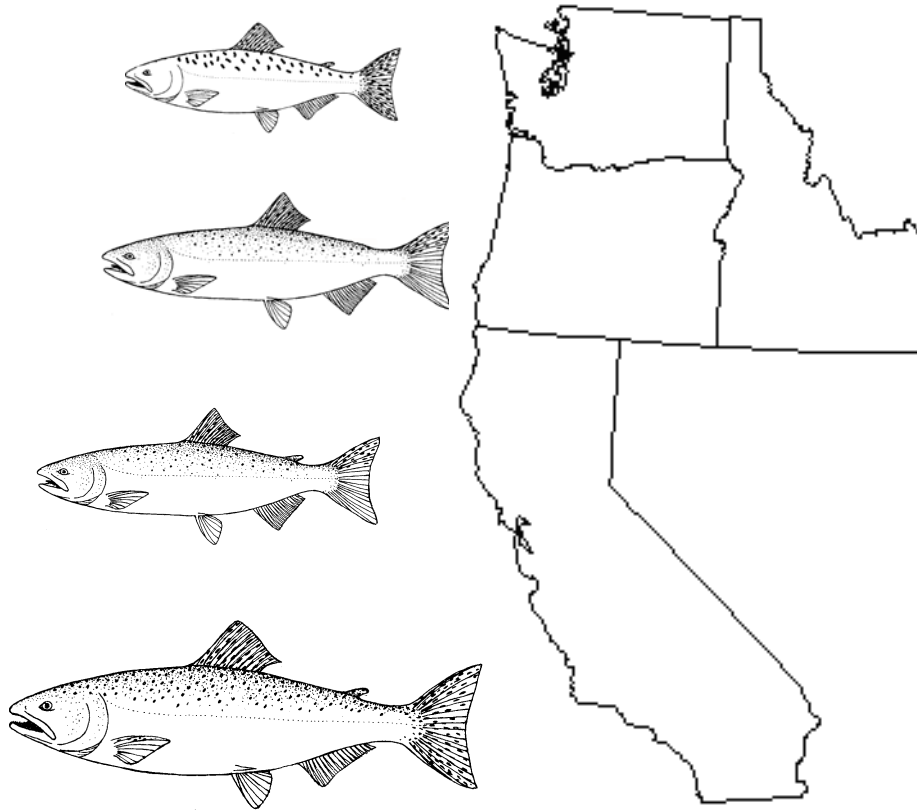


PRESEASON REPORT III

ANALYSIS OF COUNCIL ADOPTED MANAGEMENT MEASURES FOR 2011 OCEAN SALMON FISHERIES

PREPARED BY THE SALMON TECHNICAL TEAM



**Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384
(503) 820-2280
www.pcouncil.org**

April 2011

ACKNOWLEDGMENTS

SALMON TECHNICAL TEAM

DR. ROBERT KOPE, CHAIR

National Marine Fisheries Service, Seattle, Washington

DR. MICHAEL O'FARRELL, VICE CHAIR

National Marine Fisheries Service, Santa Cruz, California

MR. CRAIG FOSTER

Oregon Department of Fish and Wildlife, Clackamas, Oregon

MR. LARRIE LAVOY

National Marine Fisheries Service, Lacey, Washington

MR. KEITH LUTZ

Northwest Indian Fisheries Commission, Olympia, Washington

MR. DOUG MILWARD

Washington Department of Fish and Wildlife, Olympia, Washington

MS. MELODIE PALMER-ZWAHLEN

California Department of Fish and Game, Santa Rosa, California

MR. HENRY YUEN

U.S. Fish and Wildlife Service, Vancouver, Washington

PACIFIC FISHERY MANAGEMENT COUNCIL STAFF

MR. CHUCK TRACY

MR. JIM SEGER

MS. RENEE DORVAL

MS. KIM MERYDITH

MR. KRIS KLEINSCHMIDT

The Salmon Technical Team and the Council staff express their thanks for the expert assistance provided by Ms. Wendy Beeghley and Ms. Cindy LeFleur, Washington Department of Fish and Wildlife; Mr. Eric Schindler, Oregon Department of Fish and Wildlife; Ms. Jennifer Simon, California Department of Fish and Game; Ms. Sandy Zeiner, Northwest Indian Fisheries Commission; Mr. Ed Waters, contract economist, and numerous other agency and tribal personnel in completing this report.

This document may be cited in the following manner:

Pacific Fishery Management Council. 2011. *Preseason Report III: Analysis of Council Adopted Management Measures for 2011 Ocean Salmon Fisheries*. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, Oregon 97220-1384.



A report of the Pacific Fishery Management Council pursuant to National Oceanic and Atmospheric Administration Award Number NA10NMF4410014.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	ii
LIST OF FIGURES	ii
LIST OF ACRONYMS AND ABBREVIATIONS	iii
1.0 INTRODUCTION	1
2.0 SELECTION OF FINAL MANAGEMENT MEASURES	1
2.1 Inseason Management	1
2.2 State Waters Fisheries	2
3.0 SALMON FISHERY MANAGEMENT PLAN REQUIREMENTS	2
4.0 SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT	4
5.0 OBLIGATIONS UNDER THE PACIFIC SALMON TREATY	5
5.1 Chinook Salmon Management	5
5.2 Coho Salmon Management	6
6.0 CHINOOK SALMON MANAGEMENT	8
6.1 South of Cape Falcon	8
6.1.1 Objectives	8
6.1.2 Achievement of Objectives	8
6.2 North of Cape Falcon	9
6.2.1 Objectives	9
6.2.2 Achievement of Objectives	9
7.0 COHO SALMON MANAGEMENT	10
7.1 Objectives	10
7.2 Achievement of Objectives	11
8.0 PINK SALMON MANAGEMENT	11
8.1 Objectives	11
8.2 Achievement of Objectives	11
9.0 IMPORTANT FEATURES OF THE ADOPTED MANAGEMENT MEASURES	11
9.1 Commercial	12
9.2 Recreational	12
9.3 Treaty Indian	13
10.0 SOCIOECONOMIC IMPACTS OF THE ADOPTED MANAGEMENT MEASURES	13

LIST OF TABLES

	<u>Page</u>
TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.....	15
TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.....	21
TABLE 3. Treaty Indian ocean troll management measures adopted by the Council for ocean salmon fisheries, 2011.....	26
TABLE 4. Chinook and coho harvest quotas and guidelines for 2011 ocean salmon fishery management measures adopted by the Council.....	27
TABLE 5. Projected key stock escapements or management criteria for 2011 ocean fishery management measures adopted by the Council.....	28
TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2011 ocean salmon fishery management measures adopted by the Council.....	31
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 measures adopted by the Council	32
TABLE 8. Projected coho mark rates for 2011 fisheries under base period fishing patterns	33
TABLE 9. Preliminary projected exvessel value under Council-adopted 2011 non-Indian commercial troll management measures	34
TABLE 10. Preliminary projected angler trips and state level personal income impacts generated under Council-adopted 2011 recreational ocean salmon fishery management measures	35

LIST OF FIGURES

	<u>Page</u>
FIGURE 1. Council-adopted non-Indian commercial salmon seasons for 2011.....	20
FIGURE 2. Council-adopted recreational salmon seasons for 2011.	25
FIGURE 3. Projected coastal community personal income impacts associated with the 2011 commercial troll fishery under Council-adopted management measures.....	36
FIGURE 4. Projected coastal community personal income impacts associated with the 2011 recreational fishery under Council-adopted management measures	37

LIST OF ACRONYMS AND ABBREVIATIONS

AABM	Aggregate Abundance Based Management
AEQ	adult equivalent
BO	biological opinion
CDFG	California Department of Fish and Game
Council	Pacific Fishery Management Council
CPUE	catch per unit effort
EEZ	Economic Exclusive Zone
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FRAM	Fishery Regulation Assessment Model
FMP	fishery management plan
ISBM	Individual Stock Based Management
KMZ	Klamath Management Zone (the ocean zone between Humbug Mountain and Horse Mountain where management emphasis is on Klamath River fall Chinook)
KRFC	Klamath River fall Chinook
LCN	lower Columbia River natural (coho)
LCR	lower Columbia River (natural tule Chinook)
LRH	lower river hatchery (tule fall Chinook returning to hatcheries below Bonneville Dam)
LRW	lower river wild (Columbia River fall Chinook, primarily from the North Lewis River)
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
OPI	Oregon Production Index
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RER	rebuilding exploitation rate
RMP	Resource Management Plan
RK	Rogue/Klamath (hatchery coho)
SAS	Salmon Advisory Subpanel
SCH	Spring Creek Hatchery (tule fall Chinook returning to Spring Creek Hatchery)
SF	San Francisco (Point Arena to Pigeon Point)
SI	Sacramento index
SONCC	Southern Oregon/Northern California Coastal (coho)
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

1.0 INTRODUCTION

This is the last in a series of three preseason reports prepared by the Pacific Fishery Management Council's (Council) Salmon Technical Team (STT) and staff. The reports document and help guide salmon fishery management in the exclusive economic zone (EEZ) from 3 to 200 nautical miles off the coasts of Washington, Oregon, and California, and within state territorial waters. This report summarizes the STT analysis of the 2011 ocean salmon fishery management measures adopted by the Council for submission to the U.S. Secretary of Commerce. This report is analogous to a description and analysis of a preferred alternative in a National Environmental Policy Act (NEPA) analysis.

The Council's recommendations for the 2011 ocean salmon fishery regulations meet or exceed the obligations under the Pacific Salmon Treaty (PST) (Section 5), the level of protection required by all consultation standards for salmon species listed under the Endangered Species Act (ESA) (Section 4), and all objectives of the Pacific Coast Salmon Plan (Salmon FMP) (Section 3).

2.0 SELECTION OF FINAL MANAGEMENT MEASURES

The following figures and tables describe the Council-adopted management measures covering the period from May 1, 2011 to April 30, 2012:

- Table 1-Non-Indian commercial ocean salmon management measures, pages 15-19;
- Figure 1-Geographic outline of commercial troll (non-Indian) ocean salmon seasons, page 20;
- Table 2-Recreational ocean salmon management measures, pages 21-24;
- Figure 2-Geographic outline of recreational ocean salmon seasons, page 25;
- Table 3-Treaty Indian commercial ocean management measures, page 26; and
- Table 4-Allowable catch quotas for Chinook and coho, page 27.

In addition, Tables 5, 6, and 7 provide information on the biological impacts and landing estimates for the Council's management recommendations. Table 8 displays the expected mark (healed adipose fin clip) rate for coho encountered in mark-selective and non-mark-selective fisheries. Tables 9 and 10, and Figures 3 and 4, provide information on the economic impacts of the proposed fisheries.

The 2011 seasons are constrained primarily by: (1) threatened California coastal Chinook south of Cape Falcon, (2) endangered Sacramento River winter Chinook south of Point Arena, (3) threatened lower Columbia River (LCR) natural tule fall Chinook north of Cape Falcon, (4) threatened Lower Columbia natural (LCN) coho north of the Oregon/California border, and (5) Upper Fraser (Thompson River) coho north of Cape Falcon.

Regulations and expected fishing patterns for the treaty Indian ocean fisheries were developed by the Hoh, S'Klallam, Makah, Quileute, and Quinault tribes for their respective fisheries.

2.1 Inseason Management

Inseason changes are made to meet the preseason intent of the management measures described in this document, but must also meet the Council's Salmon FMP goals, especially in regard to conservation and allocation goals, Federally-recognized Indian fishing rights, consultation standards for ESA-listed salmon stocks, and obligations under the PST.

Inseason actions that are anticipated for the 2011-2012 management season include, but are not limited to, the following possibilities:

1. Adjustments in landing limits and days open for non-Indian commercial fisheries.
2. Changing the days or number of days of fishing allowed per calendar week for recreational fisheries.
3. Transfer of coho quotas among recreational port areas north of Cape Falcon.
4. Trading portions of Chinook and coho quotas between recreational and non-Indian commercial sectors north of Cape Falcon.
5. Routine openings and closings, and other management measures associated with quota management, including modifying open areas, bag limits, species retention limits, and mark retention restrictions.
6. Transferring unused quota to subsequent fisheries on an impact neutral, fishery equivalent, basis for the north of Cape Falcon non-Indian commercial Chinook fisheries, the north of Cape Falcon recreational Chinook fisheries, the Cape Falcon to Humbug Mt. recreational coho fisheries, and the Oregon and California Klamath Management Zone (KMZ) commercial Chinook fisheries.
7. Closing Oregon recreational and commercial fisheries scheduled to open March 15, 2012 if necessary to meet 2012 management objectives.
8. Closing California recreational fisheries scheduled to open April 7, 2012 if necessary to meet 2012 management objectives.

Inseason action will generally be accomplished through National Marine Fisheries Service (NMFS) sponsored conference calls attended by representatives of affected state and tribal management agencies, the Council, the Salmon Advisory Subpanel (SAS), and the STT. The Council may also make recommendations for inseason actions at any of its regularly scheduled meetings.

2.2 State Waters Fisheries

In addition to the seasons shown in Tables 1 and 2, the Oregon Department of Fish and Wildlife (ODFW) may permit fall fisheries for salmon in certain areas within state marine waters. Potential seasons off the Oregon coast include commercial and recreational fisheries at the mouths of the Chetco and Elk Rivers and at the mouth of Tillamook Bay. Washington may also establish limited recreational salmon fisheries in state marine waters if additional impacts on critical coho and/or Chinook stocks can be accommodated within management constraints. California will not establish any state marine water salmon fisheries in 2011.

3.0 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 Indian 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 of Klamath River fall Chinook (KRFC) harvest, which is calculated as a harvest of KRFC equal to that taken in all non-Indian fisheries. The Council must account for all harvest impacts when assessing the achievement of KRFC conservation objectives.

In addition to the allocation objectives associated with sharing between treaty Indian and non-Indian sectors, the Salmon FMP includes formulas for sharing Chinook and coho quotas north of Cape Falcon between commercial and recreational sectors, and among recreational port areas, and for coho south of Cape Falcon between commercial and recreational sectors. The 2011 salmon management measures adopted by the Council meet the allocation requirements for fisheries in the Salmon FMP.

4.0 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 can have a significant impact on Sacramento River winter Chinook, Central Valley spring Chinook, California coastal Chinook, Snake River wild (SRW) fall Chinook, 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:

Chinook

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

Sockeye

Snow River (endangered)	Ozette Lake Sockeye (threatened)
-------------------------	----------------------------------

Chum

Columbia River (threatened)	Hood Canal summer (threatened)
-----------------------------	--------------------------------

Steelhead

Southern California (endangered)	Central Valley, California (threatened)
South-central California coast (threatened)	Central California coast (threatened)
Upper Columbia River (endangered)	Upper Willamette River (threatened)
Middle Columbia River (threatened)	Lower Columbia River (threatened)
Snow River Basin (threatened)	Northern California (threatened)
Puget Sound (threatened)	Northern California (threatened)

5.0 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 Pacific Salmon Commission (PSC) is the body formed by the governments of Canada and the United States to implement the Pacific Salmon Treaty.

5.1 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 aggregate abundance based management (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

individual stock based management (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 West Coast Vancouver Island (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.

5.2 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 ^{a/}	Categorical Status ^{b/}
Skagit	60%	Abundant
Stillaguamish	50%	Abundant
Snohomish	60%	Abundant
Hood Canal	65%	Abundant
Strait of Juan de Fuca	40%	Moderate
Quillayute Fall ^{c/}	44%-78% (61%)	Abundant
Hoh ^{c/}	57%-83% (70%)	Abundant
Queets ^{c/}	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.

6.0 CHINOOK SALMON MANAGEMENT

6.1 South of Cape Falcon

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

- *Sacramento River fall Chinook (SRFC)*. The Sacramento Index (SI) forecast is 729,900 SRFC adults, which is slightly lower than the average 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.

6.1.1 Objectives

Key Chinook salmon management objectives shaping management measures 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).

6.1.2 Achievement of Objectives

Fishery quotas under the adopted management measures are presented in Table 4. Stock-specific management criteria and their forecast values under the adopted management measures are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality estimates are summarized in Table 6. Table 7 provides a breakdown of impacts by fishery and area for LCR tule Chinook. Descriptions pertaining to the achievement of key objectives for Chinook salmon management south of Cape Falcon are found below.

- The NMFS consultation standard for California coastal Chinook of a maximum KRFC age-4 ocean harvest rate of 16 percent is satisfied by the adopted management measures.
- The KRFC natural-area escapement of at least 35,000 adults and the maximum spawner reduction rate of 66.7 percent is satisfied by the adopted management measures.
- The SRFC conservation objective of 122,000 to 180,000 natural and hatchery adult spawners, and 2011 NMFS guidance to target the upper end of the conservation objective, is satisfied by the adopted management measures.

The adopted management measures 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.

6.2 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.

6.2.1 Objectives

Key Chinook salmon management objectives shaping management measures north of Cape Falcon are:

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

6.2.2 Achievement of Objectives

Fishery quotas under the adopted management measures are presented in Table 4. Stock-specific management criteria and their forecast values are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality estimates 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 exploitation rate of 37.0 percent associated with the adopted management measures meets the 37.0 percent maximum in the NMFS consultation standard. LCR tules are the constraining Chinook stock for 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 Chinook stocks subject to the 2008 PST Agreement. The adopted Council area fisheries in combination with the inside area fisheries developed by the co-managers will meet NMFS consultation standards for the Puget Sound Chinook ESU.
- *LRW fall Chinook.* LRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2011.
- *SRW fall Chinook.* SRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2011.

The adopted management measures 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.

7.0 COHO SALMON MANAGEMENT

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

- *Oregon Production Index (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.
- *Oregon Coastal Natural (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.

7.1 Objectives

Key coho management objectives shaping management measures in 2011 Council area fisheries 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 (RK) 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* management agreement).
- Providing sufficient escapement of Columbia River early and late coho to meet hatchery egg take goals and inriver harvest objectives.

7.2 Achievement of Objectives

Fishery quotas under the adopted management measures are presented in Table 4. Stock-specific management criteria and their forecast values are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality 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.* The adopted management measures satisfy the 15.0 percent maximum exploitation rate with a marine exploitation rate of 10.7 percent and a Columbia River mainstem exploitation rate of 4.3 percent.
- *Interior Fraser coho.* The Southern U.S. exploitation rate in the adopted measures is 10.0, satisfying the 10.0 percent maximum required by the PST Southern Coho Management Plan.
- The adopted management measures satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for other relevant coho stocks listed in Table 5.

8.0 PINK SALMON MANAGEMENT

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.

8.1 Objectives

Key pink salmon management objectives shaping management measures in 2011 Council area fisheries 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 for Fraser River pink salmon in 2011.

8.2 Achievement of Objectives

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. The adopted management measures 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.

9.0 IMPORTANT FEATURES OF THE ADOPTED MANAGEMENT MEASURES

Significant changes from recent seasons are highlighted below, but this section is not intended to be a comprehensive description of the adopted management measures. For detailed information on the adopted ocean salmon seasons see Table 1 (non-Indian Commercial), Table 2 (recreational), and Table 3 (treaty Indian).

9.1 *Commercial*

Adopted management measures in the area north of Cape Falcon reflect similar relative abundance of Chinook and coho as in 2010, with low abundance of OPI hatchery coho and higher abundance of tule fall Chinook. However, in 2011, allowable catch of Chinook is decreased due to the lower abundance of tule Chinook from Spring Creek Hatchery, increased impacts in the Alaskan and Canadian fisheries relative to 2010, and a reduced exploitation rate limit for LCR natural tule Chinook. Overall non-Indian coho catch quotas are identical to 2010.

Two-thirds of the troll Chinook quota is assigned to the May-June fishery, which opens initially seven days per week with no landing and possession limit. The summer all-salmon fishery is open Friday through Tuesday and includes Chinook and coho landing and possession limits for areas north and south of Leadbetter Point, similar to recent years.

The adopted management measures for areas south of Cape Falcon allow for significantly more commercial fishing opportunity relative to recent years. For the North and Central Oregon coast south of Cape Falcon, the adopted management measures have Chinook fisheries opening in mid-April and running through the end of August, with the exception of a seven day closure in mid-July. The Chinook fishery will reopen for the month of October with weekly landing and possession limits.

For the Oregon KMZ, the adopted management measures have May open, and monthly quota fisheries with daily landing and possession limits for June, July, and August. Unused quota from June and/or July can be transferred to the following quota period on an impact neutral, fishery equivalent basis.

For the California KMZ, quota fisheries will be open in early July and the first half of August, with landing and possession limits. Unused quota from July can be transferred to the August quota on an impact neutral, fishery equivalent basis.

Fort Bragg area fisheries will be open for late July, nearly all of August, and the entire month of September. All fish caught in the area when the KMZ quota fisheries are open must be landed south of Horse Mountain.

All California areas south of Point Arena will open in May. During June 1-24, only the area south of Point Sur will be open and all salmon must be landed south of Point San Pedro. The entire region south of Point Arena will reopen on June 25 with an alternating five-day open, two-day closed period in July. There will also be a two-day closure at the end of August to allow for the landing of fish prior to September 1. All fish caught in the area when the KMZ quota fisheries are open must be landed south of Horse Mountain. The area between Point Arena and Point Sur will also be open in September.

In addition, an early October fishery will be open Monday through Friday in the region between Point Reyes and Point San Pedro.

9.2 *Recreational*

In the area between the U.S. Canada Border and Cape Falcon, an area-wide mark-selective Chinook fishery was adopted. The fishery will be open for eight consecutive days and is operating under a quota of 4,800 marked Chinook.

The all species recreational fisheries in all subareas between the U.S. Canada Border and Cape Falcon open on June 26 operating under regulations similar to recent years. Chinook guidelines are reduced compared to 2010 while coho subarea quotas are identical to 2010. No Area 4B add-on fishery is scheduled in 2011.

For the North and Central Oregon coast south of Cape Falcon, the Chinook fishery opened March 15 and will run through September. Coho fisheries consist of a mark-selective coho quota fishery opening in early July and a non-mark selective coho quota fishery in early September. Quota remaining from the July-August mark selective coho quota may be transferred to the September non-mark-selective quota on an impact neutral, fishery equivalent basis. The September coho fishery will allow coho retention only on Thursday through Saturday, but the fishery will remain open for all salmon except coho Sunday through Wednesday. After the September coho fishery closes, the all salmon except coho fishery will reopen seven days per week for the rest of the month.

Chinook fishing in both the Oregon and California KMZ will open May 14 and run through Labor Day.

South of the KMZ, all areas opened on April 2. In the Fort Bragg and San Francisco areas, seasons will run through October 30. In the Monterey area, and south to the U.S./Mexico border, the season will run through September 18. The minimum size limit for Chinook in recreational fisheries coast-wide is 24 inches.

9.3 Treaty Indian

The adopted management measures are generally similar in structure as in recent years although Chinook quotas needed to be reduced to meet the more restrictive standard for LCR natural tule stocks specified in the NMFS guidance for 2011 and increased impacts in Canadian fisheries.

10.0 SOCIOECONOMIC IMPACTS OF THE ADOPTED MANAGEMENT MEASURES

The short-term economic effects of the adopted management measures 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 the number of trips generated and community personal income impacts associated with the recreational fishery under the adopted management measures. The exvessel values provided for the troll fisheries in Table 9 and income impact values provided for the recreational fisheries 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 salmon fisheries 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 then the multi-year average may forecast an increase in effort for the coming year even though the fishery regulations may be more constraining 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, 2009 CPUE was applied to the available coho quotas. For the June Chinook fishery, CPUE for the 2002 fishery was used. The CPUE was adjusted for the increased effort required to reach a bag limit under mark-selective restrictions. Estimates were then further adjusted for the difference in the number of trips observed in 2010 versus 2009.

The expected harvests used to estimate 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 relatively high in 2010, as they have been for the past few years. To the degree that these high prices were driven by limited local supply in prior years, and harvests are relatively greater this year, then prices in 2011 may actually prove to 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 from observed historical relationships for these variables.

Figures 3 and 4 show projected community income impacts for the commercial troll and recreational fisheries, respectively, compared to historic estimates in real (inflation adjusted) dollars. In general, income impact estimates indicate the amount of income associated with a particular activity. Reductions in income impacts may, but do not necessarily, reflect net losses to a community, but likely do correlate with losses to those businesses and individuals with income dependence on the activity. Additionally, in some cases, reductions in ocean harvest may contribute either to greater inside fishing opportunity, with resulting community income impacts in those areas, or increased escapement, which may increase future production, depending on the carrying capacity of the systems to which the stocks escape.

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.
(Page 1 of 5)

A. SEASON DESCRIPTIONS	
North of Cape Falcon	
Supplemental Management Information	
<p>1. Overall non-Indian TAC: 64,600 (non-mark-selective equivalent of 61,800) Chinook and 80,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 30,900 Chinook and 12,800 marked coho.</p> <p>3. No preseason trade of Chinook or coho between non-Indian commercial and recreational fisheries.</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> May 1 through earlier of June 30 or 20,600 Chinook quota. <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 13,700 Chinook have been landed to consider modifying the open period to five days per week and adding landing and possession limits to ensure the guideline is not exceeded.</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 1 through earlier of September 15 or 10,300 preseason Chinook guideline (C.8) or a 12,800 marked coho quota (C.8.d). <p>Friday through Tuesday; landing and possession limit of 50 Chinook and 50 coho per vessel per open period north of Leadbetter Point or 50 Chinook and 50 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; Grays Harbor Control Zone closed in August and September (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 nfalcon.trollreport@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>	

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.
(Page 2 of 5)

A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River Basin recreational fishery catch assumption: 61,400 adult Sacramento River fall Chinook. 2. Sacramento River fall Chinook spawning escapement of 377,000 adults. 3. Klamath River recreational fishery allocation: 7,900 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 34,800 adult Klamath River fall Chinook.
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> • April 15 through July 9, July 17 through August 31, October 1-31. (C.9). <p>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.</p> <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>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • May 1-31; • June 1 through earlier of June 30, or a 1,500 Chinook quota; • July 1 through earlier of July 31, or a 1,200 Chinook quota; • Aug. 1 through earlier of Aug. 31, or a 1,000 Chinook quota (C.9). <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>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> • July 2 through the earlier of July 20 or a 1,400 Chinook quota, Saturday to Wednesday; • Aug. 1 through earlier of Aug. 15 or a 1,000 Chinook quota, seven days per week (C.9). <p>All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). Landing and possession limit of 15 Chinook per vessel. Any remaining portion of the July Chinook quota may be transferred inseason on an impact neutral basis to the August quota (C.8). 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>
<p>Humboldt South Jetty to Horse Mt. Closed.</p>
<p>California 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 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.
(Page 3 of 5)

A. SEASON DESCRIPTIONS					
South of Cape Falcon					
Horse Mt. to Point Arena (Fort Bragg) <ul style="list-style-type: none"> July 23-27; July 29 through Aug. 29; Sept. 1-30 (C.9). Seven days per week. All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). All fish caught in the area when the KMZ quota fisheries are open must be landed south of Horse Mt.; 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).					
Pt. Arena to Pigeon Pt. (San Francisco) <ul style="list-style-type: none"> May 1-31 seven days per week June 25 through July 5 seven days per week July 9-27 Saturday through Wednesday July 29 through Aug. 29 seven days per week September 1-30 seven days per week (C.9). 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 KMZ quota fisheries are open must be landed south of Horse Mt. (C.1, C.6). See gear restrictions and definitions (C.2, C.3). Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) <ul style="list-style-type: none"> October 3-14 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).					
Pigeon Pt. to Pt. Sur (Monterey) Same as Pt. Arena to Pigeon Pt.					
Pt. Sur to U.S./Mexico Border (Monterey south) <ul style="list-style-type: none"> May 1 through July 5 seven days per week July 9-27 Saturday through Wednesday July 29 through Aug. 29 seven days per week (C.9). 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 June 1-24 must be landed south of Pt. San Pedro; all fish caught in the area when the KMZ quota fisheries are open must be landed south of Horse Mt. (C.1, C.6). See gear restrictions and definitions (C.2, C.3).					
California 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. 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

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.

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.
(Page 4 of 5)

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

C.2. Gear Restrictions:

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

C.3. Gear Definitions:

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

Troll fishing gear defined: One or more lines that drag hooks behind a moving fishing vessel. In that portion of the fishery management area (FMA) off Oregon and Washington, the line or lines must be affixed to the vessel and must not be intentionally disengaged from the vessel at any time during the fishing operation.

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

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

C.4. 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. to 48°02.00' N. lat.; 125°16.50' W. long. to 48°00.00' N. lat.; 125°16.50' W. long. and connecting back to 48°00.00' N. lat.; 125°14.00' W. long.
- c. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).
- d. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- e. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and on the south, by 41°26'48" N. lat. (approximately six nautical miles south of the Klamath River mouth).

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.

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011.
(Page 5 of 5)

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

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 28,126 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.

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).

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

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

C.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 July non-Indian commercial troll quota in the California KMZ area may be transferred to the August 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 neutral, fishery 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.

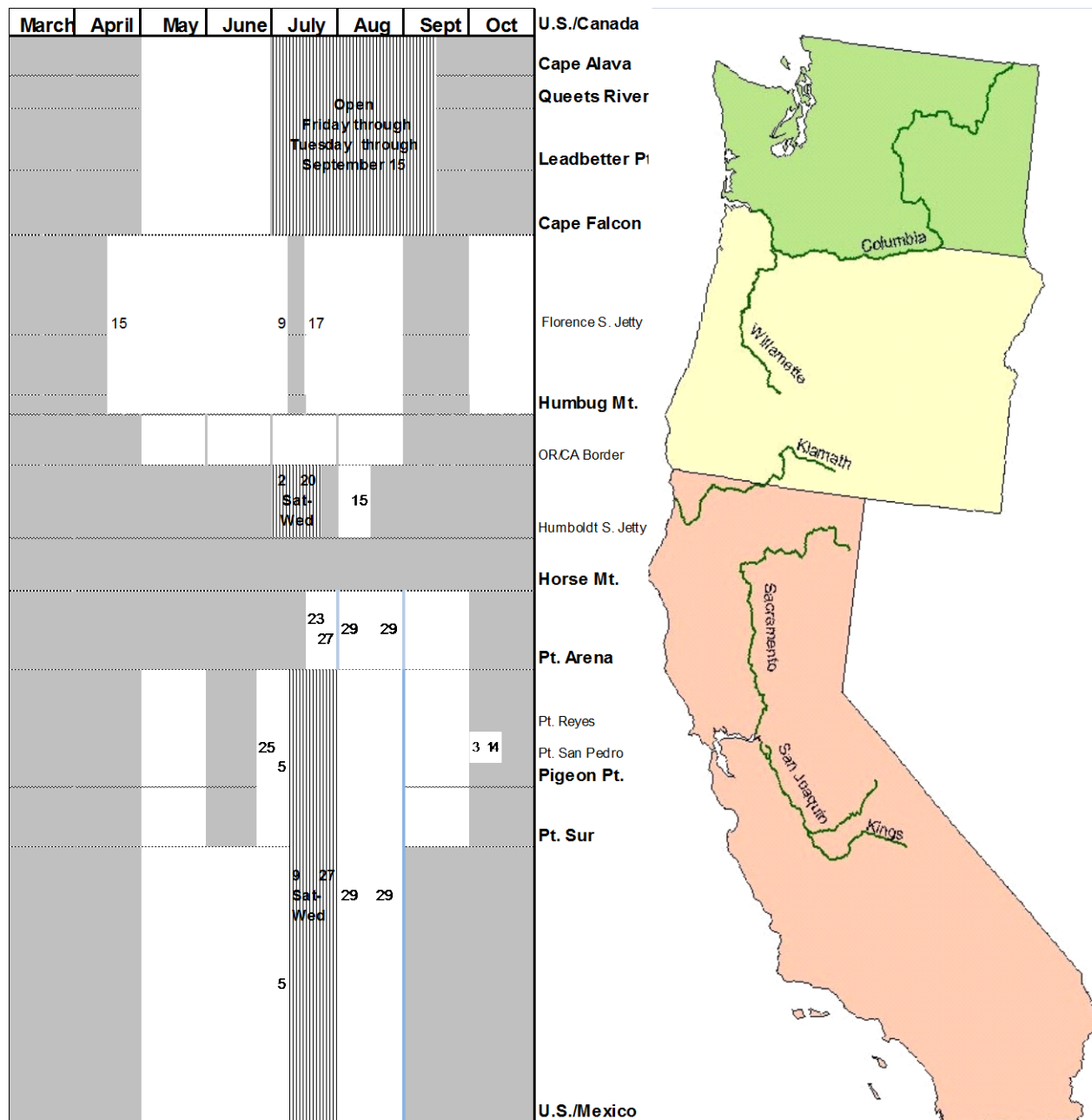


FIGURE 1. Council-adopted non-Indian commercial salmon seasons for 2011. Dates are the first or last days of the month unless otherwise specified.

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 1 of 4)

A. SEASON DESCRIPTIONS
North of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Overall non-Indian TAC: 64,600 (non-mark-selective equivalent of 61,800) Chinook and 80,000 coho marked with a healed adipose fin clip (marked). 2. Recreational TAC: 33,700 (non-mark selective equivalent of 30,900) Chinook and 67,200 marked coho; all retained coho must be marked. 3. No preseason trade of Chinook or coho between non-Indian commercial and recreational fisheries. 4. No Area 4B add-on fishery. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 7,000 marked coho in August and September.
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> • June 18 through earlier of June 25 or a coastwide marked Chinook quota of 4,800 (C.5). Seven days per week. Two fish per day, all salmon except coho, all Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).
<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> • June 26 through earlier of September 18 or 6,990 marked coho subarea quota with a subarea guideline of 3,200 Chinook. (C.5). 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 coho must be marked (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 and coho recreational TACs for north of Cape Falcon (C.5).
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> • June 26 through earlier of September 18 or 1,700 marked coho subarea quota with a subarea guideline of 1,350 Chinook. (C.5). • 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. <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 coho must be marked (C.1). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> • June 26 through earlier of September 18 or 24,860 marked coho subarea quota with a subarea guideline of 16,900 Chinook (C.5). <p>Sunday through Thursday. All salmon; two fish per day, no more than one of which can be a Chinook. All coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Grays Harbor Control Zone closed beginning August 1 (C.4). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> • June 26 through earlier of September 30 or 33,600 marked coho subarea quota with a subarea guideline of 7,400 Chinook (C.5). Seven days per week. All salmon; two fish per day, no more than one of which can be a Chinook. All coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.c). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 2 of 4)

A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River Basin recreational fishery catch assumption: 61,400 adult Sacramento River fall Chinook. 2. Sacramento River fall Chinook spawning escapement of 377,000 adults. 3. Klamath River recreational fishery allocation: 7,900 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 34,800 adult Klamath River fall Chinook. 5. Overall recreational TAC: 15,000 marked coho and 3,000 unmarked coho.
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> • Except as provided below during the all-salmon mark-selective and non-mark-selective coho fisheries, the season will be March 15 through September 30 (C.6). <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"> • 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. <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"> • Cape Falcon to Humbug Mt. non-mark-selective coho fishery: September 1 through the earlier of September 10 or a landed catch of 3,000 non-mark-selective coho quota (C.5). <p>Thursday through Saturday all salmon, two fish per day; Sunday through Wednesday, all salmon except coho, two fish per day.</p> <p>The all salmon except coho season reopens the earlier of September 11 or attainment of the coho quota (C.5). Open days may be adjusted inseason to utilize the available 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).</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>Humbug Mt. to OR/CA Border. (Oregon KMZ)</p> <ul style="list-style-type: none"> • May 14 through September 5 (C.6). <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>OR/CA Border to Horse Mt. (California KMZ)</p> <ul style="list-style-type: none"> • May 14 through September 5 (C.6). <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath rivers.</p>
<p>Horse Mt. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • April 2 through October 30. <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>
<p>Point Arena to Pigeon Pt. (San Francisco)</p> <ul style="list-style-type: none"> • April 2 through October 30. <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>

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 3 of 4)

A. SEASON DESCRIPTIONS
South of Cape Falcon
Pigeon Point to U.S./Mexico Border (Monterey South) <ul style="list-style-type: none"> April 2 through September 18. 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). California 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. MINIMUM SIZE (Inches) (See C.1)			
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

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

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

C.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.

- 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.]
- 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:**

- 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.
- 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.
- 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.

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2011. (Page 4 of 4)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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).

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.

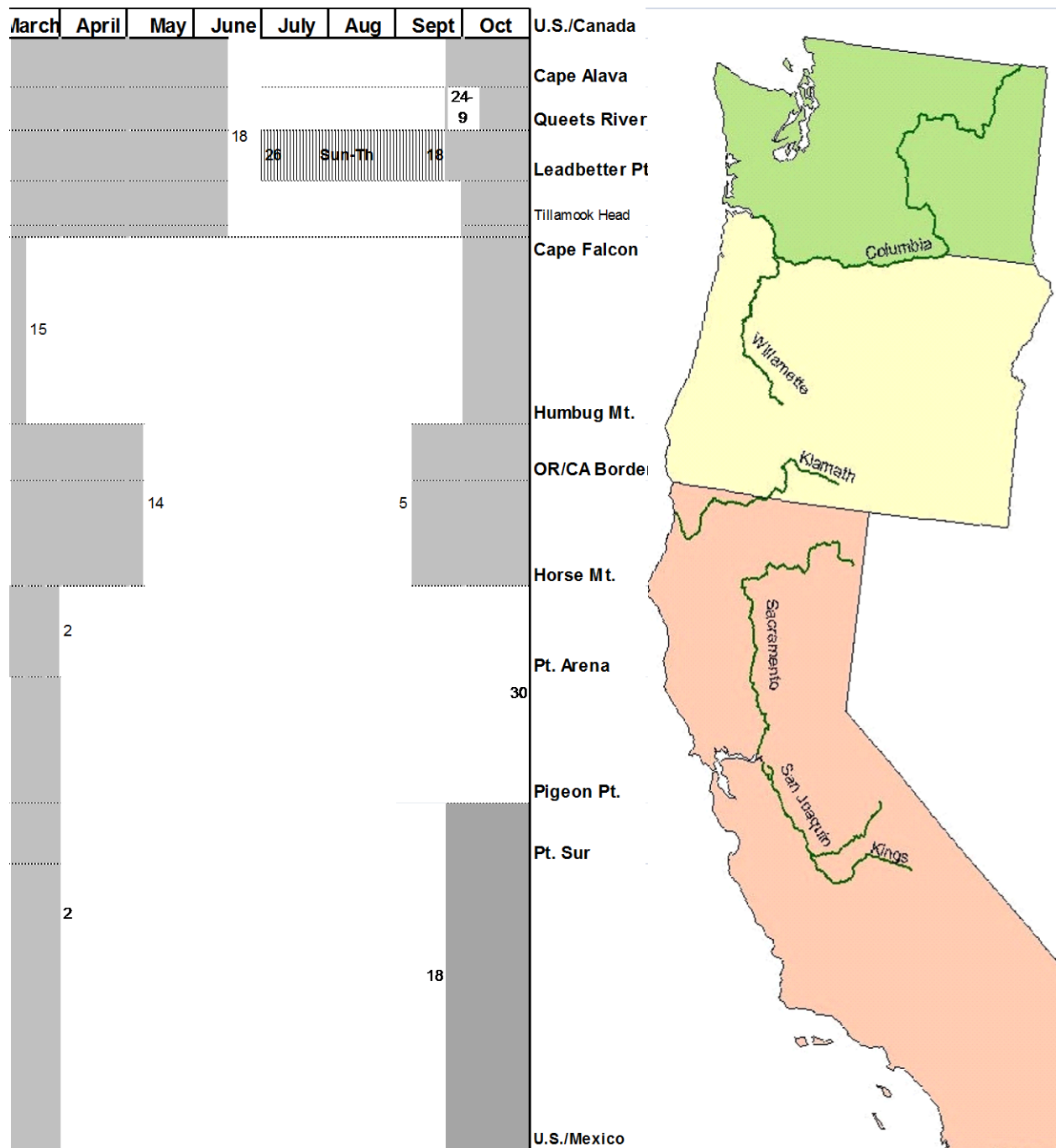


FIGURE 2. Council-adopted recreational salmon seasons for 2011. Dates are the first or last days of the month unless otherwise specified.

TABLE 3. Treaty Indian ocean troll management measures adopted by the Council for ocean salmon fisheries, 2011. (Page 1 of 1)

A. SEASON DESCRIPTIONS					
Supplemental Management Information					
1. Overall Treaty-Indian TAC: 41,000 Chinook and 42,000 coho.					
<p>May 1 through the earlier of June 30 or 19,750 Chinook quota.</p> <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"> July 1 through the earlier of September 15, or 21,250 preseason Chinook quota, or 42,000 coho quota. <p>All salmon. See size limit (B) and other restrictions (C).</p>					

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 measures adopted by the Council.

Fishery or Quota Designation	Chinook	Coho
NORTH OF CAPE FALCON		
TREATY INDIAN OCEAN TROLL		
U.S./Canada Border to Cape Falcon (All Except Coho)	19,750	-
U.S./Canada Border to Cape Falcon (All Species)	21,250	42,000
Subtotal Treaty Indian Ocean Troll	41,000	42,000
NON-INDIAN COMMERCIAL TROLL ^{a/}		
U.S./Canada Border to Cape Falcon (All Except Coho)	20,600	-
U.S./Canada Border to Cape Falcon (All Species)	10,300	12,800
Subtotal Non-Indian Commercial Troll	30,900	12,800
RECREATIONAL ^{a/}		
U.S./Canada Border to Cape Falcon (All Except Coho)	4,800 ^{b/}	-
U.S./Canada Border to Cape Alava	3,200 *	6,990
Cape Alava to Queets River	1,400 *	1,750
Queets River to Leadbetter Pt.	16,900 *	24,860
Leadbetter Pt. to Cape Falcon ^{c/}	7,400 *	33,600
Subtotal Recreational	33,700	67,200
TOTAL NORTH OF CAPE FALCON	105,600	122,000
SOUTH OF CAPE FALCON		
COMMERCIAL TROLL		
Humbog Mt. to OR/CA Border	3,700	-
OR/CA Border to Humboldt South Jetty	2,400	-
Subtotal Troll	6,100	-
RECREATIONAL ^{d/}		
Cape Falcon to OR/CA Border	-	18,000
TOTAL SOUTH OF CAPE FALCON	6,100	18,000

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

b/ The Chinook quota is a landed catch of Chinook marked with a healed adipose fin clip (marked) and is equivalent to a non-mark-selective quota of about 2,000.

c/ Does not include Buoy 10 fishery (7,000 marked coho).

d/ The coho quota includes landed catch of 15,000 marked-selective and 3,000 non-mark selective quotas.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2011 ocean fishery management measures adopted by the Council.^{a/} (Page 1 of 3)

Projected Ocean Escapement ^{b/} or Other Criteria		Spawner Objective or Other Comparative Standard as Noted	
Key Stock/Criteria	(Council Area Fisheries)	CHINOOK	
<u>PUGET SOUND:</u>			
Elwha Summer/Fall	3.9%	≤ 10.0%	Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Dungeness Spring	4.0%	≤ 10.0%	Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Mid-Hood Canal Summer/Fall	11.8%	≤ 15.0%	Preterminal Southern U.S. CERC (NMFS ESA consultation standard)
Skokomish Summer/Fall	50.0%	≤ 50.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Nooksack Spring	7.9%	≤ 7.0%	Southern U.S. CERC, not to exceed in four out of five years (NMFS ESA consultation standard)
	41.0%	≤ 60.0%	ISBM Index (PSC general obligation)
Skagit Summer/Fall	49.9%	≤ 50.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	54.0%	≤ 60.0%	ISBM Index (PSC general obligation)
Skagit Spring	28.5%	≤ 38.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	44.0%	≤ 60.0%	ISBM Index (PSC general obligation)
Stillaguamish Summer/Fall	23.4%	≤ 25.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	36.0%	≤ 60.0%	ISBM Index (PSC general obligation)
Snohomish Summer/Fall	10.7%	≤ 15.0%	Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	28.0%	≤ 60.0%	ISBM Index (PSC general obligation)
Lake Washington Summer/Fall	15.8%	≤ 20.0%	Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	57.0%	≤ 60.0%	ISBM Index (PSC general obligation)
Green River Summer/Fall	8.4%	≤ 15.0%	Preterminal Southern U.S. Rebuilding Exploitation Rate and
	5.3 ^{c/}	≥ 5.800	Natural spawning escapement (NMFS ESA consultation standard)
	35.0%	≤ 60.0%	ISBM Index (PSC general obligation)
White River Spring	19.4%	≤ 20.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Puyallup Summer/Fall	48.3%	≤ 50.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Nisqually River Summer/Fall	64.8%	≤ 65.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
<u>WASHINGTON COAST:</u>			
Hoko Fall	41.9%	≤ 60.0%	ISBM Index (PSC general obligation)
Quillayute Fall	105.8%	≤ 60.0%	ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
Hoh Fall	76.0%	≤ 60.0%	ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
Queets Fall	32.7%	≤ 60.0%	ISBM Index (PSC general obligation)
Grays Harbor Fall	55.0%	≤ 60.0%	ISBM Index (PSC general obligation)

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2011 ocean fishery management measures adopted by the Council.^{a/} (Page 2 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
CHINOOK		
<u>COLUMBIA RIVER</u>		
Columbia Upriver Brights	399.5	74.0 Minimum ocean escapement to attain 60.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
	84.1%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
Deschutes Upriver Brights	104.4%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
Snake River Fall (threatened) SRFI	50.5%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Mid-Columbia Brights	100.4	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	128.6	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)	37.0%	≤ 37.0% Total adult equivalent fishery exploitation rate; 2011 ESA guidance (NMFS ESA consultation standard).
Columbia Lower River Wild ^{d/} (threatened)	13.1	6.9 Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
	35.0%	≤ 60.0% ISBM Index (PSC general obligation)
Spring Creek Hatchery Tules	116.4	8.2 Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Upriver Summer	39.8%	≤ 60.0% ISBM Index (PSC general obligation)
<u>OREGON COAST:</u>		
Nehalem Fall	214.6%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
Siletz Fall	64.3%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
Siuslaw Fall	122.7%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2011 because escapement objective met
<u>CALIFORNIA</u>		
Klamath River Fall	35.0	35.0 Minimum number of adult spawners to natural spawning areas; FMP.
Federally recognized tribal harvest	50.0%	50.0% Equals 34.8 (thousand) adult fish for Yurok and Hoopa tribal fisheries.
Spawner Reduction Rate	53.8%	≤ 66.7% Equals 40.8 (thousand) fewer natural adult spawners due to fishing.
Adult river mouth return	101.5	NA Natural and hatchery adults.
Age-4 ocean harvest rate	16.0%	≤ 16.0% NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	12.8%	No Council guidance for 2011.
River recreational fishery share	22.8%	≥ 15% 2011 Council Guidance. Equals 7.9 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	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. 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 with a minimum size limit ≥ 20 inches total length. 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	377.0	180.0 2011 Council and NMFS guidance for natural and hatchery adult spawners.
Ocean commercial impacts	190.3	Include fall (Sept-Dec) 2010 impacts; equals 0 SRFC.
Ocean recreational impacts	101.3	Include fall (Sept.-Dec.) 2010 impacts (386 SRFC).
River recreational impacts	61.4	No guidance in 2011.
Hatchery spawner goal	≥ 22.0	22.0 Aggregate number of adults to meet 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 management measures adopted by the Council.^{a/} (Page 3 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
COHO		
Interior Fraser (Thompson River)	10.0%(4.1%)	≤ 10.0% 2011 Southern U.S. exploitation rate ceiling; 2002 PSC coho agreement.
Skagit	35.3%(3.7%)	≤ 60.0% 2011 total exploitation rate ceiling; FMP matrix ^{e/}
Stillaguamish	25.9%(2.6%)	≤ 50.0% 2011 total exploitation rate ceiling; FMP matrix ^{e/}
Snohomish	25.8%(2.6%)	≤ 60.0% 2011 total exploitation rate ceiling; FMP matrix ^{e/}
Hood Canal	40.0%(3.8%)	≤ 65.0% 2011 total exploitation rate ceiling; FMP matrix ^{e/}
Strait of Juan de Fuca	10.8%(3.1%)	≤ 40.0% 2011 total exploitation rate ceiling; FMP matrix ^{e/}
Quillayute Fall	26.6	6.3-15.8 FMP objective MSY adult spawner range ^{e/}
Hoh	10.0	2.0-5.0 FMP objective MSY adult spawner range ^{e/}
Queets Wild	10.5	5.8-14.5 FMP objective MSY adult spawner range ^{e/}
Grays Harbor	81.4	35.4 FMP objective MSY adult spawner range ^{e/}
Lower Columbia River Natural (threatened)	15.0%	≤ 15.0% Total marine and mainstem Columbia River fishery exploitation rate (NMFS ESA consultation standard).
Upper Columbia	74.0%	≥ 50% Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	162.0	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	101.0	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	13.2%	≤ 15.0% Marine and freshwater fishery exploitation rate.
Northern California (threatened)	8.4%	≤ 13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Assumptions for Canadian and Southeast Alaska Chinook fisheries operating under aggregate abundance based management (AABM) regimes are based on allowable catch levels determined under the 2009 PST Chinook agreement and the 2011 calibration of the PSC Chinook Model. The allowable catch levels are for an Alaska all-gear catch of 294,800, a Northern BC troll and Queen Charlotte Islands catch of 182,400, and a WCVI troll and outside sport catch of 196,800.

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/ Abundance in 2011 is such that the escapement goal is not achievable; however, the exploitation rate meets the NMFS RER harvest standard of 46.0%.

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

e/ 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.

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2011 ocean salmon fishery management measures adopted by the Council.

			Observed in 2010		
Area and Fishery	Catch Projection	Mortality ^{a/} Projection	Bycatch Projection ^{b/}	Catch	Bycatch Mortality ^{c/}
OCEAN FISHERIES^{d/}:					
CHINOOK (thousands of fish)					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	41.0	5.2	14.0	35.3	4.5
Non-Indian Commercial Troll	30.9	7.2	23.3	46.9	8.6
Recreational ^{d/}	33.7	4.0	18.2	38.7	4.6
CAPE FALCON TO HUMBUG MT.					
Commercial Troll	100.9	13.4	33.4	27.4	5.3 ^{e/}
Recreational	9.6	0.9	1.8	2.3	0.3 ^{e/}
HUMBUG MT. TO HORSE MT.					
Commercial Troll	7.2	1.0	2.4	0.9	0.5 ^{e/}
Recreational	30.6	3.0	9.5	1.5	0.1 ^{f/}
SOUTH OF HORSE MT.					
Commercial	148.5	19.8	49.2	15.1	2.7 ^{f/}
Recreational	102.8	10.0	27.9	14.0	1.4 ^{f/}
TOTAL OCEAN FISHERIES					
Commercial Troll	328.5	46.6	122.3	125.6	21.6
Recreational	176.7	17.9	57.4	56.5	6.3
INSIDE FISHERIES:					
Area 4B	-	-	-	-	-
Buoy 10	10.7	NA	NA	6.8	NA
COHO (thousands of fish)					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll ^{g/}	42.0	3.0	5.6	11.5	0.9
Non-Indian Commercial Troll	12.8	8.8	30.1	8.2	7.7
Recreational	67.2	15.9	73.7	42.4	10.6 ^{h/}
SOUTH OF CAPE FALCON					
Commercial Troll	0.0	9.9	38.0	0.0	8.2 ^{e/}
Recreational ^{g/}	18.0	14.2	87.9	12.2	6.3
TOTAL OCEAN FISHERIES					
Commercial Troll	54.8	21.7	73.7	19.7	16.7
Recreational	85.2	30.1	161.6	54.6	16.9
INSIDE FISHERIES:					
Area 4B	-	-	-	-	-
Buoy 10	7.0	1.3	5.2	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: 18% (based on the expected proportion of fish that will be caught using mooching versus trolling gear, and the HRMs of 42.2% and 14% for these two respective gear types).

b/ Bycatch calculated as dropoff mortality plus fish released.

c/ Unless noted otherwise, coho bycatch mortality based on preliminary post-season model run incorporating final ocean catches and updated Columbia River run sizes.

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

e/ Oregon estimates based on reported salmon released and estimated mortalities in non-retention fisheries.

f/ Based on reported released Chinook.

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

h/ 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 measures adopted by the Council.

Fishery	Exploitation Rate (Percent)			
	LCN Coho	OCN Coho	RK Coho	LCR Tule
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	2.7%
BRITISH COLUMBIA	0.1%	0.3%	0.2%	16.2%
PUGET SOUND/STRAIT/WA COAST BAYS	0.2%	0.1%	0.0%	0.5%
NORTH OF CAPE FALCON				
Treaty Indian Ocean Troll	2.1%	0.5%	0.0%	3.9%
Recreational	4.4%	0.8%	0.0%	2.3%
Non-Indian Troll	1.4%	0.4%	0.0%	3.9%
SOUTH OF CAPE FALCON				
Recreational:				0.1%
Cape Falcon to Humbug Mt.	1.2%	2.5%	0.2%	
Humbug Mt. OR/CA border (KMZ)	0.1%	0.4%	0.8%	
OR/CA border to Horse Mt. (KMZ)	0.1%	0.7%	3.5%	
Fort Bragg	0.0%	0.5%	1.3%	
South of Pt. Arena	0.0%	0.4%	1.0%	
Troll:				1.9%
Cape Falcon to Humbug Mt.	0.8%	1.0%	0.1%	
Humbug Mt. OR/CA border (KMZ)	0.0%	0.0%	0.1%	
OR/CA border to Horse Mt. (KMZ)	0.0%	0.1%	0.4%	
Fort Bragg	0.0%	0.2%	0.5%	
South of Pt. Arena	0.0%	0.4%	0.3%	
BUOY 10	0.6%	0.0%	0.0%	
ESTUARY/FRESHWATER	3.8%	4.8% ^{a/}	0.2%	5.6%
TOTAL ^{b/}	15.0%	13.2%	8.4%	37.0%

a/ Includes adult mortalities associated with PSC funded Chinook escapement monitoring studies in Oregon.

b/ Totals do not include estuary/freshwater or Buoy 10 for 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 management measures compared to 2010 and two five year averages (2003-2007 and 2006-2010) (inflation adjusted).

Management Area	Exvessel Value (thousands of dollars) ^{a/}				Percent Change		
	2011 Projected ^{b/}	2010 Actual	2003-2007 Average ^{c/}	2006-2010 Average ^{c/}	From 2010		
					From 2010	Average	From 2006-2010 Average
North of Cape Falcon	2,380	3,956	1,759	2,003	-40%	+35%	+19%
Cape Falcon to Humbug Mt.	6,902	1,876	6,524	1,258	+268%	+6%	+449%
Humbug Mt. to Horse Mt.	573	69	445	219	+729%	+29%	+161%
Horse Mt. to Pt. Arena	2,900	1,080	3,075	678	+169%	-6%	+328%
South of Pt. Arena	7,770	171	9,052	2,209	+4,456%	-14%	+252%
Total South of Cape Falcon	18,144	3,195	19,096	4,364	+468%	-5%	+316%
West Coast Total	20,524	7,151	20,855	6,367	+187%	-2%	+222%

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 areas, 2010 exvessel prices, and 2010 average weight per fish.

c/ All dollar values are inflation adjusted to 2010 real values.

d/ The 2006-2010 average includes two years in which there were no commercial fisheries in California (2008 and 2009), and no (2008) or minimal (2009) commercial fisheries in Oregon south of Cape Falcon.

TABLE 10. Preliminary projected angler trips and state level personal income impacts generated under Council-adopted 2011 recreational ocean salmon fishery management measures compared to 2010 and two five year averages (2003-2007 and 2006-2010) (inflation adjusted).

Management Area	Coastal Community Income Impacts										
	Angler Trips (thousands)				(thousands of dollars) ^{a/}				Percent Change in Income Impacts		
	2011 Projected	2010 Actual	2003-2007 Avg.	2006-2010 Avg. ^{b/}	2011 Projected	2010 Actual	2003-2007 Avg.	2006-2010 Avg.	Compared to 2010 Actual	Compared to 2003-2007 Avg.	Compared to 2006-2010 Avg.
North of Cape Falcon	69.1	91.1	105.6	79.8	6,565	8,659	10,527	7,845	-24%	-38%	-16%
Cape Falcon to Humbug Mt.	58.7	37.1	75.5	46.7	3,281	2,074	4,844	2,807	+58%	-32%	+17%
Humbug Mt. to Horse Mt.	60.2	10.2	32.6	17.0	2,967	502	1,663	860	+491%	+78%	+245%
Horse Mt. to Pt. Arena	24.5	6.7	23.3	9.0	1,871	479	1,848	690	+290%	+1%	+171%
South of Pt. Arena	126.3	37.8	109.1	39.0	10,352	2,810	9,945	3,199	+268%	+4%	+224%
Total South of Cape Falcon	269.8	91.8	240.6	111.8	18,471	5,865	18,301	7,556	+215%	+1%	+144%
West Coast Total	338.9	182.9	346.2	191.6	25,036	14,524	28,828	15,401	+72%	-13%	+63%

a/ Income impacts are sums of the impacts for individual communities within each management area. Income impacts are not comparable to the exvessel values shown in Table 9. All dollar values are inflation adjusted to 2010 real values.

b/ The 2006-2010 average includes two years in which there were no commercial fisheries in California (2008 and 2009), and no (2008) or minimal (2009) commercial fisheries in Oregon south of Cape Falcon.

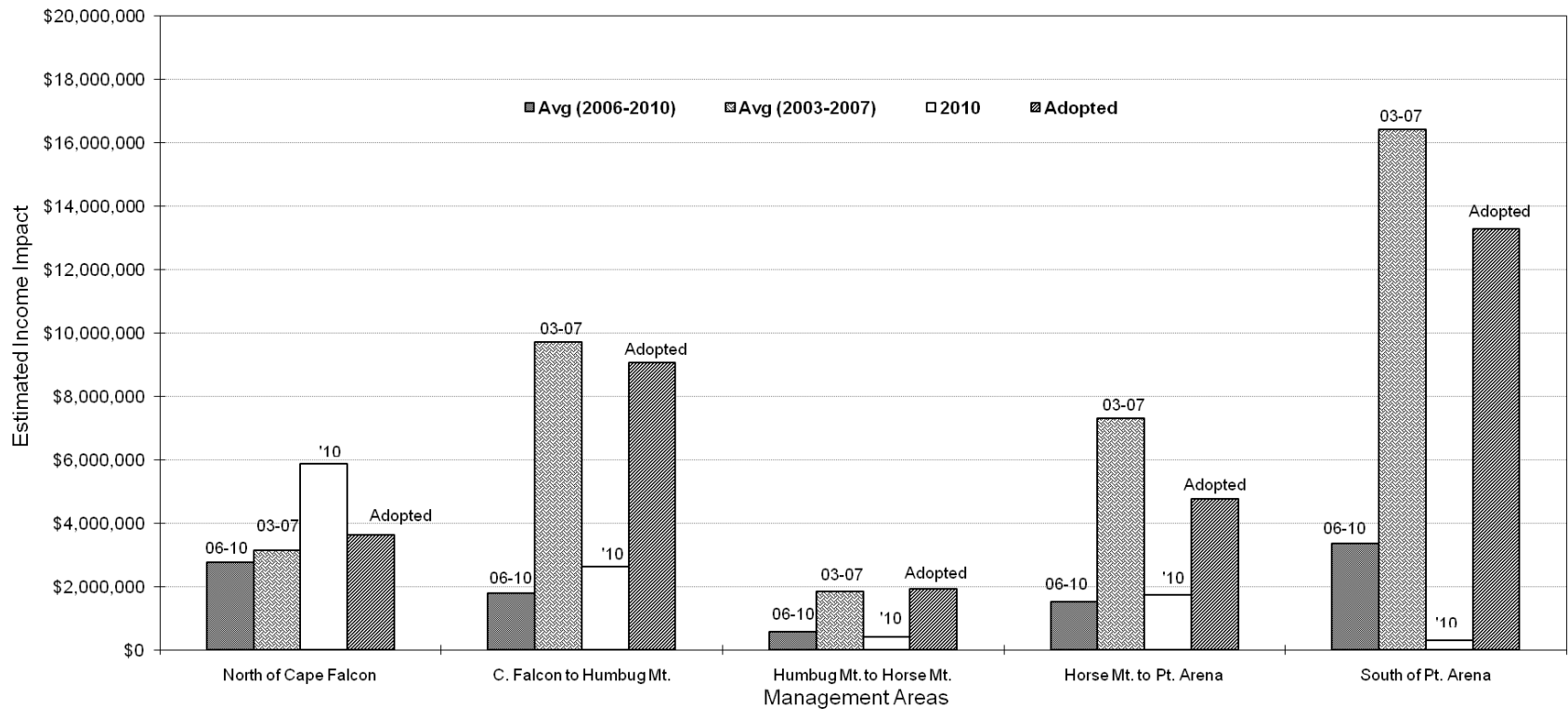


FIGURE 3. Projected coastal community personal income impacts associated with the 2011 commercial troll fishery under Council-adopted management measures compared to 2010 and the 2003-2007 and 2006-2010 averages in real (inflation adjusted) dollars.

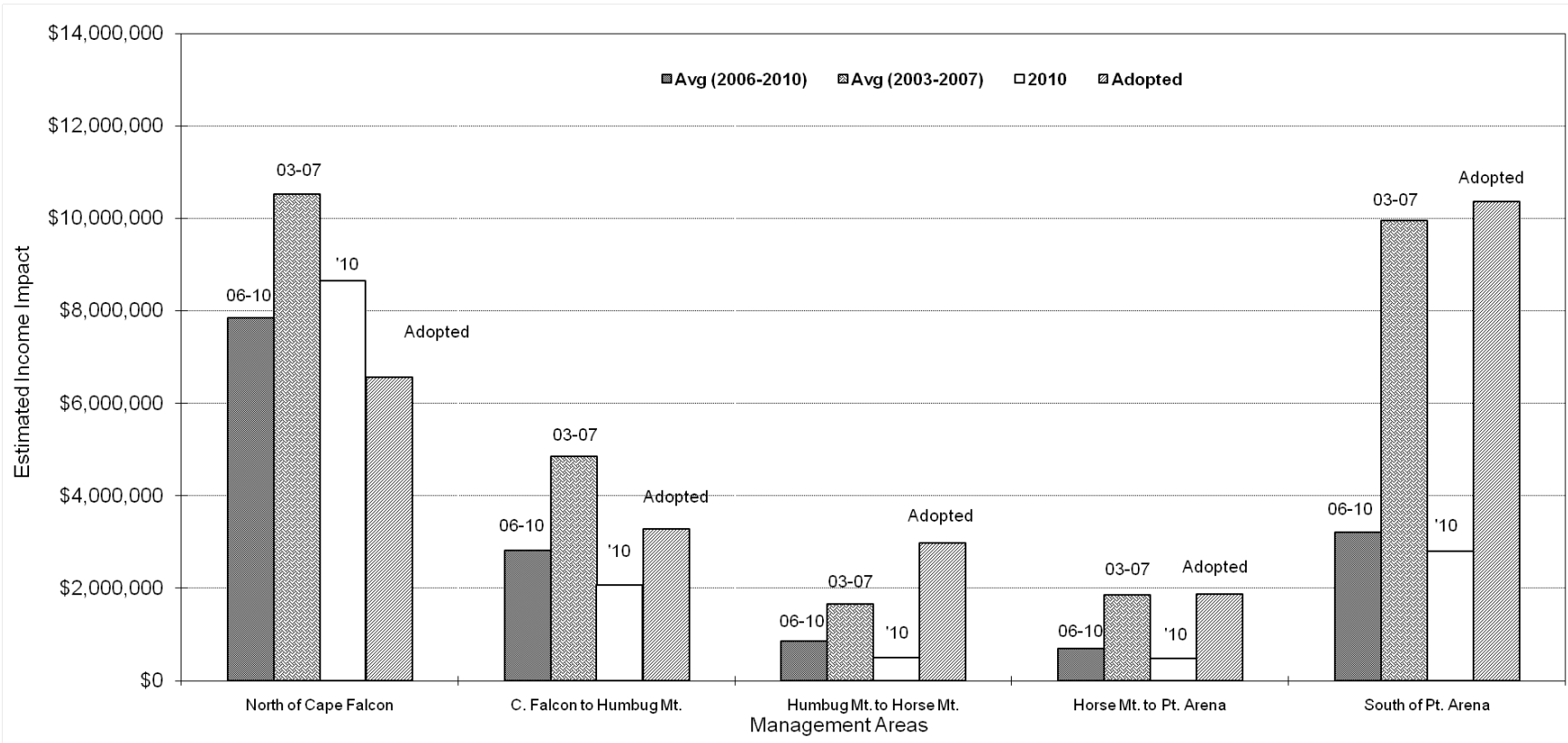
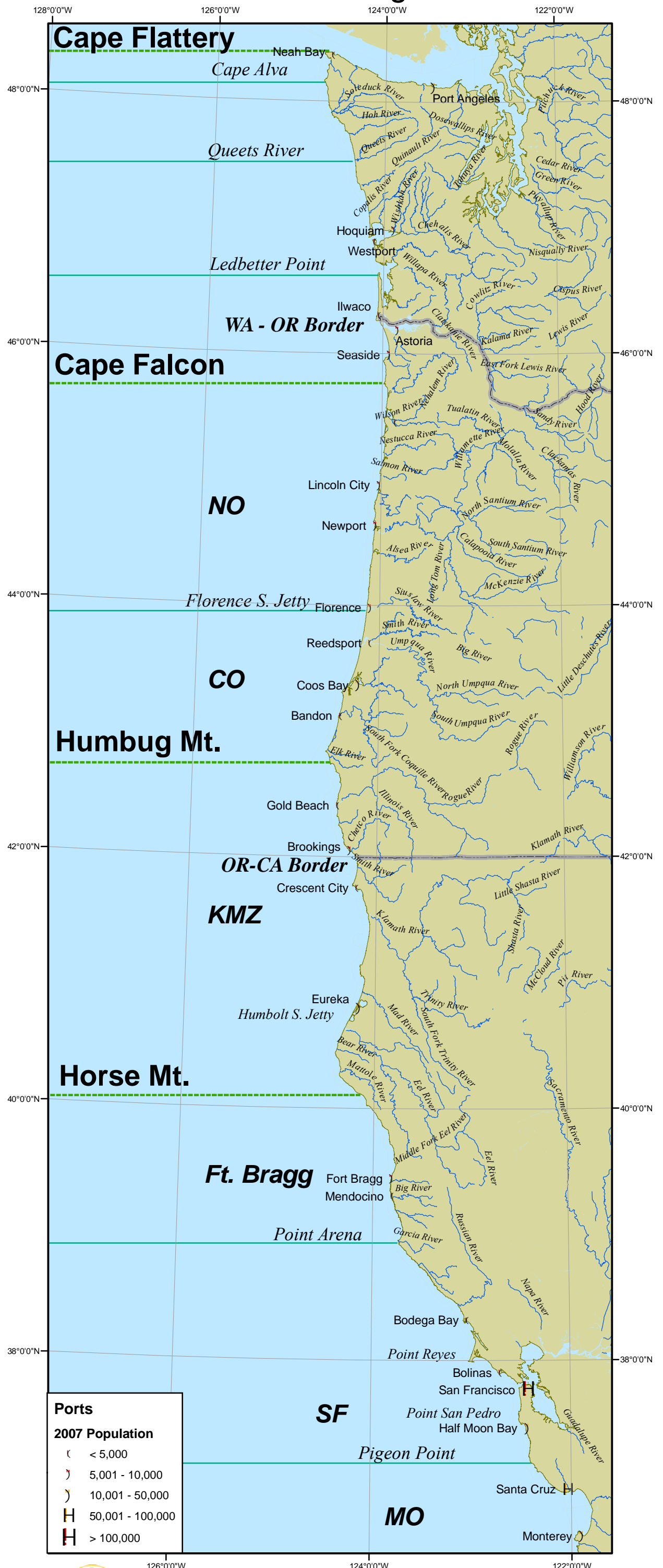


FIGURE 4. Projected coastal community personal income impacts associated with the 2011 recreational fishery under Council-adopted management measures compared to 2010 and the 2003-2007 and 2006-2010 averages in real (inflation adjusted) dollars.

Marine Fisheries Management Zones



0 25 50 100 km

Projection: UTM Zone 10, NAD83

Andrew Weiss
Fish Program
Biological Data Systems
Feb. 2009