

PRESEASON REPORT III
COUNCIL ADOPTED MANAGEMENT MEASURES
AND
ENVIRONMENTAL ASSESSMENT PART 3
FOR 2012
OCEAN SALMON FISHERY
REGULATIONS

REGULATION IDENTIFIER NUMBER 0648-XA921



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

APRIL 2012

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. JENNIFER SIMON

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. Melodie Palmer-Zwahlen, 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. 2012. *Preseason Report III: Council Adopted Management Measures and Environmental Assessment Part 3 for 2012 Ocean Salmon Fishery Regulations: RIN 0648-Xa921*. (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.....	2
2.2 State Waters Fisheries.....	2
3.0 SALMON FISHERY MANAGEMENT PLAN REQUIREMENTS	3
3.1 Sacramento River Fall Chinook Rebuilding Plan	4
4.0 SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT	5
5.0 OBLIGATIONS UNDER THE PACIFIC SALMON TREATY	6
5.1 Chinook Salmon Management.....	6
5.2 Coho Salmon Management.....	7
6.0 CHINOOK SALMON MANAGEMENT	8
6.1 North of Cape Falcon.....	8
6.1.1 Objectives.....	9
6.1.2 Achievement of Objectives	9
6.2 South of Cape Falcon.....	9
6.2.1 Objectives.....	9
6.2.2 Achievement of Objectives	10
7.0 COHO SALMON MANAGEMENT	11
7.1 Objectives	11
7.2 Achievement of Objectives.....	11
8.0 PINK SALMON MANAGEMENT	12
9.0 IMPORTANT FEATURES OF THE ADOPTED MANAGEMENT MEASURES.....	12
9.1 Commercial.....	12
9.2 Recreational	13
9.3 Treaty Indian.....	14
10.0 SOCIOECONOMIC IMPACTS OF THE ADOPTED MANAGEMENT MEASURES	14
11.0 ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION	14

LIST OF TABLES

	<u>Page</u>
TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.....	16
TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.....	22
TABLE 3. Treaty Indian ocean troll management measures adopted by the Council for ocean salmon fisheries, 2012.....	27
TABLE 4. Chinook and coho harvest quotas and guidelines for 2012 ocean salmon fishery management measures adopted by the Council.....	28
TABLE 5. Projected key stock escapements or management criteria for 2012 ocean fishery management measures adopted by the Council.....	29
TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2012 ocean salmon fishery management measures adopted by the Council.....	33
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 2012 ocean fisheries management measures adopted by the Council.....	34
TABLE 8. Projected coho mark rates for 2012 fisheries under Council adopted management measures	35
TABLE 9. Preliminary projected exvessel value under Council-adopted 2012 non-Indian commercial troll management measures	36
TABLE 10. Preliminary projected angler trips and state level personal income impacts generated under Council-adopted 2012 recreational ocean salmon fishery management measures	37
TABLE 11. Environmental effects of the Proposed Action and the Sacramento River fall Chinook rebuilding plan.....	38

LIST OF FIGURES

	<u>Page</u>
FIGURE 1. Council-adopted non-Indian commercial salmon seasons for 2012.....	21
FIGURE 2. Council-adopted recreational salmon seasons for 2012.	26
FIGURE 3. Projected coastal community personal income impacts associated with the 2012 commercial troll fishery under Council-adopted management measures.....	39
FIGURE 4. Projected coastal community personal income impacts associated with the 2012 recreational fishery under Council-adopted management measures	40

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
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FMP	fishery management plan
FONSI	finding of no significant impact
FRAM	Fishery Regulation Assessment Model
GSI	genetic stock identification
IPHC	International Pacific Halibut Commission
ISBM	Individual Stock Based Management
KMZ	Klamath Management Zone (the ocean zone between Humbug Mountain and Horse Mountain where management emphasis is on Klamath River fall Chinook)
KRFC	Klamath River fall Chinook
LCN	lower Columbia River natural (coho)
LCR	lower Columbia River (natural tule Chinook)
LRH	lower river hatchery (tule fall Chinook returning to hatcheries below Bonneville Dam)
LRW	lower 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)
SI	Sacramento index
SONCC	Southern Oregon/Northern California Coast (coho)
SRFC	Sacramento River fall Chinook
SRFI	Snake River fall (Chinook) index
SRW	Snake River wild fall Chinook
SRWC	Sacramento River winter Chinook
STT	Salmon Technical Team
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife

Page Intentionally Blank

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 2012 ocean salmon fishery management measures adopted by the Council for submission to the U.S. Secretary of Commerce and characterizes their expected impacts on ocean salmon fisheries and the stocks which support them.

This report also constitutes the third and final part of an Environmental Assessment (EA) to comply with National Environmental Policy Act (NEPA) requirements for the 2012 ocean salmon regulations and includes a description and analysis of a Proposed Action. An EA is used to determine whether an action being considered by a Federal agency has significant environmental impacts. The second part of the EA (Preseason Report II; PFMC 2012c) presented a statement of the purpose and need, a description of the affected environment, a description of 2012 ocean salmon regulation Alternatives being considered, and an analysis of the effects of those Alternatives on the affected environment. The first part of the EA (Preseason Report I; PFMC 2012b) included a description of the No-Action Alternative and an analysis of the effects of the No-Action Alternative on salmon stocks managed under the Pacific Coast Salmon Fishery Management Plan (FMP), which is one component of the affected environment. Along with the description and analysis of the Proposed Action in Preseason Report III (developed after the Council makes a final recommendation in April 2012), these three parts of the EA will provide the necessary components to determine if a finding of no significant impact (FONSI) or Environmental Impact Statement (EIS) is warranted.

The Proposed Action will also establish a rebuilding plan for Sacramento River fall Chinook (SRFC), which was determined to be overfished in 2010. This is needed to comply with the MSA requirement for adopting and implementing a rebuilding plan for an overfished stock within two years of an overfished status determination. Preseason Report II included a description of alternative rebuilding plans, and an analysis of the effects of those alternatives on the affected environment. This report describes the rebuilding plan adopted by the Council.

The Council's recommendations for the 2012 ocean salmon fishery regulations meet all objectives of the Pacific Coast Salmon Plan (Salmon FMP) (Section 3), including Annual Catch Limits (ACLs) set according to the FMP and described in Preseason Report I; the level of protection required by all consultation standards for salmon species listed under the Endangered Species Act (ESA) (Section 4), and; the obligations under the Pacific Salmon Treaty (PST) (Section 5).

2.0 SELECTION OF FINAL MANAGEMENT MEASURES

The following figures and tables describe the Council-adopted management measures covering the period from May 1, 2012, to April 30, 2013:

- Table 1-Non-Indian commercial ocean salmon management measures, pages 16-20;
- Figure 1-Geographic outline of commercial troll (non-Indian) ocean salmon seasons, page 21;
- Table 2-Recreational ocean salmon management measures, pages 22-25;
- Figure 2-Geographic outline of recreational ocean salmon seasons, page 26;
- Table 3-Treaty Indian commercial ocean management measures, page 27; and
- Table 4-Allowable catch quotas for Chinook and coho, page 28.

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 Council adopted 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. Table 11 summarizes environmental effects of the Proposed Action and Alternatives.

The 2012 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 2012-2013 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-selective retention restrictions.
6. Transferring unused quota to subsequent fisheries on an impact neutral, fishery equivalent, basis for the north of Cape Falcon treaty Indian Chinook fisheries, 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 Klamath Management Zone (KMZ) commercial Chinook fisheries.
7. Closing Oregon recreational and commercial fisheries scheduled to open March 15, 2013, if necessary to meet 2013 management objectives.
8. Closing California recreational fisheries scheduled to open April 6, 2013, or commercial fisheries scheduled to open April 16, 2013, if necessary to meet 2013 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. 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 additional state marine water salmon fisheries in 2012.

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

Administrative objectives are requirements for meeting other applicable law outside of the Salmon FMP. These requirements include ESA consultation standards, international treaties, and tribal trust responsibilities. The Salmon FMP defers to NMFS consultation standards for salmon stocks listed under the ESA in regards to biological conservation objectives. Section 4.0 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 5.0 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.

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

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

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

In addition to the allocation objectives associated with sharing between treaty Indian and non-Indian sectors, the Salmon FMP includes formulas for sharing Chinook and coho quotas north of Cape Falcon between commercial and recreational sectors, and among recreational port subareas, and for coho south of

Cape Falcon between commercial and recreational sectors. The 2012 salmon management measures adopted by the Council meet the allocation requirements for fisheries north of Cape Falcon in the Salmon FMP. There were insufficient coho available for a directed commercial harvest south of Cape Falcon; therefore, the FMP allocation schedule guidance was to determine allocation of allowable impacts during the preseason process.

3.1 Sacramento River Fall Chinook Rebuilding Plan

In June of 2011, the Council adopted Amendment 16 to the Salmon FMP, which established new status determination criteria for non-ESA listed salmon stocks. Under the new criteria, SRFC are determined to be overfished when the 3-year geometric mean spawning escapement falls below the minimum stock size threshold (MSST) of 91,500 natural and hatchery adult spawners. The stock is determined to be subject to overfishing if the exploitation rate exceeds the maximum fishing mortality threshold (MFMT) of 78 percent. The FMP default criterion for rebuilt status is when the 3-year geometric mean spawning escapement exceeds maximum sustainable yield spawning escapement (S_{MSY}). For SRFC, S_{MSY} is defined as 122,000 natural and hatchery adult spawners. Spawning escapement estimates for 2009-2011 result in a 3-year geometric mean of 83,530.

When a stock is determined to be overfished, a rebuilding plan must be approved within two years. The Salmon FMP identifies four mandatory components of a rebuilding plan:

1. An assessment of the role of fishing, marine, and freshwater survival in the overfished determination
2. Criteria for determining rebuilt status
3. Management measures necessary to rebuild the stock
4. Specification of a rebuilding period.

With regard to the first component of the rebuilding plan, the Council accepted an assessment of the cause of the overfished status in March 2011 (Agenda Item G.3.b, Supplemental SRFC Stock Assessment, March 2011). In summary, the assessment identified poor marine survival as the primary factor leading to the overfished determination and that SRFC were not subject to overfishing.

The Council considered alternatives for the other three components of the rebuilding plan in March 2012, and analyzed those alternatives as part of the 2012 annual ocean salmon management measures (Preseason Report II). The Council adopted a final rebuilding plan at its April 2012 meeting.

The Council adopted the FMP default rebuilt criterion for SRFC, whereby the stock is rebuilt when the 3-year geometric mean spawning escapement exceeds S_{MSY} .

The Council adopted the FMP default control rule for managing SRFC until the stock is rebuilt. The default control rule is defined by a maximum exploitation rate of 70 percent at high abundance, an annual management target of 122,000 natural and hatchery adult spawners at moderate abundance, and *de minimis* fishing rates of no more than 25 percent at low abundance (see FMP section 3.3.6 for specifics of the control rule).

The Council adopted a rebuilding period of one year (the shortest time possible), with a target rebuilding year of 2012.

4.0 SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT

Since 1989, NMFS listed 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	76 FR 50447	8/15/2011	54 FR 32085	8/1/1989
	Snake River Fall	Threatened	76 FR 50448	8/15/2011	57 FR 14653	4/22/1992
	Snake River Spring/Summer	Threatened	76 FR 50448	8/15/2011	57 FR 14653	4/22/1992
	Puget Sound	Threatened	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
	Lower Columbia River	Threatened	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
	Upper Willamette River	Threatened	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
	Upper Columbia River Spring	Endangered	76 FR 50448	8/15/2011	64 FR 14308	3/24/1999
	Central Valley Spring	Threatened	76 FR 50447	8/15/2011	64 FR 50394	9/16/1999
	California Coastal	Threatened	76 FR 50447	8/15/2011	64 FR 50394	9/16/1999
Chum Salmon (<i>O. keta</i>)	Hood Canal Summer-Run	Threatened	76 FR 50448	8/15/2011	64 FR 14508	3/25/1999
	Columbia River	Threatened	76 FR 50448	8/15/2011	64 FR 14508	3/25/1999
Coho Salmon (<i>O. kisutch</i>)	Central California Coastal	Endangered	76 FR 50447	8/15/2011	61 FR 56138	10/31/1996
	S. Oregon/ N. California Coastal	Threatened	76 FR 50447	8/15/2011	62 FR 24588	5/6/1997
	Oregon Coastal	Threatened	76 FR 50448	8/15/2011	63 FR 42587	8/10/1998
	Lower Columbia River	Threatened	76 FR 50448	8/15/2011		
Sockeye Salmon (<i>O. nerka</i>)	Snake River	Endangered	76 FR 50448	8/15/2011	56 FR 58619	11/20/1991
	Ozette Lake	Threatened	76 FR 50448	8/15/2011	64 FR 14528	3/25/1999

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

Date	Evolutionarily Significant Unit covered and effective period
8-Mar-96	Snake River spring/summer and fall Chinook and sockeye (until reinitiated)
28-Apr-99	Oregon Coastal natural coho, Southern Oregon/ Northern California coastal coho, Central California coastal coho (until reinitiated)
28-Apr-00	Central Valley spring Chinook (until reinitiated)
27-Apr-01	Hood Canal summer chum 4(d) limit (until reinitiated)
30-Apr-01	Upper Willamette Chinook, Upper Columbia spring Chinook, Lake Ozette sockeye, Columbia River chum, and 10 steelhead ESUs (until reinitiated)
30-Apr-10	Sacramento River winter Chinook (until reinitiated)
30-Apr-04	Puget Sound Chinook (until reinitiated)
13-Jun-05	California coastal Chinook (until reinitiated)
28-Apr-08	Lower Columbia River natural coho (until reinitiated)
30-Apr-10	Lower Columbia River Chinook (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 February 27, 2012, NMFS provided guidance on protective measures for species listed under the ESA during the 2012 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 2012 management season, as well as further guidance and recommendations for the 2012 management season.

The ESA consultation standards, exploitation rates, and other criteria in place for the 2012 management season are presented in Table 5. Some listed stocks are either rarely caught in Council fisheries (e.g., spring Chinook from the upper Columbia River) or already receive sufficient protection from other salmon FMP and ESA standards (e.g., Central Valley spring Chinook). NMFS has determined that management actions designed to limit catch from these ESUs, beyond what will be provided by harvest constraints for other stocks, are not necessary.

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

Chinook

SNAKE RIVER spring/summer (threatened)
UPPER WILLAMETTE (threatened)

PUGET SOUND (threatened)
UPPER COLUMBIA RIVER spring (endangered)

Sockeye

SNAKE RIVER (endangered)

OZETTE LAKE sockeye (threatened)

Chum

COLUMBIA RIVER (threatened)

HOOD CANAL summer (threatened)

Steelhead

Southern California (endangered)
South-central California coast (threatened)
Upper Columbia River (endangered)
Middle Columbia River (threatened)
Snake River Basin (threatened)
Puget Sound (threatened)

Central Valley, California (threatened)
Central California coast (threatened)
Upper Willamette River (threatened)
Lower Columbia River (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 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 a 30 percent reduction in the catch ceilings for AABM fisheries off the West Coast Vancouver Island (WCVI) and a 15 percent reduction in the catch ceilings for AABM fisheries in Southeast Alaska Chinook relative

to the catch ceilings in effect for these fisheries since 1999. Under the terms of the 2008 PST Agreement, Council fisheries for Chinook salmon continue to be subject to the ISBM provisions of Annex 4, Chapter 3, adopted in 1999. These provisions require the adult equivalent (AEQ) exploitation rate by all U.S. fisheries south of the U.S./Canada border be reduced by 40 percent from the 1979-1982 base period for Chinook indicator stocks identified in Attachments IV and V of the Pacific Salmon Treaty that fail to achieve their management objectives..

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

Key considerations for Canadian domestic fishery management for Chinook in 2012 include, (1) meeting domestic conservation obligations for WCVI, Strait of Georgia, and Fraser River spring stocks; (2) Chinook harvests by native fisheries; and (3) incidental impacts during commercial and native fisheries directed at sockeye, and chum salmon. The fishery regulatory package off WCVI was 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 abundance of the management units.

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 exploitation rate goals from the Comprehensive Coho Agreement, developed by Washington and the Puget Sound tribes, and adopted by the Council as FMP conservation objectives in November 2009. Actual exploitation rate constraints for Canadian fisheries on U.S. coho management units are determined by formulas that specify sharing of allowable exploitation rates and a “composite rule.” The composite rule adjusts constraints for Canadian fishery exploitation rates based on the number of U.S. management units which fall in a given category. For example, if only one Washington coastal coho management unit is in low status, Canadian fisheries are constrained to a total exploitation rate on that unit of 12 percent; if two or more Washington coastal management units are in low status, the constraint becomes 10 percent. The most restrictive exploitation rate limit for Canadian fishery impacts on U.S. coho management units is 10 percent.

For Washington coastal coho management units, a range is reported for the allowable exploitation rates based on the relationship between the preseason abundance forecast and the upper and lower values of the spawning escapement goal ranges. 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 escapement goal range. However, the maximum allowable exploitation rate allowed under the PST is 65 percent.

For 2012, Puget Sound and Washington coast coho constraints are as follows:

PST Southern Coho Management Plan		
U.S. Management Unit	Total Exploitation Rate Constraint ^{a/}	Categorical Status ^{b/}
Skagit	35%	Moderate
Stillaguamish	50%	Abundant
Snohomish	40%	Moderate
Hood Canal	65%	Abundant
Strait of Juan de Fuca	40%	Moderate
Quillayute Fall ^{b/}	65%	Abundant
Hoh ^{b/}	65%	Abundant
Queets ^{b/}	65%	Abundant
Grays Harbor	65%	Abundant

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

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

Key considerations for Canadian fishery management for coho in 2012 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, 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 2012 indicates continuing concerns for the condition of Interior Fraser coho. The Interior Fraser coho management remains in low status, constraining the total mortality fishery exploitation rate for 2012 Southern U.S. fisheries to a maximum of 10.0 percent.

6.0 CHINOOK SALMON MANAGEMENT

6.1 North of Cape Falcon

Abundance projections important to Chinook harvest management north of Cape Falcon in 2012 are:

- *Columbia River hatchery tules.* Combined production of Lower River Hatchery (LRH) and Spring Creek Hatchery (SCH) stocks returning to the Columbia River is predicted to be 190,800, which is lower than the 2011 preseason expectation of 249,900. The 2012 LRH forecast abundance is 128,400, which is similar to the forecast of 128,900 in 2011. The 2012 SCH forecast abundance is 60,000, which is about half of last year's forecast of 116,700.

6.1.1 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 4.0 above. Relevant stocks for the area north of Cape Falcon include, LCR natural tule Chinook, Columbia Lower River Wild (LRW) fall Chinook, and SRW fall Chinook.

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 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 in the adopted management measures is less than the 41.0 percent maximum for 2012. LCR tules are the constraining Chinook stock for fisheries north of Cape Falcon in 2012.
- *LRW fall Chinook:* The adopted management measures have a projected spawning escapement of 10,300 adults in the North Fork Lewis River, which exceeds the ESA consultation standard of an adult spawning escapement of at least 5,700 in the North Fork Lewis River. LRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2012.
- *SRW fall Chinook.* The adopted management measures have an ocean exploitation rate of 51.0 percent of the base period exploitation rate, which is less than the ESA consultation standard of no more than 70 percent of the 1988-1993 base period exploitation rate for all ocean fisheries. SRW Chinook will not constrain ocean fisheries north of Cape Falcon in 2012.

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 relevant Chinook stocks other than those listed above (Table 5).

6.2 South of Cape Falcon

Status of Chinook stocks important to 2012 Chinook harvest management south of Cape Falcon are:

- *SRFC.* The 2012 Sacramento Index (SI) forecast is 819,400 SRFC adults, which is higher than the SI forecast of 729,900 in 2011.
- *KRFC.* The age-3 forecast is 1,567,600 KRFC, which is well above the 2011 age-3 forecast of 304,600 and is the highest forecast on record. The age-4 forecast is 79,600 fish, which is greater than the 2011 forecast of 61,600. The age-5 forecast is 4,600 fish, which is similar to last year's forecast of 5,000.
- *SRWC.* No abundance forecast is made for this stock, but returns have declined in recent years. The geometric mean of the most recent three years of escapement is 1,797 fish.

6.2.1 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 4.0 above. Relevant stocks for the area south of Cape Falcon include SRWC, California Coastal Chinook, SRW fall Chinook, and LCR natural tule Chinook.
- SRFC hatchery and natural-area spawner escapement goal of 122,000 to 180,000 adults (FMP conservation objective). Fisheries must also be designed to achieve an expected escapement greater than or equal to the S_{ACL} . For 2012, the S_{ACL} is 245,820 hatchery and natural area adult spawners. In addition, the adopted rebuilding plan requires a maximum exploitation rate of 0.70 and a spawning escapement of 122,000 adults.
- KRFC natural area spawning escapement of at least 40,700 adults, a spawner reduction rate not to exceed 68 percent (FMP conservation objective), and 50:50 tribal-non-tribal sharing of adult harvest (Department of Interior Solicitor Opinion). Fisheries must be designed to achieve an expected escapement greater than or equal to the S_{ACL} . For 2012, the S_{ACL} is 86,288 natural area adult spawners.

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 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.

- *California Coastal Chinook*. The ESA consultation standard that limits the forecast KRFC age-4 ocean harvest rate to a maximum of 16.0 percent is met by the adopted management measures.
- *SRWC*. The ESA consultation standard that (1) limits the age-3 impact rate in 2012 fisheries south of Point Arena to a maximum of 13.7 percent and (2) specifies time/area closures and minimum size limit constraints south of Point Arena, is met by the adopted management measures.
- *KRFC*. The S_{ACL} of 86,288 natural-area adult escapement, as well as the conservation objective, is met by the adopted management measures.
- *SRFC*. The S_{ACL} of 245,820 hatchery and natural area adult spawners, the conservation objective, and the provisions of the SRFC rebuilding plan, are met by the adopted management measures. The exploitation rate for the adopted management measures is lower than the maximum allowed under the adopted rebuilding plan.
- *LCR natural tule fall Chinook*. The exploitation rate in the adopted management measures is less than the 41.0 percent maximum for 2012.
- *SRW fall Chinook*. SRW Chinook will not constrain ocean fisheries south of Cape Falcon in 2012.

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 relevant Chinook stocks other than those listed above (Table 5).

7.0 COHO SALMON MANAGEMENT

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

- *OPI Hatchery coho.* The 2012 forecast for hatchery coho from the Columbia River and the coast south of Cape Falcon of 341,700 is slightly lower than the 2011 forecast of 375,100. The Columbia River early coho forecast is 229,800 compared to the 2011 forecast of 216,000 and the Columbia River late coho forecast is 87,400, which is reduced compared to the 2011 forecast of 146,500.
- *OCN coho.* The 2012 OCN forecast is 291,000 compared to the 2011 forecast of 249,900.
- *LCN coho.* The 2012 LCN forecast is 30,100 compared to the 2011 forecast of 22,700.
- *Puget Sound coho.* Among Puget Sound natural stocks, Stillaguamish and Hood Canal are in the abundant category for 2012; Skagit, Snohomish, and Strait of Juan de Fuca are in the moderate category.
- *Interior Fraser (Thompson River) coho.* This Canadian stock continues to be depressed, and will again constrain ocean coho fisheries north of Cape Falcon in 2012.

7.1 Objectives

Key coho management objectives shaping management measures in 2012 Council area fisheries are:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 4.0 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 2012 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 5.2 above. Because of the generally favorable forecasts for coho stocks in 2012, Interior Fraser coho is the only key management stock for ocean fisheries north of Cape Falcon. Because of their abundance status, Interior Fraser coho are subject to an exploitation rate ceiling of 10.0 percent in southern U.S. fisheries under the 2002 PST Southern Coho Management Plan.

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 maximum 15.0 percent exploitation rate for combined marine and mainstem Columbia River fisheries, with a marine exploitation rate of 11.3 percent and a mainstem Columbia River exploitation rate of 3.7 percent.
- *OCN coho*. The adopted management measures satisfy the maximum 15.0 percent exploitation rate for combined marine and freshwater fisheries, with a marine exploitation rate of 8.5 percent and a freshwater exploitation rate of 6.5 percent.
- *Interior Fraser coho*. The Southern U.S. exploitation rates in the adopted management measures comply with the 10.0 percent maximum required by the PST Southern Coho Management Plan.

The adopted management measures for coho fisheries satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for relevant coho stocks other than those listed above (Table 5).

8.0 PINK SALMON MANAGEMENT

Pink salmon are sufficiently abundant to merit management consideration only in odd numbered years. Therefore, pink salmon are not a management consideration for 2012.

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 2011, with lower abundance of OPI hatchery coho and tule fall Chinook. In 2012, allowable catch of Chinook is increased due to the higher LCR exploitation rate allowed under the recently adopted abundance-based ESA consultation standard and decreased impacts in Alaskan and Canadian fisheries relative to 2011. Overall non-Indian coho catch quotas are similar to 2011.

Two-thirds of the non-Indian 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 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 Chinook fisheries opened April 1 and will run through August 29. The Chinook fishery will reopen September 5 and continue through October with weekly landing and possession limits.

For the Oregon KMZ, the Chinook fishery opened April 1 and will run through May. The months of June, July, and August have monthly quota fisheries with daily landing and possession limits. Unused quota from June and/or July can be transferred to the following quota period on an impact neutral, fishery equivalent basis. The Chinook fishery will reopen September 5 through the end of the month or attainment of the quota, and includes with daily landing and possession limits.

For the California KMZ, a 6,000 Chinook quota fishery will be open for the second half of September, with landing and possession limits.

Fort Bragg area fisheries will be open for more than half of July, nearly all of August, and the entire month of September. All fish caught when the California KMZ quota fishery is open must be landed within the Fort Bragg management area.

Fisheries south of Point Arena will open on May 1. During June 5-26, 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 27 and remain open until the end of September, with the exception of a two-day closure at the end of August to allow for the landing of fish prior to September 1. All fish caught south of Point Arena in September must be landed south of Point Arena.

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

The adopted management measures allow for non-retention genetic stock identification (GSI) sampling for areas south of Cape Falcon. For Oregon management areas, the GSI non-retention sampling may occur during closed periods between June 1 and October 31, while for California management areas non-retention sampling may occur during closed periods between May 1 and September 30. The GSI non-retention sampling will be conducted by a limited number of commercial salmon vessels with a NMFS permit allowing participation in the study. All salmon must be released in good condition after collection of biological samples.

9.2 Recreational

In the area between the U.S. Canada Border and Cape Falcon, an area-wide mark-selective Chinook fishery was adopted; starting and ending dates differ between subareas, but all fall within June. The fishery will be open for approximately two weeks in each area and is operating under a coastwide quota of 8,000 marked Chinook.

The all species recreational fisheries in the subareas between the U.S. Canada Border and Cape Falcon have opening dates ranging from June 23 to July 1, and operate under regulations similar to recent years. Chinook guidelines are increased compared to 2011 while coho subarea quotas are slightly above 2011. No Area 4B add-on fishery is scheduled in 2012.

For the north and central Oregon coast south of Cape Falcon, the Chinook fishery opened March 15 and will run through October. Coho fisheries consist of a mark-selective coho quota fishery in the month of July for the area from Cape Falcon to the Oregon/California border and a non-mark-selective coho quota fishery in September for the area from Cape Falcon to Humbug Mountain. Quota remaining from the July 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 September 1 through 3 then Thursdays through Saturdays through September 22, or until the quota is attained. The fishery will remain open for all salmon except coho on all other days in September. After the September coho fishery closes, the all salmon except coho fishery will reopen seven days per week through October.

Chinook fishing in both the Oregon and California KMZ will open May 1 and run through September 9. In July, a mark-selective coho quota fishery will allow for marked coho retention in the Oregon KMZ. The Chinook minimum size limit will be 24 inches in the Oregon KMZ and 20 inches in the California KMZ.

South of the KMZ, all areas opened on April 7. In the Fort Bragg and San Francisco areas, seasons will run through November 11. In the Monterey area the season will run through October 7. The minimum

size limit for Chinook in Fort Bragg will be 20 inches for the entire season. In the San Francisco and Monterey areas, the Chinook minimum size limit will be 24 inches through July 5 to protect SRWC. The minimum size limit will be 20 inches beginning July 6.

9.3 *Treaty Indian*

The adopted management measures are generally similar in structure as in recent years although Chinook quotas were increased due to more flexible NMFS guidance for 2012 for LCR natural tule Chinook and decreased impacts in Canadian and Alaskan fisheries. In addition, the Treaty Indian Chinook fishery allows Chinook remaining from the May through June Chinook-directed quota to be transferred to the July to September all-salmon Chinook quota provided the transfer would not result in exceeding preseason impact expectations on any stocks.

10.0 SOCIOECONOMIC IMPACTS OF THE ADOPTED MANAGEMENT MEASURES

The short-term economic effects of the Council-adopted management measures for non-Indian fisheries are shown in Tables 9 and 10. Table 9 shows projected commercial troll impacts (beneficial effects) expressed in terms of estimated potential exvessel value. Table 10 shows projected recreational fisheries impacts in terms of the number of projected angler-trips and community personal income impacts generated by those activities. Note that exvessel values shown for the commercial troll fishery in Table 9 and income impact values shown for the recreational fishery in Table 10 are not directly comparable. More directly comparable measures of short-term economic impacts from commercial and recreational salmon fisheries are presented in Figures 3 and 4, which show estimated community income impacts under the Council-adopted commercial troll and recreational fishery management measures, respectively, compared to historic impacts in real (inflation-adjusted) dollars. In general, income impacts estimate the amount of income generated by the economic linkages associated with a particular activity. While reductions in income impacts may not necessarily reflect net losses, they are likely to indicate losses to businesses and individuals in communities that depend on that activity for livelihood.

Total economic effects may vary more or less than indicated by the short-term impacts on ocean fisheries reported in Tables 9 and 10 and Figures 3 and 4. Salmon that remain unharvested in the ocean do not necessarily represent an economic loss, as they may augment inside harvests or provide additional spawning escapement. Restricting ocean harvests may increase opportunities for inside harvesters (e.g., higher commercial revenue or more angler trips) or contribute to higher inside catch per unit effort (CPUE) (i.e., lower costs for commercial harvesters and/or higher success rates for recreational fishers). Salmon that remain unharvested by both ocean fisheries and inside fisheries may impact future production, although the magnitude of those effects varies depending on the biology of the affected stocks.

Fishing effort estimates for the recreational fishery south of Cape Falcon were based on measures developed by the STT for modeling biological impacts. STT estimates for south of Cape Falcon use multi-year averages to predict effort for the coming year. Consequently, if the multi-year average for a particular time period and area happens to be higher than for the previous year, then the model may forecast an increase in effort for the coming year even though the fishery management measures may actually be relatively more constraining or *vice-versa*. Recreational fishing effort north of Cape Falcon was estimated using historical CPUE estimates applied to the respective salmon quotas. For the summer mark-selective coho fishery, average 2005-2011 Washington coho CPUE was applied to the adopted coho quota. For the June Chinook fishery, average CPUE reported in recent years' (2010 and 2011) June Chinook-only fishery was used.

The expected salmon harvests used to model commercial fishery impacts were taken from Table 6. Revenue and income impacts from the commercial fishery depend on both the amounts harvested and the exvessel prices received. The prior year's exvessel prices were assumed to be the best indicator of prices expected in the coming season. Coastwide average Chinook exvessel value per pound in 2011, while considerably above the long term average in inflation adjusted terms, was below the recent five-year average and at its lowest level since 2006 (Note: the fishery was closed in California in 2008 and 2009). Relatively high average coastwide exvessel value per pound observed during 2008-2010 may have been driven by limited supply. Supply constraints were relaxed somewhat in 2011 contributing to larger commercial harvests but coinciding with lower coastwide average exvessel value per pound. If the actual increase in harvest this year is less (in absolute value percentage terms) than the decrease in average exvessel value per pound, then salmon exvessel revenues projected in Table 9 may be overstated along with resulting commercial fisheries income impacts shown in Figure 3 (and vice versa).

11.0 ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

The Proposed Action, adoption of the 2012 ocean salmon regulations and adoption of a Sacramento River fall Chinook rebuilding plan, was assessed relative to the environmental components and criteria established in Preseason Report II (Part 2 of this EA). The impacts of the Proposed Action on most target stocks and ESA listed salmon fall within the range of impacts analyzed for the Alternatives in Preseason Report II. For those stocks where the impacts of the Proposed Action fall outside the range of impacts (Hood Canal coho, Interior Fraser coho, California Coastal Chinook, and OCN coho) determined for the Alternatives, such impacts differ only in small amounts from those of the Alternatives and are within the impact limitations of the FMP, ESA consultation standards, and Pacific Salmon Treaty (Table 11). Economic impacts of the Proposed Action generally fall within the range of impacts analyzed for the Alternatives in Preseason Report II, although for some areas, economic benefits are greater than those of the Alternatives.

The No-Action Alternative would result in at least two stocks not meeting conservation objectives, and thus would not meet the purpose and need of the Proposed Action. While there were no estimates of the economic impacts of the No-Action Alternative, a qualitative assessment of the number of days open to salmon fishing indicate that the Proposed Action would have greater economic benefits than the No-Action Alternative.

As stated in Preseason Report II, it was not possible to discern differences in the effects of the Alternatives on other components of the environment (non-target fish species, marine mammals, other ESA listed species, sea birds, biodiversity and ecosystem function, and public health and safety), and the effects were not expected to be significant.

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 1 of 5)

A. SEASON ALTERNATIVE DESCRIPTIONS	
North of Cape Falcon	
Supplemental Management Information	
<p>1. Overall non-Indian TAC: 99,000 (non-mark-selective equivalent of 95,000) Chinook and 83,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 47,500 Chinook and 13,280 marked coho.</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> May 1 through earlier of June 30 or 31,700 Chinook quota. <p>Seven days per week (C.1). All salmon except coho (C.7). Chinook minimum size limit of 28 inches total length (B). 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 24,975 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 (C.8.f). Cape Flattery, Mandatory Yelloweye Rockfish Conservation Area, and Columbia Control Zones closed (C.5). Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels fishing or in possession of salmon while fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing or in possession of salmon while fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon must notify ODFW within one hour of delivery or prior to transport away from the port of landing by either calling 541-867-0300 Ext. 271 or sending notification via e-mail to nfalcon.trollreport@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts.</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 1 through earlier of September 17 or 15,800 preseason Chinook guideline (C.8) or a 13,280 marked coho quota (C.8) <p>July 1-4 then Friday through Tuesday July 6-August 21 with a landing and possession limit of 40 Chinook and 35 coho per vessel per open period; Friday through Monday August 24-September 17, with a landing and possession limit of 20 Chinook and 40 coho per vessel per open period (C.1, C.8.f). No earlier than September 1, if at least 5,000 marked coho remain on the quota, inseason action may be considered to allow non-selective coho retention (C.8.e). All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). All coho must be marked except as noted above (C.8.e). Chinook minimum size limit of 28 inches total length; coho minimum size limit of 16 inches total length (B). See gear restrictions and definitions (C.2, C.3). Mandatory Yelloweye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones, and beginning August 1, Grays Harbor Control Zone Closed (C.5). Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Vessels fishing or in possession of salmon while fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing or in possession of salmon while fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Under state law, vessels must report their catch on a state fish receiving ticket. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon must notify ODFW within one hour of delivery or prior to transport away from the port of landing by either calling 541-867-0300 Ext. 271 or sending notification via e-mail to nfalcon.trollreport@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts.</p>	

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 2 of 5)

A. SEASON ALTERNATIVE DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 455,800 adults. 2. Sacramento Index exploitation rate of 44.4% 3. Sacramento River fall Chinook projected 3-year geometric mean spawning escapement of 186,600 adults. 4. Klamath River recreational fishery allocation: 67,600 adult Klamath River fall Chinook. 5. Klamath tribal allocation: 160,000 adult Klamath River fall Chinook.
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> • April 1-August 29 • September 5-October 31 (C.9). <p>Seven days per week (C.1). All salmon except coho (C.7). Landing and possession limit of 100 Chinook per vessel per calendar week in September and October. Chinook minimum size limit of 28 inches total length (B). 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 2013 the season will open March 15 for all salmon except coho with a 28 inch minimum Chinook size limit and the same gear restrictions as in 2012. This opening could be modified following Council review at its March 2013 meeting.</p>
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • April 1-May 31; • June 1 through earlier of June 30, or a 2,000 Chinook quota; • July 1 through earlier of July 31, or a 1,500 Chinook quota; • Aug. 1 through earlier of Aug. 29, or a 1,000 Chinook quota; • Sept. 5 through earlier of Sept. 30, or a 1,000 Chinook quota (C.9). <p>Seven days per week (C.1). All salmon except coho (C.7). Chinook minimum size limit of 28 inches total length (B). June 1 through September 30, landing and possession limit of 30 Chinook per vessel per day (C.8.f). 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 (no transfer to September quota allowed) (C.8.b). Prior to June 1, all fish caught in this area must be landed and delivered in the State of Oregon. Beginning June 1, 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> <ul style="list-style-type: none"> • June 1-October 31 <p>When otherwise closed to Chinook retention, collection of 200 genetic stock identification samples per week will be permitted (C.4). All salmon must be released in good condition after collection of biological samples.</p> <p>In 2013 the season will open March 15 for all salmon except coho with a 28 inch minimum Chinook size limit and the same gear restrictions as in 2012. This opening could be modified following Council review at its March 2013 meeting.</p>
<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> • May 1-September 14 <p>Closed except for sufficient impacts to collect 200 genetic stock identification samples per week (C.4). All salmon must be released in good condition after collection of biological samples.</p> <ul style="list-style-type: none"> • September 15 through earlier of September 30, or 6,000 Chinook quota (C.9). <p>Seven days per week (C.1). All salmon except coho (C.7). Chinook minimum size limit of 27 inches total length (B). Landing and possession limit of 25 Chinook per vessel per day (C.8.f). All fish caught in this area must be landed within the area and within 24 hours of any closure of the fishery and prior to fishing outside of this area. 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 (C.6).</p>
<p>Humboldt South Jetty to Horse Mt.</p> <ul style="list-style-type: none"> • May 1-September 30 <p>Closed except for collection of the genetic stock identification samples noted above (C.4). All salmon must be released in good condition after collection of biological samples.</p>

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 3 of 5)

A. SEASON ALTERNATIVE DESCRIPTIONS					
Horse Mt. to Point Arena (Fort Bragg)					
<ul style="list-style-type: none"> • May 1-July 10 <p>Closed except for sufficient impacts to collect 200 genetic stock identification samples per week (C.4). All salmon must be released in good condition after collection of biological samples.</p> <ul style="list-style-type: none"> • July 11 through Aug. 29; • Sept. 1-30 (C.9). <p>Seven days per week (C.1). All salmon except coho (C.7). Chinook 27 inch total length minimum size limit (B). All fish must be landed in California and offloaded within 24 hours of the August 29 closure. During September, all fish caught in the area must be landed north of Point Arena; all fish caught in the area when the California KMZ fishery is open must be landed between Horse Mt. and Point Arena. (C.1). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2013, the season will open April 16-30 for all salmon except coho, with a 27 inch minimum Chinook size limit and the same gear restrictions as in 2012. All fish caught in the area must be landed in the area. This opening could be modified following Council review at its March 2013 meeting.</p>					
Pt. Arena to Pigeon Pt. (San Francisco)					
<ul style="list-style-type: none"> • May 1-June 4, • June 27 through August 29; • September 1-30 (C.9). <p>Seven days per week (C.1). All salmon except coho (C.7). Chinook minimum size limit of 27 inches total length prior to September 1, 26 inches thereafter (B). All fish must be landed in California and offloaded within 24 hours of the August 29 closure. During September, all fish caught in the area must be landed south of Point Arena. See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> • June 5-26 <p>Closed except for sufficient impacts to collect 400 genetic stock identification samples per week (C.4). All salmon must be released in good condition after collection of biological samples.</p> <p>Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 1-12 <p>Monday through Friday. All salmon except coho (C.7). Chinook minimum size limit 26 inches total length (B). All vessels fishing in this area must land and deliver all fish between Point Arena and Pigeon Point (C.1). See gear restrictions and definitions (C.2, C.3).</p>					
Pigeon Pt. to Point Sur (Monterey)					
Same as Pt. Arena to Pigeon Pt.					
Pt. Sur to U.S./Mexico Border (South of Monterey)					
<ul style="list-style-type: none"> • May 1 through August 29 • September 1-30 (C.9). <p>Seven days per week (C.1). All salmon except coho (C.7). Chinook minimum size limit of 27 inches total length prior to September 1, 26 inches thereafter (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 5-26 must be landed south of Pt. San Pedro; during September, all fish caught in the area must be landed south of Point Arena. See gear restrictions and definitions (C.2, C.3).</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)					

B. MINIMUM SIZE (Inches) (See C.1)					
Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	28.0	21.5	16.0	12.0	None
Cape Falcon to OR/CA Border	28.0	21.5	-	-	None
OR/CA Border to Humboldt South Jetty	27.0	20.5	-	-	None
Horse Mt. to Pt. Arena	27.0	20.5	-	-	None
Pt. Arena to U.S./Mexico Border					
Prior to Sept. 1	27.0	20.5	-	-	None
Sept. 1 to October 12	26.0	19.5	-	-	None

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 4 of 5)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size, landing/possession limit, or other special requirements for the area being fished and the area in which they are landed if the area is open. Salmon may be landed in an area that has been closed more than 96 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the area in which they were caught. Salmon may be landed in an area that has been closed less than 96 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the areas in which they were caught and landed.

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

C.2. Gear Restrictions:

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

C.3. Gear Definitions:

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

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

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

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

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

- a. Except as provided under C.4.b below, it is unlawful for a vessel to have troll or recreational gear in the water while in any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species, and no salmon are in possession.
- b. When Genetic Stock Identification (GSI) samples will be collected in an area closed to commercial salmon fishing, the scientific research permit holder shall notify NOAA OLE, USCG, CDFG and OSP at least 24 hours prior to sampling and provide the following information: the vessel name, date, location and time collection activities will be done. Any vessel collecting GSI samples in a closed area shall not possess any salmon other than those from which GSI samples are being collected. Salmon caught for collection of GSI samples must be immediately released in good condition after collection of samples.

C.5. Control Zone Definitions:

- a. *Cape Flattery Control Zone* - The area from Cape Flattery (48°23'00" N. lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to Cape Alava (48°10'00" N. lat.) and east of 125°05'00" W. long.
- b. *Mandatory Yelloweye Rockfish Conservation Area* - The area in Washington Marine Catch Area 3 from 48°00.00' N. lat.; 125°14.00' W. long. to 48°02.00' N. lat.; 125°14.00' W. long. to 48°02.00' N. lat.; 125°16.50' W. long. to 48°00.00' N. lat.; 125°16.50' W. long. and connecting back to 48°00.00' N. lat.; 125°14.00' W. long.
- c. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 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).

TABLE 1. Commercial troll management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 5 of 5)

C.6. Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board, the estimated time of arrival, and the specific reason the vessel is not able to meet special management area landing restrictions.

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

C.7. Incidental Halibut Harvest: During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. Halibut retained must be no less than 32 inches in total length, measured from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail, and must be landed with the head on. License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone: 206-634-1838). Applicants must apply prior to April 1 of each year. Incidental harvest is authorized only during May and June troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825). ODFW and Washington Department of Fish and Wildlife (WDFW) will monitor landings. If the landings are projected to exceed the 30,568 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to prohibit retention of halibut in the non-Indian salmon troll fishery.

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

- 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 if the transfer would not result in exceeding preseason impact expectations on any stocks.
- b. Chinook remaining from the June and/or July non-Indian commercial troll quotas in the Oregon KMZ may be transferred to the Chinook quota for the next open period if the transfer would not result in exceeding preseason impact expectations on any stocks.
- c. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the areas' representatives on the Salmon Advisory Subpanel (SAS), and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- d. At the March 2013 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2012).
- e. If retention of unmarked coho is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected impacts on all stocks is not exceeded.
- f. 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.

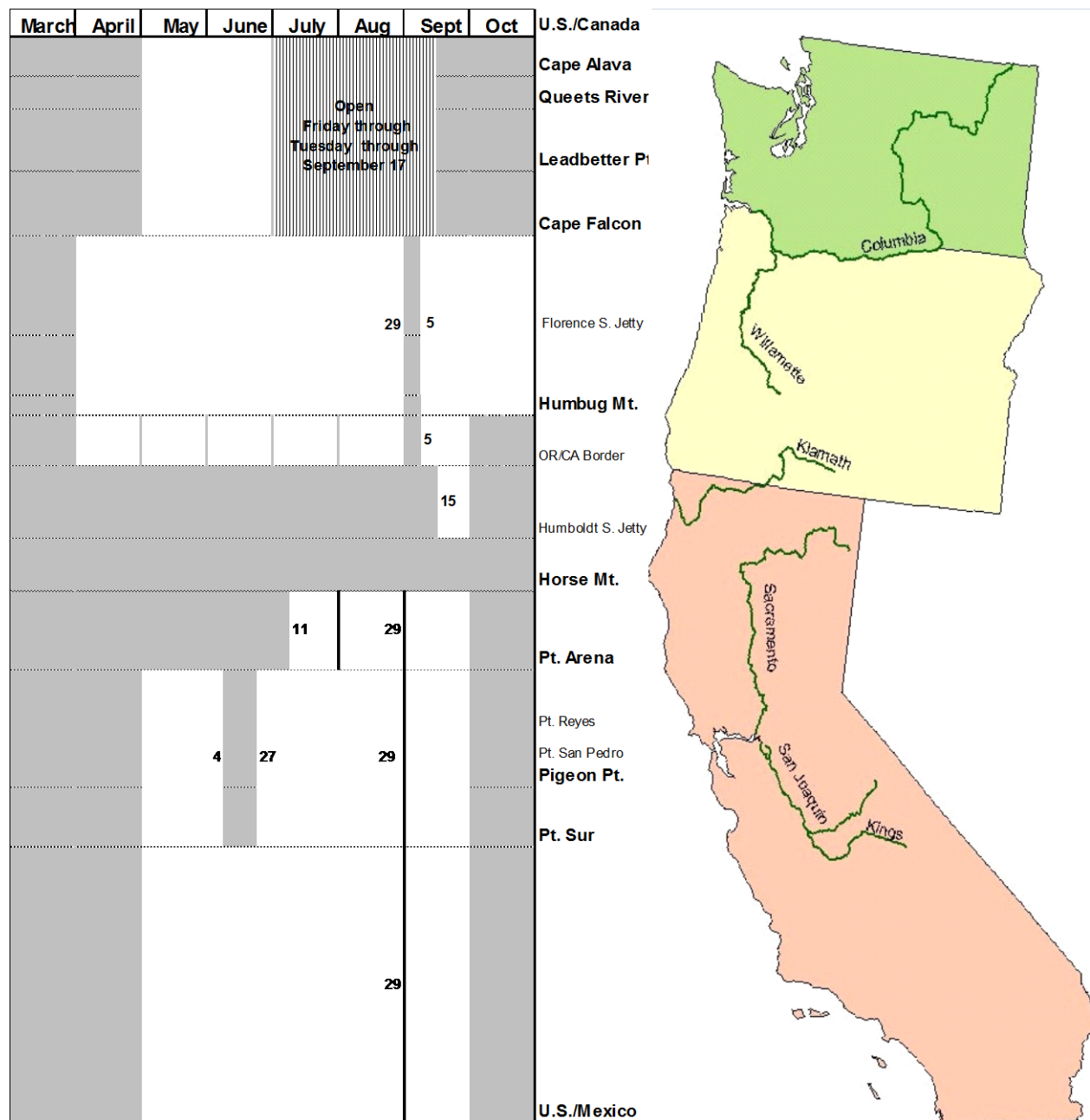


FIGURE 1. Council-adopted non-Indian commercial salmon seasons for 2012. Dates are the first or last days of the month unless otherwise specified.

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 1 of 4)

A. SEASON ALTERNATIVE DESCRIPTIONS	
North of Cape Falcon	
Supplemental Management Information	
<p>1. Overall non-Indian TAC: 99,000 (non-mark-selective equivalent of 95,000) Chinook and 83,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 51,500 (non-mark selective equivalent of 47,500) Chinook and 69,720 marked coho.</p> <p>3. No Area 4B add-on fishery.</p> <p>4. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 8,300 marked coho in August and September.</p>	
<p>U.S./Canada Border to Queets River</p> <ul style="list-style-type: none"> June 16 through earlier of June 30 or a coastwide marked Chinook quota of 8,000 (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>Queets River to Leadbetter Point</p> <ul style="list-style-type: none"> June 9 through earlier of June 23 or a coastwide marked Chinook quota of 8,000 (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>Leadbetter Point to Cape Falcon</p> <ul style="list-style-type: none"> June 9 through earlier of June 22 or a coastwide marked Chinook quota of 8,000 (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"> July 1 through earlier of September 23 or 7,250 marked coho subarea quota with a subarea guideline of 4,700 Chinook (C.5). Seven days per week. All salmon except no chum beginning August 1; two fish per day. All coho must be marked (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5). 	
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> July 1 through earlier of September 23 or 1,760 marked coho subarea quota with a subarea guideline of 2,050 Chinook (C.5). September 29 through earlier of October 14 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. All coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> June 24 through earlier of September 23 or 25,800 marked coho subarea quota with a subarea guideline of 25,600 Chinook (C.5). <p>Sunday through Thursday. All salmon; two fish per day, no more than one of which can be a Chinook. All coho must be marked (C.1). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> June 23 through earlier of September 30 or 34,860 marked coho subarea quota with a subarea guideline of 11,100 Chinook (C.5). <p>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). 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>	

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 2 of 4)

A. SEASON ALTERNATIVE DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 455,800 adults. 2. Sacramento Index exploitation rate of 44.4% 3. Sacramento River fall Chinook projected 3-year geometric mean spawning escapement of 186,600 adults. 4. Klamath River recreational fishery allocation: 67,600 adult Klamath River fall Chinook. 5. Klamath tribal allocation: 160,000 adult Klamath River fall Chinook. 6. Overall recreational TAC: 8,000 marked coho and 10,000 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 October 31 (C.6). <p>All salmon except coho; two fish per day (B, C.1). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> • Cape Falcon to OR/CA border all-salmon mark-selective coho fishery: July 1 through earlier of July 31 or a landed catch of 8,000 marked coho. 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 may be transferred on an impact neutral basis to the September non-selective coho quota listed below (C.5.e). The all salmon except coho season reopens the earlier of August 1 or attainment of the coho quota, through August 31. • Cape Falcon to Humbug Mt. non-mark-selective coho fishery: September 1 through the earlier of September 22 or a landed catch of 10,000 non-mark-selective coho quota (C.5). Sept. 1-3, then Thursday through Saturday thereafter; all salmon, two fish per day (C.5); Sept. 4-5, then Sunday through Wednesday thereafter; all salmon except coho, two fish per day. The all salmon except coho season reopens the earlier of September 23 or attainment of the coho quota. Open days may be adjusted inseason to utilize the available coho quota (C.5). <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 2013, the season between Cape Falcon and Humbug Mt. opens March 15 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 2012 (C.2, C.3). This opening could be modified following Council review at its March 2013 meeting.</p>
<p>Humbug Mt. to OR/CA Border. (Oregon KMZ)</p> <ul style="list-style-type: none"> • Except as provided above during the all-salmon mark-selective coho fishery, the season will be May 1 through September 9 (C.6). <p>All salmon except coho, except as noted above in the all-salmon mark-selective coho fishery. Seven days per week, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>OR/CA Border to Horse Mt. (California KMZ)</p> <ul style="list-style-type: none"> • May 1 through September 9 (C.6). <p>All salmon except coho. Seven days per week, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath rivers.</p>
<p>Horse Mt. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • April 7 through November 11. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2013, season opens April 6 for all salmon except coho, two fish per day (C.1). Chinook minimum size limit of 20 inches total length (B); and the same gear restrictions as in 2012 (C.2, C.3). This opening could be modified following Council review at its March 2013 meeting.</p>

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 3 of 4)

A. SEASON ALTERNATIVE DESCRIPTIONS	
Point Arena to Pigeon Point (San Francisco)	
<ul style="list-style-type: none"> April 7 through November 11. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length through July 5; 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2013, season opens April 6 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 2012 (C.2, C.3). This opening could be modified following Council review at its March 2013 meeting.</p>	
Pigeon Point to U.S./Mexico Border (Monterey)	
<ul style="list-style-type: none"> April 7 through October 7. <p>Seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length through July 5; 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2013, season opens April 6 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 2012 (C.2, C.3). This opening could be modified following Council review at its March 2013 meeting.</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>	

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

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon	24.0	16.0	None
Cape Falcon to Humbug Mt.	24.0	16.0	None
Humbug Mt. to OR/CA Border	24.0	16.0	None
OR/CA Border to Horse Mountain	20.0	-	20.0
Horse Mt. to Pt. Arena	20.0	-	20.0
Pt. Arena. to U.S./Mexico Border:	Apr. 7 to July 5	24.0	-
	July 6 to Nov. 11	20.0	-
			24.0
			20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

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

C.2. Gear Restrictions: Salmon may be taken only by hook and line using barbless hooks. All persons fishing for salmon, and all persons fishing from a boat with salmon on board, must meet the gear restrictions listed below for specific areas or seasons.

a. *U.S./Canada Border to Point Conception, California:* No more than one rod may be used per angler; and no more than two single point, single shank barbless hooks are required for all fishing gear. [Note: ODFW regulations in the state-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]

b. *Horse Mt., California, to Point Conception, California:* Single point, single shank, barbless circle hooks (see gear definitions below) are required when fishing with bait by any means other than trolling, and no more than two such hooks shall be used. When angling with two hooks, the distance between the hooks must not exceed five inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

TABLE 2. Recreational management measures adopted by the Council for non-Indian ocean salmon fisheries, 2012.
(Page 4 of 4)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.3. Gear Definitions:

- a. *Recreational fishing gear defined:* Angling tackle consisting of a line with no more than one artificial lure and/or natural bait attached. Off Oregon and Washington, the line must be attached to a rod and reel held by hand or closely attended; the rod and reel must be held by hand while playing a hooked fish. No person may use more than one rod and line while fishing off Oregon or Washington. Off California, the line must be attached to a rod and reel held by hand or closely attended; weights directly attached to a line may not exceed four pounds (1.8 kg). While fishing off California north of Point Conception, no person fishing for salmon, and no person fishing from a boat with salmon on board, may use more than one rod and line. Fishing includes any activity which can reasonably be expected to result in the catching, taking, or harvesting of fish.
- b. *Trolling defined:* Angling from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
- c. *Circle hook defined:* A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

C.4. Control Zone Definitions:

- a. *The Bonilla-Tatoosh Line:* A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°28'00" N. lat., 124°45'00" W. long.), then in a straight line to Bonilla Point (48°35'30" N. lat., 124°43'00" W. long.) on Vancouver Island, British Columbia.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).
- c. *Columbia Control Zone:* An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- d. *Stonewall Bank Yelloweye Rockfish Conservation Area:* The area defined by the following coordinates in the order listed:
44°37.46' N. lat.; 124°24.92' W. long.;
44°37.46' N. lat.; 124°23.63' W. long.;
44°28.71' N. lat.; 124°21.80' W. long.;
44°28.71' N. lat.; 124°24.10' W. long.;
44°31.42' N. lat.; 124°25.47' W. long.;
and connecting back to 44°37.46' N. lat.; 124°24.92' W. long.
- e. *Klamath Control Zone:* The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

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 to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Council's SAS recreational representatives north of Cape Falcon, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- c. Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the Salmon Advisory Subpanel (SAS), and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- d. Fishery managers may consider inseason action permitting the retention of unmarked coho. Such a consideration may also include a change in bag limit of two salmon, no more than one of which may be a coho. If retention of unmarked coho is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected impacts on all stocks is not exceeded.
- e. Marked coho remaining from the July Cape Falcon to OR/CA border recreational coho quota may be transferred inseason to the September Cape Falcon to Humbug Mt. non-mark-selective recreational fishery if the transfer would not result in exceeding preseason impact expectations on any stocks.

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

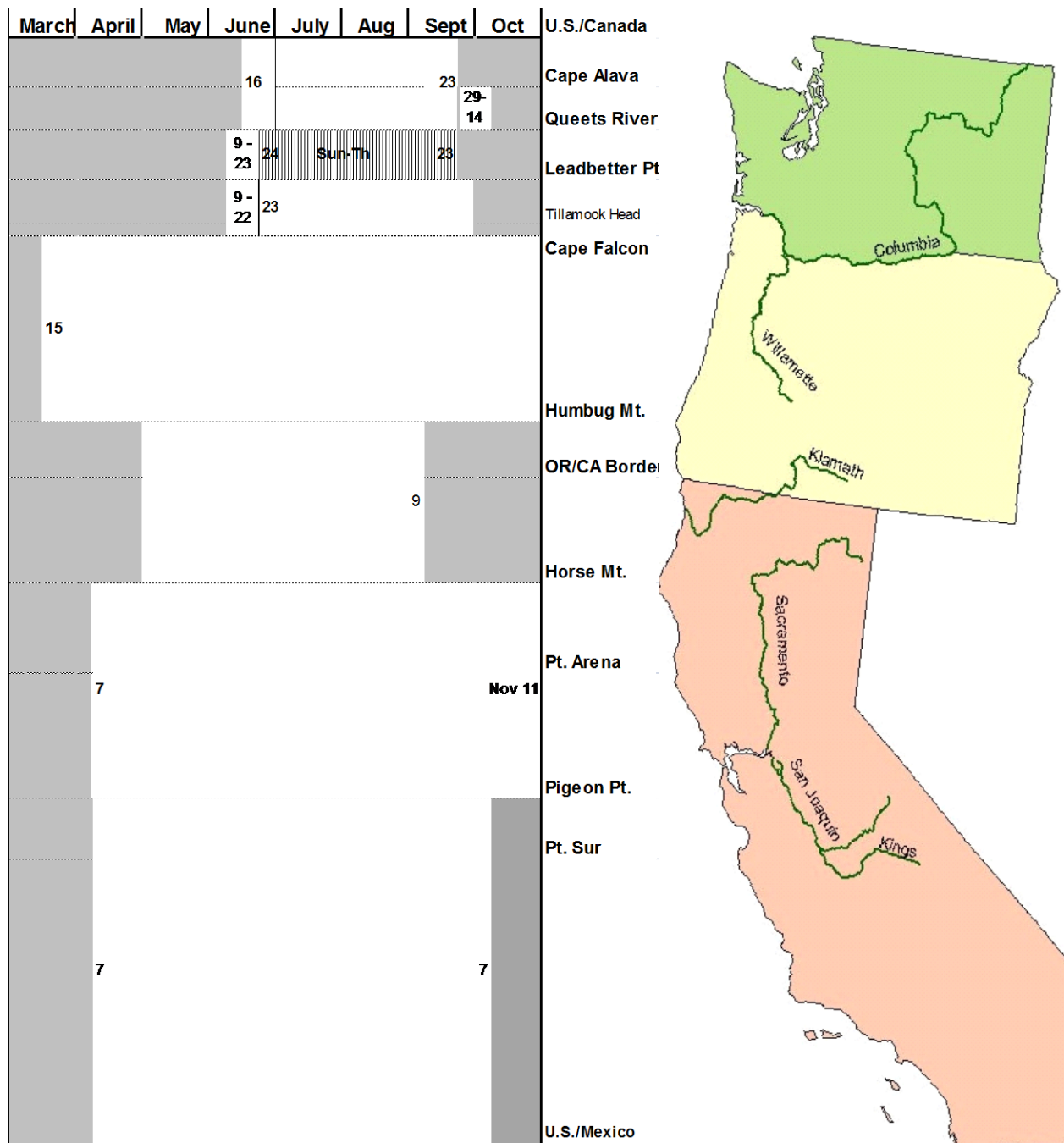


FIGURE 2. Council-adopted recreational salmon seasons for 2012. Dates are the first or last days of the month unless otherwise specified.

TABLE 3. Treaty Indian ocean troll management measures adopted by the Council for ocean salmon fisheries, 2012.
(Page 1 of 1)

A. SEASON DESCRIPTIONS					
Supplemental Management Information					
1. Overall Treaty-Indian TAC: 55,000 Chinook and 47,500 coho.					
<p>May 1 through the earlier of June 30 or 27,500 Chinook quota. All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish may be transferred into the later all-salmon season (C.5.a). If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season (C.5). See size limit (B) and other restrictions (C).</p> <ul style="list-style-type: none"> July 1 through the earlier of September 15, or 27,500 preseason Chinook quota (C.5), or 47,500 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 2004-2011. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2012 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.

C.5. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- Chinook remaining from the May through June treaty-Indian ocean troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline if the transfer would not result in exceeding preseason impact expectations on any stocks.

TABLE 4. Chinook and coho harvest quotas and guidelines (*) for 2012 ocean salmon fishery management measures adopted by the Council.

Fishery or Quota Designation	Chinook	Coho
NORTH OF CAPE FALCON		
TREATY INDIAN OCEAN TROLL ^{a/}		
U.S./Canada Border to Cape Falcon (All Except Coho)	22,000	-
U.S./Canada Border to Cape Falcon (All Species)	33,000	55,000
Subtotal Treaty Indian Ocean Troll	55,000	55,000
NON-INDIAN COMMERCIAL TROLL ^{b/}		
U.S./Canada Border to Cape Falcon (All Except Coho)	31,700	-
U.S./Canada Border to Cape Falcon (All Species)	15,800	13,280
Subtotal Non-Indian Commercial Troll	47,500	13,280
RECREATIONAL		
U.S./Canada Border to Cape Falcon (All Except Coho) ^{c/}	8,000 *	-
U.S./Canada Border to Cape Alava ^{b/}	4,700 *	7,250
Cape Alava to Queets River ^{b/}	2,100 *	1,810
Queets River to Leadbetter Pt. ^{b/}	25,600 *	25,800
Leadbetter Pt. to Cape Falcon ^{b/d/}	11,100 *	34,860
Subtotal Recreational	51,500	69,720
TOTAL NORTH OF CAPE FALCON	154,000	138,000
SOUTH OF CAPE FALCON		
COMMERCIAL TROLL ^{a/}		
Humbog Mt. to OR/CA Border	5,500	-
OR/CA Border to Horse Mt.	6,000	-
Subtotal Troll	11,500	-
RECREATIONAL		
Cape Falcon to Oregon/California Border	-	18,000 ^{e/}
TOTAL SOUTH OF CAPE FALCON	11,500	18,000

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

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

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

d/ Does not include Buoy 10 fishery. Expected catch in August and September of 8,300 marked coho.

e/ The quota consists of both mark-selective and non-mark-selective quotas of 8,000 and 10,000, respectively.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2012 ocean fishery management measures adopted by the Council.^{a/} (Page 1 of 4)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
CHINOOK		
<u>PUGET SOUND:</u>		
Elwha Summer/Fall	3.4%	≤ 10.0% Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Dungeness Spring	3.4%	≤ 10.0% Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Mid-Hood Canal Summer/Fall	12.0%	≤ 12.0% Preterminal Southern U.S. CERC (NMFS ESA consultation standard)
Skokomish Summer/Fall	47.9%	≤ 50.0% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Nooksack Spring	7.0%	≤ 7.0% Southern U.S. CERC, not to exceed in four out of five years (NMFS ESA consultation standard)
	17.1%	≤ 60.0% ISBM Index (PSC general obligation)
Skagit Summer/Fall	14.3%	≤ 15.0% Southern U.S. CERC (NMFS ESA consultation standard)
	37.2%	≤ 60.0% ISBM Index (PSC general obligation)
Skagit Spring	33.1%	≤ 38.0% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	14.7%	≤ 60.0% ISBM Index (PSC general obligation)
Stillaguamish Summer/Fall	13.5%	≤ 15.0% Southern U.S. CERC (NMFS ESA consultation standard)
	NA	≤ 60.0% ISBM Index (PSC general obligation)
Snohomish Summer/Fall	9.1%	≤ 15.0% Southern U.S. CERC (NMFS ESA consultation standard)
	33.2%	≤ 60.0% ISBM Index (PSC general obligation)
Lake Washington Summer/Fall	17.8%	≤ 20.0% Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	59.0%	≤ 60.0% ISBM Index (PSC general obligation)
Green River Summer/Fall	9.6%	≤ 15.0% Preterminal Southern U.S. Rebuilding Exploitation Rate and
	1.911 ^{c/}	≥ 5.800 Natural spawning escapement (NMFS ESA consultation standard)
	NA	≤ 60.0% ISBM Index (PSC general obligation)
White River Spring	19.2%	≤ 20.0% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Puyallup Summer/Fall	48.5%	≤ 50.0% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Nisqually River Summer/Fall	55.3%	≤ 56.0% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
<u>WASHINGTON COAST:</u>		
Hoko Fall	2.1	0.85 FMP MSY spawning escapement objective
	37.8%	≤ 60.0% ISBM Index (PSC general obligation)
Quillayute Fall	d/	3.0 FMP MSY spawning escapement objective
	115.1%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
Hoh Fall	d/	1.2 FMP MSY spawning escapement objective
	44.3%	≤ 60.0% ISBM Index (PSC general obligation)
Queets Fall	d/	2.5 FMP MSY spawning escapement objective
	17.9%	≤ 60.0% ISBM Index (PSC general obligation)
Grays Harbor Fall	d/	11.4 FMP MSY spawning escapement objective
	60.4%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2012 ocean fishery management measures adopted by the Council.^{a/} (Page 2 of 4)

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	353.0	74.0 Minimum ocean escapement to attain 60.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
	89.4%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
Deschutes Upriver Brights	68.4%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
Mid-Columbia Brights	90.7	11.0 Minimum ocean escapement to attain 4.7 adults for Bonneville Hatchery and 2.0 for Little White Salmon Hatchery egg-take, assuming average conversion and no mainstem harvest.
Columbia Lower River Hatchery Tules ^{e/}	128.4	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)	40.9%	≤ 41.0% Total adult equivalent fishery exploitation rate (2012 NMFS ESA guidance).
Columbia Lower River Wild ^{f/} (threatened)	16.2	6.9 Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
	44.2%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
Spring Creek Hatchery Tules	60.0	8.2 Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	51.0%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Columbia Upriver Summers	92.6	29.0 Minimum ocean escapement to attain 12.1 adults over Rock Island Dam.
	136.9%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
<u>OREGON COAST:</u>		
Nehalem Fall	169.6%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
Siletz Fall	81.4%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met
Siuslaw Fall	164.6%	≤ 60.0% ISBM Index (PSC general obligation) not applicable for 2012 because escapement objective met

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2012 ocean fishery management measures adopted by the Council.^{a/} (Page 3 of 4)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
CHINOOK		
<u>CALIFORNIA</u>		
Klamath River Fall	86.3	≥ 86.3 2012 preseason ACL.
Federally recognized tribal harvest	50.0%	50.0% Equals 160.0 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Spawner Reduction Rate	68.0%	≤ 68.0% FMP; equals 183.4 (thousand) fewer natural area adult spawners due to fishing.
Adult river mouth return	381.0	NA Total adults.
Age 4 ocean harvest rate	16.0%	≤ 16.0% NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	10.3%	No Council guidance for 2012.
River recreational fishery share	42.3%	NA Equals 67.6 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	13.7%	≤ 13.7% Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: <u>Recreational</u> - Pt. Arena to Pigeon Pt. between the first Saturday in April and the second Sunday in November; Pigeon Pt. to the U.S./Mexico Border between the first Saturday in April and the first Sunday in October. Minimum size limit ≥ 20 inches total length. <u>Commercial</u> - Pt. Arena to the U.S./Mexico border between May 1 and September 30, except Pt. Reyes to Pt. San Pedro between October 1 and 15. Minimum size limit ≥ 26 inches total length (NMFS 2012 ESA Guidance).
Sacramento River Fall	455.8	≥ 245.82 2012 preseason ACL and minimum spawners under default rebuilding plan.
Sacramento Index Exploitation Rate	44.4%	≤ 70.0% F _{ACL} exploitation rate under the default rebuilding plan control rule.
Projected 3-year geometric mean	186.6	≥ 122.0 Adult spawners: rebuilding target for the one year rebuilding period.
Ocean commercial impacts	189.5	All alternatives include fall (Sept-Dec) 2011 impacts (1.8 thousand SRFC).
Ocean recreational impacts	99.8	All alternatives include fall 2011 impacts (6.6 thousand SRFC).
River recreational impacts	74.2	No guidance in 2012.
Hatchery spawner goal	Met	22.0 Aggregate number of adults to achieve egg take goals at Coleman, Feather River, and Nimbus hatcheries.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2012 ocean fishery management measures adopted by the Council.^{a/} (Page 4 of 4)

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)	9.9% (4.8%)	≤ 10.0% 2012 Southern U.S. exploitation rate ceiling; 2002 PSC coho agreement.
Skagit	31.2% (4.5%)	≤ 35.0% 2012 total exploitation rate ceiling; FMP matrix ^{g/}
Stillaguamish	28.8% (3.2%)	≤ 50.0% 2012 total exploitation rate ceiling; FMP matrix ^{g/}
Snohomish	28.4% (3.2%)	≤ 40.0% 2012 total exploitation rate ceiling; FMP matrix ^{g/}
Hood Canal	49.5% (4.9%)	≤ 65.0% 2012 total exploitation rate ceiling; FMP matrix ^{g/}
Strait of Juan de Fuca	12.8% (3.9%)	≤ 40.0% 2012 total exploitation rate ceiling; FMP matrix ^{g/}
Quillayute Fall	31.2	6.3 FMP MSY adult spawner estimate ^{g/} . Value depicted is ocean escapement.
Hoh	12.2	2.5 FMP MSY adult spawner estimate ^{g/} . Value depicted is ocean escapement.
Queets Wild	29.3	5.8 FMP MSY adult spawner estimate ^{g/} . Value depicted is ocean escapement.
Grays Harbor	137.3	24.4 FMP MSY adult spawner estimate ^{g/} . Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	15.0%	≤ 15.0% Total marine and mainstem Columbia River fishery exploitation rate (2012 NMFS ESA guidance).
Upper Columbia ^{e/}	>50%	≥ 50% Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	184.6	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	56.3	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	15.0%	≤ 15.0% Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	5.8%	≤ 13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Projections in the table assume a WCVI mortality for coho of the 2011 preseason level. Chinook fisheries in Southeast Alaska, North Coast BC, and WCVI troll and outside sport fisheries were assumed to have exploitation rates associated with harvesting their catch ceilings allowed under the PST.

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 prior to 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 2012 is such that the escapement goal is not achievable; however, the exploitation rate is consistent with the Puget Sound Chinook Harvest Plan objective of no more than a 15% preterminal U.S. exploitation rate and will be managed under the CERC. This is consistent with NMFS guidance for 2012 management of Puget Sound stocks.

d/ Projections of spawning escapement were not available; however, based on preseason forecast abundance and modeled ocean impact rates, there appeared to be sufficient ocean escapement to provide inside fishing opportunity and meet MSY spawning escapement objectives.

e/ Includes minor contributions of Lower Columbia River natural tule Chinook.

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

g/ 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 2012 ocean salmon fishery management measures adopted by the Council.

Area and Fishery	Catch Projection	Bycatch Mortality ^{a/} Projection	Bycatch Projection ^{b/}	Observed in 2011	
				Catch	Bycatch Mortality
<u>OCEAN FISHERIES^{c/}:</u>					
CHINOOK (thousands of fish)					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	55.0	8.4	18.5	34.6	4.4
Non-Indian Commercial Troll	47.5	10.8	27.5	29.7	6.9
Recreational	51.5	6.9	22.9	30.8	3.7
CAPE FALCON TO HUMBUG MT.					
Commercial Troll	205.3	63.8	191.7	27.8	3.7
Recreational	16.1	3.1	13.6	2.6	0.2
HUMBUG MT. TO HORSE MT.					
Commercial Troll	12.9	6.5	20.1	3.7	1.8 ^{d/}
Recreational	45.6	8.8	38.6	10.8	3.7 ^{d/}
SOUTH OF HORSE MT.					
Commercial	234.4	74.0	222.6	67.4	20.9 ^{d/}
Recreational	102.3	19.9	74.9	39.2	10.2 ^{d/}
TOTAL OCEAN FISHERIES					
Commercial Troll	555.1	163.6	480.4	163.2	37.8
Recreational	215.5	38.8	149.9	83.4	17.8
INSIDE FISHERIES:					
Area 4B	-	-	-	-	-
Buoy 10	13.6 ^{e/}	0.0 ^{e/}	0.3 ^{e/}	10.9	1.1 ^{d/}
COHO (thousands of fish)					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll ^{e/}	55.0	3.6	7.0	13.6	1.0
Non-Indian Commercial Troll	13.6	13.3	46.8	3.5	2.4
Recreational	71.4	19.3	91.9	45.6	13.6
SOUTH OF CAPE FALCON					
Commercial Troll	-	8.7	33.6	0.0	9.9
Recreational ^{e/}	19.0	10.9	55.3	13.1	10.3
TOTAL OCEAN FISHERIES					
Commercial Troll	68.6	25.6	87.4	17.1	13.3
Recreational	90.4	30.2	147.2	58.7	24.0
INSIDE FISHERIES:					
Area 4B	-	-	-	-	-
Buoy 10	8.3	2.0	8.5	7.6	2.3 ^{d/}

a/ The bycatch mortality reported in this table consists of drop-off mortality (includes predation on hooked fish) plus hook-and-release mortality of Chinook and coho salmon in Council-area fisheries. Drop-off mortality for both Chinook and coho is assumed to be equal to 5% of total encounters south of Cape Falcon and 5% of legal encounters north of Cape Falcon. 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: 19% (based on the expected proportion of fish that will be caught using mooching versus trolling gear, and the HRMs of 42.2% and 14% for these two respective gear types).

b/ Bycatch calculated as dropoff mortality plus fish released.

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

d/ Based on reported released Chinook or coho.

e/ Assumes all legal Chinook are retained when Chinook retention is allowed (August 1-September 3); bycatch and bycatch mortality only account for impacts after September 3.

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

TABLE 7. Expected coastwide lower Columbia Natural (LCN), Oregon coastal natural (OCN), and Rogue/Klamath (RK) coho, and Lower Columbia River (LCR) natural tule Chinook exploitation rates by fishery for 2012 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	0.0%	0.1%	0.0%	12.4%
PUGET SOUND/STRAIT	0.2%	0.1%	0.0%	0.4%
NORTH OF CAPE FALCON				
Treaty Indian Ocean Troll	2.1%	0.5%	0.0%	5.8%
Recreational	5.0%	0.9%	0.1%	3.5%
Non-Indian Troll	1.7%	0.5%	0.0%	6.2%
SOUTH OF CAPE FALCON				
Recreational:				0.1%
Cape Falcon to Humbug Mt.	1.2%	3.6%	0.2%	
Humbug Mt. OR/CA border (KMZ)	0.0%	0.2%	0.5%	
OR/CA border to Horse Mt. (KMZ)	0.1%	0.4%	1.8%	
Fort Bragg	0.0%	0.3%	1.0%	
South of Pt. Arena	0.0%	0.3%	0.6%	
Troll:				2.1%
Cape Falcon to Humbug Mt.	0.7%	0.8%	0.1%	
Humbug Mt. OR/CA border (KMZ)	0.0%	0.0%	0.0%	
OR/CA border to Horse Mt. (KMZ)	0.0%	0.1%	0.3%	
Fort Bragg	0.0%	0.3%	0.8%	
South of Pt. Arena	0.0%	0.3%	0.2%	
BUOY 10	0.9%	0.1%	0.0%	
ESTUARY/FRESHWATER	2.8%	6.5% ^{a/}	0.2%	7.8%
TOTAL ^{b/}	15.0%	15.0%	5.6%	40.9%

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 2012 fisheries under Council adopted management measures (percent marked).

Area	Fishery	June	July	August	Sept
Puget Sound					
Strait of Juan de Fuca (Area 5)	Recreational	-	49%	45%	45%
Strait of Juan de Fuca (Area 6)	Recreational	-	47%	47%	44%
San Juan Island (Area 7)	Recreational	-	-	51%	37%
North Puget Sound (Areas 6 & 7A)	Net	-	-	-	42%
Council Area					
Neah Bay (Area 4/4B)	Recreational	-	48%	45%	48%
LaPush (Area 3)	Recreational	-	47%	49%	37%
Westport (Area 2)	Recreational	53%	51%	45%	37%
Columbia River (Area 1)	Recreational	62%	58%	51%	50%
Tillamook	Recreational	-	42%	-	-
Newport	Recreational	-	37%	-	-
Coos Bay	Recreational	-	26%	-	-
Brookings	Recreational	-	15%	-	-
Neah Bay (Area 4/4B)	Troll	-	46%	45%	38%
LaPush (Area 3)	Troll	-	48%	42%	41%
Westport (Area 2)	Troll	-	44%	45%	41%
Columbia River (Area 1)	Troll	-	51%	44%	46%
Tillamook	Troll	-	-	-	-
Newport	Troll	-	-	-	-
Coos Bay	Troll	-	-	-	-
Brookings	Troll	-	-	-	-
Columbia River					
Buoy 10	Recreational	-	-	54%	54%

TABLE 9. Preliminary projected exvessel value under Council-adopted 2012 non-Indian commercial troll management measures compared to 2011 and two five year averages (2003-2007 and 2007-2011) (inflation adjusted).

Management Area	Exvessel Value (thousands of dollars) ^{a/}				Percent Change		
	2012 Projected ^{b/}	2011 Actual	2003-2007 Average ^{c/}	2007-2011 Average ^{c/}	From 2003-2007 From 2007-2011		
					From 2011	Average	Average
North of Cape Falcon	3,122	1,903	1,806	1,988	+64%	+73%	+57%
Cape Falcon to Humbug Mt.	15,261	2,073	6,686	1,344	+636%	+128%	+1,036%
Humbug Mt. to Horse Mt.	477	137	358	149	+248%	+33%	+220%
Horse Mt. to Pt. Arena	5,704	2,690	3,168	1,060	+112%	+80%	+438%
South of Pt. Arena	12,746	2,387	9,350	1,819	+434%	+36%	+601%
Total South of Cape Falcon	34,188	7,287	19,562	4,371	+369%	+75%	+682%
West Coast Total	37,310	9,191	21,368	6,359	+306%	+75%	+487%

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, 2011 exvessel prices, and 2011 average weight per fish.

c/ All dollar values are inflation adjusted to 2011 real values.

d/ The 2007-2011 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 2012 recreational ocean salmon fishery management measures compared to 2011 and two five year averages (2003-2007 and 2007-2011) (inflation adjusted).

Management Area	Coastal Community Income Impacts										
	Angler Trips (thousands)				(thousands of dollars) ^{a/}				Percent Change in Income Impacts		
	2012 Projected	2011 Actual	2003-2007 Avg.	2007-2011 Avg. ^{b/}	2012 Projected	2011 Actual	2003-2007 Avg.	2007-2011 Avg. ^{b/}	Compared to 2011 Actual	Compared to 2003-2007 Avg.	Compared to 2007-2011 Avg.
North of Cape Falcon	110.5	78.8	105.6	81.2	10,577	7,539	10,785	7,991	+40%	-2%	+32%
Cape Falcon to Humbug Mt.	51.5	35.1	75.5	45.1	3,179	2,166	4,963	2,765	+47%	-36%	+15%
Humbug Mt. to Horse Mt.	43.6	21.1	32.6	15.8	2,358	1,142	1,704	833	+106%	+38%	+183%
Horse Mt. to Pt. Arena	21.6	14.3	23.3	7.7	1,670	1,108	1,894	594	+51%	-12%	+181%
South of Pt. Arena	107.2	61.9	109.1	33.6	9,008	5,202	10,189	2,753	+73%	-12%	+227%
Total South of Cape Falcon	224.0	132.5	240.6	102.2	16,216	9,618	18,749	6,944	+69%	-14%	+134%
West Coast Total	334.5	211.2	346.2	183.4	26,792	17,156	29,534	14,935	+56%	-9%	+79%

a/ Income impacts are sums of the impacts for individual communities within each management area. Income impacts are not comparable to exvessel values shown in Table 9. All dollar values are inflation adjusted to 2011 real values.

b/ The 2007-2011 average includes two years in which there were virtually no recreational fisheries south of Horse Mt. (2008 and 2009), and three years of historically low effort in the KMZ (Humbug Mt. to Horse Mt., 2008-2010).

TABLE 11. Environmental effects of the Proposed Action and the Sacramento River fall Chinook rebuilding plan relative to criteria and Alternatives analyzed in Preseason Reports I and II. Bold entries represent estimates that were not in compliance at the time the Alternative was adopted.^{a/}

and in bold entries represent estimates that were not in compliance at the time the Alternative was adopted.						
Environmental Component	No-Action Alternative	Alternative			Proposed Action	2012 Criteria or Comparison
Target Stocks						
SRFC						
Spawning Escapement	469,000	455,900	436,600	466,600	455,800	≥245,820 Natural and hatchery adult spawners; 2012 preseason ACL.
Exploitation Rate	42.8%	44.4%	46.7%	43.1%	44.4%	≤ 70.0% F _{ACL} exploitaion rate under the default rebuilding plan control rule.
Rebuilding Target	2012	2012	2012	2012	2012	2012 Expected year rebuilt status achieved under SRFC rebuilding plan.
KRFC						
Spawning Escapement	179,000	86,288	86,288	86,288	86,288	≥86,288 Natural area adult spawners; 2012 preseason ACL.
Exploitation Rate	33.6%	68.0%	68.0%	68.0%	68.0%	≤ 68.0% F _{ACL} exploitaion rate.
Strait of Juan de Fuca Coho	10.9%	15.3%	14.7%	14.3%	12.8%	≤ 40.0% 2012 FMP total exploitation rate limit.
Skagit Coho	38.1%	32.6%	32.0%	31.5%	31.2%	≤ 35.0% 2012 FMP total exploitation rate limit.
Stillaguamish Coho	28.0%	29.6%	29.2%	28.8%	28.8%	≤ 50.0% 2012 FMP total exploitation rate limit.
Snohomish Coho	26.0%	30.4%	30.0%	29.6%	28.4%	≤ 40.0% 2012 FMP total exploitation rate limit.
Hood Canal Coho	39.8%	47.2%	46.8%	46.4%	49.5%	≤ 65.0% 2012 FMP total exploitation rate limit.
Canadian Stocks						
Interior Fraser Coho	10.3%	12.0%	11.3%	10.7%	9.9%	≤ 10.0% Southen U.S. exploitation rate limit under the PST
ESA Listed Salmon						
SRWC	NA	13.7%	13.7%	13.7%	13.7%	≤ 13.7% SRWC age-3 ocean impact rate in fisheries south of Pt. Arena.
California Coastal Chinook	13.2%	15.9%	15.4%	15.6%	16.0%	≤ 16.0% KRFC age-4 ocean harvset rate.
LCR Natural Tule Chinook	NA	41.8%	40.6%	38.1%	40.9%	≤ 41.0% Total adult equivalent fishery exploitation rate.
LCN Coho	11.2% ^{b/}	12.0% ^{b/}	10.5% ^{b/}	8.8% ^{b/}	15.0%	≤ 15.0% Total marine and mainstem Columbia fishery exploitation rate.
OCN coho	12.2%	12.0%	10.9%	11.5%	15.0%	≤ 15.0% Marine and freshwater fishery exploitation rate.
SONCC (RK) coho	6.9%	5.2%	5.1%	5.2%	5.8%	≤ 13.0% Marine fishery exploitation rate.
Socioeconomics						
Commercial Exvessel Value						
North of Cape Falcon	<PA	\$ 3,122,000	\$ 2,792,000	\$ 2,149,000	\$ 3,122,000	Greater than Preseason Report II Alternatives
Cape Falcon to Humbug Mt.	<PA	\$17,394,000	\$14,685,000	\$14,706,000	\$15,261,000	
KMZ	<PA	\$ 263,000	\$ 190,000	\$ 396,000	\$ 477,000	
Fort Bragg	<PA	\$ 5,447,000	\$ 3,905,000	\$ 5,790,000	\$ 5,704,000	Slightly greater than Preseason Report II Alternatives
South of Pt. Arena	<PA	\$12,729,000	\$16,237,000	\$11,666,000	\$12,746,000	
West Coast Total	<PA	\$38,956,000	\$37,807,000	\$34,707,000	\$37,310,000	
Recreational Community Personal Income Impacts						
North of Cape Falcon	<PA	\$11,772,000	\$10,046,000	\$ 7,034,000	\$10,577,000	Slightly greater than Preseason Report II Alternatives
Cape Falcon to Humbug Mt.	<PA	\$ 3,179,000	\$ 3,179,000	\$ 1,205,000	\$ 3,179,000	
KMZ	<PA	\$ 2,358,000	\$ 2,214,000	\$ 1,860,000	\$ 2,358,000	
Fort Bragg	<PA	\$ 1,668,000	\$ 1,657,000	\$ 1,646,000	\$ 1,670,000	Slightly greater than Preseason Report II Alternatives
South of Pt. Arena	<PA	\$ 8,779,000	\$ 8,601,000	\$ 8,424,000	\$ 9,008,000	
West Coast Total	<PA	\$27,756,000	\$25,698,000	\$20,170,000	\$26,792,000	

a/ Impacts assumed when Alternatives were adopted in March may have changed due to updated information from the PSC, North of Falcon process, or other sources. For example, the March impact rate of 41.8% on LCR natural tules for Alternative I was revised to 39.7% at the April Council meeting.

b/ Did not include freshwater impacts, which were unavailable in March.

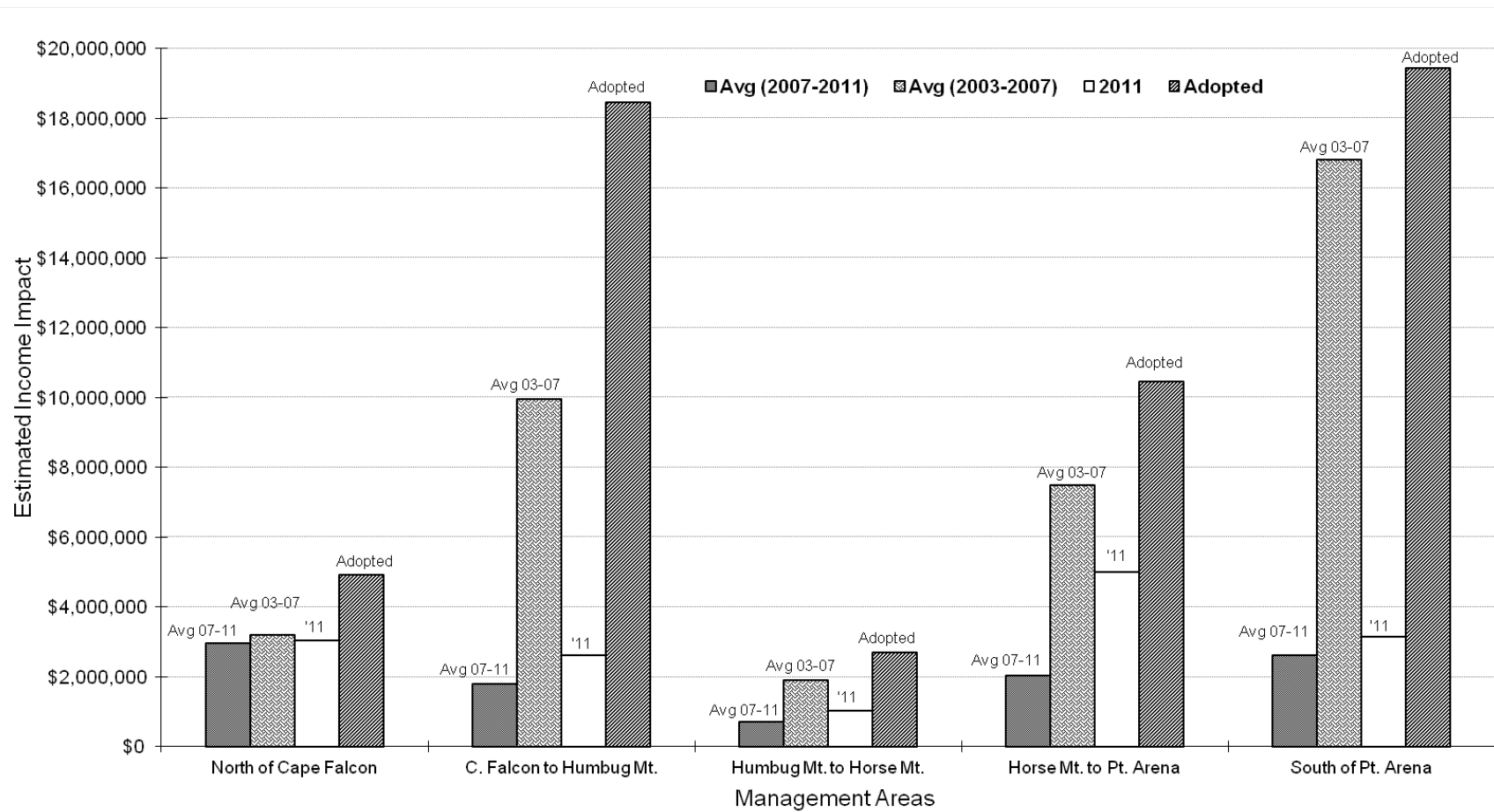


FIGURE 3. Projected coastal community personal income impacts associated with the 2012 commercial troll fishery under Council-adopted management measures compared to 2011 and the 2003-2007 and 2007-2011 averages in real (inflation adjusted) dollars.

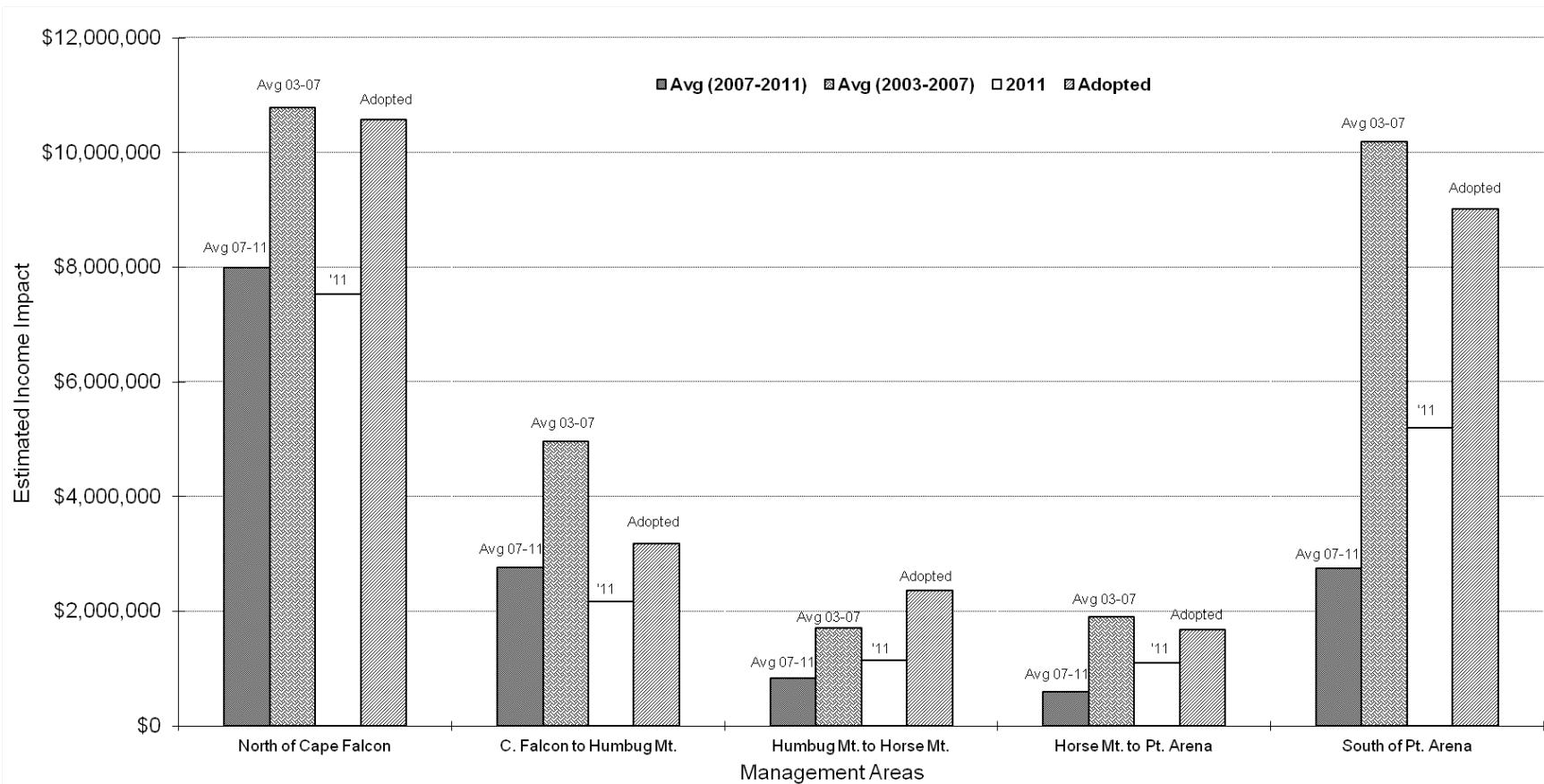


FIGURE 4. Projected coastal community personal income impacts associated with the 2012 recreational fishery under Council-adopted management measures compared to 2011 and the 2003-2007 and 2007-2011 averages in real (inflation adjusted) dollars.

Marine Fisheries Management Zones

