

## **1.0 INTRODUCTION**

This is the last in a series of three preseason reports prepared by the Pacific Fishery Management Council's (Council) Salmon Technical Team (STT) and staff. The reports document and help guide salmon fishery management in the exclusive economic zone (EEZ) from 3 to 200 nautical miles off the coasts of Washington, Oregon, and California, and within state territorial waters. This report summarizes the STT analysis of the 2008 ocean salmon fishery management measures adopted by the Council for submission to the U.S. Secretary of Commerce. This report is analogous to a description and analysis of a preferred alternative in a National Environmental Policy Act (NEPA) analysis. Together with the other preseason reports and the Review of 2007 Ocean Salmon Fisheries, this report serves as the basis for an Environmental Assessment (EA) addressing the 2008 ocean salmon management measures, and is analogous to a preferred alternative in a NEPA analysis.

The Council's recommendations for the 2008 ocean salmon fishery regulations meet or exceed the obligations under the Pacific Salmon Treaty (PST) (Section 5), the level of protection required by all consultation standards for salmon species listed under the ESA (Section 4), and all objectives of the Pacific Coast Salmon Plan (Salmon FMP) (Section 3) except the conservation objective for Sacramento River fall Chinook (SRFC), which requires a minimum spawning escapement of 122,000-180,000 hatchery and natural adults annually. The spawning escapement for SRFC was projected to not be attained even with complete closure of ocean salmon fisheries south of Cape Falcon, Oregon; therefore, the Council's recommended management measures for fisheries south of Cape Falcon require implementation by emergency rule.

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

The following figures and tables describe the 2008 Council-adopted management measures:

- Table 1-Non-Indian commercial ocean salmon management measures, pages 16-18;
- Figure 1-Geographic outline of commercial troll (non-Indian) ocean salmon seasons, page 19;
- Table 2-Recreational ocean salmon management measures, pages 20-22;
- Figure 2-Geographic outline of recreational ocean salmon seasons, page 23;
- Table 3-Treaty Indian commercial ocean management measures, page 24; and
- Table 4-Allowable catch quotas for Chinook and coho, page 25.

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

The 2008 seasons are constrained primarily by: (1) SRFC south of Cape Falcon; (2) threatened Columbia Lower River wild (LRW) fall Chinook north of Cape Falcon; (3) threatened Lower Columbia natural (LCN) coho north of Humbug Mountain; (4) threatened Oregon Coastal Natural (OCN) coho coastwide, and (5) Hood Canal natural coho north of the Cape Falcon, Oregon. Coho retention fisheries operate under restrictions that permit retention only of marked coho, except for treaty Indian ocean fisheries.

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

### **2.1 *Inseason Management***

Inseason changes are made to meet the preseason intent of the management measures described in this document, but must also meet the Council's Salmon fishery management plan (FMP) goals, especially in regard to conservation and allocation goals, Federally-recognized Indian fishing rights, consultation

standards for Endangered Species Act (ESA)-listed salmon stocks, and obligations under the Pacific Salmon Treaty (PST).

Inseason actions that are anticipated for the 2008-2009 management season include, but are not limited to, the following possibilities:

1. Adjustments in landing limits and days open for non-Indian commercial fisheries.
2. Changing the days or number of days of fishing allowed per calendar week for recreational fisheries.
3. Transfer of coho quotas among recreational port areas north of Cape Falcon.
4. Trading portions of Chinook and coho quotas between recreational and non-Indian commercial sectors north of Cape Falcon.
5. Routine openings and closings, and other management measures associated with quota management, including modifying open areas, bag limits, species retention limits, and mark retention restrictions.
6. Closing Oregon recreational and commercial fisheries scheduled to open between March 15 and April 30, 2009 if necessary to meet 2009 management objectives.

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

## **2.2 State Waters Fisheries**

In addition to the seasons shown in Tables 1 and 2, it is anticipated the Oregon Department of Fish and Wildlife (ODFW) will permit Chinook only fall fisheries in certain areas within state waters. Potential seasons off the Oregon coast include commercial and recreational fisheries at the mouths of the Chetco and Elk Rivers and at the mouth of Tillamook Bay. Council intent generally advocates that state-water fisheries have the same basic regulations as adjacent Federal waters, particularly if open simultaneously; however, the Oregon State-water recreational fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.

Washington may also establish limited recreational fisheries in state waters if additional impacts on critical coho and/or Chinook stocks can be accommodated within management constraints. California will not be establishing any state water fisheries in 2008 due to the current status of SRFC.

## **3.0 SALMON FISHERY MANAGEMENT PLAN REQUIREMENTS**

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

Biological objectives for stocks originating in the Council area or impacted by Council area ocean fisheries are listed in Table 3-1 of the Salmon FMP. The objectives generally consist of meeting spawning escapement numbers associated with maximum sustainable yield (MSY), or exploitation rate limits designed to support recovery of depressed stocks while encompassing a long term average harvest approximating MSY. In cases where biological objectives for stocks that are not exceptions to the FMP Overfishing Criteria cannot be met, the Council is required to close salmon fisheries in areas that impact the stock, except for justifiable emergencies. In 2008, SRFC are predicted to be well below their conservation objective, and therefore the management measures for fisheries south of Cape Falcon are

proposed to be implemented by emergency rule. Fisheries in the area north of Cape Falcon have been determined to have negligible impacts on SRFC and have been exempted from the need for an emergency rule by NMFS.

Biological objectives can be modified through formal plan amendment, technical amendment, or regulatory amendment. For the 2008 management measures, an additional management objective for Klamath River fall Chinook (KRFC) has been proposed by regulatory amendment. The current KRFC conservation objective requires a spawner reduction rate of no more than 67 percent and a minimum of 35,000 adults spawning in natural areas. The proposed regulatory amendment would require a minimum natural area spawning escapement of 40,700 adult KRFC as a preseason management objective in 2008, and possibly beyond. This proposal resulted from an STT assessment of KRFC after that stock triggered an Overfishing Concern by failing to meet the 35,000 natural area adult spawner objective in 2004-2006. The Council adopted the 40,700 management objective for 2008, and will take action on other recommendations from the STT assessment (see Preseason Report II, Appendix A) at the June 2008 Council meeting.

Administrative objectives are requirements for meeting other applicable law outside of the Salmon FMP. These requirements include ESA consultation standards, international treaties, and tribal trust responsibilities. The Salmon FMP defers to NMFS consultation standards for salmon stocks listed under the ESA in regards to biological conservation objectives. The Council considers the ESA requirements sufficient to meet the intent of FMP conservation objectives for the annual management measures as well as the Magnuson-Stevens Act (MSA) overfishing provisions requiring rebuilding of depressed stocks to MSY levels. Section 4.0 of this document provides greater detail on ESA listed stocks, while impacts of the Council adopted salmon management measures on ESA listed stocks are included in Table 5.

The Salmon FMP requires compliance with relevant terms of the PST. Section 5.0 of this document provides greater detail on PST provisions and stocks, while impacts of the Council adopted salmon management measures on those stocks are included in Table 5.

Treaty trust responsibilities of the Salmon FMP require the Council to abide by Court orders in the *U.S. v. Washington* (Puget Sound), *Hoh v. Baldrige* (Washington coast), and *U.S. v. Oregon* (Columbia River) cases, and the Solicitor General opinion (Klamath River) governing allocation and management of shared salmon resources. Much of the North of Falcon forum is dedicated to annual negotiations establishing allocation among the tribes, non-Indian fishing sectors, and ocean and inside interests. The results of these negotiations allow the Council to complete final management measure recommendations while meeting its biological, administrative, and allocation objectives. Among the annual agreements reached by the co-managers in the North of Falcon forum are conservation objectives for Puget Sound and Washington coastal stocks. These objectives can supersede the Salmon FMP conservation objectives for annual management measures and for triggering a Conservation Alert; however, they cannot be used in place of the FMP objectives for determination of an Overfishing Concern, nor can they supersede ESA consultation standards. In recent years, the annual agreed-to conservation objectives for Puget Sound and Washington coastal coho have been based on the 2002 Pacific Salmon Commission (PSC) coho management agreement objectives.

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

The Yurok and Hoopa Valley tribes are entitled to 50 percent of the harvest of KRFC, which is calculated as a harvest of KRFC equal to that taken in all non-Indian fisheries. While the allocation of KRFC harvest is calculated on the basis of landed catch, the Council must account for all harvest impacts when assessing the achievement of KRFC conservation objectives.

In addition to the allocation objectives associated with sharing between treaty Indian and non-Indian sectors, the Salmon FMP includes formulas for sharing Chinook and coho quotas north of Cape Falcon between commercial and recreational sectors, and among recreational port areas, and for coho south of Cape Falcon between commercial and recreational sectors. The 2008 salmon management measures adopted by the Council meet the allocation requirements for fisheries north of Cape Falcon in the Salmon FMP. The allocation provisions for the area south of Cape Falcon are also met, although the available coho impacts are less than the minimum required for distribution of directed harvest to the commercial sector.

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

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

Species	ESU	Status	Federal Register Notice
Chinook Salmon ( <i>O. tshawytscha</i> )	Sacramento River Winter	Endangered	70 FR 37160 6/28/05
	Snake River Fall	Threatened	70 FR 37160 6/28/05
	Snake River Spring/Summer	Threatened	70 FR 37160 6/28/05
	Puget Sound	Threatened	70 FR 37160 6/28/05
	Lower Columbia River	Threatened	70 FR 37160 6/28/05
	Upper Willamette River	Threatened	70 FR 37160 6/28/05
	Upper Columbia River Spring	Endangered	70 FR 37160 6/28/05
	Central Valley Spring	Threatened	70 FR 37160 6/28/05
	California Coastal	Threatened	70 FR 37160 6/28/05
Chum Salmon ( <i>O. keta</i> )	Hood Canal Summer-Run	Threatened	70 FR 37160 6/28/05
	Columbia River	Threatened	70 FR 37160 6/28/05
Coho Salmon ( <i>O. kisutch</i> )	Central California Coastal	Endangered	70 FR 37160 6/28/05
	S. Oregon/ N. California Coastal	Threatened	70 FR 37160 6/28/05
	Oregon Coastal	Threatened	73 FR 7816 2/11/08
	Lower Columbia River	Threatened	70 FR 37160 6/28/05
Sockeye Salmon ( <i>O. nerka</i> )	Snake River	Endangered	70 FR 37160 6/28/05
	Ozette Lake	Threatened	70 FR 37160 6/28/05

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

Date	Evolutionarily Significant Unit covered and effective period
March 8, 1996	Snake River Chinook and sockeye (until reinitiated)
April 28, 1999	Southern Oregon/ Northern California coastal coho, Central California coastal coho (until reinitiated) <sup>1/</sup>
April 28, 2000	Central Valley spring Chinook (until reinitiated)
April 27, 2001	Hood Canal summer chum 4(d) limit (until reinitiated)
April 30, 2001	Upper Willamette Chinook, Upper Columbia spring Chinook, Lake Ozette sockeye, ten steelhead ESUs and Columbia River chum (until reinitiated)
April 27, 2004	Sacramento River winter Chinook (April 30, 2010)
March 4, 2005	Puget Sound Chinook (April 30, 2010)
June 13, 2005	California coastal Chinook (until reinitiated)
Expected Prior to May 1, 2008	Lower Columbia River natural coho, Lower Columbia River Chinook
Expected Prior to May 1, 2008	Oregon Coastal natural coho

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.

NMFS, in a letter received by the Council on February 26, 2008, provided guidance on protective measures for species listed under the ESA during the 2008 fishing season. The letter summarized the requirements of NMFS’ BOs on the effects of potential actions under the salmon FMP on listed salmon and provided the anticipated consultation standards of the BOs in preparation for the 2008 management season, as well as further guidance and recommendations for the 2008 management season.

The ESA consultation standards, exploitation rates, and other criteria, in place for the 2008 management season are presented in Table 5. Some listed stocks are either rarely caught in Council fisheries (e.g., spring Chinook from the upper Columbia River) or already receive sufficient protection from other salmon FMP and ESA standards (e.g., Central Valley spring Chinook). NMFS has determined that management actions designed to limit catch from these ESUs, beyond what will be provided by harvest constraints for other stocks, are not necessary.

Of the listed Chinook and coho, Council-managed fisheries have a significant impact on Sacramento River winter Chinook, Central Valley spring Chinook, California Coastal Chinook, Snake River fall Chinook, lower Columbia River fall Chinook, and all of the coho stocks. Additional listed salmonid ESUs found within the Council area, but not significantly impacted by Council managed fisheries, include:

Chinook

- |  |  |
|--|--|
| Snake River spring/summer (threatened) | Puget Sound (threatened)                 |
| Upper Willamette (threatened)          | Upper Columbia River spring (endangered) |

Sockeye

- |                          |                                  |
|--------------------------|----------------------------------|
| Snake River (endangered) | Ozette Lake Sockeye (threatened) |
|--------------------------|----------------------------------|

Chum

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

## Steelhead

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

## 5.0 OBLIGATIONS UNDER THE PACIFIC SALMON TREATY

### 5.1 Chinook Salmon Management

Under the 1999 PST Agreement, Council fisheries are subject to the individual stock based management (ISBM) provisions of Annex 4, Chapter 3. These provisions require the adult equivalent (AEQ) exploitation rate by all U.S. fisheries south of the U.S./Canada border be reduced by 40 percent from the 1979-1982 base period for Chinook stocks failing to achieve escapement goals adopted by the PSC.

Many Chinook stocks of concern to the Council are affected by fisheries off Canada and Alaska. Maximum allowable catches by aggregate abundance based management (AABM) fishery complexes off the West Coast Vancouver Island (WCVI), Northern British Columbia, and Southeast Alaska (SEAK) are determined through the annual calibration of the PSC Chinook Model. Canadian fisheries that are not included in AABM complexes are managed under ISBM constraints which require a 36.5 percent reduction in AEQ exploitation rates relative to the 1979-1982 base period on Chinook stocks that are not expected to achieve agreed MSY spawning escapement goals. Expectations for Canadian and Alaskan fisheries harvest and stock abundance forecasts are incorporated into 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 2008 include, (1) meeting domestic conservation obligations for WCVI, Strait of Georgia, and Fraser River stocks; (2) Chinook harvests by native fisheries; and (3) incidental impacts during commercial and native fisheries directed at pink (odd years), sockeye and chum salmon. It is anticipated that the details of the fishery regulatory package off WCVI will be driven by levels of allowable impact on WCVI, Lower Strait of Georgia, and Fraser River Chinook and Interior Fraser (Thompson River) coho.

### 5.2 Coho Salmon Management

In 2002, the PSC adopted a management plan for coho salmon originating in Washington and Southern British Columbia river systems. The plan is directed at the conservation of key management units, four from Southern British Columbia (Interior Fraser, Lower Fraser, Strait of Georgia Mainland, and Strait of Georgia Vancouver Island) and nine from Washington (Skagit, Stillaguamish, Snohomish, Hood Canal, Strait of Juan de Fuca, Quillayute, Hoh, Queets, and Grays Harbor). Exploitation rate limits for intercepting fisheries are established for individual management units through formulas specified in the 2002 PSC Coho Plan, and are based on total allowable fishery exploitation rates. Based on preseason abundance forecasts, total allowable exploitation rates for U.S. management units in 2008 are summarized in Table 5.

The categorical status of U.S. coho management units is reported to comply with obligations pursuant to the 2002 PSC Southern Coho Agreement. Categorical status is employed by the PST under the 2002 Coho Agreement 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 <20 percent), moderate (total exploitation rate 20-40 percent), and abundant (total exploitation rate >40 percent). For

the Puget Sound management units, the 2002 Coho Agreement uses the thresholds and stepped harvest rate goals from the Comprehensive Coho management plan, developed by Washington and the Puget Sound tribes. Actual exploitation rate constraints for Canadian fisheries on U.S. coho management units are determined by formulas that specify sharing of allowable exploitation rates and a “composite rule.” The composite rule adjusts constraints for Canadian fishery exploitation rates based on the number of U.S. management units which fall in a given category. For example, if only one Washington coastal coho management unit is in low status, Canadian fisheries are constrained to a total exploitation rate on that unit of 12 percent; if two or more Washington coastal management units are in low status, the constraint becomes 10 percent. The minimum allowable exploitation rate by Canadian fisheries on U.S. coho management units is 10 percent. Because all four of the Washington coastal coho stocks are in the low category, Canadian fisheries will be constrained to a 10 percent exploitation rate on Washington coastal stocks.

Some confusion may arise from the methods employed to report the categorical status for Washington coastal coho management units. For these units, a range is reported for the allowable exploitation rates based on the relationship between the pre-season abundance forecast and the upper and lower values of the spawning escapement ranges corresponding to MSY production. Maximum exploitation rates are computed using the lower end of the escapement range and minimum exploitation rates are computed using the upper end of the escapement range. For purposes of reporting the categorical status, an allowable exploitation rate is computed using the mid-point of the MSY escapement range. Based on this methodology, the allowable total exploitation rate for the Queets coho management unit is zero; consequently, the categorical status is “low.” However, this should not be interpreted to indicate that the maximum allowable exploitation rate on the Queets coho management unit is zero. The exploitation rate could be as high as 43 percent and still result in a spawning escapement within the MSY escapement range.

U.S. Management Unit	Total Exploitation Rate Constraint <sup>a/</sup>	Categorical Status <sup>b/</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>	0%-40% (0%)	Low
Hoh <sup>c/</sup>	0%-54% (20%)	Low
Queets <sup>c/</sup>	0%-43% (0%)	Low
Grays Harbor	17%	Low

a/ Preliminary, total mortality exploitation rate ceilings. Constraints will ultimately be determined through preseason planning processes. For Puget Sound management units, the exploitation rate constraints reflect application of draft Comprehensive Coho rules. For the Quillayute, Hoh, and Queets management units, exploitation rate constraints represent the potential range associated with escapement goal ranges (the values in parentheses reflect the exploitation rate associated with the mid-point of the spawning escapement goal range).

b/ Category titles correspond to the general exploitation rate ranges depicted in paragraph 3(a) of the 2002 PSC Coho Agreement or the exploitation rate status determinations exchanged during the negotiations that culminated in the 2002 Agreement. For Puget Sound management units, the categorical status categories reflect application of draft Comprehensive Coho rules. No formal status classification system has yet been developed for Washington coastal management units; the categorical status levels are based on exploitation rate values depicted in parentheses.

c/ For Washington Coastal coho management units, spawning escapement ranges correspond to estimates for MSY escapements. The exploitation rate ranges for these management units are based on preseason abundance forecasts and the upper and lower ends of the ranges. Maximum exploitation rates are computed using the lower end of the escapement range; minimum exploitation rates are computed using the upper end of the escapement range. The categorical status is determined based on the mid-point of the escapement range. Note that the exploitation rates used to report categorical status do not represent maximum allowable rates for the management units.

Key considerations for Canadian fishery management for coho in 2008 are expected to include, (1) meeting domestic conservation obligations for Interior Fraser (including Thompson River) coho; (2) coho

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

The projected status of Canadian coho management units in 2008 indicates continuing concerns for the condition of Interior Fraser coho. The Interior Fraser coho management unit is anticipated to remain in *low* status, resulting in a requirement to constrain the total mortality fishery exploitation rate for all 2008 U.S. fisheries south of the U.S./Canada border to a maximum of 10.0 percent.

## **6.0 CHINOOK SALMON MANAGEMENT**

### **6.1 South of Cape Falcon**

Chinook salmon management south of Cape Falcon has typically been predicated on the Central Valley Index (CVI) and KRFC stock abundance forecasts. However, concern over a very low CVI forecast for 2008 led to the development of an alternative abundance forecast and harvest model based specifically on SRFC. The abundance forecast and harvest model are confined to the area south of Cape Falcon (see Preseason Report II for a description of the Sacramento Index (SI), the SI predictor, and the Sacramento Harvest Model (SHM)). 2008 abundance projections relevant to Chinook harvest management south of Cape Falcon are:

- *SRFC*. The SI forecast is 54,600 SRFC adults. This forecast value is less than one quarter of the lowest observed SI on record.
- *KRFC*. The 2008 age-3 forecast is 31,600 fish; the lowest forecast on record. In contrast, the age-4 forecast of 157,200 is above average. The age-5 forecast is 1,900 fish. For comparison, the 2007 preseason forecast was 515,400 age-3, 26,100 age-4, and 4,700 age-5 fish.
- *Oregon Coastal Chinook*. Quantitative abundance predictions are not made for these stocks for use in annual development of Council area fishery regulations. Qualitative expectations of abundance are based on parental year spawner escapements recent trends in abundance, and hatchery indicator stock data used in the PSC management process.

#### **6.1.1 Objectives**

Key Chinook salmon management objectives shaping the adopted management measures south of Cape Falcon were:

- *SRFC*. Conservation Alert triggered by a forecast escapement of 59,100 adult spawners in the absence of further fishing south of Cape Falcon, which falls short of the spawning escapement goal of 122,000–180,000 adults (FMP conservation objective). The value 59,100 differs from the value published in Preseason Report II (58,200) which accounted for anticipated impacts from a Sacramento River catch-and-release fishery, however it is now expected that this fishery will be closed. The SI forecast is lower than the forecast spawner escapement because the SI, as currently defined, represents the spawning escapement expected if ocean salmon fisheries south of Cape Falcon are closed between September 1, 2007 and August 31, 2008 and the Sacramento River fishery for fall

Chinook is open. Because it is now expected that the Sacramento River fishery for fall Chinook will be closed, the forecast spawner escapement exceeds the SI forecast.

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 4.0 above. Relevant stocks for the area south of Cape Falcon include Sacramento River winter Chinook, California Coastal Chinook, Snake River fall Chinook, and lower Columbia River natural tule Chinook.
- *KRFC*. Natural area spawning escapement of at least 40,700 adults (2008 Council guidance) and spawner reduction rate not to exceed 66.7 percent (FMP conservation objective), 50:50 tribal:non-tribal sharing of adult harvest (Department of Interior Solicitor Opinion).
- *Oregon Coastal Chinook*. An escapement of 150,000-200,000 naturally spawning adults represented by 60-90 naturally spawning adults per mile in nine standard index streams (FMP conservation objective) and compliance with PSC ISBM indices for Nehalem, Siletz, and Siuslaw fall Chinook. The FMP objective specifies a postseason evaluation of the index, and no quantitative preseason forecast has been developed for this index.

### 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 are summarized in Table 6. Table 7 provides a breakdown of impacts by fishery and area for LCR tule Chinook.

- *SRFC*. The SRFC conservation objective of 122,000–180,000 adult spawners is not met under the adopted management measures, nor could it be met with no harvest impacts in 2008. Projected escapement is 59,000 adults. The egg-take goals in Sacramento Basin hatcheries are not expected to be met. The difference between the absent further fishing escapement of 59,100 and the projected escapement of 59,000 under the adopted management measures results from SRFC bycatch mortality in the coho mark selective fishery.
- *Oregon Coastal Chinook*. Council-area fisheries have a minor impact on central and north Oregon coastal Chinook stocks and negligible impacts on most Chinook stocks subject to the 1999 PST Agreement. The adopted management measures are not expected to affect compliance with FMP conservation objective for these stocks, which is unlikely to be met in 2008. The adopted management measures, combined with freshwater fishery management measures implemented by ODFW, are expected to achieve compliance with PSC ISBM indices for Nehalem, Siletz, and Siuslaw fall Chinook.

The adopted management measures, which close all Chinook directed fisheries south of Cape Falcon, satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for other relevant stocks listed in Table 5 except for SFRC. Because SRFC are projected to fall short of their spawning escapement objective, the FMP and NMFS guidance requires all salmon fisheries in this area to be either closed or implemented by emergency rule. Compliance for the Oregon coastal Chinook conservation objective will be evaluated postseason as indicated in the FMP.

## 6.2 North of Cape Falcon

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

- *Columbia Lower River Wild.* The 2008 ocean escapement prediction for Columbia Lower River wild fall Chinook (LRW) is 3,800, down from the preseason forecast of 10,100 in 2007 and below the MSY spawner goal of 5,700 for North Fork Lewis River fall Chinook (NMFS ESA consultation standard).
- *Columbia River hatchery tules.* Combined production of Lower River Hatchery (LRH) and Spring Creek Hatchery (SCH) stocks is predicted to be 90 percent greater than the 2007 preseason expectations. The 2008 LRH forecast abundance is 59,000, up slightly from 54,900 in 2007. The 2008 SCH forecast abundance is 87,200, which is four times greater than the 21,800 forecast in 2007.

### 6.2.1 Objectives

The key Chinook salmon management objectives shaping the adopted management measures north of Cape Falcon were:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 5.0 above. Relevant stocks for the area north of Cape Falcon include LRW fall Chinook, Lower Columbia River (LCR) natural tule Chinook, Snake River fall Chinook, and Puget Sound natural Chinook.
- *Columbia Lower River wild fall Chinook.* Spawning escapement goal of 5,700 (NMFS ESA consultation standard) for North Lewis River fall Chinook. NMFS guidance for 2008 does not require any additional constraints in Council area fisheries to increase LRW escapement; however, WDFW objectives include managing southern U.S. ocean and inriver fisheries to achieve an AEQ exploitation rate of no more than 10.0 percent on LRW Chinook.
- *Puget Sound Chinook.* Fishery impacts on Puget Sound Chinook are managed in accordance with a Resource Management Plan (RMP) developed by Washington Department of Fish and Wildlife and Puget Sound Treaty Tribes, and approved by NMFS under Limit 6 of section 4(d) of the ESA. The RMP prescribes allowable fishery impacts depending on individual stock status (NMFS ESA guidance).

### 6.2.2 Achievement of Objectives

Fishery quotas under the adopted management measures are presented in Table 4. Stock-specific management criteria and their forecast values are provided in Table 5. Projected fishery landings, bycatch, and bycatch mortality are summarized in Table 6. Table 7 provides a breakdown of impacts by fishery and area for LCR tule Chinook.

- *Columbia Lower River Wild.* The adopted management measures result in spawning escapement projections that fail to meet the 5,700 MSY spawning escapement objective in the North Fork Lewis River (NMFS ESA consultation standard); however all options do result in a southern U.S. AEQ exploitation rate of less than 10.0 percent on LRW Chinook (WDFW objective when a stock is projected to fall below its spawning escapement objective).

- *Columbia Lower River Natural tule fall Chinook.* Because of the WDFW objective for LRW Chinook and ESA constraints on LCN and OCN coho, LCR tules did not constrain fisheries north of Cape Falcon in 2008.
- *Snake River wild fall Chinook.* Because of the WDFW objective for LRW Chinook and ESA constraints on LCN and OCN coho, SRW Chinook did not constrain fisheries north of Cape Falcon in 2008.
- *Puget Sound Chinook.* The adopted management measures are expected to achieve compliance with NMFS consultation standards for the Puget Sound Chinook ESU.

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

## 7.0 COHO SALMON MANAGEMENT

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

- *Oregon Coastal Natural (OCN) coho.* The OCN forecast of 60,000 is 23 percent of the 2007 preseason forecast of 255,400.
- *OPI Hatchery coho.* The 2008 forecast for hatchery coho from the Columbia River and the coast south of Cape Falcon of 216,100 is 36 percent of the 2007 forecast of 593,600. The Columbia River early coho forecast is 26 percent of the 2007 forecast and the Columbia River late coho forecast is 62 percent of the 2007 forecast.
- *Lower Columbia River Natural (LCN) coho.* The 2008 LCN forecast is 13,400 adults returning to the mouth of the Columbia River, compared to a preseason forecast of 21,500 in 2008.
- *Puget Sound coho.* The adopted management measures result in a predicted Hood Canal coho spawning escapement below the FMP conservation objective. However this stock, along with other Puget Sound coho stocks, is subject to the provisions of the 2002 PSC coho agreement, which permits harvest at specified rates based on annual stock status classification.
- *Interior Fraser (Thompson River) coho.* This Canadian stock continues to be depressed, however due to constraints for LCN and OCN coho, this stock did not limit 2008 ocean coho fisheries north of Cape Falcon.

### 7.1 Objectives

Key coho salmon management objectives shaping the adopted management measures were:

- NMFS consultation standards and annual guidance for ESA listed stocks as provided in Section 4.0 above. Relevant stocks include Central California Coast coho (south of the Oregon/California border), Southern Oregon/Northern California coho, Oregon coastal natural coho, and lower Columbia River natural coho. Based on this guidance, the maximum allowable exploitation rates are: a combined marine/freshwater exploitation rate not to exceed 8.0 percent for OCN coho, a combined exploitation rate in Council-area and mainstem Columbia River fisheries not to exceed 8.0 percent for Lower Columbia River natural coho, and a marine exploitation rate not to exceed 13.0 percent for Southern Oregon/Northern California coho.

- Terms and requirements of the 2002 PSC coho agreement for stocks originating along the Washington coast, Puget Sound, and British Columbia as provided in Section 5.2 above. The only relevant stock for the area north of Cape Falcon in 2008 was Hood Canal coho.
- Minimum escapement of 50 percent of Upper Columbia coho above Bonneville Dam (*U.S. v. Oregon* annual management agreement).
- Providing sufficient escapement of Columbia River early and late coho to meet hatchery egg take goals and inriver harvest impacts.

## 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 Rogue/Klamath (RK) coho. Table 8 provides expected coho mark rates for west coast fisheries by month.

- *Lower Columbia River natural coho.* The adopted management measures satisfy the maximum 8.0 percent exploitation rate, with a Council area marine exploitation rate of 6.0 percent, and a total exploitation rate of 8.0 percent.
- *Hood Canal coho.* Although the 45 percent exploitation rate ceiling is met, the adopted management measures fail to meet the 21,500 spawner escapement goal set in the FMP. However, the FMP goal is not a constraint in 2008, as annual management goals are allowed under the FMP if they are agreed to by the parties of *U.S. v. Washington*.

The adopted management measures satisfy NMFS ESA consultation standards and guidance, FMP conservation objectives, and all other objectives for other relevant stocks listed in Table 5 except for SRFC. Because SRFC are projected to fall short of their spawning escapement objective, the FMP and NMFS guidance requires all salmon fisheries south of Cape Falcon to be either closed or implemented by emergency rule.

## 8.0 **IMPORTANT FEATURES OF THE OPTIONS**

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

### 8.1 *Commercial*

Chinook fisheries south of Cape Falcon are closed for 2008 due to the current status of SRFC, which has triggered a Conservation Alert. The FMP requires closing Council area salmon fisheries impacting the stock, unless permitted by an emergency rule.

The Adopted management measures do not allow for any Chinook harvest, or the experimental non-retention genetic stock identification (GSI) study, from Cape Falcon to the U.S./Mexico border May 1 through August 31.

There are no fall 2008 fishing seasons under the adopted management measures primarily to reduce impacts on SRFC and the depressed 2005 brood of KRFC, but also to comply with the proposed rebuilding strategy for KRFC.

The adopted management measures include potential openings for commercial fisheries in the Cape Falcon to OR/CA border area beginning March 15, 2009. Those openings can be modified by inseason action at the March 2009 Council meeting.

The adopted management measures for the area north of Cape Falcon are generally similar in structure to seasons in recent years, although coho quotas are substantially lower, reflecting both the reduced abundance of Oregon Production Index (OPI) coho stocks, and the more conservative 8.0 percent exploitation rate ceiling for LCN coho specified in the NMFS guidance for 2008.

In 2008, the portion of the commercial Chinook total allowable catch (TAC) allocated to the May-June fishery was reduced from the standard 67 percent to 59 percent to reduce impacts on coho released during this fishery. This shift of Chinook to the summer fishery also provides a buffer to the overall troll fishery quota should unexpectedly high effort shifts occur in May and June from the south of Cape Falcon troll fleet. Landing limits were reduced compared with 2007 to allow inseason management of the fishery should high effort shifts occur.

A mandatory yelloweye rockfish conservation area closure was added in 2007 to the permanent salmon regulations (50 CFR 660.405) as part of NMFS regulations to implement Amendment 16-4 to the Groundfish FMP (71 FR 78638, December 29, 2006.). The closure prohibits commercial salmon trolling 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. The area also overlaps part of the "C-Shaped" yelloweye rockfish conservation area (YRCA), designated as an area for salmon trollers to voluntarily avoid, which has been in place since 2003.

## **8.2 Recreational**

Chinook fisheries south of Cape Falcon are closed for the remainder of 2008 due to the current status of SRFC. They are currently scheduled to re-open March 15, 2009 in the areas between Cape Falcon and Humbug Mountain, and no earlier than May 1, 2009 in the areas south of Humbug Mountain.

The March 15, 2009 opening can be modified by inseason action at the March 2009 Council meeting.

The Cape Falcon to Oregon/California border mark-selective coho fishery will be the only recreational salmon opportunity south of Cape Falcon in 2008, but will require implementation by emergency rule.

The adopted management measures north of Cape Falcon provide for Chinook-directed fisheries in all four management areas beginning the first week of June with coho non-retention. The intent of these early season fisheries is to provide opportunity for Chinook, recognizing that coho quotas will be unusually small in 2008 and may limit access once the all-species fisheries open.

During the Chinook-directed fisheries, the subareas north of Leadbetter Point are open five days per week to extend the season through the month of June. The area south of Leadbetter Point is open seven days per week because Chinook catch rates are generally lower in that area. The estimated coho bycatch mortality during these fisheries was subtracted from the overall recreational coho TAC.

In the all-species recreational fishery, all four subareas north of Cape Falcon are open five days per week only. The intent of the five day per week option is to prolong the season.

An area 4B add-on fishery of 4,000 marked coho is included due to the increased likelihood of north of Cape Falcon recreational fisheries exhausting allowable coho impacts prior to Labor Day. The framework plan allocates 17.3 percent of the value of the 4B add on fishery to the Westport area and 1.2 percent of the value of the 4B add on fishery to the La Push area, with a deduction of 18.5 percent of the Neah Bay area ocean coho quota. However, as allowed in the FMP, port representatives agreed to deviate from the allocation plan in 2008, and provided the 1.2 percent increase to the La Push area but allowed the Neah Bay area to retain the remainder of its ocean fishery coho subarea quota with no distribution to the Westport area. The intent of this action was to provide port equity in estimated fishing season length.

### **8.3 *Treaty Indian***

The adopted management measures are generally similar in structure as in recent years, although coho quotas are substantially lower, reflecting both the reduced abundance of OPI stocks in general, and specifically the more conservative standard for LCN coho specified in the NMFS guidance for 2008.

## **9.0 SOCIOECONOMIC IMPACTS OF COUNCIL ADOPTED MANAGEMENT MEASURES**

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

The primary purpose of the economic tables is to illustrate how relative economic opportunity varies under Council adopted regulations as compared to the previous year. Therefore, the modeling for these tables uses 2007 seasons and effort patterns rather than a longer term average. Where no 2007 effort is available for a particular month and area, effort from a previous year is substituted. The Oregon south of Cape Falcon recreational selective coho fishery was modeled assuming the effort will respond to take the entire available quota. To the degree that this effort response does not occur, the values provided will be an overestimate. Additionally, last year's prices have been assumed to be the best estimator of prices expected in the coming season. The 2007 commercial prices (along with 2006) were at record high levels. The 2008 season is even more restrictive than 2007 and therefore 2007 prices should be a good approximation or may underestimate the price per pound received due to the limited local supply of salmon and therefore the estimates provided may understate expected salmon exvessel revenue.

Figures 1 and 2 show estimated coastal community income impacts for the Council adopted commercial troll and recreational regulations, respectively, compared to historic impacts in real (inflation adjusted) dollars.

In general, income impact estimates provide information on the amount of income associated with a particular activity. Reductions in income impacts may, but do not necessarily, reflect net losses to a community but likely correlate with losses to those businesses and individuals with income dependence on the activity. Additionally, in some cases, reductions in ocean harvest may result in either greater inside fishing opportunity or escapement which may contribute to future production, depending on the carrying capacity of the system to which the stocks are escaping.

In the past, some of the catch in the all-species fishery north of Cape Falcon has been landed south of Cape Falcon. Therefore, even though there will not be a fishery south of Cape Falcon some landings are projected for the Cape Falcon to Humbug Mountain area. Table 9 shows projected exvessel value by catch area and Figure 3 displays estimates of income impacts by landing area.

It appears that the North of Cape Falcon recreational fishery will be quota limited rather than season limited. The 2008 recreational season north of Cape Falcon is significantly restricted compared to 2007 and especially compared to the recent five year average, it is expected that all open areas will meet their quotas. South of Cape Falcon the only 2008 recreational fisheries are the February-March opening off Fort Bragg (closed early through inseason action) and the selective coho fishery scheduled this summer off the Oregon coast. Economic estimates for these fisheries are provided in Table 10 and Figure 4.