

UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL MARINE FISHERIES SERVICE NORTHEAST REGION One Blackburn Drive Gloucester, MA 01930-2298

SEP - 2 2008

Paul J. Howard Executive Director New England Fishery Management Council 50 Water Street Newburyport, MA 01950

Dear Paul:

As you are aware, the latest Groundfish Assessment Review Meeting (GARM III) was held from August 4-8, 2008, to conduct benchmark stock assessments for the 19 stocks managed under the Northeast (NE) Multispecies Fishery Management Plan (FMP). The results of those assessments are summarized in the September 2, 2008, report that will be presented by staff from the Northeast Fisheries Science Center to the New England Fishery Management Council (Council) at its September 3-4, 2008 meeting.

The results of the GARM III indicate that the status of several stocks managed by the FMP has changed since the last assessment in 2005. Specifically, several stocks that were previously not overfished or subject to overfishing have experienced excessive fishing mortality and have been reduced below the spawning stock biomass thresholds established in the FMP. These stocks include pollock, Northern windowpane flounder, Gulf of Maine (GOM) and Georges Bank (GB) winter flounder, and witch flounder. Other stocks continue to be subject to overfishing or are declining in biomass, such as GOM cod, Cape Cod/GOM yellowtail flounder, Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder, SNE/MA winter flounder, white hake, ocean pout, and Atlantic halibut.

Given this new information from GARM III, and pursuant to section 304(e)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), I am providing notification to the Council that, based upon the best available information, the following stocks are subject to overfishing and are in an overfished condition: Pollock, Northern windowpane flounder, GOM and GB winter flounder, and witch flounder. That is, the 2007 fishing mortality rates for these stocks exceed the specified maximum fishing mortality rates, and the 2007 biomass estimates are below the specified biomass thresholds. The Magnuson-Stevens Act requires that the Council must take action within 1 year of this notice to end overfishing and to adopt conservation and management measures to rebuild these stocks in accordance with the National Standard Guidelines. I recommend that measures to address the condition of these stocks be implemented through Amendment 16 to the FMP, and look forward to working with you on this important matter.

Sincerely,

Patricia A. Kurkul Regional Administrator





New England Fishery Management Council
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John Pappalardo, Chairman | Paul J. Howard, Executive Director

September 16, 2008

Ms. Patricia Kurkul, Regional Administrator National Marine Fisheries Service One Blackburn Drive Gloucester, MA 01930

Dear Pat:

Your letter of September 2, 2008 notified the Council of the results of the Groundfish Assessment Review Meeting (GARM III). It also reported changes in stock status as a result of those assessments. I have some concerns that I want to bring to your attention.

According to the letter, GOM winter flounder has been determined to be overfished and subject to overfishing. The GARM III report does not provide any support for this conclusion. While it is true that the Executive Summary of the GARM III report includes this listing, the actual chapter on GOM winter flounder does not. In fact, the Peer Review Panel (Panel) summarized its conclusions in the following paragraphs (emphasis added):

"Given the problems encountered, the Panel agreed that none of the models put forth gave a clear picture of the status of the resource. Further, the Panel noted that until these issues were resolved, the proposed analysis could not be used to provide management advice nor stock projections.

While the Panel was unable to determine the stock's status relative to the BRPs, it agreed that the current trend in the population was very troubling. The Panel generally agreed that it is highly likely that biomass is below B_{MSY} , and that there is a substantial probability that it is below $\frac{1}{2}B_{MSY}$. The Panel noted that other stocks in the area of this mixed fishery were also at low levels."

Given the Panel's unequivocal rejection of any of the models presented, the Executive Summary errs when it presents estimates of fishing mortality and stock biomass for this stock <u>from on an explicitly rejected assessment model</u>. The report also erred by providing projections results, again contrary to the clear language of the Panel. The status of this stock should be reported as unknown. This is not to suggest there are no concerns for this stock, as noted by the Panel, which is clearly not rebuilt and may indeed be overfished.

Your letter also reports that pollock was overfished and overfishing was occurring as of 2007. The biomass reference point for pollock is an index-based proxy first recommended by the Reference Point Working Group in 2002. Significantly, that document determined biomass status by using a centered three-year moving average of the fall survey index. As an example, status in 2005 is based on the average of the survey indices for 2004, 2005 and 2006. This means that status cannot be determined for 2007 until the 2008 fall trawl survey index is available. The 2007 value reported in Table 2 of the report is 0.754 kg/tow. This does not appear be the average of anything - it is the same value reported for the 2007 fall survey in Table M.1. There is no justification in the report, and there was no discussion at the meeting suggesting that a single year of the trawl survey index should be used as a biomass proxy.

This error results in an incorrect determination of status for pollock. The centered three-year average of the trawl survey index for 2006 is 1.42 kg/tow, more than half the GARM III recommended B_{msy}-proxy of 2.0 kg/tow. As I said previously, consistent with the approved reference points, the status for 2007 cannot be determined until the fall survey is completed in 2008. The relative exploitation index is also based on a centered three-year average of the trawl survey index. As a result, the 2007 relative exploitation index cannot be determined. In 2006, the relative exploitation index, based on a centered three-year average, was 5.03, less than the F_{MSY} proxy of 5.66, and overfishing was not occurring. However, given the recent decline in the trawl survey index, pollock should be reported as approaching an overfished condition.

Finally, please note that Amendment 13, approved by the Secretary of Commerce, made it clear that status determination criteria are not effective until adopted by the Council. ("Over time, development of new analytic techniques or additional data may result in scientific advice recommending changes to the status determination criteria parameters. In order to comply with M-S Act requirements that status determination criteria be determined by the Council, a Council action is necessary to change the status determination criteria parameters.") Further, Amendment 13 made it clear that any changes to numerical estimates of parameters that resulted from the GARM III review would only become effective when adopted by the Council ("For this review, any updated numerical estimates will be adopted through a Council management action amendment or framework adjustment.") This is essentially the same stance taken by NMFS on the recent change in monkfish reference points that resulted from an assessment in August 2007. NMFS continued to report stock status based on the old status determination criteria until the new reference criteria were formally adopted by the Council in a change to the fishery management plan. In conclusion, I recommend the following:

- (1) That the status of GOM winter flounder be reported as unknown in the quarterly status report, consistent with the GARM III peer review Panel's rejection of all assessment models presented and the Panel's explicit statement that they could not determine status with respect to the biological reference points.
- (2) That the status of pollock be revised to approaching an overfished condition and overfishing not occurring as of 2006, the last year that this determination can be made in a manner consistent with recommended status determination criteria.
- (3) And for the quarterly status reports, that a more consistent policy be considered for when status determination criteria become effective.

I look forward to your response.

Sincerely,

Paul J. Howard Executive Director

cc: Nancy Thompson, NEFSC





UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL MARINE FISHERIES SERVICE NORTHEAST REGION One Blackburn Drive Gloucester, MA 01830-2298

Mr. Paul J. Howard, Executive Director New England Fishery Management Council 50 Water Street Newburyport, MA 01950 OCT 0 3 2008

OCT - 6 2008

Dear Paul:

Thank you for your September 16, 2008, letter in which you highlighted important issues with respect to the results of the recent Groundfish Assessment Review Meeting (GARM III). In addition, you requested consideration of a consistent policy pertaining to when new status determination criteria become effective.

You are correct in pointing out that there are inconsistent statements in the GARM III report about whether the Gulf of Maine (GOM) winter flounder stock status can be determined. These statements resulted from the fact that this assessment was very uncertain, a point that was clearly made in the GARM III Report by both the assessment scientists and the GARM III Review Panel (Panel). Because there was so much uncertainty, the Panel had a difficult time deciding whether a status determination was possible, as reflected in their statements. Although the models did not fit well, the Panel concluded that "it is highly likely that biomass is below B_{MSY}, and that there is a substantial probability that it is below ½ B_{MSY}," and offered this input as guidance to managers. However, everyone agrees that the results are very uncertain. At this stage, it is largely a policy decision that the New England Fishery Management Council (Council) must make as to whether to use the results from the final model (as was done in the GARM III report), or to conclude that the status is unknown.

Regarding pollock, you are also correct in pointing out that the GARM III report (Table 2 on page xiv) incorrectly used the single fall survey biomass index from 2007 as a basis for making a status determination about whether the pollock stock is overfished. To be consistent with approaches used by the Plan Development Team in the past, the appropriate method for determining stock status should have been based on an average of recent fall survey biomass indices. There are several ways to compute the average based on the recent data, and different formulas for the average (lagged vs. centered; latest 3 years vs. latest 2 years) lead to different conclusions about whether the stock is overfished. For instance, the centered average based only on the two most recent surveys (2006 and 2007) is 0.856, which indicates the stock is overfished (B_{THRESHOLD} = 1 kg/tow). In contrast, the average biomass index based on the last three surveys (2005, 2006, 2007) is 1.42, which indicates the stock is not overfished. This high sensitivity to the inclusion of a particular data point suggests that it is uncertain whether the stock is currently overfished.



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Even though there is uncertainty about whether the stock is overfished, there are several signs in the recent fall survey indices and in the annual landings that indicate that the average biomass of the stock will decline to a level approaching an overfished condition and that the threshold will be breached within 2 years. For example, the high 2005 survey biomass index value will be dropped from the calculation of average biomass as soon as an additional year of data from 2008 becomes available. The value from 2005 was the highest in the last 25 years, and the value from 2008 is unlikely to be greater than the 25-year maximum; so the updated 3-year average is likely to decrease and be close to, or less than, B_{THRESHOLD}. Likewise, landings have been increasing since 1995, and the highest value in the time series (1995-2007) occurred in 2007. Thus, the relative fishing mortality rate (F) is likely to be much higher the next time it is calculated. Both of these factors will push the stock status calculation in the direction of being overfished and overfishing occurring.

In addition, uncertainty exists in determining the overfishing status for pollock because the 3-year centered average cannot be fully computed without the 2008 survey biomass index. However, two calculations can be made involving the 2007 landings: 2007 landings over the average biomass from 2005-2007 = 6.64 for Relative F; and 2007 landings over the average biomass from 2006-2007 = 10.98 for Relative F. Both of these calculations suggest that overfishing is occurring, as F_{MSY} proxy for this stock = 5.66 for Relative F.

Much of the uncertainty over which formula to use for average biomass and for Relative F for pollock is caused by not having the 2008 fall survey index yet. When it becomes available, likely in January 2009, that value could be used to compute the centered average biomass index and Relative Fishing Mortality Index for 2007 based on data from 2006, 2007, and 2008. Therefore, based on the most recent information, the pollock stock is best categorized as approaching an overfished condition and overfishing is occurring, as you suggest. However, this revised conclusion does not alter the responsibility of the Council to take action to prevent overfishing from occurring, as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and highlighted in Pat Kurkul's September 2, 2008, letter regarding the status determinations of several stocks. Should the stock become classified as being overfished with the addition of the 2008 fall survey index, the Council will be required to develop management measures that rebuild the stock.

Finally, your letter requested a more consistent policy regarding when status determination criteria become effective. As you note, Amendment 13 to the Northeast (NE) Multispecies Fishery Management Plan (FMP) clearly states that changes to such criteria only become effective upon the implementation of a management action by the Council. Under normal circumstances, the preferred approach would be to use existing status determination criteria until revised criteria become effective upon the implementation of a Council action. As you know, this is the approach taken for recent stock status changes in the Monkfish FMP and is consistent with the requirements of other FMPs managed by the Council. However, due to the length of time it will take before Amendment 16 becomes effective (Amendment 16 is scheduled to become effective 1.5 years after GARM III was released), should NOAA's National Marine Fisheries Service (NMFS) implement an interim action for fishing year 2009, NMFS intends to

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rely on the new status determination criteria and updated estimates of stock status outlined in the GARM III. We feel this approach is appropriate in order to develop interim management measures that are based on the best available scientific information, as required by the Magnuson-Stevens Act.

Although the new status determination criteria and numerical estimates of stock status may be included in an interim action, it is still necessary for the Council to formally integrate such criteria and estimates into the FMP under Amendment 16 and develop measures under the amendment that end overfishing and rebuild overfished stocks, as identified by the best available scientific information from GARM III, in order to maintain compliance with approved rebuilding plans and the requirements of the Magnuson-Stevens Act.

Thank you for bringing these issues to our attention. We look forward to continuing to work with the Council in developing effective measures under Amendment 16 that will continue rebuilding depleted groundfish stocks.

Sincerely,

Patricia A. Kurkul

Regional Administrator

Nancy Thompson, Ph.D. Science and Research Director

Northeast Fisheries Science Center

Proposed Action Updates to Status Determination Criteria, Formal Rebuilding Programs, and ABC Control Rules

Table 15 - Final Amendment 16 revised rebuilding fishing mortality rates based on current stock status and revised ABC control rules.

Boldfaced italics identify phased reduction strategies; other rebuilding programs use the adaptive strategy.

SPECIES	STOCK	Rebuilt Year /	Fishing mortality rates for adopted rebuilding programs in year:									
		Probability of Success	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cod	GB	2026/50%	0.184	0.184	0.184	0.184	0.184	0.184	0.184	0.184	0.184	0.184
000	(add ten years)		0.184	0.185	0.184	0.184	0.184	0.184	0.184			
	GOM	2014/50%	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Haddock	GB	2014/50%	75% FMSY: 0.26									
	GOM	2014/50%	75% FMSY: 0.32									
Yellowtail Flounder	GB	2014/75%	0.109	0.109	0.109	0.109	0.109					
	SNE/MA	2014/50%	0.072	0.072	0.072	0.072	0.072					
	CC/GOM	2023/50%	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
ä	(add	ten years)	0.18	0.18	0.18	0.18						
American Plaice		2014/50%	0.14	0.14	0.14	0.14	0.14					
Witch Flounder		2017/75%	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
Winter Flounder	GB	2017/75%	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
	GOM		Unable to determine stock status; cannot calculate a rebuilding mortality if overfished									
	SNE/MA	2014/50%	0	0	0	0	0	0	0			
Redfish		2051/50%	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
White Hake		2014/50%	0.084	0.084	0.084	0.084	0.084					Î
Pollock		2017	4.245	4.245	4.245	4.245	4.245	4.245	4.245	4.245	4.245	4.245
Windowpane Flounder	North	2017	Unable to calculate rebuilding mortality; 75% of MFSY									
	South	2014/50%	Unable to calculate rebuilding mortality; 75% of MFSY									
Ocean Pout		2014/50%	Unable to calculate rebuilding mortality; 75% of MFSY									
Atlantic Halibut	2	2056/50%	0.044 through 2055									
Atlantic wolfish			Unable to calculate rebuilding mortality; 75% of MFSY									

Table 10 - Option 2 - revised rebuilding fishing mortality rates based on current stock status.

Boldfaced italics identify phased reduction strategies; other rebuilding programs use the adaptive strategy.

SPECIES	STOCK	Rebuilt Year /		Fishing mortality rates for adopted rebuilding programs in year:								
		Probability of										
		Success	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cod	GB	2026/50%	0.184	0.184	0.184	0.184	0.184	0.184	0.184	0.184	0.184	0.184
		ten years)	0.184	0.185	0.184	0.184	0.184	0.184	0.184			
	GOM	2014/50%	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237	0.237
Haddock	GB	2014/50%				No forma	l rebuildin	g prograr	n required	d		
	GOM	2014/50%	No formal rebuilding program required									
Yellowtail Flounder	GB	2014/75%	0.109	0.109	0.109	0.109	0.109					
	SNE/MA	2014/50%	0.072	0.072	0.072	0.072	0.072					
	CC/GOM	2023/50%	0.238	0.238	0.238	0.238	0.238	0.238	0.238	0.238	0.238	0.238
	(add	ten years)	0.238	0.238	0.238	0.238						
American Plaice		2014/50%	0.190	0.190	0.190	0.190	0.190					
Witch Flounder		2017/75%	0.162	0.162	0.162	0.162	0.162	0.162	0.162	0.162	0.162	
Winter Flounder	GB	2017/75%	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	
	GOM		Unable to determine stock status; cannot calculate a rebuilding mortality if overfished									
	SNE/MA	2014/50%	0	0	0	0	0	0	0			
Redfish		2051/50%	.038	.038	.038	.038	.038	.038	.038	.038	.038	.038
White Hake		2014/50%	0.084	0.084	0.084	0.084	0.084				1	
Pollock		2020	4.838	4.838	4.838	4.838	4.838	4.838	4.838	4.838	4.838	4.838
		2017	4.564	4.564	4.564	4.564	4.564	4.564	4.564	4.564	4.564	
Windowpane Flounder	North		Unable to calculate rebuilding mortality									
ř	South	2014/50%	Unable to calculate rebuilding mortality									
Ocean Pout		2014/50%	Unable to calculate rebuilding mortality									
Atlantic Halibut		2056/50%	0.044 through 2055									

Agenda Item G.4.c Supplemental NMFS Report March 2010



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 2, 2010

Mr. David Ortmann, Chairman Pacific Fishery Management Council 7700 NE Ambassador Place, Suite 200 Portland, Oregon 97220-1384

Dear Mr. Ortmann:

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 potential effects of the 2010 season on listed salmonid species. As in previous years, this letter is intended to offer NOAA Fisheries' preliminary guidance regarding conservation needs for listed salmonid species; any ultimate ESA-determinations shall be provided when the applicable biological opinions for those species are completed. 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 again this year, this letter also comments on the status under the Magnuson-Stevens Act of Sacramento River fall Chinook and Klamath River fall Chinook, which are not listed under the ESA, and the related effects on fisheries.

Genetic Stock Identification Sampling Proposal

On February 10, 2010, 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 2010 (a copy of this memo, including a description of the research plan, is provided in the March 2010 PFMC briefing book). While the principal investigators for the scientific research are the NWFSC and SWFSC, 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 2010 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 2010 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. To allow for an evaluation of the potential benefits and/or shortcomings of using such data for salmon assessment and management in the future there is a need for experimental data collection. For example, California and Oregon have proposed a joint project in the Klamath Management Zone (KMZ) and adjacent areas to provide information about distribution and abundance in areas that have been largely closed to fishing and sampling for over 20 years. NOAA Fisheries recommends that the Council consider providing some opportunity for sampling to begin building a database for analysis of management applications. 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 (SRFC) is an escapement goal range of 122,000-180,000 adult spawners to hatcheries and natural areas. In 2009, the lower end of the escapement goal range was not met for the third consecutive year. In most years, SRFC are the primary stock contributing to ocean fisheries south of Cape Falcon. Available information suggests that SRFC fishery impacts north of Cape Falcon are low enough to be considered negligible for fishery management purposes.

Approximate escapement of natural and hatchery SRFC adults to the Sacramento River basin:

- 2009: 39,500 adults (the lowest escapement on record)
- 2008: 64,500 adults (the second lowest escapement on record)
- 2007: 87,900 adults

Because the SRFC conservation objective has not been met for the last three years, an "overfishing concern" has been triggered under the Salmon FMP. According to section 3.2.3.2 of the FMP, if an overfishing concern is triggered, then the Council will direct the STT to work with state and tribal fishery managers to complete, within one year, an assessment of the factors that contributed to the escapement shortfall. Notably, nearly all Chinook-directed fisheries occurring south of Cape Falcon were closed in 2008 and 2009. In 2008, the Council asked NOAA Fisheries to lead an investigation into the cause of the low returns in 2007 and 2008. The report, published in 2009, concluded that unfavorable ocean conditions led to poor survival of juvenile salmon as they entered the ocean environment in 2005 and 2006. The report further explained that the stock was more susceptible to those poor ocean conditions because of freshwater habitat degradation and that hatchery production has reduced the stock's fitness and resiliency. These circumstances have already come to the Council's attention and, together with the 2010 forecast, will be key to the preseason planning process.

NMFS is required to report on the status of the stock consistent with MSA section 304(e)(1). In 2009, NMFS and the Council determined that the current FMP does not provide clear criteria with which to make stock status determinations. To address this, the Council directed that Amendment 16 to the FMP include revisions to the status determination criteria to provide clearer criteria for making "overfishing", "overfished", and "approaching overfished" determinations. In the meantime, if a stock fails to meet its conservation objective for three consecutive years, NMFS will report the stock as "overfished".

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Therefore, SRFC will now be reported as "overfished" and, as a result, a rebuilding plan that is consistent with MSA Section 304(e) must be prepared and implemented within 2 years.

The 2010 forecast of ocean abundance for SRFC is 245,500 adults¹. Until a rebuilding plan is implemented, NMFS believes a risk-averse management approach should be adopted, given the recent trend in SRFC adult escapement. In 2009, 39,500 adult spawners returned to the Sacramento basin, while the forecast escapement was 122,100 adults. While the cause of the 2009 escapement shortfall is not yet known, the 2009 NOAA Fisheries report identified environmental factors as the proximate cause of the poor SRFC returns observed in 2007 and 2008. The National Standard (NS) 1 Guidelines (CFR §600.310) provide guidance on accounting for scientific uncertainty, ecological conditions, and environmental variability in management decisions:

- When environmental factors cause a stock to fall below its minimum stock size threshold (the basis of an overfished determination), fishing mortality must be constrained sufficiently to allow for rebuilding (see section (e)(2)(iii)(A));
- Control rules should be designed so that management actions become more conservative as biomass estimates, or other proxies, for a stock or stock complex decline and as science and management uncertainty increases (see section (f)(1));
- If manmade environmental changes are partially responsible for a stock or stock complex being in an overfished condition, in addition to controlling fishing mortality, Councils should recommend restoration of habitat and other ameliorative programs, to the extent possible (see section (e)(2)(iii)(C)).

Given the recent declines in adult escapement and inherent scientific uncertainty, NMFS believes that the Council should adopt a conservative approach to management of SRFC in 2010 by structuring potential fisheries to target escapement around the upper end of the SRFC conservation objective range. Such an approach is analogous to the current guidance of targeting a higher level of escapement for KRFC while it rebuilds.

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. Currently, KRFC is determined under the MSA to be "not overfished – rebuilding".

Pursuant to the FMP, in 2007 the Council directed the Salmon Technical Team (STT) to review the causes of the escapement shortfall leading to the overfishing concern and provide appropriate recommendations. Based on the STT report, the Council submitted recommendations to NOAA Fisheries in June 2008 that proposed criteria for determining the end of the overfishing concern and management measures to implement during rebuilding. NOAA Fisheries prepared the NEPA analysis and will publish the proposed rebuilding plan for public comment in 2010. The Council's 2008 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 during the rebuilding phase include:

¹ Stock Abundance Analysis for 2010 Ocean Salmon Fisheries. http://www.pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/preseason-reports/2010-preseason-report-i/

- 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 level of adult spawners that would lead to maximum sustainable yield, 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 absent-fishing spawning escapement projections of less than about 54,000.
- Restrict fall ocean salmon fishing opportunity in areas impacting KRFC abundance during periods the Overfishing Concern is in effect.

The natural-area escapement levels of KRFC adults since the overfishing concern was triggered are as follows (approximations):

2009: 44,600 adults2008: 30,900 adults2007: 60,700 adults

The 2010 forecast for KRFC is for a total ocean abundance of 331,500 adults¹. Because the criteria recommended by the Council for ending the overfishing concern have not been met, fisheries should be managed in 2010 consistent with the recommended rebuilding plan to target a natural spawning escapement of 40,700 adults. The conservation objective for KRFC also requires an escapement of 33-34% of potential adult natural spawners, a requirement that continues to apply through the rebuilding period.

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 Sacramento River winter Chinook biological assessment and biological opinion, in which it proposed to promulgate fishery management measures for the ocean salmon fisheries off Washington, Oregon and California. The 2004 biological opinion, which has been in effect since May 1, 2004, expires on April 30, 2010. NOAA Fisheries is preparing to issue a new biological opinion regarding the effects of ocean salmon fisheries on Sacramento River winter Chinook that will take effect on May 1, 2010. However, the new opinion will not be complete until sometime in April, after the Council will make its recommendations to the Secretary for management of the 2010 fishery. In the interim, in order to make the necessary decisions during the annual preseason planning schedule, NOAA Fisheries offers the following guidance for the 2010 fishing year only (May 1, 2010 through April 30, 2011):

The following conservation objectives for Sacramento River winter Chinook that were associated with the 2004 biological opinion and that were proposed and analyzed in the 2010 biological assessment prepared by NOAA Fisheries, should continue for the 2010 fishing year:

Recreational Fishery South of Point Arena, CA

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

Commercial Fishery South of Point Arena, CA:

- Between Point Arena and the U.S.-Mexico border: The commercial seasons 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 in the commercial fishery shall be at least 26 inches total length.

Summary of Seasons and Size Limits

Fishery	Location	Shall Open No Earlier Than:	Shall Close No Later Than:	Minimum Size Limit Shall be at Least:			
Recreational	Between Point Arena, California, and Pigeon Point, California	1st Saturday in April	2nd Sunday in November	20 inches total length			
	Between Pigeon Point, California, and the U.S Mexico Border	1st Saturday in April	1st Sunday in October				
Commercial	Between Point Arena, California, and the U.S Mexico Border* May 1 September 30 total length						
	*Exception: Between Point Reyes and Point San Pedro, there may be an October season conducted Monday to Friday, but no later than October 15.						

Gear Restrictions:

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, California, which are designed to reduce hook and release mortality. Those restrictions should continue.

In addition, further restrictions may be necessary, due to the fact that the abundance of Sacramento River winter Chinook has decreased significantly since 2006. While the details of a long-term management framework are still under development, at this time NOAA Fisheries anticipates that the new biological opinion will require additional consideration of the spawner

abundance of Sacramento River winter run spawning returns during the preseason management process. In general, NOAA Fisheries believes that when Sacramento River winter Chinook returns are low or declining, fishing impacts, as measured by the age-3 impact rate, may need to be reduced from the level that would be expected given no additional management constraints to avoid the likelihood of jeopardizing the stock. Such impact rate restrictions would be in addition to the seasons, size limits, and gear restrictions outlined above. At this time, the specific thresholds that would trigger the need for reducing impacts and the tools needed to incorporate the framework into the fishery management process are not available. As part of the implementation of the requirements of the new biological opinion, NOAA Fisheries believes it will have clearly defined thresholds and a management framework for use by the Council and NOAA Fisheries to sufficiently reduce impacts on the stock by the 2011 preseason planning process.

In the meantime, we understand that the Council needs to have clear and specific guidance for making decisions about this fishing year. For purposes of the 2010 fishing year, NOAA Fisheries has determined that impacts from the fishery should be constrained from reaching the typical levels estimated during the years of 2000 to 2007 (age-3 impacts rates of 0.15-0.21), due to the decline in abundance of Sacramento River winter Chinook. Below is the approximate number of returning adult Sacramento River winter Chinook since 2006:

2009: 4,5002008: 2,5002007: 2,4002006: 16,900

Recent ocean fishery impact rate estimates, based upon cohort reconstructions and an analysis of coded wire tag recoveries recently provided by the NOAA Fisheries Southwest Fisheries Science Center, suggest that the core results from the 2004 biological assessment remain consistent. In particular, ocean fishery impacts occur primarily on age-3 fish and are mostly the result of recreational fisheries south of Point Arena. In light of these results, NOAA Fisheries has provided two recommended actions that it believes will sufficiently constrain fishery impacts in the 2010 fishing year:

- (1) for the recreational fishery south of Point Arena, increase the minimum size limit to 24 inches for the entire year; or
- (2) for the recreational fishery south of Point Arena, close the fishery for at least two consecutive months (any consecutive 61 day period) at some point from May 1 through August 31. This closure should apply to all areas south of Point Arena simultaneously.

Based on the latest information on Sacramento River fall Chinook presented earlier in this letter, NOAA Fisheries is aware that fishing opportunity in the 2010 fishing year may be limited in areas south of Point Arena due to the low abundance of Sacramento River Fall Chinook. As a result, it seems possible that the amount of total fishing opportunity in these southern areas will be less than what it was during the 2000-2007 period that produced age-3 impacts rates of up to 0.21. If this is the case, it would also seem likely that impacts on Sacramento River winter Chinook would be reduced and it would be unnecessary to implement additional restrictions for the 2010 fishing year beyond the seasons, minimum size limits, and gear restrictions outlined above in order to meet the Sacramento River winter Chinook consultation standard for the ocean

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salmon fishery. However, this is difficult to conclude with any certainty or precision without specific knowledge of the fishery structure that the Council may propose this year. For example, the Council could propose to reduce or eliminate fishing opportunity in the commercial or recreational fishery under a number of different scenarios in order to meet objectives for Sacramento River Fall Chinook or other stocks for this year, but if this proposal included a recreational fishery structure south of Point Arena with a 20-in minimum size limit open during most or all of the critical May through August period, then it would be possible that fishery impacts on Sacramento River winter Chinook would not be appreciably constrained from historical levels. As a result, the Council will have to incorporate one or both of the specific actions described above into their recommendations for the 2010 fishing year to reduce the ocean fishery impact on Sacramento River winter Chinook.

Central Valley Spring Chinook Salmon

The Central Valley spring Chinook Evolutionarily Significant Unit (ESU) was first listed as threatened in 1999. The current consultation standard for Central Valley spring Chinook is from the NOAA Fisheries April 18, 2000, biological opinion on the effects of the ocean salmon fishery on Central Valley spring Chinook and California Coastal Chinook. The 2000 opinion concluded that the ocean salmon fishery, as regulated under the Salmon FMP and NOAA Fisheries consultation standards for Sacramento River winter Chinook, is not likely to jeopardize the continued existence of Central Valley spring Chinook. As explained previously, a new opinion is being developed for Sacramento River winter Chinook and interim guidance has been provided for the 2010 fishing year. If the interim guidance is followed, NOAA Fisheries does not expect any additional impacts to Central Valley spring Chinook.

In the fall of 2009, NOAA Fisheries initiated efforts to assemble the more recent coded wire tag data to update analyses on the impact of the Council's fisheries on this ESU. NOAA Fisheries will update the Council with any new information as it becomes available. Until such time, 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 ESUs that have been the focus of intensive ESA recovery planning efforts in Washington and Oregon in recent years². To complement recovery planning efforts, NOAA Fisheries, the states, and others, including the Hatchery and Scientific Review Group (HSRG), have provided additional analyses with particular attention to the tule component of the ESU. These efforts have been directed at developing a better understanding of the status of the species and actions that are necessary to achieve recovery. Management actions taken during recent years have been described by NOAA Fisheries as a transitional strategy. Actions have been taken to address limiting factors that were obvious and apparent as the understanding about the full extent of what would be required to achieve recovery is refined. In its 2009 guidance letter to the Council, NOAA Fisheries expressed its expectation that it and other co-managers would be able to move away from the past year-by-year guidance and lay out a multi-year approach to harvest management of LCR

² In 2006, NOAA approved an interim recovery plan for the Washington portion of the ESU (excluding the White Salmon basin). A revised version of that plan, developed by the Lower Columbia Fish Recovery Board (LCFRB), is expected to be available in March 2010. Recovery plans for the White Salmon basin and the Oregon portion of the ESU are currently in development. Oregon expects to sponsor public meetings on its plan in the spring of 2010. NOAA expects to provide notice of a proposed plan for the entire ESU early in 2011.

Chinook beginning in 2010. The goal was to reduce the uncertainty associated with recovery, and add predictability to recreational, commercial and tribal fisheries. Although NOAA Fisheries, co-managers and recovery planners have made significant progress over the last year in developing additional information to inform recovery, the effort did not meet the conditions necessary to support a long term harvest regime. As explained in more detail below, the guidance provided at this time will apply to 2010 and 2011 only and will further clarify the conditions necessary to support a long term harvest regime.

NOAA Fisheries has worked over the last year with the Northwest Fisheries Science Center, states, and recovery planners on a new analysis related to tule Chinook. A draft Lower Columbia River Chinook Salmon Life-cycle Modeling (SLAM) report was distributed in early February. Unfortunately, time constraints made it impossible before the 2010 fishing season for comanagers, recovery planners and other interested persons to fully review, consider and react to the SLAM analysis. Nevertheless, NOAA Fisheries believes the SLAM analysis builds on and complements earlier work and provides meaningful information on eight of nine populations targeted for high viability through recovery planning. The results highlight key areas of uncertainty that will help focus research and monitoring efforts in the future. The results also appear to NOAA Fisheries to be consistent with general conclusions derived from earlier work, including recovery plans. Some populations, including the Coweeman, East Fork Lewis, and Washougal, appear likely to be able to sustain harvest at current levels and remain at low risk. Other populations, including the Clatskanie, Scappoose, and Elochoman in the Coastal Major Population Group (MPG), appear likely to remain at very high risk even at very low harvest rates. All populations need to improve, but these coastal populations are most problematic.

The coastal populations are dominated by hatchery strays, lack genetic diversity as a result, and have low productivity. NOAA Fisheries acknowledges its robust deliberations with co-managers and recovery planners related to the relationship and balance among the harvest regime and efforts to reduce the influence of hatchery fish, the need to maintain low demographic risks in these hatchery dominated populations, and the lack of quality habitat within which the natural-origin population can subsequently spawn and rear. Recovery planners are setting benchmarks for survival improvements for each limiting factor and describing the sorts of actions necessary to achieve the improvements over the long term. Re-adaptation to local conditions by these hatchery dominated populations depends on successfully achieving these improvements by executing a transition strategy, while recognizing that it will take time for populations to benefit from the improvements.

While NOAA Fisheries perceives general agreement that a transition strategy is appropriate, the measures that will be taken *within* the transition are less clear, particularly actions intended to improve habitat productivity. So too is the certainty that called-for improvements actually will be achieved. The ability to harvest these LCR tule Chinook populations over time requires reasonable certainty that actions will be taken to improve survival within each limiting factor.

NOAA Fisheries is aware of significant and specific efforts by Washington and Oregon to reduce the influence of hatchery fish in the natural-origin populations through the reform of hatchery operations in the lower Columbia River. NOAA Fisheries notes favorably that Congress has appropriated this year an additional \$10 million for this purpose. Recovery planners and comanagers intend for further reductions in adverse effects from hatchery fish to be achieved through development of selective fisheries. So too, significant investments in habitat improvements have occurred in recent years, many federally funded through the Pacific Coastal

Salmon Recovery Fund, Bonneville Power Administration's Fish and Wildlife Program, the Corps of Engineers, the Environmental Protection Agency, and other federal programs.

These measures clearly are positive, and NOAA Fisheries is pleased with the level of focus this ESU is receiving. It is a fact, however, that sustained ability to harvest tule fall Chinook at any level will require measurable achievement of results in all areas consistent with a more-specific plan for recovery. NOAA Fisheries had hoped that the planning effort announced to the Council in 2009 would have provided such a plan and support a longer term, multi-year opinion for harvest. The effort was positive, but unable to meet this ambitious objective.

Before NOAA Fisheries can be confident that harvest levels in a longer term fishing regime meet the requirements of the ESA, it needs a better understanding of the actions that will be taken to address key limiting factors in each of the sectors and of the benefits expected from implementation, as well as greater certainty that these actions will occur. As noted, NOAA Fisheries understands that harvest has been reduced from past levels and that other harvest reforms are intended. Likewise, there is a set of hatchery reforms underway and plans for other reforms are being developed. But recovery also depends critically on habitat actions and here the path to success is less clear.

Resolving the uncertainties related to harvest over the long term depends on providing a comprehensive strategy that addresses all of the limiting factors. Our guidance for 2010 and 2011 takes these circumstances into account.

In this and the following paragraphs, NOAA Fisheries addresses the circumstances and provides guidance relevant to the management of fisheries in 2010 and 2011. The 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. Of nine historical spring Chinook populations, four are considered extant. To achieve recovery targets, five populations are expected to be targeted to achieve high viability through recovery and reintroduction efforts, three to achieve moderate or low viability, and one to be maintained at high risk. 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 historical 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 specifies actions to be taken to facilitate recovery of spring Chinook populations in Washington State. 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 consistent with recovery plan recommendations in Oregon. Maintaining the hatchery brood stocks for these populations is therefore essential for implementation of specified recovery actions. The hatcheries have met their escapement objectives in recent years with few exceptions, and are expected to do so again in 2010 and for the foreseeable future, 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 at this time.

There are two extant natural-origin bright populations in the LCR Chinook ESU including 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 vield derived from spawner-recruit analysis. Escapements have averaged 9,500 over the last ten years and have generally exceeded the goal by a wide margin since at least 1980. Escapement was below goal in 2007 and 2008. The shortfall 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. Escapement in 2009 improved, but was still just below the escapement goal at 5,400. The Sandy River population is considered in Oregon's draft Recovery Plan to be 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 2010 or 2011. NOAA Fisheries does expect that the states of Washington and Oregon will continue to monitor the status of the LCR bright populations, pay particular attention to the escapement shortfall for the North Fork Lewis population, and take the specific actions necessary through their usual authorities to deliver spawning escapement through the fisheries they manage sufficient to maintain the health of these populations.

There are 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. Harvest on LCR tule Chinook has been reduced significantly since they were first listed in 1999. The exploitation rate was at first limited to 65%. From 2002 to 2006 the exploitation rate was limited to 49%. Harvest was reduced further to 42% in 2007, 41% in 2008, and 38% in 2009. These reductions were based on improved information and analyses developed over time, and had the intended beneficial effect of reducing exploitation rates on all comingled LCR tule populations. NOAA Fisheries is mindful of the consequences of these successive harvest reductions, but the accumulating information continues to underscore that these reductions are a necessary part of an overall strategy to achieve recovery. The goal of NOAA Fisheries over the next two years is to bring more certainty to the recovery process potentially supporting a multi-year harvest regime that NOAA Fisheries had hoped to achieve this year.

Based on the above described circumstances, NOAA Fisheries concludes that Council fisheries in 2010 should be managed such that the total exploitation rate in all fisheries on LCR tule Chinook below Bonneville Dam does not exceed 38%. In 2011 the exploitation rate limit is 36%. This limit may be increased to 37% in 2011 if defined tasks are completed that reduce the uncertainties surrounding the recovery strategy. These tasks will be refined in cooperation with co-managers, recovery planners and interested persons in the coming weeks and explained in detail in the biological opinion. The tasks will address the following:

A. Identify the amount and distribution of extant marsh type habitats currently inaccessible for juvenile rearing. Focus specifically on tributaries used by Lower Columbia River tule Chinook populations.

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- B. Identify milestones or expected trends in improved habitat conditions in high priority tributary and intertidal areas for tule Chinook populations.
- C. Develop a recovery plan implementation schedule that identifies specific actions for a 3 to 5 year period, responsible parties, costs, and linkage to milestones for improved habitat conditions.
- D. Develop a transition strategy for reducing the proportion of hatchery fish in natural spawning areas for primary tule Chinook populations in a manner that addresses short term demographic risks while promoting progress to recovery objectives.
- E. Develop options for implementing mark selective fishing strategies that would result in reduced fishery impacts on Lower Columbia tule Chinook populations.
- F. Develop options for incorporating abundance driven management principles into Lower Columbia tule Chinook management.
- G. Review and update escapement estimates for selected primary populations with particular attention to estimates of hatchery contribution.

To reiterate, even these reduced harvest levels can be sustained only if survival improvements are made across all sectors. From recovery planning and other assessments, NOAA Fisheries has a good understanding of the sorts of survival improvements that must occur to achieve recovery. From draft recovery plans and other related documents, NOAA Fisheries has descriptions of the kinds of actions that will be required to achieve those survival improvements. The recent letter from the Washington Department of Fisheries³, for example, outlines the actions that need to be accomplished. The actions generally come under the headings of harvest reductions and other harvest reforms, hatchery reforms designed to reduce the interactions between hatchery and natural-origin fish, and habitat improvements. Habitat improvements may be most difficult, but are unquestionably essential to recovery. Completion of tasks that remove uncertainties may allow for an exploitation rate of 37% in 2011 because they address each of these factors and are designed to ensure that progress is made on all fronts.

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

³ Letter to Mr. Barry Thom, Acting Regional Administrator, NMFS from Phil Anderson, Director, Washington Department of Fisheries. February 22, 2010. 7 pp with attachments.

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

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>U.S. v. Washington</u> 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. Ideally, as it has for the past several years, NOAA Fisheries would issue guidance for the full suite of Council and Puget Sound fisheries consistent with the nature of the planning process. Therefore, since 2001, our guidance has relied on a series of comprehensive, joint Resource Management Plans (RMP) developed by the Washington Department of Fish and Wildlife and the Puget Sound Treaty Tribes (Puget Sound co-managers). The current RMP will expire this year.

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 RMP submitted by the Puget Sound co-managers under Limit 6 of the ESA 4(d) rule. The scope of the RMP encompasses salmon fisheries in Puget Sound, but its management framework is based on conservation objectives for Puget Sound Chinook that include harvest-related mortality in other fisheries including those under the Council's jurisdiction. The take limit for fisheries implemented under the terms of the existing RMP will expire May 1, 2010. NOAA Fisheries is currently evaluating a new RMP provided by the co-managers for the 2010-2014 fishing years, but will not complete its evaluation until after the April Council meeting. Therefore, NOAA Fisheries provides the following guidance for fisheries managed under the PFMC and describes its expectations for the full suite of southern U.S. fisheries that will affect Puget Sound Chinook stocks in 2010.

Although Council and Puget Sound fisheries are intertwined, 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. In 2004, NOAA Fisheries issued a biological opinion on the anticipated effects of PFMC fisheries on the listed Puget Sound Chinook ESU for 2004 and future fishing years (NMFS 2004). The 2004 opinion found that exploitation rates in Council Area fisheries within the range observed for brood years 1991-1998 would not jeopardize the continued existence of the species. Consistent with the findings of that opinion, the 2010 Council fisheries should be managed such that exploitation rates on Puget Sound spring and fall Chinook populations does not exceed 3 and 6 percent, respectively.

While NOAA Fisheries is providing formal guidance for the PFMC fisheries for 2010, we acknowledge the importance of and continue to strongly support the integrated management

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structure between the Council and North of Falcon planning processes. As mentioned previously, the Puget Sound co-managers have provided a draft joint Puget Sound Chinook harvest management plan to NOAA Fisheries for consideration under the ESA to replace the RMP expiring at the end of April. The form and structure of the new RMP is similar to that of the current RMP. The management approach consists of a two tiered harvest regime (normal and critical), 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 Rates⁴ 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 anticipated northern fisheries exploitation rate is projected to exceed the difference between a management unit's RER ceiling and the Critical Exploitation Rate Ceiling (CERC), the co-managers will constrain their fisheries such that either the RER is not exceeded, or the CERC, listed on the right of Table 1, is not exceeded. Management actions taken to meet conservation objectives will occur primarily in the Puget Sound fisheries, but since impacts in all fisheries are considered in meeting the comanagers objectives, ocean fisheries are potentially subject to constraint to ensure impacts are consistent with the limits defined by the proposed RMP.

Therefore, in addition to the guidance provided for the PFMC fisheries themselves, NOAA Fisheries expects that the final option adopted at the April Council meeting will, 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 2010. Details regarding conservation objectives for some of the management units were unresolved and the subject of ongoing discussions at the time this letter was completed. We expect these outstanding issues to be resolved shortly and that the preseason planning process will proceed using the conservation objectives that are agreed to in the 2010 Puget Sound Chinook RMP.

⁴ 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.

Table 1. Conservation objectives proposed by the co-managers in the draft 2010 Puget Sound Chinook Resource Management Plan for 2010

		Normal Abundance I	Regime	Minimum Fishing Regime			
Management Unit/Population	Rebuil	ding Exploitation Rate		Low	Critical Exploitation Rate		
	Total	Southern US (PT=Preterminal)	Escapement Goal ¹	Abundance Threshold	So. US	Preterminal So. US	
Nooksack spring NF Nooksack SF Nooksack	(Critical Exploitation Rate Co	eiling applies	1,000 ³ 1,000 ³	7.0%/9.0%²		
Skagit Summer/Fall Upper Skagit Lower Skagit Lower Sauk	50.0%			4,800 2,200 900 400	15.0%		
Skagit Spring Suiattle Upper Sauk Cascade	38.0%			576 170 130 170	18.0%		
Stillaguamish NF Stillaguamish SF Stillaguamish	25.0%			650 ³ 500 ³	15.0%		
Snohomish Skykomish Snoqualmie	21.0%			2,800 ³ 1,745 ³ 521 ³	15.0%		
Lake Washington Cedar River		20%		200		10.0%	
Green		15.0% PT	5,800	1,800		12.0%	
White River	20.0%			200	15.0%	1000	
Puyallup	50.0%			500		12.0%4	
Nisqually	65%						
Skokomish	50%			800 natural ⁵ 500 hatchery ⁵		12.0%	
Mid-Hood Canal		15.0% PT		400³		12.0%	
Dungeness		10.0%		500	6.0%		
Elwha		10.0%		1,000	6.0%		

¹ 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.

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

Threshold expressed as natural-origin spawners.
 The total southern U.S. exploitation rate is expected to fall within the range of 23% to 27%.
 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 2010 season, the applicable spawner status and marine survival index are both in the "low" category. 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 2010.

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 over the last four years since 2006 were 15%, 20%, 8%, and 20%, 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 soon. 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 2010 depends on the matrix and the particular circumstances for the indicator populations. In 2010 abundance indicators are mixed. The Clackamas and Sandy are in the high and medium status categories, respectively based on brood year escapements. The marine survival index is in the low category. Given these circumstances the harvest matrix prescribes an ocean impact rate of 15%, an impact rate for freshwater fisheries of 7.5%, and a combined exploitation rate for all fisheries of 21.4%. 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 2010, 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 15%.

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 are 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 fisheries is currently prohibited. 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 fisheries and encourage the same in treaty tribal fisheries to minimize the effect of whatever catch may occur.

We appreciate that this will be another difficult year. We are committed to working with the Council to address the issues outlined in this letter.

Singerely,

Barry A./Thom

Acting Regional Administrator

Northwest Region

Rodney R. McInnis

Regional Administrator

Southwest Region