

**PRESEASON REPORT III**  
**COUNCIL ADOPTED MANAGEMENT MEASURES**  
**AND**  
**ENVIRONMENTAL ASSESSMENT PART 3**  
**FOR**  
**2023 OCEAN SALMON FISHERY REGULATIONS**  
REGULATION IDENTIFIER NUMBER 0648-BL66



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# ACKNOWLEDGMENTS

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## LIST OF ACRONYMS AND ABBREVIATIONS

AABM	Aggregate Abundance Based Management
ABC	Acceptable Biological Catch
ACL	Annual Catch Limit(s)
AI	Abundance Index
BiOp	biological opinion
CDFW	California Department of Fish and Wildlife
Council	Pacific Fishery Management Council
CPUE	catch per unit effort
CYER	Calendar year exploitation rate
EA	Environmental Assessment
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 (Humbug Mountain to Horse Mountain)
KRFC	Klamath River fall Chinook
LCN	Lower Columbia Natural (wild Columbia River coho below Bonneville Dam)
LCR	Lower Columbia River (wild Col. River tule fall Chinook below Bonneville Dam)
LRH	Lower River Hatchery (hatchery Col. River tule fall Chinook below Bonneville Dam)
LRW	Lower River Wild (Columbia River bright fall wild Chinook below Bonneville Dam)
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NBC	Northern British Columbia
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
OFL	Overfishing Limit
OPI	Oregon Production Index
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
SAS	Salmon Advisory Subpanel
SCH	Spring Creek Hatchery (Col. R. tule fall Chinook returning to Spring Creek Hatchery [above Bonneville Dam])
SEAK	Southeast Alaska
S <sub>MSY</sub>	Spawning escapement associated with maximum sustainable yield
SONCC	Southern Oregon/Northern California Coast (coho ESU)
SRFC	Sacramento River fall Chinook
SRW	Snake River wild fall Chinook
SRWC	Sacramento River winter Chinook
STT	Salmon Technical Team
SWO	State Waters Only (fisheries off Oregon south of Cape Falcon)
TAC	Total Allowable Catch
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife

## 1.0 INTRODUCTION

This report, referred to as Preseason III, is the last in an annual series of four reports prepared by the Salmon Technical Team (STT) of the Pacific Fishery Management Council (Council) to document and help guide development of ocean salmon fishery management measures for fisheries off the coasts of Washington, Oregon, and California. This report describes the Council's 2023<sup>1</sup> ocean salmon management measures adopted for submission to the U.S. Secretary of Commerce and characterizes the 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 2023 ocean salmon regulations and includes a description and analysis of the Proposed Action. An EA is used to determine whether an action being considered by a Federal agency has significant environmental impacts. The first part of this EA (Preseason Report I; PFMC 2023b, incorporated herein by reference), includes a statement of the purpose and need for the proposed action, a description of the affected environment, a description of the No-Action Alternative, and an evaluation of the No-Action Alternative's effects on the salmon stocks included in the Council's Fishery Management Plan (FMP). The second part of the EA (Preseason Report II; PFMC 2023c, incorporated herein by reference), includes an additional description of the affected environment relevant to the Council's proposed Alternatives, a description of the Alternatives, and an analysis of the environmental consequences of the Alternatives, including short term and long-term impacts of the Alternatives. Along with the description and analysis of the Proposed Action in this report (Preseason Report III), 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 Council's Proposed Action for the 2023 ocean salmon fishery regulations meet all objectives of the 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).

Under the Council's recommended management measures, salmon stocks originating from Washington, Oregon, and California meet all the applicable conservation objectives in the FMP where possible. The spawning escapement for Klamath River fall Chinook (KRFC) is projected to be 23,614 natural area adults (40,700 is the conservation objective for this stock), despite the recommended closure of ocean salmon fisheries off the coast of California and most of Oregon.

The STT evaluated salmon stock status based on spawning escapement data published in the *Review of 2022 Ocean Salmon Fisheries* (2022 Review, PFMC 2023a) and provided the following information on Chinook and coho stocks:

Sacramento River fall Chinook (SRFC) and KRFC were found to meet the criteria for being classified as overfished in the PFMC *Review of 2017 Ocean Salmon Fisheries*, released in February 2018. NMFS subsequently published an overfished designation for both stocks in June 2018, and rebuilding plans were developed for both and adopted by the Council in 2019. Sacramento River fall Chinook was determined to be rebuilt in 2021 (*Review of 2021 Ocean Salmon Fisheries*). Klamath River fall Chinook continue to meet the criteria for overfished status based on the most recent three-year geometric mean of spawning escapement (2020-2022).

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<sup>1</sup> The fishery management measures under consideration would cover the period May 16, 2023, through May 15, 2024 (86 FR 26426). For ease of reference, we refer to this time period as 2023.

Queets River spring/summer Chinook were found to meet the criteria for being classified as overfished based on the most recent three-year geometric mean of spawning escapement (2019-2021) published in the *PFMC Review of 2022 Ocean Salmon Fisheries*, released in February 2023.

Queets River natural coho, Strait of Juan de Fuca natural coho, and Snohomish River natural coho were found to meet the criteria for being classified as overfished in the *PFMC Review of 2017 Ocean Salmon Fisheries*, released in February 2018. Queets River natural coho continue to meet the criteria for overfished status, Strait of Juan de Fuca natural coho have met the criteria for not overfished/rebuilding status, and Snohomish natural coho now meet the criteria for rebuilt status based on the most recent three-year geometric mean of escapement estimates (2019-2021).

## **2.0 SELECTION OF FINAL MANAGEMENT MEASURES**

The following figures and tables describe the Council-adopted management measures covering the period from May 16, 2023, through May 15, 2024 unless modified inseason:

Table 1 - Non-Indian commercial ocean salmon management measures;

Figure 1 - Geographic outline of commercial troll (non-Indian) ocean salmon seasons;

Table 2 - Recreational ocean salmon management measures;

Figure 2 - Geographic outline of recreational ocean salmon seasons;

Table 3 - Treaty Indian commercial ocean management measures; and

Table 4 - Allowable catch quotas for Chinook and coho.

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 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 assessment of stock status with regard to overfished, overfishing, and approaching an overfished condition is described in Table 12.

The 2023 seasons are constrained primarily by: (1) Klamath River fall Chinook and Sacramento River fall Chinook south of Cape Falcon, and (2) lower Columbia River natural tule Chinook and Puget Sound Chinook 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 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 2023-2024 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 and size limits, species retention limits, and mark-selective retention restrictions.
6. Transferring unused or exceeded quota to subsequent fisheries on an impact neutral, fishery equivalent basis.
7. Closing or postponing Oregon recreational and commercial fisheries scheduled to open March 15, 2024, if necessary to meet 2024 management objectives.
8. Closing or postponing California recreational fisheries scheduled to open April 6 or May 1, 2024, or commercial fisheries scheduled to open April 16 or May 1, 2024, if necessary to meet 2024 management objectives.
9. Implementing and/or modifying landing limits for the California commercial fishery scheduled to open April 16 or May 1, 2024.
10. Closing or postponing commercial fisheries north of Cape Falcon scheduled to open May 1, 2024, if necessary to meet 2024 management objectives.
11. Adjustments to incidental Pacific halibut catch regulations in commercial fisheries, including landing and possession ratios and landing and possession limits per trip.

Inseason action will generally be accomplished through National Marine Fisheries Service (NMFS) sponsored conference calls attended by representatives of affected Tribal and state 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 typically include commercial and recreational fisheries at the mouths of the Chetco, Elk, and other rivers. Washington may also establish limited recreational salmon fisheries in state marine waters if additional impacts on coho and/or Chinook stocks can be accommodated within management constraints. California will not establish any additional state marine water salmon fisheries in 2023.

## **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 maximum sustainable yield (MSY).

Administrative objectives are requirements for meeting other applicable law outside of the Salmon FMP. These requirements include the Endangered Species Act (ESA), international treaties, and tribal trust responsibilities. The Salmon FMP defers to measures needed to protect ESA-listed species analyzed in or



required by biological opinions (BiOps) issued by NMFS under ESA section 7(a)(2) or developed through other ESA processes (referred to in the Salmon FMP as “consultation standards”). Section 5.0 of this document provides greater detail on ESA listed species, while impacts of the proposed Alternatives on ESA listed species are described in Table 5.

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

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

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

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, there are sharing formulas between commercial and recreational sectors, and among recreational port subareas; the recreational subarea sharing formula may be modified with the support of recreational port representatives. North of Falcon recreational subarea sharing was developed with the support of port area representatives, and all other sharing of Chinook and coho quotas adhered to FMP sharing formulas or other provisions of the FMP. Therefore, 2023 salmon management measures adopted by the Council meet all allocation requirements.

#### **4.0 SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT**

Since 1989, NMFS has listed 17 Evolutionarily Significant Units (ESUs) of salmon under the ESA. As the listings have occurred, NMFS has initiated formal ESA § 7 consultations and issued BiOps that consider the impacts resulting from implementation of the Salmon FMP and annual management measures to listed salmonid species. NMFS has also reinitiated consultation on certain ESUs when required due to pertinent new information becoming 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 are derived from those consultations and include: (1) reasonable and prudent alternatives and/or reasonable and prudent measures, (2) conservation objectives that were included as part of the proposed action subject to Section 7 consultations, and (3) NMFS requirements under ESA Section 4(d) determinations.

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.

Some ESA-listed salmonid species are either rarely caught in Council fisheries (e.g., spring Chinook from the upper Columbia River) or already receive sufficient protection from measures implemented to limit impacts to other stocks (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.

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> )	Chinook					
	Sacramento River Winter	Endangered	81 FR 33468	5/26/2016	54 FR 32085	8/1/1989
	Snake River Fall	Threatened	81 FR 33468	5/26/2016	57 FR 14653	4/22/1992
	Snake River Spring/Summer	Threatened	81 FR 33468	5/26/2016	57 FR 14653	4/22/1992
	Puget Sound	Threatened	81 FR 33468	5/26/2016	64 FR 14308	3/24/1999
	Lower Columbia River	Threatened	81 FR 33468	5/26/2016	64 FR 14308	3/24/1999
	Upper Willamette River	Threatened	81 FR 33468	5/26/2016	64 FR 14308	3/24/1999
	Upper Columbia River Spring	Endangered	81 FR 33468	5/26/2016	64 FR 14308	3/24/1999
	Central Valley Spring	Threatened	81 FR 33468	5/26/2016	64 FR 50394	9/16/1999
	California Coastal	Threatened	81 FR 33468	5/26/2016	64 FR 50394	9/16/1999
Chum Salmon ( <i>O. keta</i> )	Chum					
	Hood Canal Summer-Run	Threatened	81 FR 33468	5/26/2016	64 FR 14508	3/25/1999
	Columbia River	Threatened	81 FR 33468	5/26/2016	64 FR 14508	3/25/1999
Coho Salmon ( <i>O. kisutch</i> )	Coho					
	Central California Coastal	Endangered	81 FR 33468	5/26/2016	61 FR 56138	10/31/1996
	S. Oregon/ N. California Coastal	Threatened	81 FR 33468	5/26/2016	62 FR 24588	2019
	Oregon Coastal	Threatened	81 FR 33468	5/26/2016	63 FR 42587	8/10/1998
	Lower Columbia River	Threatened	81 FR 33468	5/26/2016	70 FR 37160	6/28/2005
Sockeye Salmon ( <i>O. nerka</i> )	Sockeye					
	Snake River	Endangered	81 FR 33468	5/26/2016	56 FR 58619	11/20/1991
	Ozette Lake	Threatened	81 FR 33468	5/26/2016	64 FR 14528	3/25/1999

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

Date	Evolutionarily Significant Unit covered and effective period
3/8/1996	Snake River spring/summer and fall Chinook and sockeye (until reinitiated)
4/28/1999	Oregon Coastal natural coho, Southern Oregon/ Northern California coastal coho, Central California coastal coho (until reinitiated)
4/28/2000	Central Valley spring Chinook (until reinitiated)
4/27/2001	Hood Canal summer chum 4(d) limit (until reinitiated)
4/30/2001	Upper Willamette Chinook, Upper Columbia spring Chinook, Lake Ozette sockeye, Columbia River chum, and 10 steelhead ESUs (until reinitiated)
4/30/2004	Puget Sound Chinook (until reinitiated)
2/28/2023	California coastal Chinook (until reinitiated)
4/26/2012	Lower Columbia River Chinook (until reinitiated)
4/9/2015	Lower Columbia River natural coho (until reinitiated)
4/26/2018	Sacramento River winter Chinook (until reinitiated)

Additional listed salmonid ESUs found within the Council area, but not substantively impacted by Council managed fisheries, include:

<p><b><u>Chinook</u></b></p> <p>Snake River spring/summer (threatened)</p> <p>Upper Willamette (threatened)</p> <p>Puget Sound (threatened)</p> <p>Upper Columbia River spring (endangered)</p> <p><b><u>Sockeye</u></b></p> <p>Snake River (endangered)</p> <p>Ozette Lake Sockeye (threatened)</p> <p><b><u>Chum</u></b></p> <p>Columbia River (threatened)</p> <p>Hood Canal summer (threatened)</p>	<p><b><u>Steelhead</u></b></p> <p>Southern California (endangered)</p> <p>South-central California coast (threatened)</p> <p>Upper Columbia River (endangered)</p> <p>Middle Columbia River (threatened)</p> <p>Snake River Basin (threatened)</p> <p>Puget Sound (threatened)</p> <p>Central Valley, California (threatened)</p> <p>Central California coast (threatened)</p> <p>Upper Willamette River (threatened)</p> <p>Lower Columbia River (threatened)</p> <p>Northern California (threatened)</p>
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Of the ESA-listed Chinook and coho ESUs, Council-managed fisheries can have substantive impacts on Sacramento River winter Chinook (SRWC), Central Valley spring Chinook, California coastal Chinook (CCC), Snake River fall Chinook (natural component, referred to as Snake River Wild (SRW) in this document), lower Columbia River (LCR) fall Chinook, and all coho species (also referred to as ‘stocks’ in this document).

In a letter received by the Council (dated March 3, 2023), NMFS summarized existing consultation standards and provided guidance on measures needed to protect species listed under the ESA during the 2023 fishing season. The letter summarized the measures analyzed and/or recommended in the relevant NMFSs BiOps on the effects of fisheries managed under the salmon FMP on listed salmon and specified limits applicable for the 2023 fishing season given abundance forecasts and other season-specific information. The letter also provides NMFS’ recommendations for certain non-ESA listed stocks in the fishery. The ESA consultation standards, exploitation rates, and other criteria in place for the 2023 management season are presented in Table 5

## 5.0 OBLIGATIONS UNDER THE PACIFIC SALMON TREATY

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

### 5.1 Chinook Salmon Management

A new ten-year agreement under the PST was adopted by both the U.S. and Canada and implemented beginning with the 2019 fishing year. The new agreement includes reductions to catch ceilings for the Southeast Alaska (SEAK) and West Coast Vancouver Island (WCVI) Aggregate Abundance Based Management (AABM) fisheries relative to the prior 2009 Agreement. For SEAK, the reductions range from 1.5 percent in years of high abundance to 7.5 percent in years of low abundance. For WCVI, the reductions range from 2.4 percent in years of high abundance to 12.5 percent in years of low abundance. Additionally, beginning with the 2019 Agreement, while annual catch limits continue to be determined using the abundance indices (AIs) from the PSC Chinook Model for the Northern British Columbia (NBC) and WCVI AABM fisheries, the annual catch limits for SEAK fisheries have been set using a catch-per-unit-effort (CPUE) estimate from the early winter power troll fishery (see Tables 1 and 2 in Chapter 3 of the 2019 Agreement for specifics). For 2023, the PSC approved the use of a new method for setting the

annual catch limit in the SEAK AABM fishery, which incorporates both the empirical CPUE information in addition to PSC Chinook Model-based abundance projections in a multivariate approach.

For the 2023 fishing season, the predicted abundance index produced using the multivariate model was 1.42, which corresponds to an all gear catch limit of 206,027 Chinook. The annual calibration of the PSC Chinook Model produced AIs of 1.16 for the NBC AABM fishery and 1.02 for the WCVI AABM fishery. These AIs correspond to catch limits of 141,700 and 115,500 for the NBC and WCVI AABM fisheries, respectively.

Fisheries not subject to AABM regimes, including Council area fisheries, are subject to a new set of Individual Stock Based Management (ISBM) obligations under the 2019 agreement. These provisions require the calendar year exploitation rate (CYER) by all U.S. fisheries south of the U.S./Canada border on specific indicator stocks to be below some level of the average 2009 – 2015 CYER if they do not achieve their management objectives (see Attachment I in Chapter 3 of the 2019 Agreement for specifics). Similar to previous ISBM obligations, these limits are taken into account during preseason planning processes, however, relative to meeting the provisions of the PST, the CYER limits are evaluated on a postseason basis only. Canadian fisheries that are not included in AABM complexes are managed under ISBM constraints, which, similar to U.S. ISBM fisheries, require the CYER by Canadian ISBM fisheries on specific indicator stocks to be below some level of the average 2009 – 2015 CYER if they do not achieve their management objectives. Expectations for Canadian and Alaskan fisheries harvest and stock abundance forecasts are incorporated into the Chinook Fishery Regulation Assessment Model (FRAM) to estimate total exploitation rate impacts from all marine fisheries (Table 5).

Key considerations for Canadian domestic fishery management for Chinook in 2023 include: (1) meeting domestic conservation obligations for WCVI, Lower Strait of Georgia, Fraser River Spring 4.2 and 5.2, Fraser Summer 5.2, Fraser Summer 4.1 and Fraser Fall 4.1 (Harrison River) stocks; (2) meeting First Nations Food, Social and Ceremonial and treaty obligations for Chinook harvests in native fisheries; and (3) monitoring of incidental impacts during commercial and native fisheries directed at sockeye, and chum salmon. It is anticipated that the details of the fishery regulatory package off WCVI and in the Juan de Fuca-Strait of Georgia areas will be driven by levels of allowable impact on WCVI, Lower Strait of Georgia and Fraser River Chinook stocks, in addition to Interior Fraser (Thompson River) coho, and potentially Thompson and/or Chilcotin River Steelhead. Increasing the availability of Chinook salmon in key foraging areas of Southern Resident Killer Whales in the southern British Columbia (BC) region is an additional consideration which will be supported through conservation actions implemented for Fraser River and other Chinook salmon.

## **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 2019 PST Southern Coho Management Plan and are based on total allowable fishery exploitation rates.

The categorical status of U.S. coho management units are reported to comply with obligations pursuant to the 2019 PST Southern Coho Management Plan. Categorical status is employed by the PSC under the 2019 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 2019 PST Southern Coho Management Plan uses the thresholds and stepped harvest rate goals from the Comprehensive Coho Agreement, developed by Washington and the Puget Sound tribes, and adopted by the Council as FMP conservation objectives in November 2009. Actual exploitation rate constraints for Canadian fisheries on U.S. coho management units are determined by formulas that specify sharing of allowable exploitation rates and a “composite rule.” The composite rule adjusts constraints for Canadian fishery exploitation rates based on the number of U.S. management units which fall in a given category. For example, if only one Washington coastal or Puget Sound 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 several Washington coastal coho management units, management objectives are expressed as a range of spawning escapements expected to produce MSY. Allowable exploitation rates are calculated from the forecast abundance and the lower end of the escapement range and used to classify the categorical status of the management units. This rate is the maximum allowed under the PST when the management unit is in the moderate or abundant status, but exploitation rates up to 20 percent are allowed if the management unit is in the low abundance status.

For 2023, Puget Sound and Washington coast coho constraints are as follows:

**FMP**

FMP Stock	Total Exploitation Rate Constraint <sup>a/</sup>	Categorical Status <sup>a/</sup>
Skagit	35%	Low
Stillaguamish	50%	Normal
Snohomish	40%	Low
Hood Canal	45%	Low
Strait of Juan de Fuca	40%	Low
Quillayute Fall	59%	
Hoh	65%	
Queets	65%	
Grays Harbor	65%	

**PST Southern Coho Management Plan**

U.S. Management Unit	Total Exploitation Rate Constraint <sup>b/</sup>	Categorical Status <sup>c/</sup>
Skagit	35%	Moderate
Stillaguamish	50%	Abundant
Snohomish	40%	Moderate
Hood Canal	45%	Moderate
Strait of Juan de Fuca	40%	Moderate
Quillayute Fall <sup>c/</sup>	53%	Abundant
Hoh <sup>c/</sup>	69%	Abundant
Queets <sup>c/</sup>	53%	Abundant
Grays Harbor <sup>c/d/</sup>	69%	Abundant

a/ Preliminary. For Puget Sound stocks, the exploitation rate constraints and categorical status (Normal, Low, Critical) reflect application of Comprehensive Coho Agreement rules, as adopted in the FMP. For Washington Coast stocks, exploitation rate constraints represent MFMT. Note that under *U.S. v. Washington* and *Hoh v. Baldrige* case law, the management objectives can differ from FMP objectives provided there is an annual agreement among the state and tribal comanagers; therefore, the exploitation rates used to report categorical status do not necessarily represent maximum allowable rates for these stocks.

b/ Preliminary. For Puget Sound and Washington Coast management units, the exploitation rate constraints reflect application of the 2019 PST Southern Coho Management Plan.

c/ Categories (Abundant, Moderate, Low) correspond to the general exploitation rate ranges depicted in paragraph 8(b)(iii) of the 2019 PST Southern Coho Management Plan. For Washington Coast stocks, categorical status is determined by the exploitation rate associated with meeting the escapement goal (or the lower end of the escapement goal range). As Washington Coast stocks are managed to achieve agreed escapement goals, this exploitation rate also becomes an approximation of the maximum allowable rate unless the stock is in the “Low” status. In that case, an ER of up to 20% is allowed.

d/ Based on projected natural area spawners (wild plus hatchery strays) and MSP escapement goal of 35,400. Exploitation rate constraint subject to change should comanagers agree to a modified escapement goal under *U.S. v. Washington* and *Hoh v. Baldrige* case law.

Key considerations for Canadian fishery management for coho in 2023 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, chum, and especially Fraser sockeye salmon which will see a dominant late run return in 2023. The Canadian fishery regimes affecting coho are expected to be driven by Canadian domestic allowable impacts on the Thompson River component of the Interior Fraser management unit, Fraser Chinook concerns and Fraser sockeye stocks of concern co-migrating with the late run.

In years prior to 2014, Canadian fisheries were managed so as not to exceed a three percent maximum exploitation rate. In May 2014, Canada decided to permit up to a 16 percent exploitation rate on upper Fraser coho in Canadian fisheries to allow for impacts in fisheries directed at a record Fraser sockeye forecast. Since 2015, upper Fraser coho in Canadian fisheries have been managed per low status limitations. The projected status of Canadian coho management units in 2023 indicates continuing concerns for the condition of Interior Fraser coho. The Interior Fraser coho management unit is anticipated to remain in low abundance status, resulting in a requirement to constrain the total mortality fishery exploitation rate for 2023 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 2023 are:

- *Columbia River hatchery tules*. Combined production of Lower River Hatchery (LRH) and Spring Creek Hatchery (SCH) stocks returning to the Columbia River is forecasted to be 213,200, which is higher than the 2022 preseason expectation of 164,200. The LRH forecast is 77,100, which is greater than the forecast of 73,000 in 2022. The SCH forecast is 136,100, which is greater than the 2022 forecast of 91,200.

#### **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 species as provided in Section 4.0 above. Relevant ESUs (may be referred to as stocks in this document) for the area north of Cape Falcon include LCR Chinook (natural tule component and referred to as LCR natural tule fall Chinook in this document), Lower Columbia River wild fall Chinook (natural component and referred to as LRW fall Chinook in this document), and SRW fall Chinook.
- Fisheries north of Cape Falcon were shaped to minimize impacts on the LCR natural tule fall Chinook ESU.

#### **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. Descriptions pertaining to the achievement of key objectives for Chinook salmon management north of Cape Falcon are as follows:

- *LCR natural tule fall Chinook*. The Council adopted management measures have a projected total exploitation rate of 38.0 percent, which is within the 38.0 percent maximum for 2023.

- *LRW fall Chinook*. The Council adopted management measures have a projected ocean escapement of 8,700, which is projected to be sufficient to meet the ESA consultation standard of an adult spawning escapement of at least 5,700 in the North Fork Lewis River.
- *SRW fall Chinook*. The Council adopted management measures have an ocean exploitation rate that is 49.0 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.

The adopted management measures for Council-area Chinook fisheries north of Cape Falcon satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for relevant Chinook stocks (Table 5).

## 6.2 South of Cape Falcon

Status of Chinook stocks important to 2023 Chinook harvest management south of Cape Falcon are:

- *SRFC*. The Sacramento Index forecast is 169,767, which is lower than the 2022 forecast of 396,458.
- *KRFC*. The ocean abundance forecast for this stock is 75,256 age-3, 27,198 age-4, and 1,339 age-5 fish. These compare to the 2022 forecasts of 154,998 age-3, 43,211 age-4, and 1,908 age-5 fish.
- *SRWC*. The forecast of age-3 escapement absent fishing is 4,540, which is less than the 2022 forecast of 5,971.

### 6.2.1 Objectives

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

- A KRFC natural area spawner escapement of at least 23,614 adults, which is produced, in expectation, by a maximum exploitation rate of 10.0 percent (FMP control rule).
- A SRFC hatchery and natural area spawner escapement of at least 122,000 adults (FMP control rule).
- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 5.0 above. Relevant ESA-listed stocks (species or components thereof) for the area south of Cape Falcon include SRWC, California coastal Chinook, SRW fall Chinook, and LCR natural tule Chinook.

The maximum allowable exploitation rate for KRFC in 2023 is 10 percent, which is a *de minimis* exploitation rate. In such cases, the FMP stipulates:

“When recommending an allowable *de minimis* exploitation rate in a given year, the Council shall also consider the following circumstances:

- The potential for critically low natural spawner abundance, including considerations for substocks that may fall below crucial genetic thresholds;
- Spawner abundance levels in recent years;
- The status of co-mingled stocks;
- Indicators of marine and freshwater environmental conditions;
- Minimal needs for Tribal fisheries;
- Whether the stock is currently in an approaching an overfished condition;
- Whether the stock is currently overfished;
- Other considerations as appropriate.”

The Salmon Technical Team has assessed these circumstances, with the exception of minimal needs for Tribal fisheries.

### **Potential for low spawner abundance**

The potential for critically low natural spawner abundance is considered high. The 2023 minimum natural-area spawner escapement of 23,614 adults is below the minimum stock size threshold (MSST; 30,525). A natural-area escapement of 23,614 adults would represent the 12th lowest value over the past 45 years of data.

### **Substocks**

To assess the potential for critically low abundance of substocks, a statistical model (PFMC 2007, Appendix D) was applied to historical run size data to assess the probability that escapement to either the Salmon, Scott, or Shasta rivers would fall below 720 adults, given a total, basin-wide natural area escapement of 23,614 adults in 2023. The 720 escapement threshold for these substocks was based on effective population size (genetic) considerations. Application of the model suggested that at least one of the substocks would fall below the 720 adult threshold with a probability of 0.39.

### **Recent spawner abundance**

The natural-area adult spawner escapement has been lower than MSST in seven of the last ten years and four of the last five years. The 2023 forecast of natural-area spawners in the absence of fishing is 26,238 adults, which is below the maximum sustainable yield spawner escapement ( $S_{MSY}$ ; 40,700) and the MSST. If fishing seasons are structured such that the maximum allowable exploitation rate of 10 percent is met, the natural-area adult spawner expectation is 23,614, which is lower than the MSST and  $S_{MSY}$ .

### **Comingled stocks**

With regard to co-mingled stocks, Sacramento River fall Chinook have a low abundance forecast and are a constraint to fisheries in 2023.

### **Indicators of marine and freshwater environmental conditions**

Indicators of marine and freshwater conditions encountered by KRFC broods in the 2023 fisheries [primarily brood years 2019 (age-4 in 2023) and 2020 (age-3 in 2023)] were provided in the [Habitat Committee report](#) at the March 2023 PFMC meeting.

Brood year 2019 KRFC were the progeny of a low abundance of spawners. Egg to fry productivity was above average, but outmigrants encountered low flows. The number of hatchery fish released was well below average, but the release timing relative to the spring transition in the ocean was favorable for survival. Early marine survival indicators were mixed. The mean status score for freshwater life stages of the 2019 brood was below average while the mean status score for the marine component of the lifecycle was above average.

Brood year 2020 KRFC were the progeny of a spawner abundance near the mean value, and incubation indicators were also close to the mean. Outmigrants encountered low flows and high temperatures. Hatchery production was below average, but hatchery-origin outmigrants encountered favorable river and ocean conditions. Early marine survival indicators were generally near mean values, the exception being a favorable North Pacific Index. The mean status score for freshwater life stages of the 2020 brood was below average while the mean status score for the marine component of the lifecycle was above average.

### **Approaching an overfished condition**

The KRFC stock currently meets the criteria for approaching an overfished condition.



### Overfished status

KRFC was declared overfished following the 2017 escapement and continues to meet the criteria for overfished status in 2023.

### 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. Table 12 provides an assessment of stock status. Descriptions pertaining to the achievement of key objectives for Chinook salmon management south of Cape Falcon are found below.

- *KRFC*. The projected natural-area adult escapement is 23,614, which is equivalent to the FMP control rule-defined minimum for 2023.
- *SRFC*. The adopted management measures result in a projected escapement of 164,964, which exceeds the FMP control rule-defined minimum of 122,000 hatchery and natural area adult spawners.
- *SRWC*. The adopted management measures result in a projected age-3 impact rate of zero percent, which is consistent with the ESA consultation standard that (1) limits the age-3 impact rate in 2023 fisheries south of Point Arena to a maximum of 20.0 percent and (2) specifies time/area closures and minimum size limit constraints south of Point Arena.
- *California coastal Chinook*. The adopted management measures result in a projected KRFC age-4 ocean harvest rate of 0.3 percent, which is consistent with the 2023 NMFS guidance to limit the forecast KRFC age-4 ocean harvest rate to a maximum of 10.0 percent.
- *SRW fall Chinook*. The adopted management measures have an ocean exploitation rate of 49.0 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.
- *LCR natural tule fall Chinook*. The projected exploitation rate in the adopted management measures is 38.0 percent and meets the 38.0 percent maximum for 2023.

The adopted management measures for Chinook fisheries south of Cape Falcon satisfy NMFS ESA consultation standards and guidance. However, KRFC does not meet its conservation objective of 40,700 natural area adult spawners (Table 5).

## 7.0 COHO SALMON MANAGEMENT

Abundance projections important to coho harvest management in Council area fisheries in 2023 are:

- *Oregon Production Index (OPI) Hatchery coho*. The forecast for hatchery coho from the Columbia River and the coast south of Cape Falcon of 896,900 is lower than the 2022 forecast of 1,003,500. The Columbia River early coho forecast is 481,800 compared to the 2022 forecast of 592,500, and the Columbia River late coho forecast is 404,300 compared to the 2022 forecast of 404,700.
- *Oregon coastal natural (OCN) coho*. The OCN forecast is 238,800 compared to the 2022 forecast of 222,400.
- *Lower Columbia natural (LCN) coho*. The LCN forecast is 45,500 compared to the 2022 forecast of 65,700.
- *Puget Sound coho*. Among Puget Sound natural stocks, Skagit, Snohomish, Hood Canal, and Strait of Juan de Fuca coho are in the low category. Stillaguamish coho are in the normal category.
- *Interior Fraser (Thompson River) coho*. This Canadian stock continues to be depressed and continues to constrain ocean coho fisheries north of Cape Falcon.

- *Washington coastal coho.* Forecasts for Washington coastal coho stocks as an aggregate are similar for natural stocks and increased for hatchery stocks compared to 2022. Among Washington coastal natural stocks, Quillayute fall, Queets, Hoh, and Grays Harbor coho are all in the abundant category under the PST Southern Coho Management Plan.

## 7.1 Objectives

Key coho management objectives shaping management measures in 2023 Council area fisheries are:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 5.0 above. Relevant stocks include Central California Coast coho (south of the Oregon/California border), Southern Oregon/Northern California Coastal (SONCC) coho, OCN coho, and LCN coho. The maximum allowable exploitation rates for 2023 are: (1) a combined marine/freshwater exploitation rate not to exceed 20.0 percent for OCN coho, (2) a combined exploitation rate in marine-area and mainstem Columbia River fisheries not to exceed 23.0 percent for LCN coho, and (3) a total exploitation rate not to exceed 16.0 percent for the Trinity River component of SONCC coho and a total exploitation rate not to exceed 15.0 percent for all other components of the SONCC coho ESU. Furthermore, coho retention is prohibited in all California ocean fisheries.
- Salmon FMP conservation objectives and obligations under the PST Southern Coho Management Plan for stocks originating along the Washington coast, Puget Sound, and British Columbia as provided in Section 6.2 above. The forecasts for Washington coastal coho stocks are abundant in 2023; these stocks contribute to fisheries off Washington. Forecasts for some Puget Sound coho stocks in 2023 are low; however, the majority of the exploitation on these stocks occurs in Puget Sound and has been addressed in development of fishing seasons for inside waters during the North of Falcon co-management process by the state and tribes of Washington prior to the April Council meeting. The forecast for Interior Fraser coho in 2023 is low; 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 PST Southern Coho Management Plan.
- Queets natural coho, Strait of Juan de Fuca natural coho, and Snohomish natural coho salmon stocks were classified as overfished in 2018, and the Council adopted rebuilding plans for these stocks in 2019. In 2020, Snohomish natural coho was reported to have met the criteria for not overfished-rebuilding. In 2023, Snohomish natural coho was reported to have met the criteria for rebuilt and Strait of Juan de Fuca natural coho was reported to have met the criteria for not overfished-rebuilding. Queets natural coho continue to meet the criteria for overfished. Coho fisheries, particularly north of Cape Falcon, were shaped to minimize impacts on these stocks and meet the objectives of the rebuilding plans. Objectives of the rebuilding plans for Queets natural coho and Strait of Juan de Fuca natural coho are to manage the stock under status quo  $S_{msy}$ .

## 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 SONCC coho populations. Table 8 provides expected coho mark rates for west coast fisheries by month. Table 12 provides an assessment of stock status, including expected spawning escapement and exploitation rates under the adopted management measures.

- *SONCC coho.* The adopted management measures satisfy the maximum 16 percent exploitation rate for the Trinity River component of the SONCC coho ESU and 15 percent for all other components when projected marine impacts are combined with projected freshwater impacts. The marine exploitation rate is 1.8 percent for all SONCC coho components. The freshwater

exploitation rates are 13.2 percent, 5.9 percent, 4.9 percent, and 0.0 percent for Trinity, Klamath, Rouge, and other SONCC coho ESU components, respectively.

- *OCN coho*. The adopted management measures satisfy the maximum 20.0 percent exploitation rate for combined marine and freshwater fisheries, with a marine exploitation rate of 14.1 percent and a freshwater exploitation rate of 5.8 percent.
- *LCN coho*. The adopted management measures satisfy the maximum 23.0 percent exploitation rate for combined marine and mainstem Columbia River fisheries, with a marine exploitation rate of 14.3 percent and a mainstem Columbia River exploitation rate of 4.6 percent.
- *Washington coastal natural coho*. The adopted management measures provide ocean escapement numbers of 12,521, 5,448, 10,251, and 102,101 for Quillayute fall, Hoh, Queets, and Grays Harbor natural coho, respectively. These ocean escapement levels, when combined with scheduled in-river fisheries, meet FMP management objectives or objectives agreed to by the treaty tribes and Washington Department of Fish and Wildlife (WDFW) for those coho stocks. Expected exploitation rates are 42.6 percent, 51.0 percent, 40.9 percent, and 55.6 percent for Quillayute fall, Hoh, Queets, and Grays Harbor natural coho, respectively, which comply with both the FMP and the PST Southern Coho Management Plan (Section 5.2 and Table 12).
- *Queets natural coho*. Currently meets the stock status criteria for overfished. The adopted management measures comply with the objective in the Rebuilding Plan.
- *Strait of Juan de Fuca natural coho*. Currently meets the stock status criteria for not overfished-rebuilding. The adopted management measures comply with the objective in the Rebuilding Plan.
- *Interior Fraser coho*. The Southern U.S. exploitation rates in the adopted management measures total 9.7 percent, which complies 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 objectives, and all other objectives for relevant coho stocks including those listed in Table 5.

## **8.0 PINK SALMON MANAGEMENT**

Pink salmon merit management consideration in 2023. Impacts on Chinook and coho in pink-directed fisheries may be part of negotiations to reach a final agreement in North of Cape Falcon ocean and Puget Sound fisheries

## **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).

Adopted management measures in the area north of Cape Falcon were shaped to meet NMFS consultation standards, comply with Council-adopted rebuilding plans, and follow annual guidance for Chinook and coho stocks of concern. The 2023 Chinook total allowable catch (TAC) is increased from the 2022 TAC due to greater abundances of Columbia River Chinook. The 2023 coho TAC is slightly decreased but similar compared to last year's TAC due to similar abundance forecasts for Columbia River hatchery and coastal Washington coho stocks and constrained by low forecasts for Interior Fraser (Thompson River) natural coho.

Fisheries south of Cape Falcon are constrained by KRFC and SRFC. KRFC are being managed under the *de minimis* portion of its harvest control rule, which in 2023 specifies a maximum allowable exploitation rate of 10.0 percent and a minimum escapement of 23,614 natural area adult spawners.

## **9.1 Commercial**

North of Cape Falcon, the non-Indian troll Chinook quota is split two thirds in the spring (May-June) fishery and one third the summer fishery (July-September). The non-Indian commercial Chinook quota of 39,000 is increased compared to the 27,000 Chinook quota in 2022. The non-Indian commercial coho quota of 30,400 is slightly reduced relative to the 2022 quota of 32,000 coho.

The spring fishery in the area north of Cape Falcon will be open for all salmon except coho seven days per week May 1 through June 29. Chinook subarea guidelines and weekly (defined as Thursday through Wednesday) and per open period (June 22-29) landing and possession limits in effect are: 70 Chinook in the area between the U.S./Canada border and the Queets River, 150 Chinook in the area between the Queets River and Leadbetter Point, and 60 Chinook in the area between Leadbetter Point and Cape Falcon. In 2024, the season is scheduled to open May 1 for all salmon except coho consistent with preseason regulations as described for this area and subareas for May 16-June 29, 2023.

The summer fishery in the area north of Cape Falcon will be open for all salmon seven days per week July 1 through September 30. A landing and possession limit of 150 marked coho per vessel per landing week is in effect coastwide, and all landed coho must be marked with a healed adipose fin clip.

Commercial fisheries south of Cape Falcon are substantially reduced relative to the 2022 management measures. In the area between Cape Falcon and Humbug Mountain the commercial fishery will be open for all salmon for the month of September with a non-mark selective coho quota of 10,000. For the month of October, the fishery is open shoreward of the 40-fathom regulatory line and all salmon except coho may be retained. A landing and possession limit of 75 Chinook and coho per vessel per landing week are in place.

For the Oregon portion of the Klamath Management Zone (KMZ), from Humbug Mountain to the Oregon/California border, the season will be closed in 2023.

The area from the Oregon/California border to the U.S./Mexico border will be closed to ocean salmon fishing.

## **9.2 Recreational**

North of Cape Falcon, the recreational Chinook quota of 39,000 is increased from the 2022 quota of 27,000 Chinook. The recreational coho quota of 159,600 is slightly decreased from the 2022 quota of 168,000 coho. All landed coho must be marked with a healed adipose fin clip.

The Neah Bay and La Push subareas will open seven days per week for all salmon species June 17 through the earlier of September 30 or when Chinook subarea guidelines or coho subarea quotas are attained. The daily bag limit in both subareas is two salmon, of which only one may be a Chinook. The La Push subarea reopens for a limited area fishery October 3-7 with a daily bag limit of one salmon, Chinook only.

The Westport and Columbia River subareas will open seven days per week for all salmon species June 24 through the earlier of September 30 or when Chinook subarea guidelines or coho subarea quotas are attained. The daily bag limit in both subareas is two salmon, of which only one may be a Chinook.

In Oregon from Cape Falcon to the Oregon/California border the coho fisheries include an opening from June 17 through August 31 with a mark-selective coho quota of 110,000. From Cape Falcon to Humbug Mountain, all salmon may be retained in the month of September, with a non-mark-selective coho quota of 25,000 and daily bag limit of two salmon per day but only one may be a Chinook. In October, the fishery is open shoreward of the 40 fathom regulatory line and all salmon except coho may be retained with a bag limit of one salmon per day.

The area from the Oregon/California border to the U.S./Mexico border will be closed to ocean salmon fishing.

### 9.3 *Treaty Indian*

The Treaty Indian Troll Chinook quota is split evenly between the spring (May-June) fishery and the summer fishery (July-September). The Treaty Indian troll fishery opens on May 1 with a Chinook only fishery and runs through June 30 with a sub-quota of 22,500. The summer fishery opens on July 1 and runs through September 15 with a sub-quota of 22,500 Chinook and 57,000 coho. The Treaty Indian fishery management areas are located between the U.S./Canada border and Pt. Chehalis, Washington (Table 3, C.1).

## 10.0 SOCIOECONOMIC IMPACTS OF THE ADOPTED MANAGEMENT MEASURES

### 10.1 *Economic Impacts*

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 by management (catch) area expressed in terms of estimated potential exvessel value. Table 10 shows projected recreational fishery impacts by management area in terms of the number of projected angler-trips and community personal income impacts generated by those activities. Note that exvessel revenue 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 appear 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 levels in real (inflation-adjusted) dollars. Income impacts indicate the amount of income generated by the economic linkages associated with commercial and recreational fishing. While reductions in income impacts associated with an activity may not necessarily reflect net losses in a particular community (depending on the degree to which there is compensating activity), they are likely to indicate losses to the community's businesses and individuals that depend on the lost activity for their livelihood.

Total economic effects may vary from what is indicated by the short-term impact estimates from ocean fisheries activities 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 harvest or provide additional spawning escapement that contributes to ocean abundance in subsequent years. Restricting ocean harvests may increase opportunities for inside harvesters (e.g., higher commercial revenue or more angler trips) or contribute to higher inside CPUE representing 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 and direction of this effect varies depending on the biology of the affected stocks, habitat, and environmental factors.

Exvessel revenues in Table 9 are based on estimated harvest by catch area, while commercial income impacts in Figure 3 are based on projected deliveries by landing area. Historically there has been a divergence between catch and deliveries (landings) associated with a particular area. The difference is due to salmon caught in certain management areas being delivered to ports in neighboring management areas. In an attempt to account for this effect and assign income impacts to the "correct" landing area, adjustments are made based on historical patterns. The patterns are typically inferred from the most recent year's catch and landings data. For example, 2022 data shows there were deliveries of salmon: (1) caught north of Cape Falcon to landing ports between Cape Falcon and Humbug Mountain; (2) caught between Cape Falcon and Humbug Mountain to landing ports in the Oregon KMZ region; (3) caught between 40°10' N. Lat. and Point Arena (Fort Bragg Region) to landing ports in the California KMZ region (Crescent City and Eureka); (4) caught between Point Arena and Pigeon Point (San Francisco Region) to landing ports south of Pigeon Point (Monterey region); and (5) caught south of Pigeon Point to landing ports in the San Francisco region and also a small amount delivered in the California KMZ region.

The expected harvest levels used to model commercial fishery impacts are taken from Table 6. Estimated harvests do not include a relatively small amount occurring in the state-waters-only (SWO) fishery off southern Oregon. Estimated total commercial harvest combined with the prior year's average Chinook and coho weights per fish caught and exvessel prices per pound were assumed to be the best indicators of expected revenues in the coming season. Coastwide average Chinook weight per fish in 2022 was approximately seven percent below the prior year and three percent below the recent five-year (2018-2022) average, while coastwide average Chinook exvessel prices in 2022 were 14 percent below the prior year and 10 percent below the recent five-year (2018-2022) average in inflation-adjusted terms. Coastwide average coho weight per fish in 2022 was approximately five percent below the prior year but roughly equal to the recent five-year (2018-2022) average, while coastwide average coho exvessel prices in 2022 were 30 percent below the prior year and 15 percent below the recent five-year (2018-2022) average in inflation-adjusted terms. If this year's actual average weights per fish or exvessel prices diverge significantly from what was observed last year, then salmon exvessel revenues and resulting commercial fisheries income impacts projected in this document may prove to be correspondingly biased.

Fishing effort estimates for the recreational fishery south of Cape Falcon are based on measures developed by the STT for modeling Chinook biological impacts. STT estimates for recreational Chinook fisheries 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 last year's effort level, then the model may forecast an increase in effort for the coming year even if management measures did not change from the previous year. Estimated recreational effort does not include a relatively small amount that often occurs in the SWO fisheries off central and southern Oregon. For the first time since 2009, in the area between Cape Falcon and the Oregon/California border, recreational Chinook catch is projected to be minimal (i.e., fewer than 1,000 fish) while coho were projected to be at least as available as last year. Consequently, to account for expected coho-driven recreational effort, additional parameters were calculated using the historical relationship between observed catch and effort in the two management areas in the region (i.e., Cape Falcon to Humbug Mountain, and Humbug Mountain to the Oregon/California border). These parameters were then applied to projected coho availability south of Cape Falcon in order to estimate the geographic distribution of recreational catch and effort under the adopted Alternative.

Recreational fishery effort north of Cape Falcon was estimated using historical CPUE estimates ("success rates") applied to salmon quotas and expected harvest levels under the adopted Alternative. Projections of recreational catch north of Cape Falcon were made by multiplying the proposed quotas for Chinook and coho by historic ratios of actual catch to actual quotas. Effort and economic impacts were then estimated by summing recent year weighted average coho and Chinook angler success rates multiplied by projected coho and Chinook recreational catch.

Unless otherwise noted, economic effects of the proposed commercial and recreational fisheries actions summarized below are compared in terms of estimated community income impacts.

## **10.2 Community Impacts**

Two types of impacts are discussed in this section. "Income impacts" are the measures of economic activity as described in the previous section. "Impacts" of the action, from a NEPA perspective, are the change from a baseline. In this case, the baseline is the 2022 fishery, but information is also provided comparing projections to 2018-2022 five-year averages. When referencing impacts of the action from a NEPA perspective, either a comparison to the baseline is provided or the generic term "impacts" is used. An overall summary of impacts from the Proposed Action (adopted Alternative) is provided in the following section.

Projected income impacts under the Proposed Action in coastal communities adjacent to commercial and recreational salmon fishery management areas are shown in Figure 3 and Figure 4; and comparisons of income impacts under the Proposed Action with income impacts under Alternatives I, II and III are summarized in Table 11. For an assessment of the impact of the Proposed Action, comparisons to 2022 and 2018-2022 average income impacts are provided.

Projected coastwide income impacts from commercial salmon landings and processing under the Proposed Action are within the range analyzed under the Alternatives and will result in an approximately 85 percent reduction in estimated total coastwide commercial fisheries income impacts compared to last year, which is also approximately 84 percent below the recent five-year (2018-2022) average (Figure 3 and Table 11). Regionally the picture is mixed, with income impacts from commercial salmon fisheries under the Proposed Action projected to be 61 percent above last year's level north of Cape Falcon, but below last year's levels in all six regions south of Cape Falcon, including a reduction of 87 percent between Cape Falcon and Humbug Mountain, and reductions approaching 100 percent between Humbug Mountain and the Oregon/California border and in all areas south of the Oregon/California border due to closures of commercial salmon fisheries in those areas. With respect to the 2018-2022 inflation-adjusted average, income impacts from commercial salmon fisheries under the Proposed Action are projected to be 56 percent above the recent average level north of Cape Falcon, but below the average in all six regions south of Cape Falcon, including a reduction of 84 percent between Cape Falcon and Humbug Mountain, and reductions approaching 100 percent between Humbug Mountain and the Oregon/California border and all areas south of the Oregon/California border due to closures of commercial salmon fisheries in those areas (Figure 3 and Table 11).

Projected coastwide income impacts resulting from expenditures by recreational salmon anglers under the Proposed Action are within the range analyzed under the Alternatives and are projected to result in an approximately 56 percent reduction in total coastwide recreational fisheries income impacts compared to last year's activity (Table 11 and Figure 4), which is also 50 percent below the recent five-year (2018-2022) average. Regionally the picture is mixed, with income impacts from recreational salmon fisheries under the Proposed Action projected to be four percent above last year's level north of Cape Falcon, but below last year's levels in all six regions south of Cape Falcon, including reductions of 28 percent between Cape Falcon and Humbug Mountain, and 12 percent between Humbug Mountain and the Oregon/California border, and reductions of 100 percent for all areas south of the Oregon/California border due to closures of recreational salmon fisheries in those areas. With respect to the 2018-2022 inflation-adjusted average, income impacts from recreational salmon fisheries under the Proposed Action are projected to be 36 percent above the average level north of Cape Falcon, but below the recent average in all six regions south of Cape Falcon, including reductions of 19 percent between Cape Falcon and Humbug Mountain, and 46 percent between Humbug Mountain and the Oregon/California border, and reductions of 100 percent for all areas south of the Oregon/California border due to closures of recreational salmon fisheries in those areas (Figure 4, and Tables 10 and 11).

### **10.3 Social Impacts**

The effect of the Proposed Action on other indicators of community social welfare (e.g., poverty, divorce rates, graduation/dropout rates, incidents of domestic violence, etc.) cannot be directly measured. Change in personal income in communities may be used as a rough proxy for other socioeconomic effects. However, changes in the broader regional economy ("cumulative effects") and long-term trends in fishery-related employment are more likely to drive these indicators of social wellbeing than the short-term economic effects of the Proposed Action.

To the extent practicable, social impacts were considered when tribal and non-tribal commercial and recreational salmon seasons were shaped. To minimize regulatory complexity in recreational fisheries,

season dates and regulations were kept as consistent as possible within major management areas. Bag limits allow a greater number of fishers to participate in the fishery. Minimum size limits generally remain consistent throughout the season in most areas, which, in addition to biological benefits, tends to increase regulatory compliance. Where size limits do change in-season, the size limits decrease, such that anglers complying with earlier size limits will still be in compliance with the smaller size limits. Efforts were made to accommodate important cultural events such as Memorial Day, Independence Day, and Labor Day holidays as well as traditional fishing derby events. Commercial fisheries often include vessel limits per trip or per open period to stretch quota attainment over a longer period of time. Doing so can provide greater access for smaller vessels, increase safety at sea by limiting the incentive to fish in inclement weather, improve marketing opportunities, and extend the period during which consumers have access to fresh, wild caught salmon. Notification mechanisms by phone, text or email allow commercial vessels greater flexibility in choosing a port of landing to take advantage of better markets or to access better infrastructure.

Salmon are an important part of tribal culture and have been since time immemorial. Salmon provide economic, cultural, ceremonial, and subsistence benefits to west coast tribal communities. Under the Proposed Action, based on the adopted Chinook and coho quotas, Washington coastal treaty tribes are projected to have somewhat greater opportunities to harvest ocean Chinook and coho compared with 2022. Tribal ocean fisheries north of Cape Falcon would be allocated 45,000 Chinook and 57,000 coho for ocean-area harvest compared with the actual 2022 allocations of 40,000 Chinook and 52,000 coho (Table 3 and Table 6). The Klamath River tribal share under the Proposed Action is 1,872 adult KRFC, an 80 percent reduction from the 2022 allocation of 9,434 adult KRFC (Table 5). Note that as with the non-tribal commercial and recreational salmon fisheries described in Section 10.1, restricting ocean salmon harvests may allow increased opportunities for inside harvest and escapement (and vice versa).

## **11.0 ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION**

The Proposed Action, adoption of the 2023 ocean salmon management measures, 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 stocks where the impacts of the Proposed Action may fall outside the range of impacts under the Alternatives in Preseason Report II, such impacts result from the shaping of fisheries that occur outside of the Council area, and are within the impact limitations of the FMP, ESA consultation standards, and PST (Table 11). Economic impacts of the Proposed Action fall within the range of impacts projected for the Alternatives in Preseason Report II as summarized in Table 11.

Under No Action, the seasons would be the same as in 2022. Although not true for all regions, relative to No Action (as represented by the 2022 values) the Proposed Action would provide lower overall coastwide income impacts from commercial fishing and recreational fishing (Table 11).

As stated in Preseason Report II (PFMC, 2023c), it was not possible to discern differences in the effects of the Alternatives or Proposed Action 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 under any of the Alternatives.



## **12.0 REFERENCES**

- PFMC. 2023a. Review of 2022 ocean salmon fisheries. Pacific Fishery Management Council, Portland, Oregon. <https://www.pcouncil.org/>
- PFMC. 2023b. Preseason Report I: Stock abundance analysis and environmental assessment part 1 for 2023 ocean salmon fishery regulations. Pacific Fishery Management Council, Portland, Oregon. <https://www.pcouncil.org/>
- PFMC. 2023c. Preseason Report II: Proposed alternatives and environmental assessment part 2 for 2023 ocean salmon fishery regulations. Pacific Fishery Management Council, Portland, Oregon. <https://www.pcouncil.org/>

TABLE 1. 2023 Commercial troll management measures for non-Indian ocean salmon fisheries - Council adopted. (Page 1 of 6)

<b>A. SEASON DESCRIPTIONS</b>	
<b>North of Cape Falcon</b>	
<b>Supplemental Management Information</b>	
<p>1. Overall non-Indian TAC: 78,000 Chinook and 190,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 39,000 Chinook and 30,400 marked coho.</p> <p>3. For fisheries scheduled <u>prior</u> to May 16, 2023: See 2022 management measures, which are subject to inseason action and the 2023 season description described below.</p>	
<i>Model run: Coho-2317, Chinook-2023</i>	
<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>• May 1-15. See 2022 management measures, which are subject to inseason action and the 2023 season described below.</li> <li>• May 16 through the earlier of June 29, or 26,000 Chinook. No more than 6,890 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 6,040 of which may be caught in the area between Leadbetter Pt. and Cape Falcon (C.8).</li> <li>• May 16 – June 21; open seven days per week (C.1); then</li> <li>• June 22 – June 29.</li> </ul> <p>In the area between the U.S./Canada border and the Queets River the landing and possession limit is 70 Chinook per vessel per landing week (Thurs.-Wed.) and June 22-29. Landing limits will be evaluated weekly, inseason (C.1, C.6).</p> <p>In the area between the Queets River and Leadbetter Pt. the landing and possession limit is 150 Chinook per vessel per landing week (Thurs.-Wed.) and June 22-29. Landing limits will be evaluated weekly, inseason (C.1, C.6).</p> <p>In the area between Leadbetter Pt. and Cape Falcon the landing and possession limit is 60 Chinook per vessel per landing week (Thurs.-Wed.) and June 22-29. Landing limits will be evaluated weekly inseason (C.1, C.6).</p> <p>All salmon, except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>When it is estimated that approximately 50% of the overall Chinook quota or any Chinook subarea guideline has been landed, inseason action may be considered to ensure the quota and subarea guidelines are not exceeded.</p> <p>If the Chinook quota is exceeded, the excess will be deducted from the all-salmon season (C.5).</p> <p>In 2024, the season will open May 1 consistent with all preseason regulations in place in this area and subareas during May 16-June 30, 2023, including subarea salmon guidelines and quotas and weekly vessel limits except as described below for vessels fishing or in possession of salmon north of Leadbetter Point. This opening could be modified following Council review at its March and/or April 2024 meetings.</p>	
<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>• July 1 through the earlier of September 30, or 13,000 Chinook or 30,400 marked coho (C.8).</li> </ul> <p>Open seven days per week. All salmon. Chinook minimum size limit of 27 inches total length. Coho minimum size limit of 16 inches total length (B, C.1). All coho must be marked with a healed adipose fin clip (C.8.d). No chum retention north of Cape Alava, Washington in August and September (C.4, C.7). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Landing and possession limit of 150 marked coho per vessel per landing week (Thurs.-Wed.). Landing limits will be evaluated weekly inseason (C.1).</p> <p>When it is estimated that approximately 50% of the overall Chinook quota has been landed, inseason action may be considered to ensure the quota is not exceeded.</p> <p>An impact neutral, non-selective coho fishery may be considered through inseason management action later in the season.</p>	

TABLE 1. 2023 Commercial troll management measures for non-tribal ocean salmon fisheries – <b>Council adopted.</b> (Page 2 of 6)
<b>A. SEASON DESCRIPTIONS</b>
<b>North of Cape Falcon</b>
<p><b>For all commercial troll fisheries north of Cape Falcon:</b></p> <p>Mandatory closed areas include Salmon Troll Yelloweye Rockfish Conservation Area, Cape Flattery, and Columbia Control Zones. Vessels must land and deliver their salmon within 24 hours of any closure of this fishery.</p> <p>Vessels may not land fish east of the Sekiu River or east of Tongue Point, Oregon.</p> <p>Vessels fishing or in possession of salmon <u>north</u> of Leadbetter Point must land and deliver all species of fish in a Washington port and must possess a Washington troll and/or salmon delivery license. <u>For delivery to Washington ports south of Leadbetter Point</u>, vessels must notify the Washington Department of Fish and Wildlife at 360-249-1215 prior to crossing the Leadbetter Point line with area fished, total Chinook, coho, and halibut catch aboard, and destination with approximate time of delivery. <b>During any single trip, only one side of the Leadbetter Point line may be fished</b> (C.11).</p> <p>Vessels fishing or in possession of salmon while fishing <u>south</u> of Leadbetter Point must land and deliver all species of fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land all species of fish in Garibaldi, Oregon. All Chinook caught north of Cape Falcon and being delivered by boat to Garibaldi must meet the minimum legal total length of 28 inches for Chinook for south of Cape Falcon seasons unless the season in waters off Garibaldi have been closed for Chinook retention for more than 48 hours (C.1.).</p> <p>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 to notify ODFW within one hour of delivery or prior to transport away from the port of landing by either calling 541-857-2546 or sending notification via e-mail to <a href="mailto:nfalcon.trollreport@odfw.oregon.gov">nfalcon.trollreport@odfw.oregon.gov</a>. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p> <p>Vessels in possession of salmon <u>north of the Queets River</u> may not cross the Queets River line without first notifying WDFW at 360-249-1215 with area fished, total Chinook, coho and halibut catch aboard, and destination. Vessels in possession of salmon <u>south of the Queets River</u> may not cross the Queets River line without first notifying WDFW at 360-249-1215 with area fished, total Chinook, coho and halibut catch aboard, and destination (C.11). Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>
<b>A. SEASON DESCRIPTIONS</b>
<b>South of Cape Falcon</b>
<b>Supplemental Management Information</b>
<ol style="list-style-type: none"> <li>1. Sacramento River fall Chinook spawning escapement of 164,964 hatchery and natural area adults.</li> <li>2. Sacramento Index exploitation rate of 2.8 %.</li> <li>3. Klamath River recreational fishery allocation: 1,804 adult Klamath River fall Chinook.</li> <li>4. Klamath tribal allocation: 1,872 adult Klamath River fall Chinook.</li> <li>5. CA/OR share of Klamath River fall Chinook commercial ocean harvest: NA.</li> <li>6. Overall commercial troll coho TAC: 10,000.</li> </ol>
<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>• September 1-October 31 (C.9.a).</li> </ul> <p>Open seven days per week. All salmon, through the earlier of September 30 or reaching the 10,000 non-mark selective coho quota; all salmon except coho thereafter (C.4, C.7). Coho minimum size limit of 16 inches total length, and Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their salmon in the State of Oregon. See gear restrictions and definitions (C.2, C.3). Beginning October 1, open shoreward of the 40-fathom regulatory line (C.5.f).</p> <p>No more than 75 Chinook allowed per vessel per landing week (Thurs.-Wed.) (C.8.f).</p> <p>Coho quota of 10,000 non-mark selective. No more than 75 coho allowed per vessel per landing week (Thurs.-Wed.). Vessel limits may be modified inseason (C.8.f).</p> <p>Any remainder of the mark-selective coho quota from Cape Falcon to Humbug Mt. recreational fishery may be transferred inseason to the Cape Falcon to Humbug Mt. <u>troll</u> fishery on an impact neutral basis. Recreational fishery needs will be prioritized for this transfer (C.8.h).</p> <p>In 2024, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2023. This opening could be modified following Council review at its March 2024 meeting.</p>

TABLE 1. 2023 Commercial troll management measures for non-tribal ocean salmon fisheries – <b>Council adopted.</b> (Page 3 of 6)					
<b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2023. This opening could be modified following Council review at its March 2024 meeting.</p>					
<b>OR/CA Border to Humboldt South Jetty (California KMZ)</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, the season will open May 1 through the earlier of May 31, or a 3,000 Chinook quota. Chinook minimum size limit of 27 inches total length. Landing and possession limit of 20 Chinook per vessel per day (C.8.f). Open five days per week (Fri.-Tue.). All salmon except coho (C.4, C.7). Any remaining portion of Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8.b). All fish caught in this area must be landed within the area, within 24 hours of any closure of the fishery (C.6), and prior to fishing outside the area (C.10). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.e). See California State regulations for an additional closure adjacent to the Smith River. This opening could be modified following Council review at its March or April 2024 meetings.</p>					
<b>Humboldt South Jetty to Latitude 40°10' N</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>When the fishery is closed between the OR/CA border and Humbug Mountain and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival (C.6).</p>					
<b>Latitude 40°10' N. to Point Arena (Fort Bragg)</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, the season will open April 16 for all salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B); See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). All salmon must be landed in California and north of Point Arena (C.6, C.11). Landing and possession limits may be considered inseason (C.8.g). This opening could be modified following Council review at its March 2024 meeting.</p>					
<b>Pt. Arena to Pigeon Pt. (San Francisco)</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, the season will open May 1 for all salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1); See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Landing and possession limits may be considered inseason (C.8.g). This opening could be modified following Council review at its March or April 2024 meeting.</p>					
<b>Point Reyes to Point San Pedro (Fall Area Target Zone)</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul>					
<b>Pigeon Point to U.S./Mexico Border (Monterey)</b>					
<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, the season will open May 1 for all salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Landing and possession limits may be considered inseason (C.8.g). This opening could be modified following Council review at its March or April 2024 meeting.</p>					
California State regulations require all salmon be made available to a CDFW representative for sampling immediately at port of landing. Any person in possession of a salmon with a missing adipose fin, upon request by an authorized agent or employee of the CDFW, shall immediately relinquish the head of the salmon to the State (California Fish and Game Code §8226).					

#### 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	27	20.5	16	12	None
Cape Falcon to Humbug Mt.	28	21.5	16	12	None
Humbug Mt. to OR/CA Border	28	21.5	-	-	None
OR/CA Border to Humboldt South Jetty	-	-	-	-	-
Latitude 40°10' N. to Pt. Arena	-	-	-	-	-
Pt. Arena to Pigeon Pt.	-	-	-	-	-
Pigeon Pt. to U.S./Mexico Border (Alt. 3)	-	-	-	-	-

TABLE 1. 2023 Commercial troll management measures for non-tribal ocean salmon fisheries – **Council adopted.** (Page 4 of 6)

### C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size, landing/possession limit, or other special requirements for the area being fished and the area in which they are landed if the area is open or has been closed less than 48 hours for that species of salmon. Salmon may be landed in an area that has been closed for a species of salmon more than 48 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 not be filleted prior to landing.
- Any person who is required to report a salmon landing by applicable state law must include on the state landing receipt for that landing both the number and weight of salmon landed by species. States may require fish landing/receiving tickets be kept on board the vessel for 90 days or more after landing to account for all previous salmon landings.
- C.2. Gear Restrictions:
- Salmon may be taken only by hook and line using single point, single shank, barbless hooks.
  - Cape Falcon, Oregon, to the OR/CA border: No more than 4 spreads are allowed per line.
  - 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 engaged in trolling. In that portion of the fishery management area 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:
- 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.
  - When Genetic Stock Identification (GSI) samples will be collected in an area closed to commercial salmon fishing, the scientific research permit holder shall notify NOAA OLE, USCG, CDFW, WDFW, ODFW, 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:
- 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.
  - Salmon Troll 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.
  - Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 55'36" N. lat., 124°10'51" W. long.).
  - 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.
  - Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west by 124°23'00" W. long. (approximately 12 nautical miles off shore); and on the south by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

TABLE 1. 2023 Commercial troll management measures for non-tribal ocean salmon fisheries – **Council adopted.** (Page 5 of 6)

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

- f. Waypoints for the 40 fathom regulatory line from Cape Falcon to Humbug Mt. (50 CFR 660.71 (o) (12)-(62), when in place.

45°46.00' N. lat., 124°04.49' W. long.;	44°41.68' N. lat., 124°15.38' W. long.;	43°17.96' N. lat., 124°28.81' W. long.;
45°44.34' N. lat., 124°05.09' W. long.;	44°34.87' N. lat., 124°15.80' W. long.;	43°16.75' N. lat., 124°28.42' W. long.;
45°40.64' N. lat., 124°04.90' W. long.;	44°33.74' N. lat., 124°14.44' W. long.;	43°13.97' N. lat., 124°31.99' W. long.;
45°33.00' N. lat., 124°04.46' W. long.;	44°27.66' N. lat., 124°16.99' W. long.;	43°13.72' N. lat., 124°33.25' W. long.;
45°32.27' N. lat., 124°04.74' W. long.;	44°19.13' N. lat., 124°19.22' W. long.;	43°12.26' N. lat., 124°34.16' W. long.;
45°29.26' N. lat., 124°04.22' W. long.;	44°15.35' N. lat., 124°17.38' W. long.;	43°10.96' N. lat., 124°32.33' W. long.;
45°20.25' N. lat., 124°04.67' W. long.;	44°14.38' N. lat., 124°17.78' W. long.;	43°05.65' N. lat., 124°31.52' W. long.;
45°19.99' N. lat., 124°04.62' W. long.;	44°12.80' N. lat., 124°17.18' W. long.;	42°59.66' N. lat., 124°32.58' W. long.;
45°17.50' N. lat., 124°04.91' W. long.;	44°09.23' N. lat., 124°15.96' W. long.;	42°54.97' N. lat., 124°36.99' W. long.;
45°11.29' N. lat., 124°05.20' W. long.;	44°08.38' N. lat., 124°16.79' W. long.;	42°53.81' N. lat., 124°38.57' W. long.;
45°05.80' N. lat., 124°05.40' W. long.;	44°08.30' N. lat., 124°16.75' W. long.;	42°50.00' N. lat., 124°39.68' W. long.;
45°05.08' N. lat., 124°05.93' W. long.;	44°01.18' N. lat., 124°15.42' W. long.;	42°49.13' N. lat., 124°39.70' W. long.;
45°03.83' N. lat., 124°06.47' W. long.;	43°51.61' N. lat., 124°14.68' W. long.;	42°46.47' N. lat., 124°38.89' W. long.;
45°01.70' N. lat., 124°06.53' W. long.;	43°42.66' N. lat., 124°15.46' W. long.;	42°45.74' N. lat., 124°38.86' W. long.;
44°58.75' N. lat., 124°07.14' W. long.;	43°40.49' N. lat., 124°15.74' W. long.;	42°44.79' N. lat., 124°37.96' W. long.;
44°51.28' N. lat., 124°10.21' W. long.;	43°38.77' N. lat., 124°15.64' W. long.;	42°45.01' N. lat., 124°36.39' W. long.;
44°49.49' N. lat., 124°10.90' W. long.;	43°34.52' N. lat., 124°16.73' W. long.;	42°44.14' N. lat., 124°35.17' W. long.;
44°44.96' N. lat., 124°14.39' W. long.;	43°28.82' N. lat., 124°19.52' W. long.;	42°42.14' N. lat., 124°32.82' W. long.;
44°43.44' N. lat., 124°14.78' W. long.;	43°23.91' N. lat., 124°24.28' W. long.;	42°40.50' N. lat., 124°31.98' W. long.;
44°42.26' N. lat., 124°13.81' W. long.;	43°20.83' N. lat., 124°26.63' W. long.;	

- 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 number of salmon (by species) on board, the estimated time of arrival, and the specific reason the vessel is not able to meet special management area landing restrictions.

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

- C.7. Incidental Pacific Halibut Harvest: Permit applications for incidental harvest for Pacific halibut during commercial salmon fishing must be obtained from NMFS.

- Pacific halibut retained must be no less than 32 inches in total length (with head on).
- During the salmon troll season, incidental harvest is authorized only during April, May, and June, and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825 or 206-526-6667). WDFW, ODFW, and CDFW will monitor landings. If the landings are projected to exceed the preseason allocation for this fishery 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. See the most current Pacific Halibut Catch Sharing Plan for more details.
- Incidental Pacific halibut catch regulations in the commercial salmon troll fishery adopted for 2023, prior to any 2023 inseason action, will be in effect when incidental Pacific halibut retention opens on April 1, 2023 unless otherwise modified by inseason action at the March 2023 Council meeting.

Beginning May 16, 2023, through the end of the 2023 salmon troll fishery, and beginning April 1, 2024, until modified through inseason action or superseded by the 2024 management measures license holders may land or possess no more than one Pacific halibut per two Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio requirement, and no more than 35 halibut may be possessed or landed per trip.

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

TABLE 1. 2023 Commercial troll management measures for non-tribal ocean salmon fisheries – **Council adopted.** (Page 6 of 6)

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

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

- a. Chinook remaining from the May through June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline if the transfer would not result in exceeding preseason impact expectations on any stocks.
- b. Chinook remaining from May, June, and/or July non-Indian commercial troll quotas in the Oregon or California KMZ may be transferred to the Chinook quota for the next open period if the transfer would not result in exceeding preseason impact expectations on any stocks.
- c. NMFS may transfer salmon 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. The Council will consider inseason recommendations for special regulations for any experimental fisheries annually in March; proposals must meet Council protocol and be received in November the year prior.
- e. If retention of unmarked coho (adipose fin intact) 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.
- g. Landing limits in California may be implemented and/or modified inseason to sustain season length and keep harvest within preseason expectations.
- h. Deviations from the allocation of allowable ocean harvest of coho salmon in the area south of Cape Falcon may be allowed to meet consultation standards for ESA-listed stocks (FMP 5.3.2). Therefore, should any rollovers result in a deviation from the south of Cape Falcon coho allocation schedule between sectors would still fall underneath this exemption.

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.
- c. Check state regulations for details.

C.10. For the purposes of California Fish and Game Code, Section 8232.5, the definition of the Klamath Management Zone (KMZ) for the ocean salmon season shall be that area from Humbug Mountain, Oregon, to the Southern KMZ Boundary.

C.11. Latitudes for geographical reference of major landmarks along the west coast. Majority of information from source: 2022 West Coast federal salmon regulations.

<https://www.federalregister.gov/documents/2022/05/16/2022-10430/fisheries-off-west-coast-states-west-coast-salmon-fisheries-2022-specifications-and-management>

Cape Flattery, WA	48°23'00" N lat.	Humboldt South Jetty, CA	40°45'53" N lat.
Cape Alava, WA	48°10'00" N lat.	40°10' line (near Cape Mendocino, CA)	40°10'00" N lat
Queets River, WA	47°31'42" N lat.	Horse Mountain, CA	40°05'00" N lat.
Leadbetter Point, WA	46°38'10" N lat.	Point Arena, CA	38°57'30" N lat.
Cape Falcon, OR	45°46'00" N lat.	Point Reyes, CA	37°59'44" N lat.
South end Heceta Bank line, OR	43°58'00" N lat.	Point San Pedro, CA	37°35'40" N lat.
Humbug Mountain, OR	42°40'30" N lat.	Pigeon Point, CA	37°11'00" N lat.
Oregon-California border	42°00'00" N lat.	Point Sur, CA	36°18'00" N lat.
		Point Conception, CA	34°27'00" N lat.

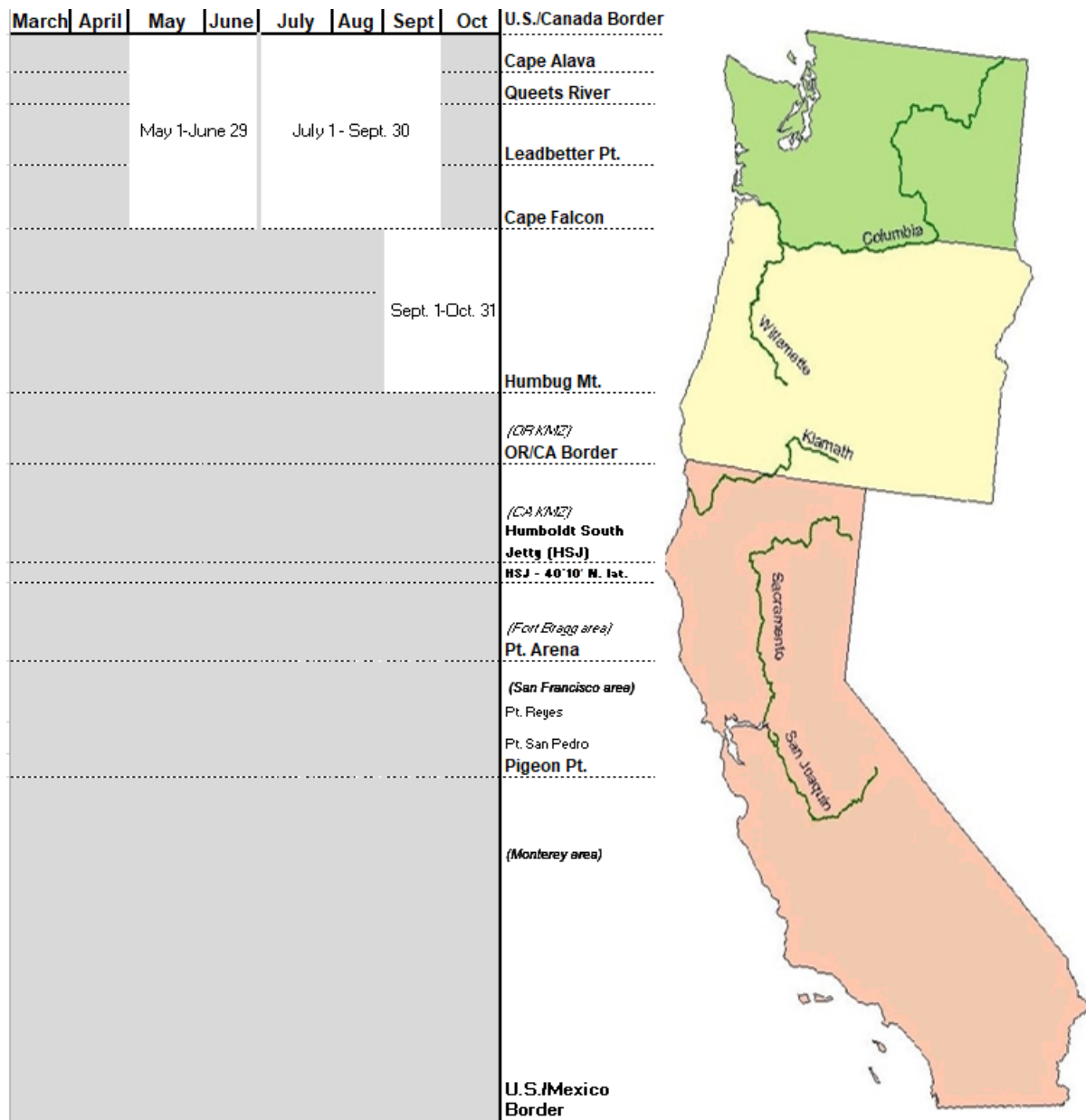


FIGURE 1. 2023 non-Indian commercial salmon seasons – Council adopted.



TABLE 2. 2023 Recreational management measures for non-Indian ocean salmon fisheries - Council adopted. (Page 1 of 5)

<b>A. SEASON DESCRIPTIONS</b>	
<b>North of Cape Falcon</b>	
<b>Supplemental Management Information</b>	
<p>1. Overall non-Indian TAC: 78,000 Chinook and 190,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 39,000 Chinook and 159,600 marked coho; all retained coho must be marked.</p> <p>3. Buoy 10 fishery opens August 1 with an expected landed catch of 40,000 marked coho in August and September</p>	
<p><b>U.S./Canada Border to Cape Alava (Neah Bay Subarea)</b></p> <ul style="list-style-type: none"> <li>June 17 through earlier of September 30, or 16,600 marked coho subarea quota, with a subarea guideline of 8,710 Chinook (C.5).</li> </ul> <p>Open seven days per week. All salmon, except no chum beginning August 1; two salmon per day, of which only one may be a Chinook. All coho must be marked with a healed adipose fin clip. See minimum size limits (B). See gear restrictions and definitions (C.1, C.2, C.3).</p> <p>An impact neutral non-selective coho fishery may be considered through inseason management action later in the season.</p> <p>Beginning August 1, no Chinook retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	
<p><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>June 17 through earlier of September 30, or 4,150 marked coho subarea quota, with a subarea guideline of 1,440 Chinook (C.5).</li> </ul> <p>Open seven days per week. All salmon, except no chum beginning August 1; two salmon per day, of which only one may be a Chinook. All coho must be marked with a healed adipose fin clip. See minimum size limits (B). See gear restrictions and definitions (C.1, C.2, C.3).</p> <p>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>An impact neutral non-selective coho fishery may be considered through inseason management action later in the season.</p> <ul style="list-style-type: none"> <li>October 3 through earlier of October 7, or 150 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat.</li> </ul> <p>Chinook only, one Chinook per day. See minimum size limits (B). See gear restrictions and definitions (C.1, C.2, C.3).</p> <p>Fishery may be closed if extreme freshwater temperature and/or flow events occur in the Quillayute basin in September.</p>	
<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30, or 59,050 marked coho subarea quota, with a subarea guideline of 17,210 Chinook (C.5).</li> </ul> <p>Open seven days per week. All salmon, two salmon per day, of which only one may be a Chinook. All coho must be marked with a healed adipose fin clip. See gear restrictions and definitions (C.1, C.2, C.3). Chinook minimum size limit of 22 inches total length (B).</p> <p>An impact neutral non-selective coho fishery may be considered through inseason management action later in the season.</p> <p>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><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30, or 79,800 marked coho subarea quota, with a subarea guideline of 11,490 Chinook (C.5).</li> </ul> <p>Open seven days per week. All salmon, two salmon per day, of which only one may be a Chinook. All coho must be marked with a healed adipose fin clip. See gear restrictions and definitions (C.1, C.2, C.3). Chinook minimum size limit of 22 inches total length (B).</p> <p>An impact neutral non-selective coho fishery may be considered through inseason management action later in the season.</p> <p>Columbia Control Zone closed (C.4.c). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	

TABLE 2. 2023 Recreational management measures for non-tribal ocean salmon fisheries – Council adopted. (Page 2 of 5)
<b>South of Cape Falcon</b>
<b>Supplemental Management Information</b>
<ol style="list-style-type: none"> <li>1. Sacramento River fall Chinook spawning escapement of 164,964 hatchery and natural area adults.</li> <li>2. Sacramento Index exploitation rate of 2.8 %.</li> <li>3. Klamath River recreational fishery allocation: 1,804 adult Klamath River fall Chinook.</li> <li>4. Klamath tribal allocation: 1,872 adult Klamath River fall Chinook.</li> <li>5. Overall recreational coho TAC: 110,000 coho marked with a healed adipose fin clip (marked), and 25,000 coho in the non-mark-selective coho fishery.</li> <li>6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the CFGC.</li> </ol>
<b>A. SEASON DESCRIPTIONS</b>
<b>South of Cape Falcon</b>
<p><b>Cape Falcon to OR/CA Border</b>  Mark-selective coho fishery:</p> <ul style="list-style-type: none"> <li>• June 17 through the earlier of August 31, or 110,000 marked coho quota (C.6).</li> </ul> <p>Open seven days per week. All salmon except Chinook, two salmon per day. All retained coho must be marked with a healed adipose fin clip (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p> <p>Any remainder of the mark-selective coho quota may be transferred inseason on an impact neutral basis to the recreational and/or commercial troll quotas for the non-selective coho fishery from Cape Falcon to Humbug Mountain. Recreational needs will be prioritized for this transfer (C.5).</p>
<p><b>Cape Falcon to Humbug Mt.</b>  • September 1-October 31 (C.6).</p> <p>Open seven days per week. All salmon except coho, except as described in the non-mark-selective coho fishery (C.5), one fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3). Beginning October 1, open only shoreward of the 40-fathom regulatory line (C.5.g).</p> <p>In 2024, the season will open March 15 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2023 (C.2, C.3). This opening could be modified following Council review at its March 2024 meeting.</p>
<p><b>Cape Falcon to Humbug Mt.</b>  Non-mark-selective coho fishery:</p> <ul style="list-style-type: none"> <li>• September 1 through the earlier of September 30, or 25,000 non-mark-selective coho quota (C.6). Open days may be modified inseason.</li> </ul> <p>Open seven days per week. All salmon, two salmon per day only one of which may be a Chinook (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p>
<p><b>For Recreational Fisheries from Cape Falcon to Humbug Mt.:</b> Fishing in the Stonewall Bank yelloweye rockfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (call the halibut fishing hotline 1-800-662-9825 for specific dates) (C.3.b, C.4.d).</p>

TABLE 2. 2023 Recreational management measures for non-tribal ocean salmon fisheries – Council adopted. (Page 3 of 5)

<b>A. SEASON DESCRIPTIONS</b>	
<b>OR/CA Border to latitude 40°10' N. (California KMZ)</b>	<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, season opens May 1 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B); See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Bag limits may be modified in season. This opening could be modified following Council review at its March or April 2024 meeting.</p>
<b>Latitude 40°10' N. to Point Arena (Fort Bragg)</b>	<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, season opens April 6 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B); See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Bag limits may be modified in season. This opening could be modified following Council review at its March or April 2024 meeting.</p>
<b>Point Arena to Pigeon Point (San Francisco)</b>	<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, season opens April 6 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Bag limits may be modified in season. This opening could be modified following Council review at its March 2024 meeting.</p>
<b>Pigeon Point to U.S./Mexico Border (Monterey)</b>	<ul style="list-style-type: none"> <li>• Closed.</li> </ul> <p>In 2024, season opens April 6 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Bag limits may be modified in season. This opening could be modified following Council review at its March 2024 meeting.</p>
California State regulations require all salmon be made available to a CDFW representative for sampling immediately at port of landing. Any person in possession of a salmon with a missing adipose fin, upon request by an authorized agent or employee of the CDFW, shall immediately relinquish the head of the salmon to the State (California Code of Regulations Title 14 Section 1.73).	

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

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon (Westport and Col R)	22	16	None
North of Cape Falcon (Neah Bay and La Push)	24	16	None
Cape Falcon to Humbug Mt.	24	16	None
Humbug Mt. to OR/CA Border	24	16	None
OR/CA Border to Pt. Arena	-	-	-
Pt. Arena to Pigeon Pt.	-	-	-
Pigeon Pt. to U.S./Mexico Border	-	-	-

**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. Salmon may not be filleted, or salmon heads removed prior to landing.

*Ocean Boat Limits*: Off the coast of Washington, Oregon, and California, each fisher aboard a vessel may continue to use angling gear until the combined daily limits of Chinook and coho salmon for all licensed and juvenile anglers aboard have 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 Pt. 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.

b. *Latitude 40°10' N. to Pt. Conception, California*: Single point, single shank, barbless circle hooks (see gear definitions below) are required when fishing with bait by any means other than trolling, and no more than two such hooks shall be used. When angling with two hooks, the distance between the hooks must not exceed five inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

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

**C.3. Gear Definitions:**

- a. *Recreational fishing gear defined:* Off Oregon and Washington, angling tackle consists of a single line that 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 Pt. 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°24'37" N. lat., 124°44'37" W. long.), then in a straight line to Bonilla Pt. (48°35'39" N. lat., 124°42'58" W. long.) on Vancouver Island, British Columbia.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 55'36" N. lat., 124°10'51" W. long.).
- c. *Columbia Control Zone:* An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- d. *Stonewall Bank Yelloweye Rockfish Conservation Area:* The area defined by the following coordinates in the order listed:  
 44°37.46' N. lat.; 124°24.92' W. long.  
 44°37.46' N. lat.; 124°23.63' W. long.  
 44°28.71' N. lat.; 124°21.80' W. long.  
 44°28.71' N. lat.; 124°24.10' W. long.  
 44°31.42' N. lat.; 124°25.47' W. long.  
 and connecting back to 44°37.46' N. lat.; 124°24.92' W. long.
- e. *Klamath Control Zone:* The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west by 124°23'00" W. long. (approximately 12 nautical miles offshore); 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 SAS, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- d. Fishery managers may consider inseason action modifying regulations restricting retention of unmarked (adipose fin intact) coho. To remain consistent with preseason expectations, any inseason action shall consider, if significant, the difference between observed and preseason forecasted (adipose-clipped) mark rates. Such a consideration may also include a change in bag limit of two salmon, no more than one of which may be a coho.
- e. Marked coho remaining from the Cape Falcon to OR/CA Border recreational mark-selective coho quota may be transferred inseason to the Cape Falcon to Humbug Mt. non-mark-selective recreational fishery or the Cape Falcon to Humbug Mt. commercial troll fishery if the transfer would not result in exceeding preseason impact expectations on any stocks.
- f. Deviations from the allocation of allowable ocean harvest of coho salmon in the area south of Cape Falcon may be allowed to meet consultation standards for ESA-listed stocks (FMP 5.3.2). Therefore, should any rollovers result in a deviation from the south of Cape Falcon coho allocation schedule between sectors would still fall underneath this exemption.

TABLE 2. 2023 Recreational management measures for non-tribal ocean salmon fisheries – Council adopted. (Page 5 of 5)

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

g. Waypoints for the 40 fathom regulatory line from Cape Falcon to Humbug Mt. (50 CFR 660.71 (o) (12)-(62), when in place.

45°46.00' N. lat., 124°04.49' W. long.;	44°44.96' N. lat., 124°14.39' W. long.;	43°40.49' N. lat., 124°15.74' W. long.;
45°44.34' N. lat., 124°05.09' W. long.;	44°43.44' N. lat., 124°14.78' W. long.;	43°38.77' N. lat., 124°15.64' W. long.;
45°40.64' N. lat., 124°04.90' W. long.;	44°42.26' N. lat., 124°13.81' W. long.;	43°34.52' N. lat., 124°16.73' W. long.;
45°33.00' N. lat., 124°04.46' W. long.;	44°41.68' N. lat., 124°15.38' W. long.;	43°28.82' N. lat., 124°19.52' W. long.;
45°32.27' N. lat., 124°04.74' W. long.;	44°34.87' N. lat., 124°15.80' W. long.;	43°23.91' N. lat., 124°24.28' W. long.;
45°29.26' N. lat., 124°04.22' W. long.;	44°33.74' N. lat., 124°14.44' W. long.;	43°20.83' N. lat., 124°26.63' W. long.;
45°20.25' N. lat., 124°04.67' W. long.;	44°27.66' N. lat., 124°16.99' W. long.;	43°17.96' N. lat., 124°28.81' W. long.;
45°19.99' N. lat., 124°04.62' W. long.;	44°19.13' N. lat., 124°19.22' W. long.;	43°16.75' N. lat., 124°28.42' W. long.;
45°17.50' N. lat., 124°04.91' W. long.;	44°15.35' N. lat., 124°17.38' W. long.;	43°13.97' N. lat., 124°31.99' W. long.;
45°11.29' N. lat., 124°05.20' W. long.;	44°14.38' N. lat., 124°17.78' W. long.;	43°13.72' N. lat., 124°33.25' W. long.;
45°05.80' N. lat., 124°05.40' W. long.;	44°12.80' N. lat., 124°17.18' W. long.;	43°12.26' N. lat., 124°34.16' W. long.;
45°05.08' N. lat., 124°05.93' W. long.;	44°09.23' N. lat., 124°15.96' W. long.;	43°10.96' N. lat., 124°32.33' W. long.;
45°03.83' N. lat., 124°06.47' W. long.;	44°08.38' N. lat., 124°16.79' W. long.;	43°05.65' N. lat., 124°31.52' W. long.;
45°01.70' N. lat., 124°06.53' W. long.;	44°08.30' N. lat., 124°16.75' W. long.;	42°59.66' N. lat., 124°32.58' W. long.;
44°58.75' N. lat., 124°07.14' W. long.;	44°01.18' N. lat., 124°15.42' W. long.;	42°54.97' N. lat., 124°36.99' W. long.;
44°51.28' N. lat., 124°10.21' W. long.;	43°51.61' N. lat., 124°14.68' W. long.;	42°53.81' N. lat., 124°38.57' W. long.;
44°49.49' N. lat., 124°10.90' W. long.;	43°42.66' N. lat., 124°15.46' W. long.;	42°50.00' N. lat., 124°39.68' W. long.;

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



TABLE 3. 2023 Treaty Indian ocean troll management measures for ocean salmon fisheries - Council adopted. (Page 1 of 2)

A. SEASON DESCRIPTIONS	
Supplemental Management Information	
<p>1. Overall Treaty-Indian TAC: 45,000 Chinook and 57,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p> <p>3. In 2024, the season will open May 1, consistent with all preseason regulations in place for Treaty Indian Troll fisheries during May 16-June 30, 2023. All catch in May 2024 applies against the 2024 Treaty Indian Troll fisheries quota. This opening could be modified following Council review at its March and/or April 2024 meetings.</p>	
<ul style="list-style-type: none"> <li>May 1 through the earlier of June 30 or 22,500 Chinook quota.</li> </ul> <p>All salmon may be retained except coho. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season (C.5). See size limit (B) and other restrictions (C).</p> <ul style="list-style-type: none"> <li>July 1 through the earlier of September 15, or 22,500 Chinook quota or 57,000 coho quota.</li> </ul> <p>All salmon. See size limit (B) and other restrictions (C).</p>	

**B. MINIMUM LENGTH (TOTAL 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 (defined to include those waters of Puget Sound easterly of a line projected from the Bonilla Point light on Vancouver Island to the Tatoosh Island light, thence to the most westerly point on Cape Flattery and westerly of a line projected true north from the fishing boundary marker at the mouth of the Sekiu River [WAC 220-301-030]).

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 - A polygon commencing at Cape Alava, located at latitude 48°10'00" north, longitude 124°43'56.9" west; then proceeding west approximately forty nautical miles at that latitude to a northwestern point located at latitude 48°10'00" north, longitude 125°44'00" west; then proceeding in a southeasterly direction mirroring the coastline at a distance no farther than forty nautical miles from the mainland Pacific coast shoreline at any line of latitude, to a southwestern point at latitude 47°31'42" north, longitude 125°20'26" west; then proceeding east along that line of latitude to the Pacific coast shoreline at latitude 47°31'42" north, longitude 124°21'9.0" west.

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 - A polygon commencing at the Pacific coast shoreline near Destruction Island, located at latitude 47°40'06" north, longitude 124°23'51.362" west; then proceeding west approximately thirty nautical miles at that latitude to a northwestern point located at latitude 47°40'06" north, longitude 125°08'30" west; then proceeding in a southeasterly direction mirroring the coastline no farther than thirty nautical miles from the mainland Pacific coast shoreline at any line of latitude, to a southwestern point at latitude 46°53'18" north, longitude 124°53'53" west; then proceeding east along that line of latitude to the Pacific coast shoreline at latitude 46°53'18" north, longitude 124°7'36.6" west.

- 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 may continue a ceremonial and subsistence fishery** during the time frame of October 1 through October 15 in the same manner as in 2004-2015. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2024 season (estimated harvest during the October ceremonial and subsistence fishery: 20 Chinook; 40 coho).

TABLE 3. 2023 Treaty Indian troll management measures for ocean salmon fisheries – Council adopted. (Page 1 of 2)

C.4. Area Closures

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

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

- a. Chinook remaining from the May through June treaty-Indian ocean troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.

TABLE 4. Chinook and coho harvest quotas and guidelines for 2023 ocean salmon fishery management measures - Council adopted.

Fishery or Quota Designation	Chinook	Coho
<b>NORTH OF CAPE FALCON</b>		
TREATY INDIAN OCEAN TROLL <sup>a/</sup>		
U.S./Canada Border to Cape Falcon (All Except Coho)	22,500	-
U.S./Canada Border to Cape Falcon (All Species)	22,500	57,000
Subtotal Treaty Indian Ocean Troll	45,000	57,000
NON-INDIAN COMMERCIAL TROLL <sup>b/</sup>		
U.S./Canada Border to Cape Falcon (All Species Except Coho)	26,000	-
U.S./Canada Border to Cape Falcon (All Species)	13,000	30,400
Subtotal Non-Indian Commercial Troll	39,000	30,400
RECREATIONAL		
U.S./Canada Border to Cape Alava <sup>b/</sup>	8,710	16,600
Cape Alava to Queets River <sup>b/</sup>	1,590	4,150
Queets River to Leadbetter Pt. <sup>b/</sup>	17,210	59,050
Leadbetter Pt. to Cape Falcon <sup>b/c/</sup>	11,490	79,800
Subtotal Recreational	39,000	159,600
TOTAL NORTH OF CAPE FALCON	123,000	247,000
<b>SOUTH OF CAPE FALCON</b>		
COMMERCIAL TROLL <sup>a/</sup>		
Cape Falcon to Humbug Mt.	-	10,000
Humbug Mt. to OR/CA Border	-	-
OR/CA Border to Humboldt South Jetty	-	-
Subtotal Troll	-	10,000
RECREATIONAL		
Cape Falcon to OR/CA Border <sup>d/e/</sup>	-	135,000 <sup>d/</sup>
TOTAL SOUTH OF CAPE FALCON	-	145,000

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/ Does not include Buoy 10 fishery. Expected catch of 32,000 Chinook and 40,000 marked coho.

d/ The quota consists of both mark-selective and non-mark-selective quotas of 110,000 and 25,000, respectively.

e/ The non-mark-selective fishery is only open from Cape Falcon to Humbug Mt.



TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2023 ocean salmon fishery management measures - Council adopted.<sup>a/</sup> (Page 1 of 5)

Key Stock/Criteria	2023		Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
	Projected	Criteria	
<b>CHINOOK</b>	<b>CHINOOK</b>		<b>CHINOOK</b>
<u>SRKW PREY ABUNDANCE:</u>			
North of Falcon	889.9	≥ 623.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	467.1	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	249.0	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southw est WCVI	662.2	NA	Oct 1 starting abundance of age 3+ Chinook off Southw est Vancouver Island
Salish Sea	1,053.3	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
<u>PUGET SOUND:</u>			
Elw ha Summer/Fall	4.9%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	4.7%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	15.5%	≤ 15.5%	Preterminal Southern U.S. exploitation rate consistent w ith NMFS guidance.
Skokomish Summer/Fall	49.8%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	10.9%	≤ 10.9%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.96	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	16.6%	≤ 17.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	24.4%	≤ 36.0%	Total exploitation rate (NMFS ESA consultation standard).
	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Stillaguamish Summer/Fall	9.0%	≤ 9.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.62	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	8.3%	≤ 8.3%	Southern U.S. exploitation rate limit (NMFS ESA consultation standard).
	0.84	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.638	≥ 0.500	Natural spaw ning escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	3.762	≥ 2.744	Natural spaw ning escapement in the Green River (NMFS ESA consultation standard).
White River Spring	17.1%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	2.682	>1.170	Natural spaw ning escapement in the Puyallup River (NMFS ESA consultation standard).
Nisqually River Summer/Fall	46.7%	≤ 47.0%	Total exploitation rate (NMFS ESA consultation standard).
Puget Sound Spring	2.1%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	5.6%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2023 ocean fishery management measures - Council adopted.<sup>a/</sup> (Page 2 of 5)

Key Stock/Criteria	Projected	2023 Criteria	Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
<b>CHINOOK</b>	<b>CHINOOK</b>		<b>CHINOOK</b>
<u>WASHINGTON COAST:</u>			
Hoko Fall	2.364	0.85 FMP MSY spaw ning escapement objective.	
	2.8%	≤ 10.0% Calendar year exploitation rate ISBM obligation. Compliance assessed postseason by the PSC.	
Quillayute Fall	>3.0	3.0 FMP MSY spaw ning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Hoh Fall	>1.2	1.2 FMP MSY spaw ning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Queets Fall	>2.5	2.5 FMP MSY spaw ning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Grays Harbor Fall	>13.3	13.3 FMP MSY spaw ning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
<u>COLUMBIA RIVER:</u>			
Columbia Upriver Brights	278.5	74.0 Minimum ocean escapement to attain 40.0 adults over McNary Dam, w ith normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.	
Mid-Columbia Brights	53.8	14.9 Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.	
Columbia Low er River Hatchery Tules	77.0	25.0 Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, w ith average conversion and no low er river mainstem or tributary harvest.	
Columbia Low er River Natural Tules (threatened)	38.0%	≤ 38.0% Total adult equivalent fishery exploitation rate (2023 NMFS ESA guidance).	
Columbia Low er River Wild <sup>e/</sup> (threatened)	8.7	6.9 Minimum ocean escapement to attain MSY spaw ner goal of 5.7 for N. Lew is River fall Chinook (NMFS ESA consultation standard).	
Spring Creek Hatchery Tules	135.3	8.2 Minimum ocean escapement to attain 6.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.	
Upper Columbia River Summer	85.4	29.0 Aggregate escapement to mouth of Columbia River.	
Snake River Fall (threatened) SRFI	49.0%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).	

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2023 ocean fishery management measures - Council adopted.<sup>a/</sup> (Page 3 of 5)

Key Stock/Criteria	Projected	2023 Criteria	Spawner Objective or Other Comparative Standard as Noted <sup>b/</sup>
<b>CHINOOK</b>	<b>CHINOOK</b>		<b>CHINOOK</b>
<u>OREGON COAST:</u>			
Nehalem Fall	--	≤ 0.85	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
Siletz Fall	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siuslaw Fall	--	≤ 0.85	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
South Umpqua	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Coquille	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
<u>CALIFORNIA:</u>			
Klamath River Fall	23.614	≥ 23.614	2023 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	Equals 1,872 adult Chinook for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spawner reduction) rate	10.0%	≤ 10.0%	FMP control rule.
Adult river mouth return	39.9	NA	Total adults in thousands.
Age-4 ocean harvest rate	0.3%	≤ 10.0%	NMFS guidance.
KMZ sport fishery share	37.7%		
River recreational fishery share	96.3%	NA	Equals 1,804 adult Chinook for recreational inriver fisheries.
Sacramento River Winter (endangered)	0.0%	≤ 20.0%	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 (Monday-Friday). Minimum size limit ≥ 26 inches total length (NMFS 2023 ESA)
Sacramento River Fall	164.964	≥ 122.000	2023 minimum hatchery and natural area adult escapement (FMP).
Sacramento Index Exploitation Rate	2.8%	≤ 28.1%	FMP control rule.
Ocean commercial impacts	3.0		Includes fall (Sept-Dec) 2022 impacts (3.0 thousand SRFC).
Ocean recreational impacts	1.8		Includes fall (Sept-Dec) 2022 impacts (1.7 thousand SRFC).
River recreational impacts	0.0		

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2023 ocean fishery management measures - Council adopted.<sup>a/</sup> (Page 4 of 5)

Key Stock/Criteria	Projected	2023 Criteria	Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
COHO	COHO		COHO
Interior Fraser (Thompson River)	9.7%(5.0%)	≤ 10.0%	2023 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	35.0%(4.5%)	≤ 35.0%	2023 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Stillaguamish	28.5%(3.1%)	≤ 50.0%	2023 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Snohomish	32.0%(3.2%)	≤ 40.0%	2023 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Hood Canal	42.8%(4.9%)	≤ 45.0%	2023 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Strait of Juan de Fuca	12.1%(4.2%)	≤ 40.0%	2023 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Quillayute Fall	12.5	6.3	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
	42.6%	≤ 53%	PST total exploitation rate constraint for 2023. <sup>d/f/</sup>
Hoh	5.4	2.0	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
	51.0%	≤ 65%	FMP total exploitation rate constraint (MFMT). <sup>e/f/</sup>
Queets Wild	10.3	5.8	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
	40.9%	≤ 53%	PST total exploitation rate constraint for 2023. <sup>e/f/</sup>
Grays Harbor	102.1	35.4	FMP MSP natural area adult spaw ner estimate. Value depicted is ocean escapement.
	55.6%	≤ 65%	FMP total exploitation rate constraint (MFMT). <sup>d/f/</sup>
Willapa Bay	49.5	17.2	FMP MSY natural area adult spaw ner estimate. Value depicted is ocean escapement.
Low er Columbia River Natural (threatened)	18.9%	≤23.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2023 NMFS ESA guidance).
Upper Columbia	59.8%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	318.9	77.2	Minimum ocean escapement to attain hatchery egg-take goal of 21.7 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	230.6	9.7	Minimum ocean escapement to attain hatchery egg-take goal of 6.4 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural <sup>c/</sup>	19.8%	≤ 20.0%	Marine and freshw ater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)			
Trinity Natural	15.0%	≤ 16.0%	Total exploitation rate ceiling.
Klamath Natural	7.7%	≤ 15.0%	Total exploitation rate ceiling.
Rogue Natural	6.7%	≤ 15.0%	Total exploitation rate ceiling.
Other Natural	1.8%	≤ 15.0%	Total exploitation rate ceiling.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2023 ocean fishery management measures - Council adopted.<sup>a/</sup> (Page 5 of 5)

a/ Reflects 2023 fisheries and abundance estimates.

b/ ISBM obligation is assessed as a proportion of the 2009-2015 average calendar year exploitation rate. 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 ERs for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for LCN coho, OCN coho, SONCC coho, and LCR Tule Chinook represent marine and freshwater impacts. Values reported for Klamath River fall Chinook, Grays Harbor coho, and Willapa Bay coho are natural area adult spawners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spawners.

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

d/ Annual management objectives may be different than FMP goals and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. It is anticipated that fishery management will be adjusted by state and tribal comanagers during the preseason planning process to comply with stock management objectives.

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

f/ Management criteria depicted represent the lower of the FMP and PST Southern Coho Management Plan ER constraints in a given year (see Table III-5 in most recent Preseason Report I). PST ER constraints represent an approximation of the maximum ER associated with achieving the escapement goal. Per the provisions of the PST Southern Coho Management Plan, Parties may request increases to management unit specific ER caps, so long as it occurs prior to March 31 in a given year.

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2023 ocean salmon fishery management measures - Council adopted. (Page 1 of 2)

Area and Fishery	Catch Projection	Bycatch Mortality <sup>a/</sup> Projection	Bycatch Projection <sup>b/</sup>	Observed in 2022	
				Catch	Bycatch Mortality
<b><u>OCEAN FISHERIES:</u></b>					
<b>CHINOOK (thousands of fish)</b>					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	45.00	4.61	11.49	34.68	3.55
Non-Indian Commercial Troll	39.00	15.80	56.25	25.98	11.14
Recreational	39.00	4.72	21.48	24.83	3.39
CAPE FALCON TO HUMBUG MT. <sup>c/</sup>					
Commercial Troll	1.34	0.27	0.74	29.68	6.86
Recreational	0.93	0.11	0.37	4.63	0.53
HUMBUG MT. TO OR/CA BORDER					
Commercial Troll	-	-	-	0.78	0.18
Recreational	-	0.02	0.08	0.40	0.05 <sup>d/</sup>
OR/CA BORDER TO 40°10' N. LAT.					
Commercial Troll	-	-	-	0.00	-
Recreational	-	-	-	4.35	0.52 <sup>d/</sup>
40°10' N. LAT. TO PT. ARENA					
Commercial Troll	-	-	-	21.66	6.35 <sup>d/</sup>
Recreational	-	-	-	2.64	0.33 <sup>d/</sup>
PT. ARENA TO PIGEON PT.					
Commercial Troll	-	-	-	97.57	24.39 <sup>d/</sup>
Recreational	-	-	-	66.11	7.60 <sup>d/</sup>
SOUTH OF PIGEON PT.					
Commercial Troll	-	-	-	91.96	11.22 <sup>d/</sup>
Recreational	-	-	-	15.86	1.40 <sup>d/</sup>
TOTAL OCEAN FISHERIES					
Commercial Troll	85.34	20.67	68.49	302.31	63.68
Recreational	39.93	4.84	21.93	118.81	13.82
<b><u>INSIDE FISHERIES:</u></b>					
Area 4B	-	-	-	-	-
Buoy 10	32.00	5.50	29.00	28.36	5.59 <sup>d/</sup>

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2023 ocean salmon fishery management measures - Council adopted. (Page 2 of 2)

Area and Fishery	Catch Projection	Bycatch Mortality <sup>a/</sup> Projection	Bycatch Projection <sup>b/</sup>	Observed in 2022	
				Catch	Bycatch Mortality
<b><u>OCEAN FISHERIES:</u></b>					
<b>COHO (thousands of fish)</b>					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll <sup>e/</sup>	57.00	3.73	6.25	36.15	2.31
Non-Indian Commercial Troll	30.40	13.08	42.47	12.92	4.20
Recreational	159.60	27.57	116.31	81.36	15.95
SOUTH OF CAPE FALCON					
Commercial Troll	10.00	0.52	0.58	2.17	2.90
Recreational <sup>e/</sup>	135.00	29.49	132.62	58.28	14.26
TOTAL OCEAN FISHERIES					
Commercial Troll	97.40	17.33	49.29	51.24	9.41
Recreational	294.60	57.05	248.93	139.64	30.21
<b><u>INSIDE FISHERIES:</u></b>					
Area 4B	-	-	-	-	-
Buoy 10	40.00	8.49	37.84	8.85	1.37 <sup>d/</sup>

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

Commercial: 26%.

Recreational, north of Pt. Arena: 14%.

Recreational, south of Pt. Arena: 16% (based on the expected proportion of fish that will be caught using mooching versus trolling gear, and the HRMs of 42.2% and 14% for these two respective gear types).

b/ Bycatch calculated as dropoff mortality plus fish released.

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

d/ Based on reported released Chinook or coho. Reported releases in California fisheries are used as a surrogate in Oregon fisheries.

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

TABLE 7. Expected coastwide exploitation rates by fishery for 2023 ocean fisheries management measures for lower Columbia Natural (LCN), Oregon coastal natural (OCN), Lower Columbia River (LCR) tule Chinook, and Southern Oregon Northern California Coastal (SONCC) coho salmon by natural-origin subcomponent - Council Adopted (Page 1 of 2)

Fishery	Exploitation Rate (Percent)		
	LCN Coho	OCN Coho	LCR Tule Chinook
SOUTHEAST ALASKA	0.0%	0.0%	2.2%
BRITISH COLUMBIA	0.3%	0.4%	14.0%
PUGET SOUND/STRAIT	0.2%	0.0%	0.4%
NORTH OF CAPE FALCON			
Treaty Indian Ocean Troll	2.0%	0.5%	2.2%
Recreational	4.6%	0.9%	4.0%
Non-Indian Troll	1.5%	0.3%	5.3%
SOUTH OF CAPE FALCON			
Recreational:			0.2%
Cape Falcon to Humbug Mt.	4.9%	10.4%	-
Humbug Mt. to OR/CA border (KMZ)	0.1%	0.4%	-
OR/CA border to Lat.40°10' N. (KMZ)	0.0%	0.0%	-
Fort Bragg	0.0%	0.0%	-
South of Pt. Arena	0.0%	0.0%	-
Troll:			0.2%
Cape Falcon to Humbug Mt.	0.8%	1.3%	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	-
OR/CA border to Lat. 40°10' N. (KMZ)	0.0%	0.0%	-
Fort Bragg	0.0%	0.0%	-
South of Pt. Arena	0.0%	0.0%	-
BUOY 10	2.0%	0.1%	9.4%
ESTUARY/FRESHWATER	2.6%	5.6%	
TOTAL <sup>a/</sup>	18.9%	19.8%	38.0%



TABLE 7. Expected coastwide exploitation rates by fishery for 2023 ocean fisheries management measures for lower Columbia Natural (LCN) coho, Oregon coastal natural (OCN) coho, Lower Columbia River (LCR) tule Chinook, and Southern Oregon Northern California Coastal (SONCC) coho salmon by natural-origin subcomponent - Council adopted (Page 2 of 2).

Fishery	Exploitation Rate (Percent)			
	Trinity Natural	Klamath Natural	Rogue Natural	Other SONCC
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%
BRITISH COLUMBIA	0.2%	0.2%	0.2%	0.2%
PUGET SOUND/STRAIT	0.0%	0.0%	0.0%	0.0%
NORTH OF CAPE FALCON				
Treaty Indian Ocean Troll	0.0%	0.0%	0.0%	0.0%
Recreational	0.0%	0.0%	0.0%	0.0%
Non-Indian Troll	0.0%	0.0%	0.0%	0.0%
SOUTH OF CAPE FALCON				
Recreational:				
Cape Falcon to Humbug Mt.	0.7%	0.7%	0.7%	0.7%
Humbug Mt. to OR/CA border (KMZ)	0.7%	0.7%	0.7%	0.7%
OR/CA border to Lat.40°10' N. (KMZ)	0.0%	0.0%	0.0%	0.0%
Fort Bragg	0.0%	0.0%	0.0%	0.0%
South of Pt. Arena	0.0%	0.0%	0.0%	0.0%
Troll:				
Cape Falcon to Humbug Mt.	0.2%	0.2%	0.2%	0.2%
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.0%
OR/CA border to Lat. 40°10' N. (KMZ)	0.0%	0.0%	0.0%	0.0%
Fort Bragg	0.0%	0.0%	0.0%	0.0%
South of Pt. Arena	0.0%	0.0%	0.0%	0.0%
BUOY 10	0.0%	0.0%	0.0%	0.0%
ESTUARY/FRESHWATER	13.2%	5.9%	4.9%	0.0%
TOTAL <sup>a/</sup>	15.0%	7.7%	6.7%	1.8%

a/ Estuary/freshwater catch is included in the total for LCN, OCN, SONCC, and LCR Tule Chinook populations. Bolded values identify exploitation rates that would exceed the total allowable exploitation rate.

TABLE 8. 2023 projected coho mark rates for mark-selective fisheries under Council adopted management measures (percent marked).

Area	Fishery	June	July	August	September
Canada					
Johnstone Strait	Recreational	30%	27%	21%	--
West Coast Vancouver Island	Recreational	46%	43%	41%	40%
North Georgia Strait	Recreational	43%	44%	43%	36%
South Georgia Strait	Recreational	46%	49%	43%	44%
Juan de Fuca Strait	Recreational	46%	45%	44%	43%
Johnstone Strait	Troll	--	--	--	--
NW Vancouver Island	Troll	48%	43%	43%	42%
SW Vancouver Island	Troll	56%	49%	48%	48%
Georgia Strait	Troll	--	--	51%	45%
Puget Sound					
Strait of Juan de Fuca (Area 5)	Recreational	--	49%	49%	46%
Strait of Juan de Fuca (Area 6)	Recreational	--	47%	49%	43%
San Juan Island (Area 7)	Recreational	--	55%	47%	32%
North Puget Sound (Areas 6 & 7A)	Net	--	--	49%	36%
Council Area					
Neah Bay (Area 4/4B)	Recreational	47%	57%	51%	57%
LaPush (Area 3)	Recreational	58%	60%	65%	46%
Westport (Area 2)	Recreational	74%	70%	65%	58%
Columbia River (Area 1)	Recreational	77%	78%	66%	65%
Tillamook	Recreational	68%	60%	50%	35%
Newport	Recreational	61%	53%	48%	30%
Coos Bay	Recreational	50%	43%	30%	15%
Brookings	Recreational	44%	28%	22%	--
Neah Bay (Area 4/4B)	Troll	--	53%	53%	53%
LaPush (Area 3)	Troll	--	55%	51%	49%
Westport (Area 2)	Troll	--	63%	64%	59%
Columbia River (Area 1)	Troll	--	74%	67%	50%
Tillamook	Troll	--	--	--	48%
Newport	Troll	--	--	--	40%
Coos Bay	Troll	--	--	--	18%
Brookings	Troll	--	--	--	--
Columbia River					
Buoy 10	Recreational	--	--	--	58%

TABLE 9. Preliminary projected exvessel value by catch area under Council-adopted 2023 non-Indian commercial troll management measures compared with 2022 and the 2018-2022 average (inflation-adjusted 2022 dollars).

Management Area	Exvessel Value (thousands of dollars) <sup>a/</sup>				
	2023 Projected <sup>b/</sup>	2022	2018-2022 Average	Percent Change	
				From 2022 (Modeled)	From 2018-2022 Average
North of Cape Falcon	3,199	1,975	2,048	+62%	+56%
Cape Falcon to Humbug Mt.	290	2,830	2,178	-90%	-87%
Humbug Mt. to OR/CA Border (OR KMZ)	0	86	187	-100%	-100%
OR/CA Border to 40°10' N. Lat. (CA KMZ)	0	0	235	-	-100%
40°10' N. Lat. to Pt. Arena (Fort Bragg)	0	1,466	1,378	-100%	-100%
Pt. Arena to Pigeon Pt. (SF)	0	7,748	9,435	-100%	-100%
South of Pigeon Pt. (MO)	0	8,076	5,468	-100%	-100%
Total South of Cape Falcon	290	20,207	18,883	-99%	-98%
West Coast Total	3,489	22,181	20,932	-84%	-83%

a/ All dollar amounts are inflation-adjusted 2022 values. Exvessel value estimates are not comparable to the community income impacts shown in Table 10.

b/ 2023 projections are based on expected catches in the Council management areas, 2022 exvessel prices and 2022 average weights per fish.

TABLE 10. Preliminary projected angler trips and associated state-level personal income impacts under Council-adopted 2023 recreational ocean salmon management measures compared with 2022 and the 2018-2022 average (inflation-adjusted 2022 dollars).

Management Area	Coastal Community Income Impacts <sup>a/</sup>							
	Angler Trips (thousands)			(thousands of dollars) <sup>b/</sup>			Percent Change	
	2023 Projected	2022	2018-2022 Avg.	2023 Projected	2022	2018-2022 Avg.	Compared to 2022	Compared to 2018-2022 Avg.
North of Cape Falcon	89.9	86.5	63.1	12,671	12,184	9,339	+4%	+36%
Cape Falcon to Humbug Mt.	54.9	76.3	65.6	4,099	5,699	5,088	-28%	-19%
Humbug Mt. to OR/CA Border (OR KMZ)	2.8	3.2	5.3	159	181	293	-12%	-46%
OR/CA Border to 40°10' N. Lat. (CA KMZ)	0.0	5.3	5.5	0	636	688	-100%	-100%
40°10' N. Lat. to Pt. Arena (Fort Bragg)	0.0	6.8	7.6	0	1,110	1,280	-100%	-100%
Pt. Arena to Pigeon Pt. (SF)	0.0	62.1	55.4	0	14,900	13,911	-100%	-100%
South of Pigeon Pt. (MO)	0.0	24.3	20.9	0	3,547	3,055	-100%	-100%
Total South of Cape Falcon	57.7	178.0	160.4	4,258	26,073	24,314	-84%	-82%
West Coast Total	147.6	264.4	223.5	16,929	38,257	33,653	-56%	-50%

a/ Income impacts are not comparable to exvessel values shown in Table 9.

b/ Dollar amounts are in inflation-adjusted 2022 values.

TABLE 11. Environmental effects of the Proposed Action relative to criteria and Alternatives analyzed in Preseason Reports I and II.<sup>a/</sup> (Page 1 of 2)

Environmental Component		No-Action Alternative <sup>b/</sup>	Alternative			Proposed Action	2023 Criteria	Objective or Other Comparative Standard as Noted
			I	II	III			
<b>Chinook</b>								
KRFC	Spawning Escapement	17.792	23.614	23.614	26.133	23.614	≥ 23.614	2023 minimum natural area adult escapement (FMP control rule).
	Exploitation (spawner reduction) rate	32.2%	10.0%	10.0%	0.4%	10.0%	≤ 10.0%	FMP control rule.
SRFC	Spawning Escapement	84.750	164.964	164.964	164.990	164.964	≥ 122.000	2023 minimum hatchery and natural area adult escapement (FMP).
	Exploitation Rate	50.1%	2.8%	2.8%	2.8%	2.8%	≤ 28.1%	FMP control rule.
<b>Canadian Stocks</b>								
	Interior Fraser Coho	9.3%(4.6%)	10.3%(5.7%)	9.5%(4.9%)	8.6%(4.0%)	9.7%(5.0%)	≤ 10.0%	2023 Southern U.S. exploitation rate ceiling; PSC coho agreement.
<b>Puget Sound Coho</b>								
	Skagit	47.6%	48.0%(5.2%)	47.4%(4.4%)	46.9%(3.6%)	35.0%(4.5%)	≤ 35.0%	2023 total exploitation rate ceiling; FMP matrix. <sup>c/</sup>
	Stillaguamish	23.9%	24.2%(3.6%)	23.7%(3.0%)	23.2%(2.4%)	28.5%(3.1%)	≤ 50.0%	2023 total exploitation rate ceiling; FMP matrix. <sup>c/</sup>
	Snohomish	20.7%	21.0%(3.6%)	20.5%(3.0%)	19.9%(2.4%)	32.0%(3.2%)	≤ 40.0%	2023 total exploitation rate ceiling; FMP matrix. <sup>c/</sup>
	Hood Canal	39.9%	40.4%(5.6%)	39.7%(4.8%)	39.1%(4.0%)	42.8%(4.9%)	≤ 45.0%	2023 total exploitation rate ceiling; FMP matrix. <sup>c/</sup>
	Strait of Juan de Fuca	10.1%	10.9%(4.7%)	10.1%(3.9%)	9.4%(3.2%)	12.1%(4.2%)	≤ 40.0%	2023 total exploitation rate ceiling; FMP matrix. <sup>c/</sup>
<b>Washington Coastal Coho</b> (in thousands of fish)								
	Quillayute Fall Coho	12.6	12.6	12.7	12.8	12.5	6.3	FMP MSY adult spawner estimate. <sup>d/</sup>
			37.2%	36.6%	36.2%	42.6%	≤ 53%	PST total exploitation rate constraint for 2023. <sup>c/</sup>
	Hoh Coho	5.5	5.5	5.6	5.7	5.4	2.0	FMP MSY adult spawner estimate. <sup>d/</sup>
			53.6%	52.5%	51.6%	51.0%	≤ 65%	FMP total exploitation rate constraint (MFMT). <sup>c/d/</sup>
	Queets Wild Coho	10.4	10.3	10.5	10.7	10.3	5.8	FMP MSY adult spawner estimate. <sup>d/</sup>
			36.8%	35.4%	34.2%	40.9%	≤ 53%	PST total exploitation rate constraint for 2023. <sup>c/</sup>
	Grays Harbor Coho	103.7	102.8	104.0	104.9	102.1	35.4	FMP MSP natural area adult spawner estimate. <sup>d/</sup>
			49.9%	49.3%	48.8%	55.6%	≤ 65%	FMP total exploitation rate constraint (MFMT). <sup>c/</sup>
	Willapa Bay Natural Coho	49.8	49.6	50.6	51.5	49.5	17.2	FMP MSY natural area adult spawner estimate. <sup>d/</sup>
<b>ESA-Listed Salmon</b>								
	California Coastal Chinook	12.3%	0.3%	0.3%	0.3%	0.3%	≤ 10.0%	KRFC age-4 ocean harvest rate. (NMFS Guidance)
	SRWC	15.9%	0.0%	0.0%	0.0%	0.0%	≤ 20.0%	SRWC age-3 ocean impact rate in fisheries south of Pt. Arena.
	LCR Natural Tule Chinook <sup>e/</sup>	NA	39.1%	37.7%	36.4%	38.0%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2023
	LCN Coho <sup>e/f/</sup>	18.8%	14.9%	12.5%	10.9%	18.9%	≤ 23.0%	Total marine and mainstem Col. R. fishery ER (2023
	OCN coho <sup>e/</sup>	15.4%				19.8%	≤ 20.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
			20.0%	18.1%	17.4%			
<b>SONCC coho</b>								
	Trinity Natural <sup>f/</sup>	13.5%	1.7%	1.3%	1.2%	15.0%	≤ 16.0%	Total exploitation rate ceiling.
	Klamath Natural <sup>f/</sup>	8.7%	1.7%	1.3%	1.2%	7.7%	≤ 15.0%	Total exploitation rate ceiling.
	Rogue Natural <sup>f/</sup>	7.8%	1.7%	1.3%	1.2%	6.7%	≤ 15.0%	Total exploitation rate ceiling.
	Other Natural <sup>f/</sup>	2.9%	1.7%	1.3%	1.2%	1.8%	≤ 15.0%	Total exploitation rate ceiling.

TABLE 11. Environmental effects of the Proposed Action relative to criteria and Alternatives analyzed in Preseason Reports I and II.<sup>a/</sup> (Page 2 of 2)

Environmental Component	No-Action	Alternative			Proposed Action
	Alternative <sup>b/</sup>	I	II	III	
<b>Socioeconomics</b>					
Commercial Community Personal Income Impacts (thousands of dollars)					
North of Cape Falcon	3,363	5,853	5,200	4,548	5,398
Cape Falcon to Humbug Mt.	4,200	535	224	84	526
Humbug to OR/CA border (OR KMZ)	219	4	3	-	4
OR/CA border to 40°10' N. Lat. (CA KMZ)	161	-	-	-	-
40°10' N. Lat. to Pt. Arena (Fort Bragg)	1,968	-	-	-	-
Pt. Arena to Pigeon Pt. (San Francisco)	25,169	-	-	-	-
South of Pigeon Pt. (Monterey)	4,161	-	-	-	-
West Coast Total	39,242	6,392	5,427	4,633	5,928
Recreational Community Personal Income Impacts (thousands of dollars)					
North of Cape Falcon	12,184	13,581	12,258	10,934	12,671
Cape Falcon to Humbug Mt.	5,699	4,306	3,945	3,549	4,099
Humbug to OR/CA border (OR KMZ)	181	-	-	-	159
OR/CA border to 40°10' N. Lat. (CA KMZ)	636	-	-	-	-
40°10' N. Lat. to Pt. Arena (Fort Bragg)	1,110	-	-	-	-
Pt. Arena to Pigeon Pt. (San Francisco)	14,900	-	-	-	-
South of Pigeon Pt. (Monterey)	3,547	-	-	-	-
West Coast Total	38,257	17,888	16,203	14,483	16,929

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.

b/ Socioeconomic impacts under the No-Action Alternative are assumed equal to 2022 estimates.

c/ 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. Values in parentheses indicate impacts in Council-area fisheries.

d/ Value depicted is ocean escapement.

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

f/ Values depicted for Alternatives I, II, and III are ocean exploitation rates only.

TABLE 12. Stock status relative to overfished and overfishing criteria. A stock is approaching an overfished condition if the 3-year geometric mean of the most recent two years and the forecasted spawning escapement is less than the minimum stock size threshold (MSST); a stock would experience overfishing if the total annual exploitation rate exceeds the maximum fishing mortality threshold (MFMT). Occurrences of stocks approaching an overfished condition, or experiencing overfishing, are indicated in bold. 2023 spawning escapement and exploitation rate estimates are based on 2023 preseason abundance forecasts and 2023 adopted Council regulations.

	Estimated Adult Spawning Escapement									Total Exploitation Rate						
	2018	2019	2020	2021	2022 <sup>a/</sup>	Forecast 2023 <sup>b/</sup>	3-yr Geo Mean	MSST	S <sub>MSY</sub>	2018	2019	2020	2021	2022 <sup>a/</sup>	2023 <sup>b/</sup>	MFMT
<b>Chinook</b>																
Sacramento Fall	105,466	163,767	138,091	104,483	61,850	164,964	102,155	91,500	122,000	0.52	0.68	0.61	0.68	0.75	0.03	0.78
Klamath River Fall	52,352	20,022	26,185	30,056	22,051	23,614	<b>25,014</b>	30,525	40,700	0.32	0.43	0.30	0.38	0.45	0.10	0.71
Southern Oregon <sup>c/</sup>	39,507	18,436	29,387	48,979	17,615	NA	29,378	20,500	34,992	NA	NA	NA	NA	NA	NA	0.54
Central and Northern OR <sup>d/</sup>	92	65	137	85	105	NA	107	30 fish/mi	60 fish/mi	0.66	0.50	0.42	NA	NA	NA	0.78
Upper Columbia Bright - Fall <sup>d/</sup>	58,540	77,880	98,401	86,644	53,961	100,779	77,815	19,182	39,625	0.34	0.38	0.29	NA	NA	NA	0.86
Upper Columbia - Summer <sup>d/</sup>	38,816	41,090	70,654	52,076	64,497	66,932	60,805	6,072	12,143	0.44	0.17	0.30	NA	NA	NA	0.75
Willapa Bay - Fall <sup>e/</sup>	2,847	2,894	3,585	2,966	NA	NA	3,134	1,696	3,393	0.61	0.66	0.51	NA	NA	NA	0.78
Grays Harbor Fall <sup>e/</sup>	20,741	14,880	20,879	13,207	NA	NA	16,009	5,694	13,326	0.63	0.65	0.54	NA	NA	NA	0.78
Grays Harbor Spring	493	983	2,828	2,573	NA	NA	1,927	700	1,400	NA	NA	NA	NA	NA	NA	0.78
Queets - Fall <sup>d/</sup>	2,207	2,663	3,622	3,364	NA	NA	3,190	1,250	2,500	0.66	0.73	0.71	NA	NA	NA	0.87
Queets - Sp/Su	484	322	342	280	NA	NA	<b>314</b>	350	700	NA	NA	NA	NA	NA	NA	0.78
Hoh - Fall <sup>e/</sup>	2,478	1,552	2,273	2,622	NA	NA	2,099	600	1,200	0.56	0.73	0.64	NA	NA	NA	0.90
Hoh Sp/Su	793	766	1,248	817	NA	NA	921	450	900	NA	NA	NA	NA	NA	NA	0.78
Quillayute - Fall <sup>e/</sup>	3,937	7,765	8,672	5,568	6,761	NA	6,886	1,500	3,000	0.72	0.65	0.55	NA	NA	NA	0.87
Quillayute - Sp/Su	990	1,442	942	1,056	1,128	NA	1,039	600	1,200	NA	NA	NA	NA	NA	NA	0.78
Hoko -Su/Fa <sup>d/</sup>	2,179	1,815	1,347	2,256	NA	NA	1,767	425	850	0.57	NA <sup>f/</sup>	0.22	NA	NA	NA	0.78
<b>Coho</b>																
Willapa Bay <sup>g/</sup>	17,228	15,115	16,476	31,369	NA	22,066	22,509	8,600	17,200	0.35	0.39	0.33	0.24	NA	0.63	0.74
Grays Harbor <sup>g/</sup>	49,622	30,468	23,814	62,762	NA	50,604	42,290	18,320	24,426	0.22	0.39	0.29	0.23	NA	0.56	0.65
Queets <sup>h/</sup>	2,631	1,700	4,181	5,752	NA	7,406	5,626	4,350	5,800	0.23	0.57	0.22	0.10	NA	0.41	0.65
Hoh	2,463	2,445	2,840	6,396	NA	3,220	3,882	1,890	2,520	0.34	0.57	0.49	0.18	NA	0.51	0.65
Quillayute Fall	6,091	6,852	7,695	9,938	13,000	7,763	10,010	4,725	6,300	0.30	0.37	0.16	0.04	NA	0.43	0.59
Juan de Fuca <sup>i/</sup>	5,470	4,625	8,548	20,837	NA	13,784	13,490	7,000	11,000	0.08	0.12	0.07	0.07	NA	0.12	0.60
Hood Canal	7,512	7,884	17,312	35,178	NA	21,738	23,656	10,750	14,350	0.57	0.46	0.29	0.25	NA	0.43	0.65
Skagit	19,047	14,246	23,808	75,532	NA	28,212	37,019	14,875	25,000	0.49	0.48	0.43	0.33	NA	0.35	0.60
Stillaguamish	23,937	12,887	21,555	38,176	NA	21,673	26,127	6,100	10,000	0.22	0.20	0.13	0.11	NA	0.29	0.50
Snohomish <sup>j/</sup>	58,135	40,314	42,675	97,523	NA	52,206	60,117	31,000	50,000	0.25	0.17	0.11	0.11	NA	0.32	0.60

a/ Preliminary.

b/ Preliminary approximations based on preseason forecasts and Council adopted (preseason) fishing regulations.

c/ MSST 18,440 (20,500 as measured at Huntley Park).

d/ CWT based exploitation rates from PSC-CTC 2022 Exploitation Rate Analysis (TCCHINOOK (23)-01).

e/ Queets River fall Chinook coded-wire-tag (CWT) exploitation rates used as a proxy. Adjustments made to terminal fishery impacts to account for differential harvest rates.

f/ Calculation of a reliable exploitation rate estimate was not possible due to insufficient CWT information.

g/ Willapa Bay and Grays Harbor coho escapement and exploitation rate estimates based on natural area adult spawners.

h/ Categorized as overfished in 2018.

i/ Categorized as overfished in 2018; currently meets the stock status criteria for not overfished - rebuilding.

j/ Categorized as overfished in 2018; currently meets the stock status criteria for rebuilt.

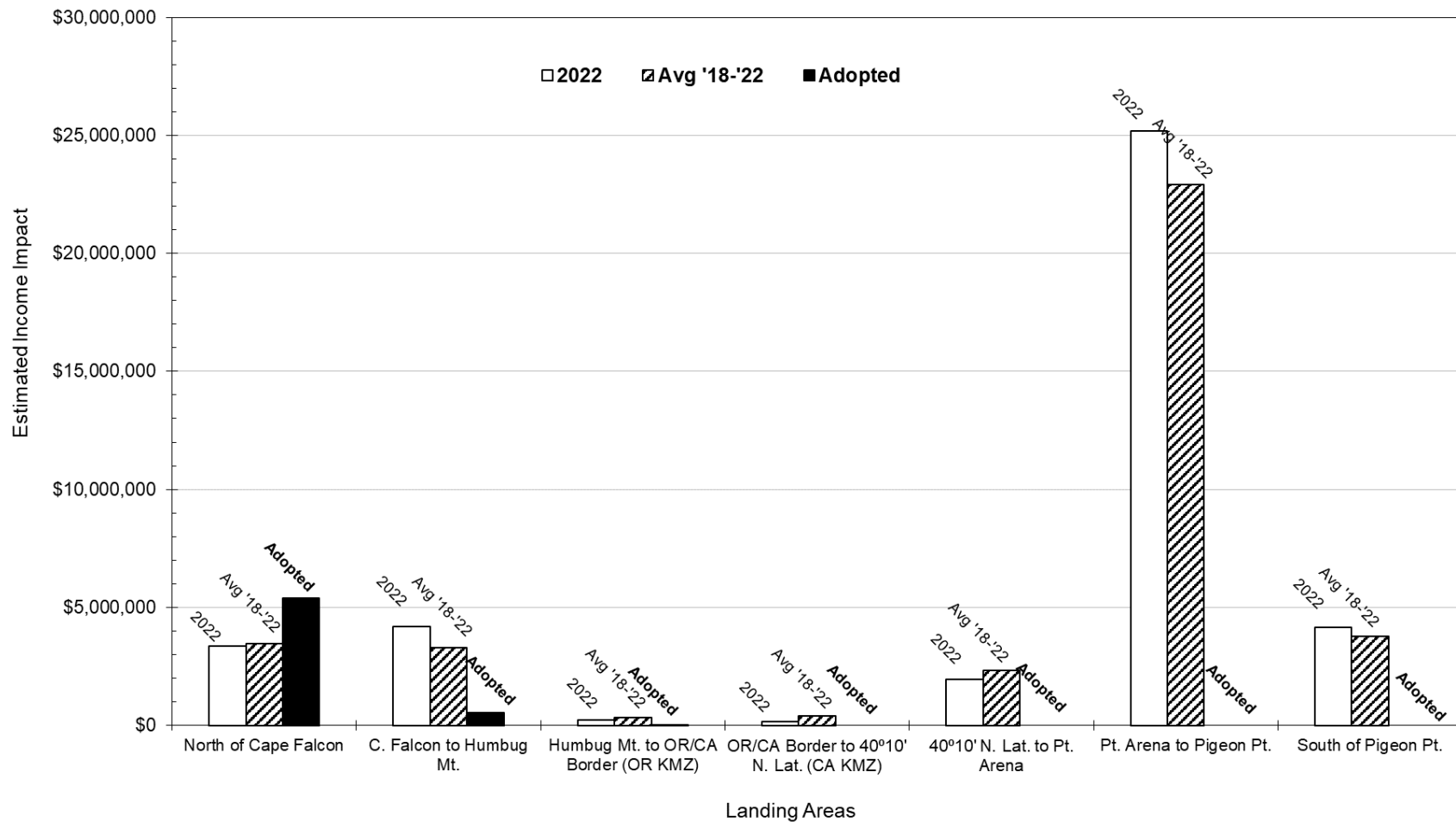


FIGURE 3. Projected coastal community personal income impacts associated with the 2023 commercial troll fishery under Council-adopted management measures compared to estimated 2022 and the 2018-2022 inflation-adjusted average (in 2022 dollars).

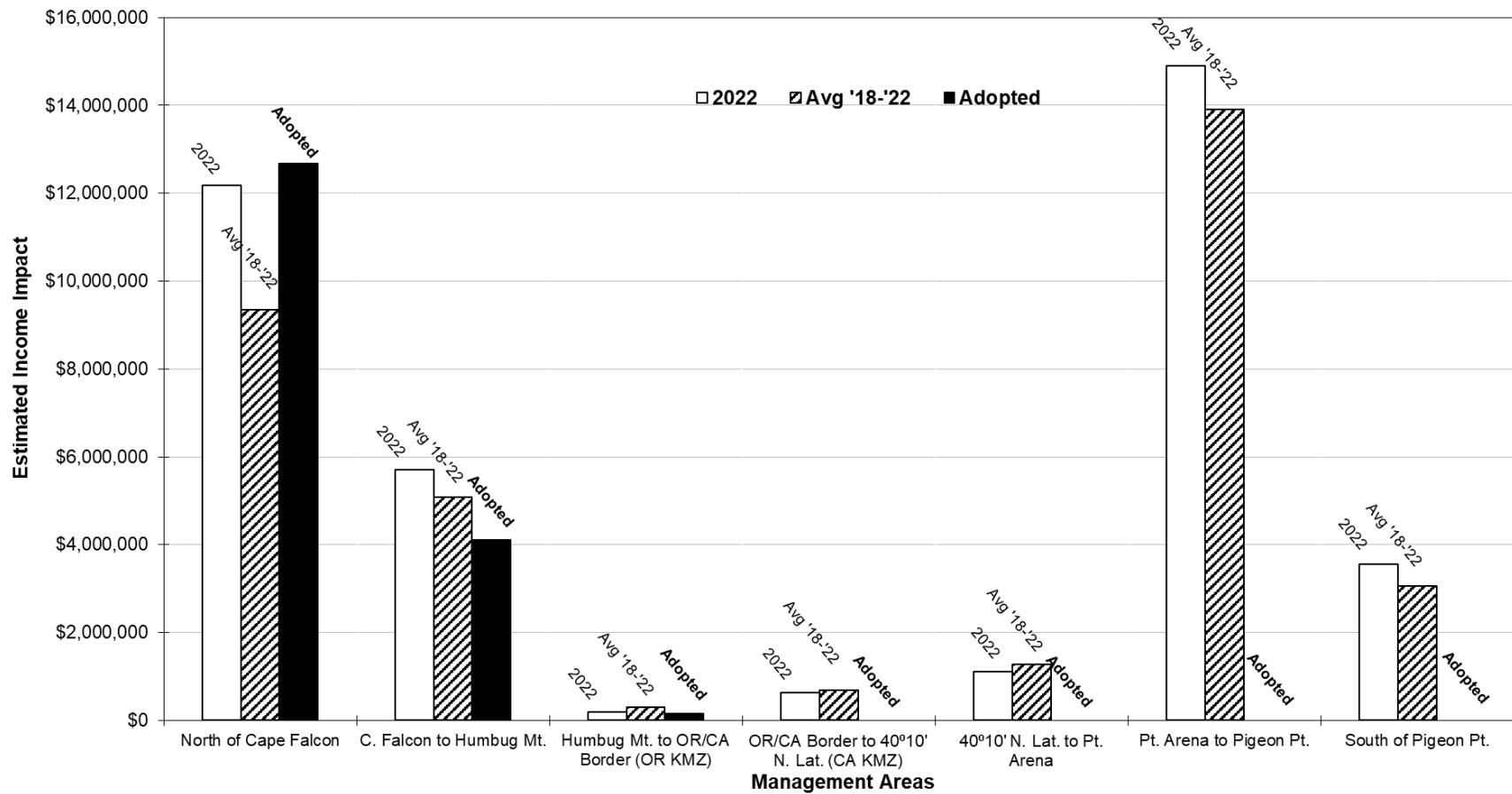


FIGURE 4. Projected coastal community personal income impacts associated with the 2023 recreational ocean salmon fishery under Council-adopted management measures compared to estimated 2022 and the 2018-2022 inflation-adjusted average (in 2022 dollars).



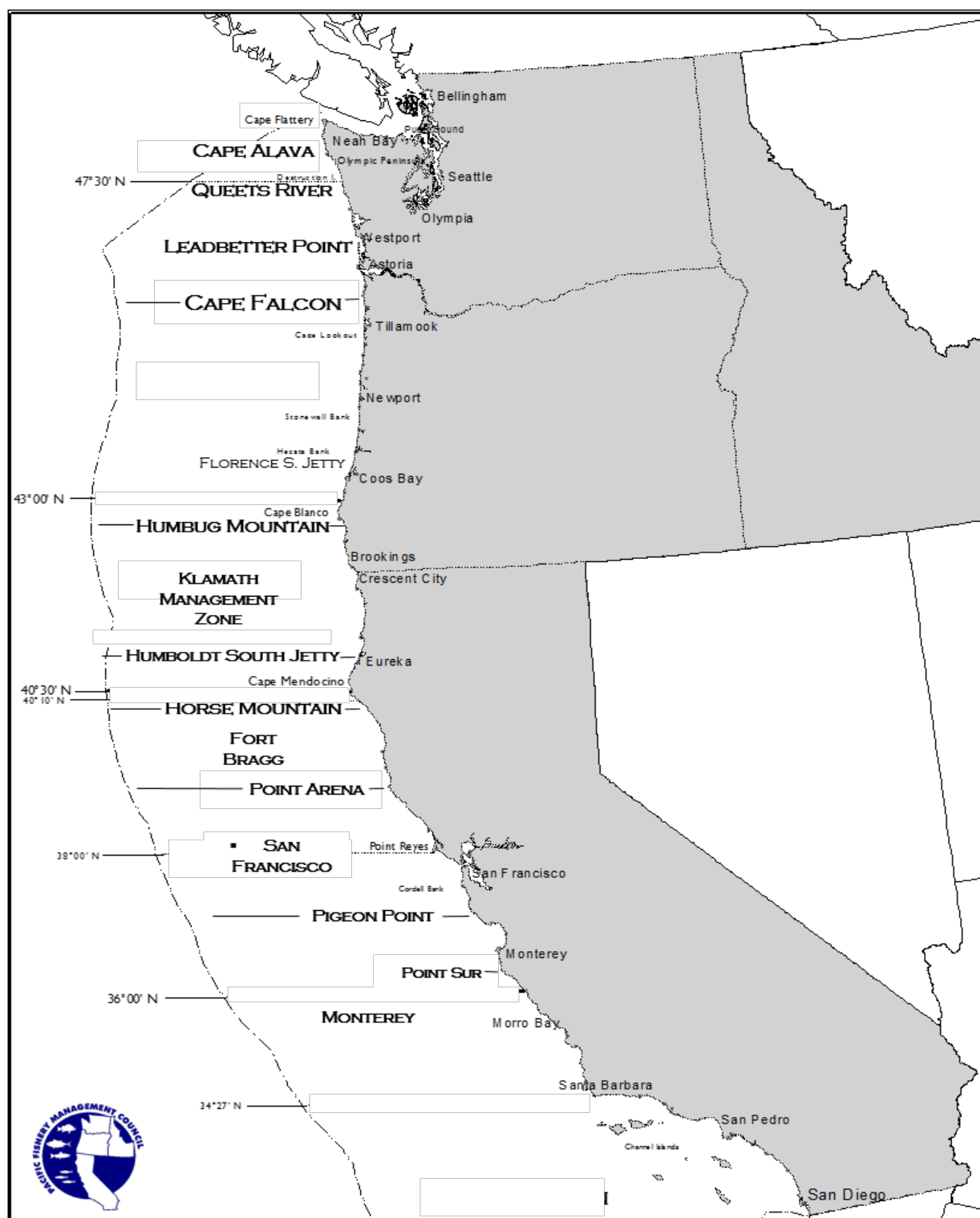


FIGURE 5. Map of Pacific West Coast with major salmon ports and management boundaries. This map is for reference only and is not intended for use in navigation or fishery regulation.