basin recreational fishery catch assumption: 61,100 adult Sacramento River fall Chinook. 2. Sacramento River fall Chinook spawning escapement of 375,300 adults. 3. Klamath River recreational fishery allocation: 7,800 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 34,800 adult Klamath River fall Chinook. 5. Overall recreational TAC: 21,500 marked coho. 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.	1. Sacramento River Basin recreational fishery catch assumption: 61,300 adult Sacramento River fall Chinook. 2. Sacramento River fall Chinook spawning escapement of 376,800 adults. 3. Klamath River recreational fishery allocation: 9,100 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 34,600 adult Klamath River fall Chinook. 5. Overall recreational coho TAC: 15,000 marked coho and 3,000 non-mark-selective quotas. 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.	Sacramento River Basin recreational fishery catch assumption: 60,000 adult Sacramento River fall Chinook. 2. Sacramento River fall Chinook spawning escapement of 368,700 adults. 3. Klamath River recreational fishery allocation: 9,100 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 34,500 adult Klamath River fall Chinook. 5. Overall recreational coho TAC: 10,500 non-mark-selective coho quota. 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.

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 5 of 9)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>Except as provided below during the all-salmon mark-selective coho fishery, the season will be March 15 through October 31 (C.6).</li> </ul> <p>All salmon except coho; two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> <li>All-salmon mark-selective coho fishery: Cape Falcon to OR/CA Border: June 25 through earlier of September 5 or a landed catch of 21,500 marked coho. The all salmon except coho season reopens the earlier of September 6 or attainment of the coho quota.</li> </ul> <p>Seven days per week. All salmon, two fish per day. All retained coho must be marked (C.1).</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). Open days may be adjusted inseason to utilize the available quota (C.5).</p> <p>In 2012, the season between Cape Falcon and Humbug Mt. will open March 15 for all salmon except coho, two fish per day (B, C.1, C.2, C.3).</p>	<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>Except as provided below during the all-salmon mark-selective <b>and non-mark-selective coho fisheries</b>, the season will be March 15 through September 30 (C.6).</li> </ul> <p>All salmon except coho; two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> <li>Cape Falcon to Humbug Mt. all-salmon mark-selective coho fishery: July 2 through earlier of August 13 or a landed catch of 15,000 marked coho.</li> </ul> <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 listed below. The all salmon except coho season reopens the earlier of August 14 or attainment of the coho quota, through August 31.</p> <ul style="list-style-type: none"> <li>Cape Falcon to Humbug Mt. <b>non-mark-selective coho fishery</b>: September 1 through the earlier of September 10 or a landed catch of 3,000 <b>non-mark-selective coho quota (C.5)</b>.</li> </ul> <p>Thursday through Saturday. All salmon, two fish per day. The all salmon except coho season reopens the earlier of September 11 or attainment of the coho quota (C.5).</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). Open days may be adjusted inseason to utilize the available quota (C.5).</p> <p>In 2012, same as Alternative I.</p>	<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>Except as provided below during the all-salmon <b>non-mark-selective coho fishery</b>, the season will be March 15 through September 10 (C.6).</li> </ul> <p>Seven days per week. All salmon except coho; two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> <li>Cape Falcon to Humbug Mt. <b>non-mark-selective coho fishery</b>: August 18 through the earlier of September 10 or a landed catch of 10,500 <b>non-mark-selective coho quota</b>.</li> </ul> <p>Thursday through Saturday. All salmon, two fish per day. The all salmon except coho season will reopen if the coho quota is attained prior to September 10.</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). Open days may be adjusted inseason to utilize the available quota (C.5).</p> <p>In 2012, same as Alternative I.</p>

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 6 of 9)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<b>Humbug Mt. to OR/CA Border. (Oregon KMZ)</b> <ul style="list-style-type: none"> <li>Except as provided above during the all-salmon mark-selective coho fishery, the season will be May 7 through September 5 (C.6).</li> </ul> <p>Seven days per week. All salmon except coho, two fish per day except as noted above in the all-salmon mark-selective coho fishery (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>	<b>Humbug Mt. to OR/CA Border. (Oregon KMZ)</b> <ul style="list-style-type: none"> <li>May 21 through September 5 (C.6).</li> </ul> <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).</p>	<b>Humbug Mt. to OR/CA Border. (Oregon KMZ)</b> <ul style="list-style-type: none"> <li>May 28 through September 5 (C.6).</li> </ul> <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).</p>
<b>OR/CA Border to Horse Mt. (California KMZ)</b> <ul style="list-style-type: none"> <li>May 7 through September 5 (C.6).</li> </ul> <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>	<b>OR/CA Border to Horse Mt. (California KMZ)</b> <ul style="list-style-type: none"> <li>May 21 through September 5 (C.6).</li> </ul> <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>	<b>OR/CA Border to Horse Mt. (California KMZ)</b> <ul style="list-style-type: none"> <li>May 28 through September 5 (C.6).</li> </ul> <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>
<b>Horse Mt. to Point Arena (Fort Bragg)</b> <ul style="list-style-type: none"> <li>April 2 through November 13.</li> </ul> <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).</p> <p>In 2012, season opens February 18 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 2011 (C.2, C.3).</p>	<b>Horse Mt. to Point Arena (Fort Bragg)</b> <ul style="list-style-type: none"> <li>April 2 through October 16.</li> </ul> <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).</p> <p>In 2012, season opens March 17 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 2011 (C.2, C.3).</p>	<b>Horse Mt. to Point Arena (Fort Bragg)</b> <ul style="list-style-type: none"> <li>April 2 through September 18.</li> </ul> <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).</p> <p>In 2012, season opens April 7 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 2011 (C.2, C.3).</p>
<b>Point Arena to Pigeon Point (San Francisco)</b> <ul style="list-style-type: none"> <li>April 2 through November 13.</li> </ul> <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).</p> <p>In 2012, season opens April 7 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 2011 (C.2, C.3).</p>	<b>Point Arena to Pigeon Point (San Francisco)</b> <ul style="list-style-type: none"> <li>April 2 through October 16.</li> </ul> <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).</p> <p>In 2012, same as Alternative I.</p>	<b>Point Arena to Pigeon Point (San Francisco)</b> <ul style="list-style-type: none"> <li>April 2 through September 18.</li> </ul> <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).</p> <p>In 2012, same as Alternative I.</p>
<p>State regulations require all salmon be made available to a CDFG 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 CDFG, 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, 2011. (Page 7 of 9)		
A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<b>Pigeon Point to U.S./Mexico Border (Monterey South)</b> <ul style="list-style-type: none"> <li>April 2 through October 2.</li> </ul> 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).  In 2012, season opens April 7 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 2011 (C.2, C.3).	<b>Pigeon Point to U.S./Mexico Border (Monterey)</b> <ul style="list-style-type: none"> <li>April 2 through September 18.</li> </ul> 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).  In 2012, same as Alternative I.	<b>Pigeon Point to U.S./Mexico Border (Monterey)</b> <ul style="list-style-type: none"> <li>April 2 through September 5.</li> </ul> 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).  In 2012, same as Alternative I.
State regulations require all salmon be made available to a CDFG 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 CDFG, shall immediately relinquish the head of the salmon to the state. (California Fish and Game Code §8226)		

<b>B. MINIMUM SIZE (Inches) (See C.1)</b>
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Area (when open)	Chinook	Coho	Pink
North of Cape Falcon	24.0	16.0	None
Cape Falcon to OR/CA Border	24.0	16.0	None
OR/CA Border to U.S./Mexico Border.	24.0	-	24.0

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

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

TABLE 2. Recreational management Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 8 of 9)
<b>C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS</b>

- 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 Mt., 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, 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° 36'00" N. lat., 124°10'51" W. long.).
  - c. *Columbia Control Zone:* An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°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 Alternatives adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 9 of 9)
<b>C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS</b>

- 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:
- a. Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
  - b. Coho may be transferred inseason among recreational subareas north of Cape Falcon on a fishery impact equivalent basis 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.
  - c. Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon on a fishery impact equivalent basis if there is agreement among the representatives of the Salmon Advisory Subpanel (SAS).
  - d. If retention of unmarked coho is permitted in the area from the U.S./Canada border to Cape Falcon, Oregon, by inseason action, the allowable coho quota will be adjusted to ensure preseason projected mortality of critical stocks is not exceeded.
  - e. Marked coho remaining from the June/July through August Cape Falcon to OR/CA border recreational coho quota may be transferred inseason to the September Cape Falcon to Humbug Mt. non-mark-selective recreational fishery on a fishery impact equivalent basis.
- 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, 2011. (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: 45,000 Chinook and 42,000 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: 35,000 Chinook and 30,000 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"> <li>May 1 through the earlier of June 30 or 27,500 Chinook quota.</li> </ul> <p>All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. 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"> <li>May 1 through the earlier of June 30 or 22,500 Chinook quota.</li> </ul> <p>All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season on an impact neutral basis. 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"> <li>May 1 through the earlier of June 30 or 17,500 Chinook quota.</li> </ul> <p>All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. 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"> <li>July 1 through the earlier of September 15, or 27,500 preseason Chinook quota, or 50,000 coho quota.</li> </ul> <p>All Salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> <li>July 1 through the earlier of September 15, or 22,500 preseason Chinook quota, or 42,000 coho quota.</li> </ul> <p>All salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> <li>July 1 through the earlier of September 15, or 17,500 preseason Chinook quota, or 30,000 coho quota.</li> </ul> <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, 2011. (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

- Single point, single shank, barbless hooks are required in all fisheries.
- No more than eight fixed lines per boat.
- 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

- The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 through September 15.
- 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 2004-2010. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2011 season (estimated harvest during the October ceremonial and subsistence fishery: 100 Chinook; 200 coho).

C.4. Area Closures

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

TABLE 4. Chinook and coho harvest quotas and guidelines (\*) for 2011 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
<b>NORTH OF CAPE FALCON</b>						
TREATY INDIAN OCEAN TROLL						
U.S./Canada Border to Cape Falcon (All Except Coho)	27,500	22,500	17,500	-	-	-
U.S./Canada Border to Cape Falcon (All Species)	27,500	22,500	17,500	50,000	42,000	30,000
Subtotal Treaty Indian Ocean Troll	55,000	45,000	35,000	50,000	42,000	30,000
NON-INDIAN COMMERCIAL TROLL						
U.S./Canada Border to Cape Falcon (All Except Coho)	33,750	23,450	16,750	-	-	-
U.S./Canada Border to Cape Falcon (All Species)	11,250	11,550	8,250	15,200 <sup>a/</sup>	12,800 <sup>a/</sup>	9,100 <sup>b/</sup>
Subtotal Non-Indian Commercial Troll	45,000	35,000	25,000	15,200	12,800	9,100
RECREATIONAL <sup>a/</sup>						
U.S./Canada Border to Cape Falcon (All Except Coho)	12,000 <sup>c/</sup>	12,000 <sup>c/</sup>	- *	-	-	-
U.S./Canada Border to Cape Alava	4,400 *	3,300 *	3,540	8,300	6,990	4,940
Cape Alava to Queets River	1,900 *	1,500 *	1,510	2,070	1,750	1,470
Queets River to Leadbetter Pt.	23,400 *	17,500 *	18,675	29,530	24,860	20,890
Leadbetter Pt. to Cape Falcon <sup>e/</sup>	10,300 *	7,700 *	8,275	39,900	33,600	27,300
Subtotal Recreational	52,000	42,000	32,000 <sup>d/</sup>	79,800	67,200	54,600
TOTAL NORTH OF CAPE FALCON	152,000	122,000	92,000	145,000	122,000	93,700
<b>SOUTH OF CAPE FALCON</b>						
COMMERCIAL TROLL						
Humbug Mt. to OR/CA Border	4,200	3,700	3,000	-	-	-
OR/CA Border to Horse Mt.	8,500	1,500	-	-	-	-
Horse Mt. to Pt. Arena	3,000	1,200	-	-	-	-
Subtotal Troll	15,700	6,400	3,000	-	-	-
RECREATIONAL						
Cape Falcon to Oregon/California Border	-	-	-	21,500 <sup>a/</sup>	18,000 <sup>b/</sup>	10,500
TOTAL SOUTH OF CAPE FALCON	15,700	6,400	3,000	21,500	18,000	10,500

a/ The total coho quota consists of both mark-selective and non-mark-selective quotas.

b/ The coho quota is a landed catch of coho marked with a healed adipose fin clip.

c/ The Chinook guideline is a landed catch of Chinook marked with a healed adipose fin clip, and is equivalent to a non-mark-selective quota of 5,000 Chinook.

d/ The Chinook guideline includes a separate 12,000 mark-selective Chinook guideline (equivalent to a 5,000 non-mark-selective guideline) and a 20,000 non-mark-selective Chinook guideline.

e/ Does not include Buoy 10 fishery. Expected catch in August and September: Option I - 6,000 marked coho; Option II - 6,000 marked coho; Option III - 7,000 marked

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2011 ocean fishery Alternatives adopted by the Council.<sup>a/</sup> (Page 1 of 2)

Key Stock/Criteria	Projected Ocean Escapement <sup>b/</sup> or Other Criteria (Council Area Impacts in Pareds)			Spawner Objective or Other Comparative Standard as Noted
	Alternative I	Alternative II	Alternative III	
CHINOOK				
Columbia Upriver Brights	417.5	418.5	419.5	74.0 Minimum ocean escapement to attain 60.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
Mid-Columbia Brights	104.9	105.2	105.4	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 Lower River Hatchery Tules	125.7	129.3	134.7	23.8 Minimum ocean escapement to attain 12.6 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.
Columbia Lower River Natural Tules (threatened)	39.3%	36.8%	34.4%	≤ 37.0% Total adult equivalent fishery exploitation rate; 2011 ESA guidance (NMFS ESA consultation standard).
Columbia Lower River Wild <sup>c/</sup> (threatened)	13.1	13.1	13.2	6.9 Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	112.1	116.7	122.5	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	41.6%	37.5%	33.6%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Klamath River Fall	35.0	35.0	35.0	35.0 Minimum number of adult spawners to natural spawning areas; FMP.
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0% Equals 34.8, 34.6, and 34.5 (thousand) adult fish for Yurok and Hoopa tribal fisheries.
Spawner Reduction Rate	53.8%	53.8%	53.8%	≤ 66.7% FMP; equals 40.8, 40.8, and 40.8 (thousand) fewer adult spawners due to fishing.
Adult river mouth return	101.4	102.5	102.4	NA
Age 4 ocean harvest rate	16.0%	14.9%	15.3%	≤ 16.0% NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	13.1%	13.2%	12.7%	No Council guidance for 2011.
River recreational fishery share	22.4%	26.4%	26.4%	≥ 15% 2011 Council Guidance. Equals 7.8, 9.1, and 9.1 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	Met	Met	Met	Recreational seasons: Point Arena to Pigeon Point between the first Saturday in April and the second Sunday in November; Pigeon Point 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. In addition, for 2011, fisheries south of Pt. Arena must have either a minimum size limit ≥ 24 inches total length, or be closed for two consecutive months between May 1 and August 31. Commercial seasons: Point Arena to the U.S./Mexico border between May 1 and September 30, except Point Reyes to Point San Pedro between October 1 and 15. Minimum size limit ≥ 26 inches total length. (NMFS ESA Guidance for 2011).
Sacramento River Fall	375.3	376.8	368.7	≥150-180 2011 Council and NMFS guidance for natural and hatchery adult spawners.
Ocean commercial impacts	190.9	191.1	202.8	All options include fall (Sept-Dec) 2010 impacts; equals 0 SRFC.
Ocean recreational impacts	102.7	100.7	98.4	All options include fall 2010 impacts (386 SRFC).
River recreational impacts	61.1	61.3	60.0	No guidance in 2011.
Hatchery spawner goal	Met	Met	Met	22.0 Aggregate number of adults to achieve egg take goals at Coleman, Feather River, and Nimbus hatcheries.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2011 ocean fishery Alternatives adopted by the Council.<sup>a/</sup> (Page 2 of 2)

TABLE 3. Projected key stock escapements (thousands of fish) or management criteria for 2011 ocean fishery Alternatives adopted by the Council. (Page 2 of 2)

Key Stock/Criteria	Projected Ocean Escapement <sup>b/</sup> or Other Criteria (Council Area Impacts in Pareds)			Spawner Objective or Other Comparative Standard as Noted	
	Alternative I	Alternative II	Alternative III		
COHO					
Interior Fraser (Thompson River)	12.2% (5.0%)	11.0% (4.1%)	10.0% (3.1%)	≤ 10.0%	2011 Southern U.S. exploitation rate ceiling; 2002 PSC coho agreement.
Skagit	37.8% (4.5%)	37.2% (3.7%)	36.5% (2.9%)	≤ 60.0%	2011 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Stillaguamish	27.6% (3.2%)	27.1% (2.6%)	26.6% (2.0%)	≤ 50.0%	2011 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Snohomish	26.3% (3.2%)	25.8% (2.6%)	25.3% (2.0%)	≤ 60.0%	2011 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Hood Canal	41.6% (4.7%)	41.0% (3.9%)	40.4% (3.0%)	≤ 65.0%	2011 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Strait of Juan de Fuca	12.7% (3.7%)	12.2% (3.1%)	11.4% (2.4%)	≤ 40.0%	2011 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Quillayute Fall	26.2	26.5	26.7	6.3-15.8	FMP objective MSY adult spawner range <sup>d/</sup>
Hoh	9.8	10.0	10.2	2.0-5.0	FMP objective MSY adult spawner range <sup>d/</sup>
Queets Wild	10.2	10.5	10.7	5.8-14.5	FMP objective MSY adult spawner range <sup>d/</sup>
Grays Harbor	81.0	81.9	83.0	35.4	FMP objective MSY adult spawner range <sup>d/</sup>
Lower Columbia River Natural (threatened)	12.8%	10.9%	8.8%	≤ 15.0%	Total marine and mainstem Columbia River fishery exploitation rate (NMFS ESA consultation standard). Value depicted is ocean fishery exploitation rate only.
Upper Columbia <sup>e/</sup>	>50%	>50%	>50%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	154.1	162.9	175.5	36.7	Minimum ocean escapement to attain hatchery egg-take goal of 14.2 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	93.0	100.9	110.4	9.6	Minimum ocean escapement to attain hatchery egg-take goal of 6.2 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	12.9%	12.9%	13.0%	≤ 15.0%	Marine and freshwater fishery exploitation rate.
Southern Oregon/Northern California Coast (threatened)	8.5%	7.9%	7.9%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Projections in the table assume a WCVI mortality for coho of the 2010 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 2010, 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 2011 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.

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.

[illegible]

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2011 ocean salmon fishery management Alternatives adopted by the Council. (Page 2 of 2)

Area and Fishery	2011 Catch Projection			2011 Bycatch Mortality <sup>a/</sup> Projection			2011 Bycatch Projection <sup>b/</sup>			Observed in 2010	
	I	II	III	I	II	III	I	II	III	Catch	Bycatch Mortality
<b>COHO (thousands of fish)</b>											
NORTH OF CAPE FALCON											
Treaty Indian Ocean Troll <sup>f/</sup>	50.0	42.0	30.0	3.6	3.0	2.2	6.5	5.4	4.1	11.5	0.9
Non-Indian Commercial Troll <sup>f/</sup>	15.2	12.8	11.2	12.3	9.4	8.3	41.8	31.5	29.7	8.2	7.7
Recreational	79.8	67.2	54.6	19.9	16.7	12.0	90.0	76.0	51.8	42.4	10.6 <sup>g/</sup>
SOUTH OF CAPE FALCON											
Commercial Troll	-	-	-	10.2	8.7	8.2	39.2	33.4	31.7	0.0	8.2 <sup>d/</sup>
Recreational <sup>f/</sup>	21.5	18.0	10.5	14.8	14.0	9.8	69.9	69.9	51.5	12.2	6.3
TOTAL OCEAN FISHERIES											
Commercial Troll	65.2	54.8	41.2	26.1	21.1	18.7	87.5	70.3	65.5	19.7	16.7
Recreational	101.3	85.2	65.1	34.7	30.7	21.8	159.9	145.9	103.3	54.6	16.9
<b>INSIDE FISHERIES:</b>											
Area 4B <sup>f/</sup>	-	-	4.0	-	-	1.6	-	-	7.6	-	-
Buoy 10	10.0	15.0	20.0	1.2	1.1	1.3	4.5	4.3	4.7	8.0	1.4

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: 16% (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/ Oregon estimates based on reported salmon released and estimated mortalities in non-retention fisheries.

e/ Based on reported released Chinook.

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

g/ Calculated from observed mark rates where available; where unavailable, anticipated mark rates were used.



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 2011 ocean fisheries management Alternatives adopted by the Council.

Fishery	Exploitation Rate (Percent)											
	LCN Coho			OCN Coho			RK Coho			LCR Tule		
	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%	2.7%	2.8%	2.9%
BRITISH COLUMBIA	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	11.5%	11.7%	11.9%
PUGET SOUND/STRAIT	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.5%	0.5%	0.5%
NORTH OF CAPE FALCON												
Treaty Indian Ocean Troll	2.5%	2.1%	1.5%	0.6%	0.5%	0.4%	0.0%	0.0%	0.0%	5.4%	4.5%	3.6%
Recreational	5.4%	4.5%	3.5%	1.0%	0.8%	0.6%	0.0%	0.0%	0.0%	3.3%	2.6%	1.9%
Non-Indian Troll	1.9%	1.5%	1.1%	0.5%	0.4%	0.3%	0.0%	0.0%	0.0%	5.9%	4.6%	3.3%
SOUTH OF CAPE FALCON												
Recreational:										0.1%	0.1%	0.0%
Cape Falcon to Humbug Mt.	1.4%	1.2%	1.0%	2.0%	2.5%	3.0%	0.2%	0.2%	0.2%			
Humbug Mt. OR/CA border (KMZ)	0.0%	0.1%	0.1%	0.2%	0.4%	0.5%	0.4%	0.8%	0.9%			
OR/CA border to Horse Mt. (KMZ)	0.1%	0.1%	0.1%	0.8%	0.7%	0.7%	3.5%	3.4%	3.4%			
Fort Bragg	0.0%	0.0%	0.0%	0.5%	0.5%	0.5%	1.3%	1.3%	1.2%			
South of Pt. Arena	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%	1.0%	1.0%	1.0%			
Troll:										2.0%	1.9%	1.9%
Cape Falcon to Humbug Mt.	0.9%	0.8%	0.8%	1.1%	1.0%	0.9%	0.2%	0.1%	0.1%			
Humbug Mt. OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%			
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.9%	0.2%	0.0%			
Fort Bragg	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.3%	0.1%	0.2%			
South of Pt. Arena	0.0%	0.0%	0.0%	0.2%	0.2%	0.3%	0.2%	0.2%	0.3%			
BUOY 10	0.5%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.9%	8.2%	8.5%
ESTUARY/FRESHWATER	N/A	N/A	N/A	4.8%	4.8%	4.8%	0.2%	0.2%	0.2%			
TOTAL <sup>a/</sup>	12.8%	10.9%	8.8%	12.9%	12.9%	13.0%	8.5%	7.9%	7.9%	39.3%	36.8%	34.4%

a/ Totals do not include estuary/freshwater or Buoy 10 for LCN coho and RK coho.

TABLE 8. Projected coho mark rates for 2011 fisheries under base period fishing patterns (percent marked).

Area	Fishery	June	July	August	Sept
Canada					
Johnstone Strait	Recreational	-	19%	17%	-
West Coast Vancouver Island	Recreational	31%	28%	27%	31%
North Georgia Strait	Recreational	31%	30%	30%	26%
South Georgia Strait	Recreational	32%	33%	24%	27%
Juan de Fuca Strait	Recreational	33%	35%	37%	36%
Johnstone Strait	Troll	40%	29%	22%	28%
NW Vancouver Island	Troll	35%	32%	33%	31%
SW Vancouver Island	Troll	40%	38%	39%	40%
Georgia Strait	Troll	40%	42%	43%	38%
Puget Sound					
Strait of Juan de Fuca (Area 5)	Recreational	42%	39%	38%	38%
Strait of Juan de Fuca (Area 6)	Recreational	40%	36%	37%	34%
San Juan Island (Area 7)	Recreational	30%	34%	35%	28%
North Puget Sound (Areas 6 & 7A)	Net	-	32%	30%	34%
Council Area					
Neah Bay (Area 4/4B)	Recreational	28%	42%	40%	45%
LaPush (Area 3)	Recreational	50%	45%	50%	44%
Westport (Area 2)	Recreational	57%	55%	54%	48%
Columbia River (Area 1)	Recreational	68%	65%	62%	65%
Tillamook	Recreational	56%	51%	44%	28%
Newport	Recreational	51%	45%	41%	26%
Coos Bay	Recreational	38%	34%	23%	12%
Brookings	Recreational	31%	21%	18%	7%
Neah Bay (Area 4/4B)	Troll	42%	41%	41%	41%
LaPush (Area 3)	Troll	45%	48%	43%	44%
Westport (Area 2)	Troll	43%	46%	51%	51%
Columbia River (Area 1)	Troll	57%	56%	54%	59%
Tillamook	Troll	52%	49%	49%	45%
Newport	Troll	49%	46%	42%	39%
Coos Bay	Troll	38%	35%	29%	17%
Brookings	Troll	25%	28%	30%	48%
Columbia River					
Buoy 10	Recreational	-	-	-	68%

TABLE 9. Preliminary projected exvessel value under Council-adopted 2011 non-Indian commercial troll regulatory Alternatives compared to 2010 and the 2006-2010 average (inflation adjusted).

Management Area	Alternative	Exvessel Value (thousands of dollars) <sup>a/</sup>				
		2011 Projected <sup>b/</sup>	2010 Actual	Percent Change from 2010	2006-2010 Average <sup>c/</sup>	Percent Change From 2006-2010 Average
North of Cape Falcon	I	3,402	3,956	-14%	2,003	+70%
	II	2,664		-33%		+33%
	III	1,941		-51%		-3%
Cape Falcon to Humbug Mt.	I	7,214	1,876	+285%	1,258	+474%
	II	6,881		+267%		+447%
	III	6,499		+246%		+417%
Humbug Mt. to Horse Mt.	I	1,098	69	+1,488%	219	+400%
	II	501		+624%		+128%
	III	326		+371%		+48%
Horse Mt. to Pt. Arena	I	4,343	1,080	+302%	678	+541%
	II	4,188		+288%		+518%
	III	2,739		+154%		+304%
South of Pt. Arena	I	10,445	171	+6,024%	2,209	+373%
	II	10,568		+6,096%		+378%
	III	11,378		+6,571%		+415%
Total South of Cape Falcon	I	23,099	3,195	+623%	4,364	+429%
	II	22,139		+593%		+407%
	III	20,940		+555%		+380%
West Coast Total	I	26,502	7,151	+271%	6,367	+316%
	II	24,803		+247%		+290%
	III	22,882		+220%		+259%

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, 2010 exvessel prices and 2010 average weight per fish. Adjusted values from the north used for areas in which there was no fishery in 2010.

c/ Values adjusted to 2010 dollars.

TABLE 10. Preliminary projected angler trips and coastal community income impacts generated under Council-adopted 2011 recreational ocean salmon fishery regulatory Alternatives compared to 2010 and the 2006-2010 average (inflation adjusted).

Management Area	Alternative	Angler Trips (thousands)			Community Income Impacts (thousands of dollars) <sup>a/</sup>			Percent Change in Income Impacts	
		Estimates Based on the Alternatives	2010 Actual	2006-2010 Avg.	Estimates Based on the Alternatives	2010 Actual	2006-2010 Avg.	Compared to 2010 Actual	Compared to 2006-2010 Avg.
North of Cape Falcon	I	113	91	80	10,713	8,659	7,845	+24%	+37%
	II	86			8,208			-5%	+5%
	III	70			6,640			-23%	-15%
Cape Falcon to Humbug Mt.	I	77	37	47	4,281	2,074	2,807	+106%	+53%
	II	54			3,022			+46%	+8%
	III	19			1,061			-49%	-62%
Humbug Mt. to Horse Mt.	I	63	10	17	3,078	502	860	+513%	+258%
	II	58			2,855			+469%	+232%
	III	56			2,743			+447%	+219%
Horse Mt. to Pt. Arena	I	25	7	9	1,882	479	690	+275%	+173%
	II	24			1,860			+263%	+170%
	III	24			1,837			+250%	+166%
South of Pt. Arena	I	129	38	39	10,530	2,810	3,199	+275%	+229%
	II	124			10,185			+263%	+218%
	III	120			9,842			+250%	+208%
Total South of Cape Falcon	I	292	92	112	19,771	5,865	7,556	+237%	+162%
	II	261			17,922			+206%	+137%
	III	219			15,483			+164%	+105%
West Coast Total	I	405	183	192	30,484	14,524	15,401	+110%	+98%
	II	347			26,129			+80%	+70%
	III	289			22,123			+52%	+44%

a/ Income impacts are not comparable to the exvessel values shown in Table 9. All dollar values are adjusted to 2010 real values.

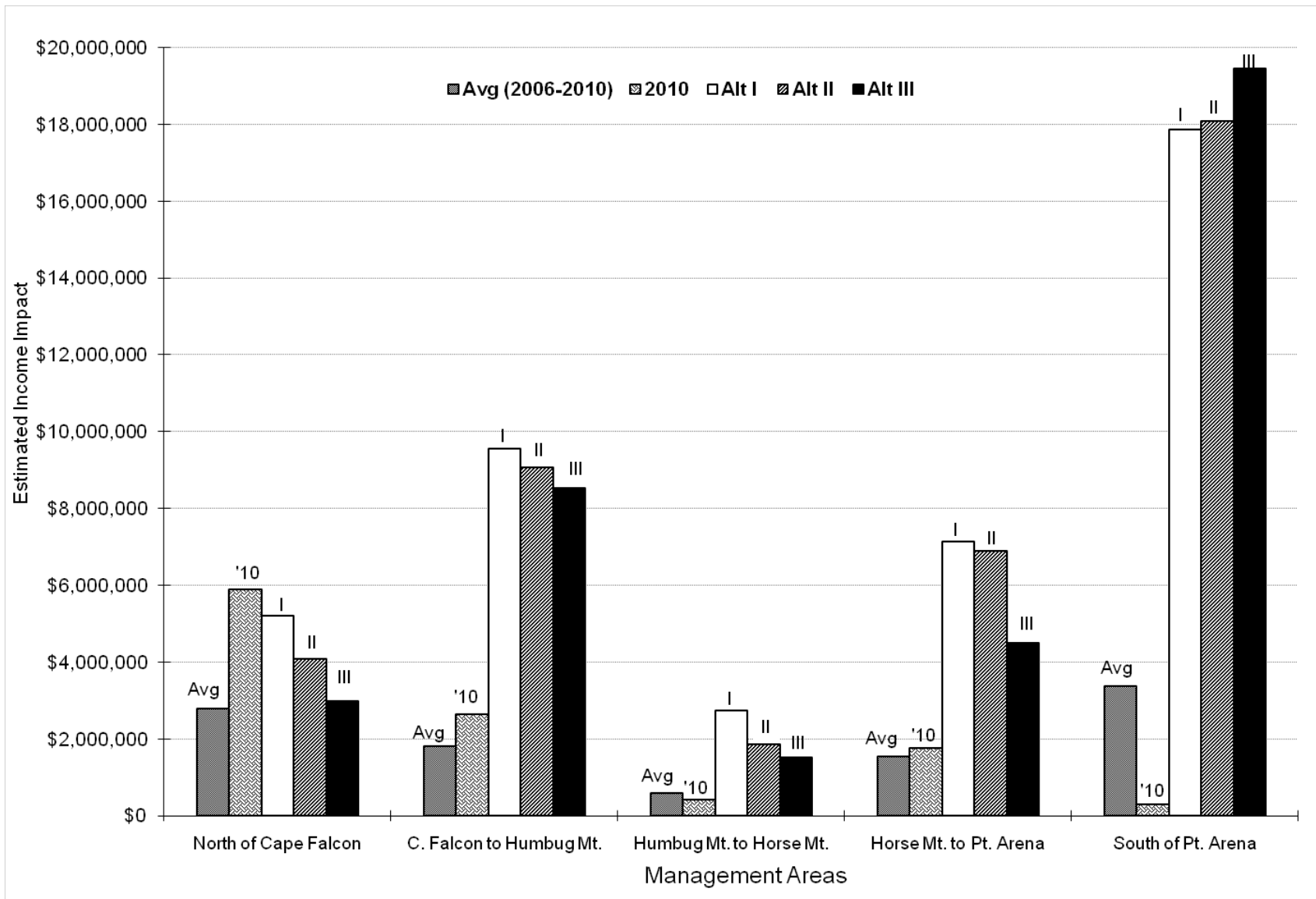


FIGURE 1. Projected community income impacts associated with the Council adopted 2011 commercial fishery Alternatives compared to 2010 and the 2006-2010 average in real (inflation adjusted) dollars.

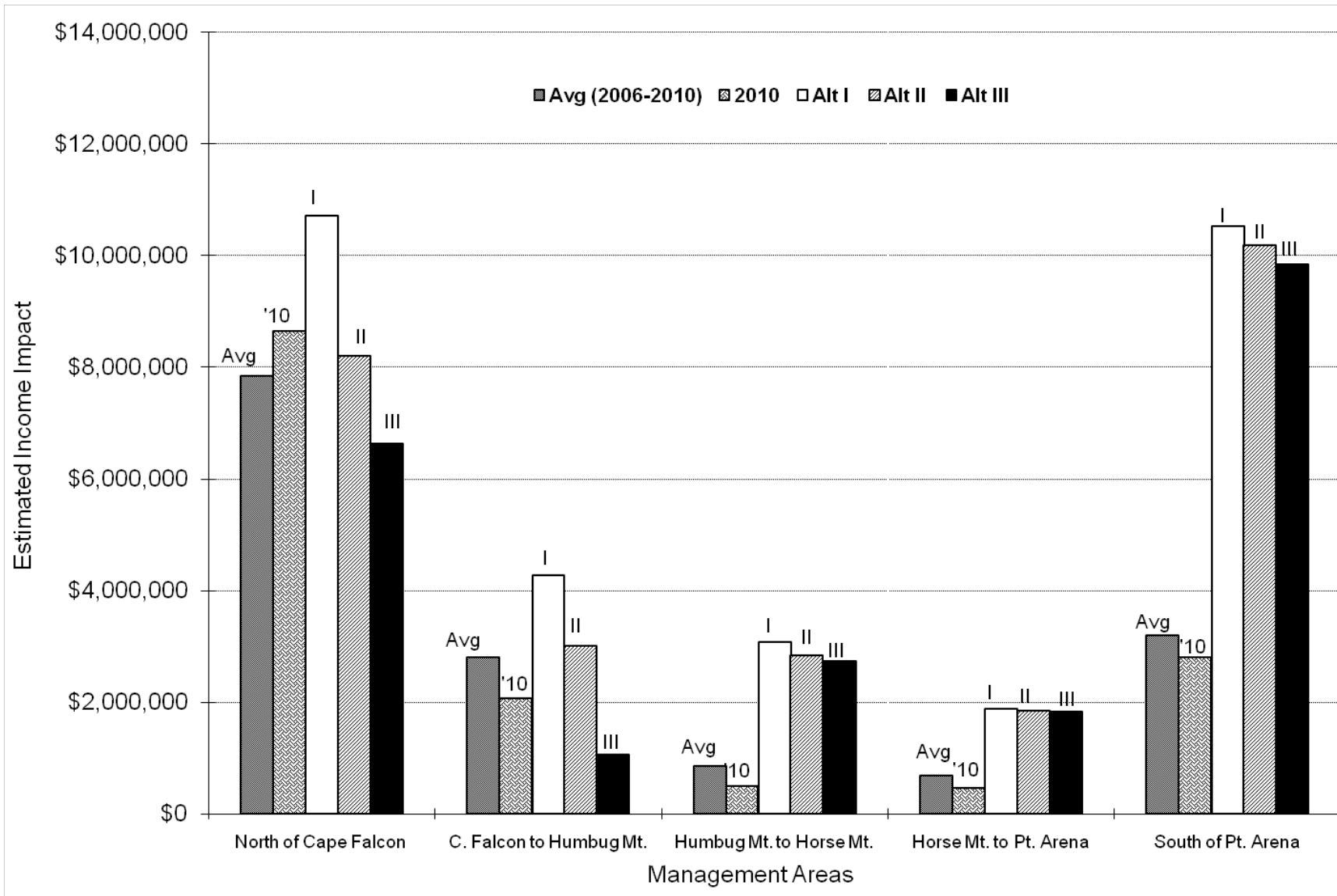


FIGURE 2. Projected community income impacts associated with the Council adopted 2011 recreational fishery Alternatives compared to 2010 and the 2006-2010 average in real (inflation adjusted) dollars.

# APPENDIX A: IMPACTS BY AREA AND MONTH FOR AGE-4 KLAMATH RIVER FALL CHINOOK

TABLE A-1. Klamath River fall Chinook **age-4 ocean HARVEST** by fishery and option. Klamath River fall Chinook age-4 HARVEST was projected for each of the proposed 2011 fishing season options. The harvest forecasts are displayed for each Alternative by fishery, port area, and month.

Commercial											Recreational												
Option I											Option I												
Port	Fall 2010			Summer 2011					Summer	Year	Port	Fall 2010			Summer 2011					Summer	Year		
Area	Sept	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total	Area	Sep	Oct	Nov-Dec	Jan-Feb	Mar	Apr	May	Jun	Jul	Aug	Total	Total
NO				60	222	93	151	368	894	894	NO									8	8	16	16
CO				115	240	222	597	703	1,877	1,877	CO							1	7	22	14	44	44
KO					33	177	128	85	423	423	KO							4	33	88	173	298	298
KC						234	134	185	553	553	KC							87	153	174	214	628	628
FB						114	91	698	903	903	FB						2	21	57	70	16	166	166
SF					879	494	1,418	103	2,894	2,894	SF						24	12	44	49	2	131	131
MO					453	174	361	8	996	996	MO						16	4	7	14	2	43	43
Total				175	1,826	1,508	2,880	2,150	8,539	8,539	Total						43	128	300	425	429	1,325	1,325
Option II											Option II												
Port	Fall 2010			Summer 2011					Summer	Year	Port	Fall 2010			Summer 2011					Summer	Year		
Area	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total	Area	Sep	Oct	Nov-Dec	Jan-Feb	Mar	Apr	May	Jun	Jul	Aug	Total	Total
NO				60	222	93	115	374	864	864	NO									8	4	12	12
CO				115	240	222	454	715	1,746	1,746	CO							1	3	22	10	36	36
KO					33	89	129	128	379	379	KO							2	33	90	176	301	301
KC							68	93	161	161	KC							38	153	179	218	588	588
FB							74	710	784	784	FB						2	21	57	71	16	167	167
SF					879		1,993	105	2,977	2,977	SF						24	12	44	50	2	132	132
MO					453		509	8	970	970	MO						16	4	7	15	2	44	44
Total				175	1,826	404	3,341	2,132	7,878	7,878	Total						43	77	296	435	427	1,278	1,278
Option III											Option III												
Port	Fall 2010			Summer 2011					Summer	Year	Port	Fall 2010			Summer 2011					Summer	Year		
Area	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total	Area	Sep	Oct	Nov-Dec	Jan-Feb	Mar	Apr	May	Jun	Jul	Aug	Total	Total
NO				60	222	93	113	285	773	773	NO										3	3	3
CO				115	240	222	446	544	1,567	1,567	CO							1	3	4	8	16	16
KO					33	89	107	84	313	313	KO							1	33	88	173	295	295
KC											KC							14	153	176	214	557	557
FB								698	698	698	FB						2	21	57	70	16	166	166
SF					879		601	2,046	103	3,629	SF						24	12	44	49	2	131	131
MO					453		275	526	8	1,262	MO						16	4	7	14	2	43	43
Total				175	1,826	1,280	3,237	1,722	8,240	8,240	Total						43	52	296	401	417	1,209	1,209

## 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.*

The map shows the San Francisco Bay Area with the following features:

- Geographic Labels:** Cape Flattery, Cape Alva, Neah Bay, Port Angeles, Queets River, Ledbetter Point, Ilwaco, WA - OR Border, Astoria, Seaside, Lincoln City, Newport, Florence S. Jetty, Florence, Reedsport, Coos Bay, Bandon, Gold Beach, Brookings, OR-CA Border, Crescent City, KMZ, Eureka, Humboldt S. Jetty, Horse Mt., Ft. Bragg, Fort Bragg, Mendocino, Point Arena, Bodega Bay, Point Reyes, Bolinas, San Francisco, Point San Pedro, Half Moon Bay, Pigeon Point, Santa Cruz, Monterey.
- Port Locations:** Indicated by symbols (H, H, H, H) along the coast.
- Legend:**
  - Ports**
  - 2007 Population**
    - ( < 5,000
    - ) 5,001 - 10,000
    - ) 10,001 - 50,000
    - H 50,001 - 100,000
    - H > 100,000
- Scale:** 0 to 100 miles.
- Coordinates:** Latitude from 38° 0' 0" N to 48° 0' 0" N; Longitude from 122° 0' 0" W to 126° 0' 0" W.



0 25 50 100 km

Projection: UTM Zone 10, NAD83

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Fish Program  
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Feb. 2009