



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Region  
7600 Sand Point Way N.E., Bldg. 1  
Seattle, WA 98115

March 3, 2009

Mr. Donald K. Hansen, Chairman  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 200  
Portland, Oregon 97220-1384

Dear Mr. Hansen:

The Pacific Coast Salmon Fishery Management Plan (Salmon FMP) requires that the Pacific Fishery Management Council (Council) manage their fisheries consistent with consultation standards developed by the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) regarding actions necessary to protect species listed under the Endangered Species Act (ESA). This letter summarizes NOAA Fisheries' consultation standards and provides guidance regarding the effects of the 2009 season on listed species. The letter comments briefly on a proposal for a Scientific Research Permit to collect information on the stock composition of Chinook salmon using genetic stock identification (GSI) techniques. Because of the circumstances this year, this letter also comments on the status of unlisted Sacramento River fall Chinook and Klamath River fall Chinook and the related effects on fisheries.

### **Genetic Stock Identification Sampling Proposal**

On February 5, 2009, the NOAA Fisheries Northwest and Southwest Fisheries Science Centers submitted a request to the NOAA Fisheries Northwest Region for a Scientific Research Permit (SRP) to conduct sampling of Chinook salmon in closed times and areas off the West Coast in 2009 (a copy of this memo, including a description of the research plan, is provided in the March 2009 PFMC briefing book). While the principal investigators for the scientific research are the NWFS and SWFS, the overall effort is part of the West Coast Salmon Genetic Stock Identification Collaboration (WCGSI), a partnership of west coast fishermen's organizations, universities, states, tribes, and NOAA Fisheries, formed in 2006 to explore potential uses of GSI for west coast salmon fisheries management. The specific amount of sampling authorized under the NOAA Fisheries SRP will be determined by the seasons set and impacts allowed as determined through the PFMC's 2009 preseason planning process for salmon fisheries. The memo describes three proposed sampling plans with varying levels of impacts. Any sampling that occurs within open seasons and areas would be conducted within, and consistent with, the 2009 regulations; any sampling within closed seasons and areas would be permitted under the SRP and consistent with the preseason analyses.

There are differing opinions about the potential applications of GSI data for fisheries management, as well as the feasibility and cost of collecting and incorporating such data in the long-term. However, without a sufficient baseline of GSI data with which to perform analyses and test some of the hypotheses, the potential benefits and/or shortcomings of incorporating GSI data cannot be determined. For this reason, NOAA Fisheries recommends that the Council consider providing some opportunity for sampling to begin building a database to perform the



analyses. NOAA Fisheries encourages communication between scientists, advisory committees, and the Council to help direct development of GSI technologies to best serve the needs of the Council.

## **CHINOOK SALMON**

### **Sacramento River Fall Chinook**

The conservation objective for Sacramento River fall Chinook requires an escapement of 122,000-180,000 adult spawners to hatcheries and natural areas. The 2008 escapement of approximately 66,300 adult spawners represented the lowest escapement on record and the second year in a row that the conservation objective was not met. Preliminary indications based on the escapement of age-2 fish in 2008 are that the 2009 projected ocean abundance will be higher than the estimated ocean abundance observed last year, yet substantially lower than abundances from 1983-2007. Sacramento River fall Chinook are the primary stock contributing to ocean fisheries off California and Oregon with little else present except Klamath River Chinook and ESA listed stocks that are all depressed and have constrained fisheries in recent years. Available information suggests that impacts to Sacramento River fall Chinook in North of Falcon fisheries are low, and therefore will not constrain those northern fisheries. These circumstances have already come to the Council's attention and will obviously be key to our preseason planning process. However, rather than presuming some course of action based on preliminary information, it is appropriate to await further information that will be developed through the Council process over the next few weeks.

As noted above, Sacramento River fall Chinook stock did not meet its conservation objective in 2007 or 2008. The 2009 preseason forecast of the Sacramento Index is extremely close to the lower bound of the escapement goal range for the stock. If the 2009 escapement is below the conservation objective, this will trigger a conservation alert under the Salmon FMP and indicate that the stock is approaching an overfishing concern. This would require that the Council direct a formal assessment of the factors that contributed to the escapement shortfall.

These circumstances also highlight the need for further discussion with the Council about how and when we make determinations that a stock is approaching an overfished condition or is overfished. This same issue came up recently in our discussion related to the status of Klamath River fall Chinook, but is symptomatic of what we see as a general problem. In our view, the FMP does not provide clear criteria for making the necessary stock status determinations. This is a problem we hope to address when the salmon plan is amended for consistency with the annual catch limit requirements, but we also need to discuss how we will make status determinations in the meantime.

### **Klamath River Fall Chinook**

The conservation objective for Klamath River fall Chinook (KRFC) requires a long-term average escapement of 33-34% of potential adult natural spawners, but no fewer than 35,000 naturally spawning adults in any one year. KRFC did not meet its conservation objective in 2004, 2005, and 2006, triggering an overfishing concern under the FMP. Pursuant to the FMP the Council directed the Salmon Technical Team (STT) to review the causes of the escapement shortfall and provide appropriate recommendations. Based on a STT report, the Council submitted recommendations to NOAA Fisheries in June 2008 that proposed to end the overfishing concern

and management measures to implement during rebuilding. NOAA Fisheries is preparing the NEPA analysis and will publish the proposed rebuilding plan for public comment in early 2009. The Council's recommendations for dealing with the overfishing concern include a number of provisions. Those that relate directly to how the Council will manage ocean fisheries for KRFC include:

- Consider the overfishing concern of KRFC ended when a natural area spawning escapement of at least 35,000 adults is achieved in three out of four consecutive years or when a natural area spawning escapement of at least 40,700 adult KRFC (the adopted estimate of the maximum sustainable yield level of adult spawners, SMSY) is achieved in two consecutive years.
- Target a natural spawning escapement of 40,700 adult KRFC until the overfishing concern is ended. When implementing de minimis fisheries during the period the overfishing concern is in effect, provide for an age-4 ocean impact rate of no more than 10 percent when preseason stock abundance forecasts result in pre-fishing spawning escapement projections of less than about 54,000.
- Restrict fall marine fishing opportunity in areas impacting KRFC abundance during periods the Overfishing Concern is in effect.

The natural-area escapement of KRFC in 2007 was 60,700, but there was a shortfall again in 2008. Ocean fishery impacts on KRFC in the 2008 management year occurred primarily during fall 2007 fisheries, since winter/spring/summer Chinook fisheries in 2008 were nearly all closed due to Sacramento River fall Chinook. Despite the fishery limitations, the natural-area spawner escapement floor was not met in 2008; the estimated 2008 natural-area escapement was approximately 30,900 adults.

A partial explanation for the failure of KRFC to exceed the spawner escapement floor in 2008 is due to the lower than expected age-4 return. The age-3 return was weak as expected, but the age-2 return was very strong. Based on the 2008 returns, the forecast for 2009 is mixed: a weak age-4 component coupled with a strong age-3 component. Because the criteria recommended by the Council for ending the overfishing concern have not been met, fisheries should be managed in 2009 consistent with the recommended rebuilding plan to target a natural spawning escapement of 40,700.

#### **California Coastal Chinook Salmon**

California Coastal (CC) Chinook salmon are listed as threatened under the ESA. The 2000 biological opinion on CC Chinook identified KRFC as the best available indicator stock for estimating and limiting ocean harvest impacts on CC Chinook populations, and the 2005 reinitiation of consultation on CC Chinook reaffirmed the requirement that management measures be designed such that the KRFC age-4 ocean harvest rate forecast not exceed 16%.

#### **Sacramento River Winter Chinook Salmon**

In 2004, NOAA Fisheries issued a biological assessment and biological opinion, in which it proposed to promulgate fishery management measures for the ocean salmon fisheries off Washington, Oregon and California commencing annually on May 1, 2004 and ending April 30, 2010, which include the following conservation objectives for Sacramento River Winter Chinook:

Recreational Seasons South of Point Arena, CA: The recreational season between Point Arena and Pigeon Point shall open no earlier than the first Saturday in April and close no later than the second Sunday in November; the recreational season between Pigeon Point and the U.S.-Mexico Border shall open no earlier than the first Saturday in April and close no later than the first Sunday in October. The minimum size limit shall be at least 20 inches total length.

Commercial Seasons South of Point Arena, CA: Commercial seasons between Point Arena and the U.S.-Mexico border shall open no earlier than May 1 and close no later than September 30, with the exception of an October season conducted Monday through Friday between Point Reyes and Point San Pedro, which shall end no later than October 15. The minimum size limit shall be at least 26 inches total length.

These measures, which NOAA Fisheries believes will avoid jeopardizing the continued existence of winter Chinook, are in addition to measures specified by the FMP or required by NOAA Fisheries' biological opinions for other listed salmon stocks. Since 1998, the California Department of Fish and Game and the Council have recommended certain terminal gear restrictions, including the use of circle hooks while mooching in the recreational fishery between Horse Mountain and Point Conception, CA, which are designed to reduce hook and release mortality. Those restrictions should continue.

As indicated above, the term of the current biological opinion related to Sacramento winter Chinook expires on April 30, 2010. NOAA Fisheries will therefore be reviewing the available information and completing a new opinion regarding the effects of the Council's fisheries on the ESU. We expect to complete that opinion in time to provide the necessary guidance for the 2010 fishery planning cycle.

### **Central Valley Spring Chinook Salmon**

The Central Valley spring Chinook Evolutionarily Significant Unit (ESU) was first listed as threatened in 1999. NOAA Fisheries' April 18, 2000, biological opinion on the effects of ocean harvest on Central Valley spring Chinook and California Coastal Chinook, concluded that ocean salmon fisheries, as regulated under the Salmon FMP and NOAA Fisheries consultation standards for Sacramento River winter-run Chinook, were not likely to jeopardize the continued existence of Central Valley spring Chinook. After the consultation was completed, the abundance of Central Valley spring Chinook increased significantly with the combined spawning escapement to Deer, Mill, and Butte creeks from 2001 to 2005 averaging 19,500 fish. The number of spring Chinook spawners has since tapered off with combined escapements to those same creeks of approximately 10,700, 9,000, and 11,900 in 2006, 2007, and 2008, respectively. Although these escapements are lower than those observed in the previous five year period, they are still higher than escapements generally observed prior to 1998. The trend is also coincident with a much broader salmon decline observed in California and Oregon, which makes a basin-specific cause appear unlikely at this point. Therefore, although NOAA Fisheries intends to monitor this stock closely in the near future with the aim of avoiding any continued decline, we have determined that no further actions are required to supplement those specified in the 2000 biological opinion.

**Lower Columbia River Chinook Salmon**

The Lower Columbia River (LCR) Chinook ESU is one of several listed ESUs in this region that has been the focus in recent years of intensive recovery planning efforts in Washington and Oregon. These efforts have included planning and some initial on-the-ground implementation of habitat restoration and hatchery reform measures, all directed at improving over time the status of listed salmon ESUs in the Lower Columbia River. Meanwhile, NOAA Fisheries has been providing harvest management guidance on a year-by-year basis for LCR Chinook. Given the progress in recovery planning, NOAA Fisheries believes the opportunity now has arrived to identify a longer-term approach to harvest management that will ensure that exploitation rates *over time* are properly aligned with recovery objectives under anticipated levels of improved productivity resulting from implementation of recovery actions. NOAA Fisheries is calling upon itself and other co-managers and recovery planners to review and update recovery planning strategies and objectives to ensure that the level of information provided is sufficient to support a multi-year harvest management regime beginning in 2010.

In 2009 we will continue to operate consistent with the theme of ongoing transition; the harvest management guidance provided below will therefore apply only to the 2009 fishing season. NOAA Fisheries will work with co-managers and recovery planners over the next year to identify and/or clarify multi-year expectations related to all factors affecting listed LCR salmon ESUs. NOAA Fisheries is currently reviewing a draft of Oregon's recovery plan which will eventually be integrated with Washington's previously completed interim regional recovery plan, which itself is undergoing review. The ultimate result will be a comprehensive recovery plan that sets the broader context within which a longer-term harvest management approach can be implemented and thus enable NOAA Fisheries to develop a multi-year biological opinion for harvest in 2010 and beyond. A multi-year approach to harvest management of LCR Chinook will reduce uncertainty associated with recovery of ESA listed populations, allow managers to better anticipate and sustain adjustments based upon monitoring results, and add predictability to recreational, commercial and tribal fisheries subject to the biological opinion during the recovery period.

NOAA Fisheries recognizes and shares the co-managers' goal of achieving survival and recovery of the species while providing, to the degree possible, opportunities to harvest surplus hatchery fish and other fish from healthy natural populations. We also recognize that harvest has been reduced significantly over the last several years. Whether further reductions will be required depends on the final outcome of the review and planning process, the extent to which commitments for future hatchery and habitat actions are met, and ultimately on the overall effectiveness of the actions at providing the survival improvements necessary to achieve recovery. Completing the work described above will provide a plan for the future and the basis for a biological opinion in 2010 that we envision will set harvest limits for the next several years. In keeping with this intent, NOAA Fisheries looks forward to working with other co-managers during calendar year 2009 to ensure a solid foundation for the multi-year harvest BO. This will likely involve augmenting existing analyses to compare the sensitivity of projected outcomes across a range of habitat productivity and capacity, hatchery reform and harvest expectations. Through a comparison of expected outcomes, decision makers should be able to weigh the benefits at the ESU scale of a particular harvest approach against the costs across all sectors.

As part of this effort, NOAA Fisheries expects near-term and medium-term milestones associated with an updated recovery strategy for the Lower Columbia River to be identified so that they may be included in the 2010 consultation standards for Council-managed fisheries and used in support of the multi-year BO for those fisheries.

In this and the following paragraphs, NOAA Fisheries addresses the circumstances and provides guidance relevant to the management of fisheries in 2009. The Lower Columbia River (LCR) Chinook ESU is comprised of a spring component, a “far-north” migrating bright component, and a component of north migrating tules. The bright and tule components both have fall run timing. The four extant spring stocks within the ESU include those in the Cowlitz, Kalama, and Lewis rivers on the Washington side, and in the Sandy River on the Oregon side. The historic habitat for the spring Chinook stocks on the Washington side is now largely inaccessible to salmon due to impassable dams. The remaining spring stocks are therefore dependent, for the time being, on the associated hatchery production programs. The Lower Columbia Salmon Recovery Plan (LCSRP)<sup>1</sup> specifies actions to be taken to facilitate recovery of spring Chinook populations. The Cowlitz and Lewis hatcheries are being used, for example, for reintroduction of spring Chinook into the upper basin areas above existing dams. A supplementation program is being developed for the Kalama population. Spring Chinook in the Sandy River are also managed with an integrated hatchery supplementation program. Maintaining the hatchery brood stock is therefore essential for implementation of specified recovery actions. The hatcheries have met their escapement objectives in recent years, and are expected to do so again in 2009, thus ensuring that what remains of the genetic legacy is preserved and can be used to advance recovery. NOAA Fisheries expects that the management agencies will continue to manage in-river fisheries to meet hatchery escapement goals, but no additional management constraints on Council fisheries are considered necessary.

Two extant natural-origin bright populations have been identified in the LCR Chinook ESU: the North Fork Lewis River and Sandy River populations. The North Fork Lewis River population is used as a harvest indicator for ocean and in-river fisheries. The escapement goal used for management purposes for this population is 5,700, based on estimates of maximum sustained yield derived from spawner-recruit analysis. The escapement was below goal in 1998, 1999, 2007 and 2008, but has otherwise exceeded the goal by a wide margin in every year since at least 1980. The escapement shortfall in 1998 and 1999 were generally attributed to severe flooding events during the parent years; the shortfall in 2007 and 2008 is consistent with a pattern of low escapements for other far-north migrating stocks in the region and can likely be attributed to poor ocean conditions. The Sandy River population is considered at low risk and viable under current harvest conditions. Given the long history of healthy returns, and other management constraints that will be in place this year, NOAA Fisheries does not anticipate the need to take specific management actions in the ocean to protect the bright component of the LCR Chinook ESU in 2009.

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<sup>1</sup>This plan was developed by Washington's Lower Columbia Fish Recovery Board. In February 2006, NOAA Fisheries approved the plan as an Interim Regional Recovery Plan. Such a plan is intended to lead to an ESA recovery plan but is not yet complete, in this case because it addresses only a portion of the Lower Columbia River ESUs. NOAA Fisheries endorses use of the plan until a final plan covering the full ESUs is complete. Work is underway to complete a plan for the remaining portions of the Lower Columbia ESUs and a final ESA plan is expected by the end of 2009. For additional information, see <http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Willamette-Lower-Columbia/Interim-Recovery.cfm>

NOAA Fisheries does expect that the states of Washington and Oregon will continue to monitor the status of the LCR bright populations and take appropriate actions through their usual authorities to deliver spawning escapement through the fisheries they manage sufficient to maintain the health of these populations.

The 2004 Lower Columbia River Salmon Recovery Plan identified twenty one separate populations within the tule component of this ESU. Unlike the spring or bright populations of the ESU, LCR tule populations are caught in large numbers in Council fisheries, as well as fisheries to the north and in the Columbia River. Beginning in 1999 when LCR Chinook were first listed, the Coweeman population has been used as the indicator stock for managing the tule component of the LCR Chinook ESU. The Coweeman population is unusual among LCR tule populations in that there is a relatively long time series of escapement data and the population is thought not to have been greatly affected by out-of-basin hatchery straying, thus providing the biological data necessary to calculate a Rebuilding Exploitation Rate (RER) without the confounding considerations of hatchery strays. Based on initial analysis of these data, NOAA Fisheries advised the Council to limit the exploitation rate on Coweeman fall Chinook to 49%, inclusive of all fisheries. This 49% Coweeman-based standard was applied from 2002 to 2006.

Since at least 2006, harvest management for LCR Chinook tule populations has been in a continuing state of change. As noted above, NOAA Fisheries and the co-managers have been developing and incrementally implementing a comprehensive management and recovery strategy that seeks to better integrate harvest, hatchery, and habitat reforms and actions. The harvest component of this evolving strategy has been informed by these efforts as well as the efforts of a work group convened by NOAA Fisheries specifically to advance our understanding of population status and the effects of harvest on LCR tule populations. It has also been informed by ongoing recovery planning, contemporaneous analyses by the Hatchery and Scientific Review Group (HSRG), and the continuing identification, development and/or refinement of actions needed to improve habitat conditions. We have described the status of this transitional process as it relates to harvest management in our annual guidance letters to the Council and also in the associated biological opinions. As a result of our continuing review, we have taken action to reduce the total exploitation rate on tule populations from 49% in 2006, to 42% in 2007, and then to 41% in 2008, and have explained the rationale for each reduction in our annual guidance letter. These reductions were reflective of improved information and analyses, and have had the intended beneficial effect of reducing exploitation rates on all comingled LCR tule populations. Whether the resulting exploitation rate on all tule populations is sufficiently low, and how it should change over the longer term will depend on the specific population-specific recovery strategy that will emerge over the next year from the recovery planning processes described above. In the meantime, we must deal with the circumstances that present themselves in 2009.

The United States recently approved a new Pacific Salmon Treaty (PST) Agreement that was negotiated and recommended by the Pacific Salmon Commission. That Agreement includes a new Chinook regime that reduces the allowable annual Chinook catch by 30% in Canada's West Coast Vancouver Island (WCVI) troll and sport fishery and 15% in Alaska's Southeast Alaska all-gear fishery. Lower Columbia River tule Chinook particularly will benefit from the reduction in the WCVI fishery. The United States negotiated for harvest reductions in Canadian intercepting fisheries largely to benefit the escapement of natural origin stocks. LCR tule and Puget Sound Chinook were specifically identified to Canada as the intended beneficiaries of

these reductions. NOAA Fisheries indicated in its biological opinion on the PST Agreement that it intended to ensure that reductions in tule harvest secured by the new agreement would be passed through to escapement. In 2008 the total exploitation rate on LCR tule Chinook was limited to a maximum of 41%. NOAA Fisheries estimated in its biological opinion on the new PST Agreement that the catch reductions in the northern fisheries would reduce the exploitation rate on tule Chinook by approximately three percentage points relative to what would have occurred under the previous Chinook regime. Therefore, for 2009, Council fisheries should be managed such that the total exploitation rate in all fisheries on LCR tule Chinook does not exceed 38%. This reduction is a further step intended to address the needs of the LCR Chinook ESU and the weaker tule populations in the ESU in particular.

As indicated above, NOAA Fisheries intends to continue its review of harvest and other limiting factors and seek to implement changes that are consistent with the evolving information, the expected evolution of the hatchery programs, and the long term goal of recovery being developed through the recovery planning process. Nevertheless, NOAA Fisheries is mindful of the consequences to the fishery of the 38% exploitation rate limit when applied to the forecast abundance for 2009, particularly as that abundance may be affected by key hatchery runs that comprise a substantial portion of the total harvest. This constraint may be what limits fishing opportunity and the total allowable catch in 2009. However, an alternative course, one that might increase impacts on listed natural tule populations in southern fisheries is not appropriate in light of the current status of our efforts to mesh harvest management with longer term recovery plans, and would not be consistent with the justification used in Pacific Salmon Commission negotiations to seek reductions in northern fisheries.

### **Upper Columbia River Spring Chinook Salmon**

#### **Upper Willamette River Chinook Salmon**

#### **Snake River Spring/Summer Chinook Salmon**

NOAA Fisheries has considered the effects of Council area fisheries on spring stocks from the Upper Columbia River and Upper Willamette River Basins and spring/summer stocks from the Snake River in prior biological opinions. These stocks are rarely caught in Council fisheries. NOAA Fisheries 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.

#### **Snake River Fall Chinook Salmon**

NOAA Fisheries recently completed a biological opinion on the new Pacific Salmon Treaty Agreement where we again considered the effects of fisheries, including Council area fisheries, on Snake River fall Chinook. In that opinion we evaluated the effect of fisheries, in part, by using the guidance standard for ocean fisheries used over the last several years. We concluded that the existing standard continued to provide a necessary and appropriate level of protection for Snake River fall Chinook. NOAA Fisheries' guidance with respect to Snake River fall Chinook is therefore unchanged from that of the last several years. NOAA Fisheries requires that the Southeast Alaskan, Canadian, and Council fisheries, in combination, achieve a 30.0% reduction in the age-3 and age-4 adult equivalent total exploitation rate relative to the 1988-1993 base period. The Council fisheries therefore must be managed to ensure that the 30.0% base period reduction criterion for the aggregate of all ocean fisheries is achieved.

### **Puget Sound Chinook Salmon**

In March, 2005, NOAA Fisheries approved fishing activities conducted in accordance with the harvest component of the Comprehensive Management Plan for Puget Sound Chinook, a Resource Management Plan (RMP) submitted by the Washington Department of Fish and Wildlife and the Puget Sound Treaty tribes under Limit 6 of the ESA 4(d) rule. The terms of the RMP have also been incorporated into the Puget Sound Salmon Recovery Plan adopted by NOAA Fisheries on January 19, 2007. The take limit for fisheries implemented under the terms of the RMP apply to the 2005-2009 fishing years (May 1, 2005 through April 30, 2010). This is therefore the final year for guidance issued under the terms of this plan. NOAA Fisheries anticipates a new RMP for Puget Sound Chinook will be in place for the 2010 fishing season.

The current RMP management approach consists of a two tiered harvest regime (normal and minimum), depending on stock status. The harvest objectives in the RMP are a mixture of total and southern U.S. exploitation rates (termed in the RMP - Rebuilding Exploitation Rates<sup>2</sup> or RERs) and escapement goals. Under conditions of normal abundance, the RERs and escapement goals, listed on the left of Table 1, apply. However, when a particular management unit is 1) not expected to meet its low abundance threshold, or, 2) if the total exploitation rate is projected to exceed its RER under a proposed set of fisheries, the co-managers will constrain their fisheries such that either the RER is not exceeded, or the Critical Exploitation Rate Ceiling (CERC)<sup>3</sup>, listed on the right of Table 1, is not exceeded.

Procedurally, the Council and associated North of Falcon processes provide the appropriate forums for doing the necessary management planning. Under the current management structure, Council fisheries are included as part of the suite of fisheries that comprise the fishing regime negotiated each year by the co-managers under U.S. v. Washington to meet management objectives for Puget Sound and Washington Coastal salmon stocks. The comprehensive nature of the management objectives and the management planning structure strongly connect Council and Puget Sound fisheries. Therefore, in adopting its regulations, the Council must determine that its fisheries, when combined with the suite of other fisheries impacting this ESU, meet the management targets set for stocks within this ESU.

Having established the connection between Council and Puget Sound fisheries, it is also appropriate to acknowledge that impacts on Puget Sound Chinook stocks in Council fisheries are generally quite low. Exploitation rates on Puget Sound spring Chinook and fall Chinook stock aggregates have been less than one percent and four percent on average, respectively, in recent years.

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<sup>2</sup> These are not to be confused with the Rebuilding Exploitation Rates used by NOAA Fisheries Service to assess proposed harvest actions under the ESA since they are derived by different methodologies and used for different purposes. The RERs in Table 1 are those developed by the co-managers in the RMP approved by NOAA Fisheries Service and therefore fisheries conducted consistent with these RERs are not subject to an ESA prohibition on take of listed Puget Sound Chinook.

<sup>3</sup> The ceiling rate used by the co-managers may be below the CERC shown on the right side of Table 1 if the 2003 fisheries modeled with 2005 abundances results in rates less than the CERC.

Management actions taken to meet exploitation rate targets will therefore occur primarily in the Puget Sound fisheries, but since impacts in all fisheries must be considered, ocean fisheries are potentially subject to constraint to ensure impacts are consistent with the limits defined by the RMP.

NOAA Fisheries recognizes that there is also a sequence to the planning process for Puget Sound Chinook: the March Council meeting, the North of Falcon process, and the subsequent April Council meeting where final recommendations for oceans seasons are made. Therefore, the final option adopted at the April Council meeting must, when combined with Puget Sound fisheries negotiated during the North of Falcon process, meet the escapement goals and exploitation rates for each Puget Sound Chinook management unit included in Table 1, after applying the appropriate regime to the status of each management unit anticipated in 2009.

Table 1. Guidance on ESA listed Puget Sound Chinook for the 2008 Council ocean salmon fisheries.						
Management Unit/Population	Normal Abundance Regime			Minimum Fishing Regime		
	Rebuilding Exploitation Rate		Escapement Goal <sup>1</sup>	Low Abundance Threshold	Critical Exploitation Rate	
	Total	Southern US (PT=Preterminal)			So. US	Preterminal So. US
Nooksack spring NF Nooksack SF Nooksack	Minimum fishing regime applies			1,000 <sup>3</sup> 1,000 <sup>3</sup>	7.0%/9.0% <sup>2</sup>	
Skagit Summer/Fall Upper Skagit Lower Skagit Lower Sauk	50.0%			4,800 2,200 900 400	17.0%	
Skagit Spring Suiattle Upper Sauk Cascade	38.0%			576 170 130 170	18.0%	
Stillaguamish NF Stillaguamish SF Stillaguamish	25.0%			650 <sup>3</sup> 500 <sup>3</sup>	15.0%	
Snohomish Skykomish Snoqualmie	21.0%			2,800 1,745 <sup>3</sup> 521 <sup>3</sup>	15.0%	
Lake Washington <sup>4</sup>		15.0% PT		200 <sup>3</sup>		12.0%
Green		15.0% PT	5,800	1,800		12.0%
White River	20.0%			200	15.0%	
Puyallup <sup>5</sup>	50.0%			500		12.0%
Nisqually			1,100	1,100		
Skokomish		15.0% PT	1,200 natural <sup>6</sup> 1,000 hatchery	800 natural <sup>7</sup> 500 hatchery		12.0%
Mid-Hood Canal		15.0% PT		400		12.0%
Dungeness		10.0%		500	6.0%	
Elwha		10.0%		1,000	6.0%	

<sup>1</sup> When escapement is expected to be less than the goal, the co-managers will take additional management measures with the objective of meeting or exceeding the goal.

<sup>2</sup> Expected Southern US rate will not exceed 7.0% in 4 out of 5 years and 9.0% in 1 out of 5 years.

<sup>3</sup> Threshold expressed as natural-origin spawners.

<sup>4</sup> Cedar River.

<sup>5</sup> South Prairie Creek Index.

<sup>6</sup> The aggregate escapement goal is 3,650 hatchery and natural spawners. However, anticipated hatchery or natural escapements below these spawner abundances trigger specific additional management actions.

<sup>7</sup> The aggregate low abundance threshold is 1,300 hatchery and natural spawners. However, anticipated hatchery or natural escapements below these spawner abundances trigger specific additional management actions.

## **COHO SALMON**

### **Oregon Coast Coho Salmon**

The ESA listing status of Oregon Coast (OC) coho has changed over the years. On February 11, 2008 NOAA Fisheries again listed OC coho as threatened under the ESA (73 FR 7816 February 11, 2008). Regardless of their listing status, the Council has managed OC coho consistent with the terms of Amendment 13 of the Salmon FMP as modified by the expert advice of the 2000 ad hoc Work Group. NOAA Fisheries approved the management provisions for OC coho through its section 7 consultation on Amendment 13 in 1999, and has since supported use of the related expert advice. For the 2009 season, the applicable spawner status is in the "low" category while the marine survival index "medium". Under this circumstance, the Work Group report requires that the exploitation rate be limited to no more than 15%.

### **Lower Columbia River Coho**

Lower Columbia River coho are caught, for the most part, in fisheries off the Washington and Oregon coast, and in the Columbia River in the area below Bonneville Dam. Lower Columbia River coho were listed as threatened under the ESA on June 25, 2005. NOAA Fisheries conducted section 7 consultations and issued biological opinions regarding the effects of Council fisheries and fisheries in the Columbia River in 2006, 2007, and 2008. Unlike the earlier opinions, our 2008 opinion provided guidance for 2008 and the foreseeable future. As a result, the 2008 opinion also provides the basis for our guidance in 2009.

The states of Oregon and Washington have focused on use of a harvest matrix for LCR coho, developed by Oregon, following their listing under Oregon's State ESA. Under the matrix the allowable harvest in a given year depends on indicators of marine survival and brood year escapement. The matrix has both ocean and inriver components which can be combined to define a total exploitation rate limit for all ocean and inriver fisheries. Generally speaking, NOAA Fisheries supports use of management planning tools that allow harvest to vary depending on the year-specific circumstances. Conceptually, we think Oregon's approach is a good one. However, NOAA Fisheries has taken a more conservative approach for LCR coho in recent years because of unresolved issues related to application of the matrix. NOAA Fisheries has relied on the matrix, but limited the total harvest impact rate to that allowed for ocean fisheries. Given the particular circumstances regarding marine survival and escapement, the allowable exploitation rates in 2006, 2007, and 2008 were 15%, 20%, and 8% respectively.

The harvest matrix for LCR coho is keyed to the status of Clackamas and Sandy populations. However, it remains unclear whether reliance on these two indicators is adequately protective of other populations in the ESU. The state of Oregon is currently engaged in recovery planning for all listed species in the lower Columbia River, and Washington is updating their interim Recovery Plan to address coho. We are aware that progress is being made on recovery planning and hope that the necessary planning can be completed this year. Through recovery planning we expect the states will identify recovery objectives for all populations, and identify those populations that will be prioritized for high viability. Once completed, the information can then be used to refine the matrix to ensure that it addresses the needs of priority populations in particular and all populations in general. We also think that it is appropriate to review the information related to seeding capacity that sets the abundance criteria in the matrix for each population.

Until these issues are resolved and we can revisit details of the current matrix, NOAA Fisheries will continue to apply the matrix as we have in the past, but limit the total harvest to that allowed for the ocean fisheries.

Guidance to the Council for 2009 depends on the matrix and the particular circumstances for the indicator populations. In 2009 abundance indicators are mixed. The Clackamas and Sandy are both in the medium status categories, based on brood year escapements. The marine survival index is also in the medium category. Given these circumstances the harvest matrix prescribes an ocean impact rate of 20%, an impact rate for freshwater fisheries of 11.5%, and a combined exploitation rate for all fisheries of 29.2%. However, the 2008 biological opinion limits the overall exploitation rate under these circumstances to that specified in the ocean portion of the matrix. As a consequence, ocean salmon fisheries under the Council's jurisdiction in 2009, and commercial and recreational salmon fisheries in the mainstem Columbia River, including select area fisheries (e.g., Youngs Bay), should be managed subject to a total exploitation rate limit on LCR coho not to exceed 20%.

#### **Southern Oregon/Northern California Coastal Coho Salmon**

NOAA Fisheries consultation standards for Southern Oregon/Northern California Coastal coho were developed from a supplemental biological opinion dated April 28, 1999. The Rogue/Klamath hatchery stock is used as an indicator of the effects of fisheries on SONCC coho. NOAA Fisheries' 1999 biological opinion requires that management measures developed under the Salmon FMP achieve an ocean exploitation rate on Rogue/Klamath hatchery stocks of no more than 13.0%.

#### **Central California Coastal Coho Salmon**

Consultation standards for Central California Coastal coho were also developed from the April 28, 1999 biological opinion. Little information on past harvest rates or current hooking mortality incidental to Chinook fisheries exists for CCC coho. Absent more specific information, the 1999 biological opinion on listed coho requires that coho-directed fisheries and coho retention in Chinook-directed fisheries be prohibited off California.

### **CHUM SALMON**

#### **Hood Canal Summer Chum**

Chum salmon are not targeted and rarely are caught in Council salmon fisheries. However, the Pacific Coast Salmon FMP requires fisheries to be managed consistent with NOAA Fisheries' ESA standards for listed species, which includes the Hood Canal summer-run chum salmon ESU. The Summer Chum Salmon Conservation Initiative (PNPTC and WDFW 2000), approved by NOAA Fisheries under Limit 6 of the ESA 4(d) Rule describes the harvest actions that must be taken to protect listed Hood Canal summer-run chum salmon both in Washington fisheries managed under the jurisdiction of the PFMC and Puget Sound fisheries managed by the state and tribal fishery managers.

Under the terms of the Conservation Initiative, chum salmon must be released in non-treaty sport and troll fisheries in Washington catch Area 4 from August 1 through September 30. The Conservation Initiative does not require release of chum salmon in tribal fisheries in catch Area 4 during the same period, but does recommend that release provisions be implemented.

As in previous years, tribal managers will discuss implementation of these provisions during the North of Falcon planning process.

### **SOCKEYE SALMON**

#### **Snake River Sockeye Salmon Ozette Lake Sockeye Salmon**

Sockeye salmon are rarely caught in Council salmon fisheries. In previous biological opinions, NOAA Fisheries determined that PFMC fisheries were not likely to adversely affect Snake River or Ozette Lake sockeye salmon. Therefore, management constraints in ocean fisheries for the protection of listed sockeye salmon are not considered necessary.

### **STEELHEAD**

NOAA Fisheries has listed two Distinct Population Segment (DPS) of steelhead as endangered and nine DPSs as threatened in Washington, Oregon, Idaho, and California. The listing of the Puget Sound steelhead DPS as threatened is the most recent with the listing becoming effective on June 11, 2007. All eleven listed DPSs have been considered in biological opinions on the effects of PFMC fisheries.

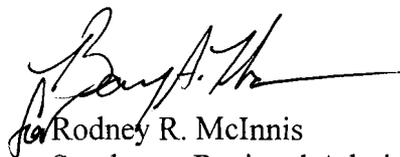
Steelhead are rarely caught in ocean fisheries and retention of steelhead in non-treaty tribal fisheries is currently prohibited. This requirement is consistent with the take prohibitions as proposed. Based on currently available information, NOAA Fisheries believes ocean fishery management actions beyond those already in place that seek to shape fisheries to minimize impacts to steelhead are not considered necessary. The Council and states should continue to prohibit the retention of steelhead with intact adipose fins in ocean non-treaty tribal fisheries to minimize the effect of whatever catch may occur.

We appreciate that this will be a difficult year. We are committed to working with the Council to address the harvest issues.

Sincerely,



Barry A. Thom  
Acting Northwest Regional Administrator



Rodney R. McInnis  
Southwest Regional Administrator

cc: Frank Lockhart  
Peter Dygert