

**Statement of Jim Harp
on the Preliminary Definition of 2002 Management Options
to the Pacific Fishery Management Council
March 12, 2002**

Mr. Chairman, I would like make a brief statement regarding the status of the salmon resource in 2002 and the tribes' current thinking about a range of options for the ocean treaty troll fishery.

- The forecasts for coho on the Washington coast for both wild and hatchery stocks are generally about the same as last year, and are relatively healthy. In Puget Sound wild stock abundance is expected to be down from 2001 for several key wild management units. We are aware that the forecasts for the OPI stocks have decreased dramatically from last year. These conditions present some challenges in shaping 2002 ocean fisheries, however, we believe that these forecasts will allow for some moderate ocean harvest levels this year while taking into consideration the needs of the OCN and Puget Sound stocks.
- For chinook, the tule hatchery stocks should provide a significant increase in harvest opportunity in the ocean fisheries this year. However, some important contributing stocks continue to be depressed. We will continue to live up to the commitment that we made in 1988 to not increase our impacts on Columbia River chinook stocks of concern. Listed chinook stocks will require continued attention to work out a package of fisheries that meet the ESA requirements for these stocks.
- The tribes still have some concerns about our ability to appropriately analyze and manage our salmon populations under selective fishery regimes, but we appreciate the efforts that WDFW and ODFW have made in monitoring and sampling of their selective fisheries and the reports they have provided us. We encourage the states to continue rigorous monitoring and sampling of these fisheries and to continue discussion on this issue with the tribes.
- We are beginning the process of establishing, cooperatively with the Washington Department of Fish and Wildlife, a package of fisheries that will ensure acceptable levels of escapement for natural stocks of concern. We have joint Tribal/State agreement on specific 2002 management objectives.

I offer the following range of preliminary options for the ocean treaty troll fishery for compilation and analysis by the Salmon Technical Team with the understanding that this is only the first step towards finalizing options this week to be sent out for public review.

Treaty Troll Options

	<u>Coho</u>	<u>Chinook</u>
Option 1	70,000	60,000
Option 2	60,000	50,000
Option 3	50,000	40,000

TESTIMONY OF HOOPA VALLEY TRIBE
PFMC, SACRAMENTO
15 MARCH 2002

- (1) The Hoopa Valley Tribe (Tribe) expresses concern that ESA constraints to ocean fisheries are adversely affecting total allocation of Klamath chinook to tribal harvest. The Tribe is committed to exploring a solution to this issue within the Klamath Fishery Management Council (KFMC). The solution would be consistent with several principals previously developed by the KFMC. These include (1) the concept of full-utilization of the harvestable surplus and, (2) that limitations to harvest resulting from ESA constraints on other stocks should not compromise the ability to fully utilize Klamath fish by fisheries which are not constrained. Absent ESA constraints to ocean fisheries, the allocation to the Yurok and Hoopa Valley tribes would have approximated 52,000 adult chinook in the 2002 management year. In developing its management alternatives, the Tribe shall compare the conditional allocation of 52,000 adult fish to the alternatives developed by the PFMC today.
- (2) The Hoopa Valley Tribe reserves the option to develop full utilization strategies for Klamath Basin spring chinook. The Tribe has repeatedly called for the KFMC to develop spring chinook management strategies, has noted instances of unregulated impacts to spring chinook in other fisheries, and recognizes an opportunity to exploit this stock. In 2001 the Tribe shared with the KFMC its proposed harvest management plan for a commercial fishery for spring chinook. This plan recognized a strong hatchery component in the annual return of spring chinook to the Trinity River Hatchery. Further, the Tribe addressed a method for minimizing impacts to the non-hatchery component of the run to provide protection to these sub-stocks.

NATIONAL MARINE FISHERIES SERVICE REPORT

Situation: National Marine Fisheries Service (NMFS) will report on the status of regulatory and non-regulatory activities and issues affecting ocean salmon fishery management.

Council Task:

1. Receive information.

Reference Materials: None.

Agenda Order:

- a. Council Discussion

PFMC
02/20/02



March 2002

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

1514-04-020

MAR 8 2002

Mr. Hans Radtke
Chairman
Pacific Fisheries Management Council
2130 SW Fifth Avenue, Suite 224
Portland, Oregon 97201

Dear Mr. Radtke:

Amendment 14 to the Pacific Coast Salmon Fishery Management Plan (Salmon FMP) requires that the Pacific Fishery Management Council (PFMC or Council) manage their fisheries consistent with consultation standards developed by the National Marine Fisheries Service (NMFS) regarding actions necessary to protect species listed under the Endangered Species Act (ESA). This letter summarizes NMFS' consultation standards and provides guidance for the 2002 season for listed species.

Chinook Salmon

Puget Sound Chinook Salmon

This is the third year that NMFS will provide guidance to the Council related to the Puget Sound chinook ESU. NMFS' consultation standards for Puget Sound chinook stocks are expressed in terms of total or southern U.S. fishery exploitation rate ceilings, or terminal escapement objectives. Procedurally, the Council forum, and associated North of Falcon process, provide the appropriate forums for doing the necessary management planning. Under the current management structure, PFMC 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 PFMC and Puget Sound fisheries. Therefore, in adopting its regulations, the Council must determine that its fisheries in the ocean, 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 for management planning purposes, it is also appropriate to acknowledge that impacts on Puget Sound chinook stocks in Council fisheries are generally quite low. NMFS estimated in its 2000 PFMC opinion that the exploitation rates on Puget Sound chinook spring and fall chinook stock aggregates have been zero and three percent or less, respectively, in recent years. Management actions taken to



meet exploitation rate targets will therefore occur primarily in the Puget Sound fisheries, but the nature of the existing process is such that ocean fishery impacts will be accounted for, and are at least potentially liable to constraint if necessary to meet particular targets.

In April, 2001, NMFS exempted fishery activities conducted in accordance with a Resource Management Plan (RMP) submitted under Limit 6 of the 4(d) rule (65 FR 42422, 66 FR 31603) from ESA section 9 take prohibitions. The RMP, titled *Puget Sound Comprehensive Chinook Management Plan: Harvest Management Component*, was developed jointly by the Washington Department of Fish and Wildlife and the Puget Sound Treaty Tribes, and includes stock-specific harvest management objectives for Puget Sound chinook. Therefore, PFMC fisheries should be managed such that the total stock-specific impacts across all fisheries are no greater than those specified in Table 6, Appendix A, and Appendix Table C-1 of the RMP (enclosed).

Lower Columbia River Chinook

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 three remaining spring stocks within the ESU include those on the Cowlitz, Kalama, and Lewis rivers. The historic habitat for these spring chinook stocks is now largely inaccessible due to impassable dams. Although some spring chinook spawn naturally in each of these rivers, these are presumed to be largely hatchery-origin fish with little resulting natural production. The remaining spring stocks are therefore dependent, for the time being, on the associated hatchery production programs. The hatcheries have met their escapement objectives in recent years, and are expected to do so again in 2002, thus ensuring that what remains of the genetic legacy is preserved until a more comprehensive recovery program designed to reestablish self-sustaining populations is implemented. No additional management constraints in PFMC fisheries are considered necessary.

Three natural-origin bright stocks have been identified in the LCR ESU. The North Fork Lewis stock is used as a harvest indicator stock for ocean and in-river fisheries. The North Fork Lewis stock has exceeded its escapement objective of 5,700 every year since 1980 except that it was below goal in 1999 with an escapement of about 3,200 adults. The escapement shortfall has been attributed to severe flooding in 1995 and 1996. Escapements for the last two years have again been well above goal with returns of 8,700 and 11,300 in 2000 and 2001, respectively. Given the long history of healthy returns, NMFS does not anticipate the need to take specific management actions in the ocean to protect the bright component of the LCR ESU in 2002. NMFS does expect that the management agencies will continue to take appropriate actions through their usual authorities, to ensure that the escapement goal continues to be met.

Unlike the spring stocks or the bright component of the ESU, LCR tule stocks are impacted substantially in PFMC fisheries. There are four self-sustaining populations of tule chinook in the Lower Columbia River (Coweeman, East Fork Lewis, Clackamas, and Sandy) that are not substantially influenced by hatchery strays. Apart from these stocks, the system is dominated by hatchery production and whatever natural spawning does occur is heavily influenced by hatchery strays. The effect of hatchery operations on the ESU is currently the subject of a separate

section 7 consultation. Tule production in the lower River has already been reduced by more than half as a result of funding reductions.

NMFS reviewed the status of LCR tules in recent biological opinions related to the 1999 Pacific Salmon Treaty Agreement (PST) and the 2001 fall season fisheries in the Columbia River. Tules will benefit substantially from the ocean harvest regime in the PST agreement because of their ocean distribution, which is centered off the west coast of Vancouver Island and the Washington coast. NMFS developed a preliminary Rebuilding Exploitation Rate (RER) for the Coweeman population of 65% as part of the PST consultation. NMFS has since reviewed the available information and provided a revised RER of 49%. Although further review of this estimate is warranted, NMFS believes that an RER of 49% for the Coweeman stock is consistent with its continued survival and recovery, and expects the 2002 PFMC fisheries to be managed such that the total exploitation rate from all fisheries does not exceed that level. Further work on the tule component of the LCR ESU is needed, but NMFS believes that the appropriate course is to integrate future harvest management actions with recovery planning efforts that will seek to rebuild a broad range of self-sustaining, naturally producing tule stocks.

**Upper Columbia River Spring Chinook
Upper Willamette River Chinook Salmon
Snake River Spring/Summer Chinook**

Spring stocks from the Upper Columbia River and Willamette River Basins and spring/summer stocks from the Snake River are rarely caught in PFMC fisheries. Management actions designed to limit catch from these ESUs beyond what will be provided by harvest constraints for other stocks are therefore not considered necessary.

Snake River Fall Chinook Salmon

NMFS' guidance with respect to Snake River fall chinook is unchanged from that of the last several years. NMFS requires that the Southeast Alaska, Canadian, and PFMC fisheries, in combination, achieve a 30% reduction in the total age-3 and age-4 adult equivalent exploitation rate relative to the 1988-1993 base period. The PFMC fisheries therefore must be managed to ensure that the 30% base period reduction criterion for the aggregate of all ocean fisheries is achieved.

California Coastal Chinook Salmon

The California Coastal chinook ESU was listed as threatened effective November 15, 1999. The absence of reliable estimates of ocean exploitation rates on Central Valley chinook and the uncertainty regarding population abundance and short term trends for California coastal chinook populations make it difficult to assess the potential for coastal chinook populations to recover under the existing salmon FMP conservation objectives and ESA requirements. The April 18, 2000 biological opinion for coastal chinook considered the uncertainty regarding population trends and the magnitude of ocean harvest rates on the populations in the ESU. The opinion concluded that ocean fisheries would likely jeopardize the continued existence of coastal

chinook if ocean harvest rates on coastal chinook were to rise substantially above those observed in recent years. The opinion required that the age-4 ocean harvest rate forecast for Klamath River fall chinook not exceed 0.17, which was the maximum observed since 1996.

The Klamath Fishery Management Council recently completed a major revision of the Klamath Ocean Harvest Model (KOHM). Under the new KOHM, harvest rates are no longer expressed as a fraction of the May 1 abundance, but rather as a fraction of the previous year's September 1 abundance. All historical data have been adjusted to be consistent with the September 1 reference point. This change in the definition of harvest rate, as well as corrections to the cohort reconstruction, have generally resulted in a decrease in the values of past harvest rates (Table 1, from the 2001 and 2002 Preseason Report I).

Table 1. Estimates of ocean harvest rates of age-4 Klamath River fall chinook using the old May 1 abundance convention and the new September 1 convention.

Year	Old (May 1)	New (Sept 1)
1986	0.52	0.46
1987	0.53	0.43
1988	0.45	0.39
1989	0.44	0.36
1990	0.61	0.55
1991	0.21	0.18
1992	0.04	0.07
1993	0.11	0.16
1994	0.07	0.09
1995	0.21	0.13
1996	0.17	0.16
1997	0.10	0.06
1998	0.10	0.09
1999	0.12	0.09
2000	0.12	0.10
2001	NA	0.09

The corrections to the cohort reconstruction, the expression of harvest rates as a fraction of the September 1 abundance rather than the May 1 abundance, and the resulting changes in age-4 Klamath River fall chinook harvest rate estimates do not change the conclusions of NMFS' 2000 biological opinion. NMFS' determinations that 1) harvest rates of Klamath River fall chinook are the best available indicator of harvest rates of California Coastal chinook; and 2) the actual harvest rate of coastal chinook is probably intermediate between the harvest rate of Klamath River fall chinook and that of Central Valley fall chinook, remain unchanged. The opinion required that the age-4 harvest rate of Klamath River fall chinook not increase substantially above that observed between 1996 and 1999, pending the development of ocean harvest indices that allow more specific protection for California Coastal chinook stocks. For that period of time the estimates of rates have all decreased; the highest rate observed for those years is now estimated to be 0.16 rather than 0.17. Therefore, the RPA of the 2000 biological opinion will be implemented through a limit on the Klamath River fall chinook age-4 ocean harvest rate of 0.16.

Sacramento River Winter Chinook Salmon

The February 18, 1997, amendment to the March 8, 1996, biological opinion required constraints on ocean harvest sufficient to produce a 31% increase in the winter chinook adult replacement rate relative to a base period of 1989. The opinion provided that the requirement would remain in effect through the 2001 salmon seasons, and that NMFS would then reassess the need for restrictions on ocean harvest to protect winter chinook. NMFS has decided to issue a biological opinion and incidental take statement that will cover only the 2002 and 2003 fishing seasons. A two-year opinion is advisable for several reasons. NMFS has recommended that the PFMCA amend the Pacific Coast Salmon Plan to specify recovery and long term conservation objectives for Sacramento River winter chinook and Central Valley spring chinook. A short term opinion

will accommodate that process. In January 2002 the Department of Fish and Game recommended to NMFS that carcass survey data replace the counts at Red Bluff Diversion Dam as the best available estimate of the size of spawning population. NMFS agrees with this approach but would like to work with the Department in evaluating which methodology is most appropriate for estimating the population size. In addition, the Department has revised it's historical time series of escapement estimates based on Red Bluff Diversion Dam counts. The changes create substantial problems with respect to extending the current ESA requirements for winter chinook. NMFS will issue a 2 year opinion prior to the onset of the 2002 seasons. NMFS anticipates that the requirements will include the following:

1. The duration and timing of the 2002 and 2003 recreational seasons south of Point Arena, California, shall not change substantially relative to the past two years.

The delay in the opening of the season implemented by the California Fish and Game Commission in 2000 provides protection for both Sacramento River winter and spring run chinook and must remain in effect. The area between Point Arena and Pigeon Point should open the Saturday nearest April 15, and close the Sunday nearest Nov 7; the area between Pigeon Point and the U.S.-Mexico border should open the Saturday nearest April 1, and close the Sunday nearest September 30.

Increased minimum size limits have been used as a means of reducing winter chinook mortality in recreational and commercial fisheries. The magnitude of the mortality reduction associated with higher minimum size limits is dependent on hook and release mortality rates, which are difficult to estimate. NMFS believes that a time series of coded wire tag recoveries, which is not biased by annual changes in minimum size limit regulations, will be an important component in the future management of winter chinook. NMFS recommends that the use of increased minimum size limits be phased out over the course of several seasons, if the spawning population continues to increase in size. In 2002, the scheduled minimum size limit of 24 inches prior to May 1 could return to 20 inches on May 1 rather than July 1 as in 2001.

The CDFG and PFMC have recommended certain terminal gear restrictions designed to reduce hook and release mortality. Those restrictions should continue.

2. The duration and timing of the 2002 and 2003 commercial seasons south of Point Arena, California shall not change substantially relative to the past two years.

CWT recoveries indicate that the catch of winter chinook by commercial fisheries is substantially less than that by recreational fisheries. For 2002 and 2003, commercial seasons will be controlled by the FMP management objective for Klamath River fall chinook and by the NMFS 2000 biological opinion on California Coastal chinook, which limits the age-4 harvest rate on Klamath fall chinook to 0.16.

In recent years, experimental commercial fisheries have been conducted to provide data on the contribution rates of certain stocks to commercial fisheries opening prior to May 1. NMFS approves of quota-controlled experimental fisheries designed to gather data on contribution rates

and distribution of stocks, including listed species, provided that they meet the PPMC protocol for experimental fisheries.

Central Valley Spring Chinook Salmon

The Central Valley spring chinook ESU was listed as threatened effective November 15, 1999. NMFS' 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 FMP and NMFS biological opinions for winter chinook, were not likely to jeopardize the continued existence of Central Valley spring chinook. The opinion noted that the two week delay in the opening of the recreational seasons south of Point Arena implemented for the 2000 season would provide additional protection to spring chinook.

Although the 2001 estimate of escapement to Deer, Mill and Butte creeks (12,300) declined relative to the 1998 estimate, it exceeded all other years on record except 1998. For the 2002 season, NMFS has no ESA requirements in addition to those for Sacramento River winter chinook and California Coastal chinook.

Coho Salmon

NMFS considered the effects of west coast ocean fisheries on listed populations of coho salmon in a supplemental biological opinion dated April 28, 1999. The opinion provided ESA consultation standards for the three listed coho ESUs in Oregon and California: Oregon Coastal Natural (OCN), Southern Oregon/Northern California Coastal (SONCC), and Central California Coastal (CCC) coho salmon. The requirements of that opinion, which are summarized below, will remain in effect for the 2002 season.

Oregon Coastal Coho Salmon

Amendment 13 provides separate exploitation rate targets for four OCN sub-stocks that depend on measures of escapement during the applicable brood year and ocean survival. NMFS requires that the three northern sub-stocks be managed according to the provisions of Amendment 13. The southern sub-stock is part of the SONCC coho ESU and will be managed in accordance with the requirements for that ESU.

When the PPMC adopted Amendment 13 in 1997, they stipulated that it be reviewed and updated on a periodic basis. The first review, conducted by an ad hoc OCN Work Group, was completed in November, 2000. The Work Group's report recommended several changes to the original management matrix including a lower range of exploitation rates when spawner abundance and marine survival are very low. At its November, 2000 meeting, the Council adopted the OCN Work Group report as "expert biological advice to help guide Council management of OCN coho". For the 2002 season, both the applicable parental spawner status and marine survival index are in the "low" category. Under these circumstances, both the report and the exploitation rate matrix in Amendment 13 require that exploitation rates be limited to no more than 15%.

NMFS is also aware of efforts by the State of Oregon to integrate management for OCN coho and Lower Columbia River (LCR) coho. LCR coho are listed as endangered under the State's ESA. LCR coho are a candidate for listing under the federal ESA, but are not currently listed or proposed for listing. Oregon has developed a management matrix for LCR coho that is conceptually equivalent to that used for OCN coho. The circumstances related to LCR coho in 2002 lead to a recommendation for fisheries that are more conservative than the 15% exploitation rate that is allowed based on considerations for OCN coho. Although NMFS has not reviewed Oregon's management matrix for LCR coho in detail (the associated report was just recently brought to our attention), we do generally support Oregon's proposal to manage fisheries conservatively to meet the needs of the weaker of the two principle coho stocks in the region. The result would be more conservative management for OCN coho.

Southern Oregon/Northern California Coastal Coho Salmon

The Rogue/Klamath hatchery stock is used as the harvest indicator for SONCC coho. NMFS' 1999 biological opinion requires that management measures developed under the FMP achieve an ocean exploitation rate on Rogue/Klamath hatchery stocks of no more than 13%. The allowable exploitation rate for SONCC coho this year is therefore less than that for OCN coho, and may continue to be more limiting in the future because of the relative lack of information regarding naturally spawning coho stocks in California streams. NMFS expects that management constraints for OCN coho and LCR coho in 2002 will also limit impacts to SONCC coho stocks. In recent years, estimated exploitation rates for SONCC coho have been significantly less than for OCN coho.

Central California Coastal Coho Salmon

Little information on past harvest rates or current hooking mortality incidental to chinook fisheries exists for Central California Coastal coho. For the 2002 season, coho-directed fisheries and coho retention in chinook-directed fisheries will continue to be prohibited off California.

Chum Salmon

Hood Canal Summer Chum

Chum salmon are not targeted or caught incidentally in PFMC salmon fisheries. Management constraints in ocean fisheries for the protection of Hood Canal summer chum are also not considered necessary.

Sockeye Salmon

Snake River Sockeye Salmon Ozette Lake Sockeye Salmon

Sockeye salmon are not targeted or caught incidentally in PFMC salmon fisheries. Management

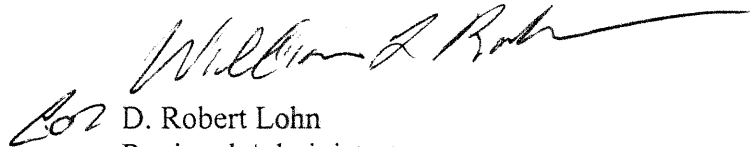
constraints in ocean fisheries for the protection of listed sockeye salmon are therefore not considered necessary.

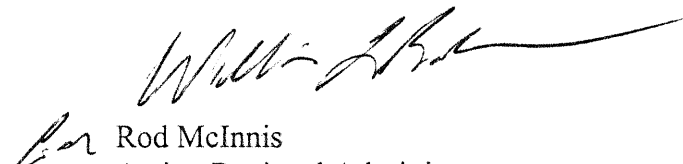
Steelhead

NMFS has listed two ESUs of steelhead as endangered and seven ESUs as threatened in Washington, Oregon, Idaho, and California. Steelhead are rarely caught in ocean fisheries and ocean fishery management actions that seek to shape fisheries to minimize impacts to steelhead are not considered necessary. The Council and states should prohibit the retention of steelhead in ocean recreational fisheries to minimize the effect of whatever catch may occur.

Please call if you have additional questions.

Sincerely,


D. Robert Lohn
Regional Administrator
Northwest Region


Rod McInnis
Acting Regional Administrator
Southwest Region

enclosure

Table 6 - Natural Chinook Management Units and Associated Objectives

Natural Chinook Management Units	Recovery Exploitation Rate Ceiling ¹	Low Abundance Threshold ²
Western Strait Hoko	10% SUS ER ³	500 spawners (c)
Elwha River	10% SUS ER ³	1,000 spawners (c)
Dungeness	10% SUS ER ³	500 spawners (c)
Mid-Hood Canal	15% pre-terminal SUS ER ³ Terminal – 750 spawners	400 spawners (n)
Skokomish	15% pre-terminal SUS ER Terminal – 3,150 spawners/1,200 natural spawners	1,300 spawners/800 natural spawners (c)
Nooksack Early North Fork South Fork	The Co-managers and NMFS are developing a RER assessment for this stock ⁴	1,000 spawners (n) 1,000 spawners (n)
Skagit Spring Chinook	42% Total ER	576 spawners (n)
Skagit Summer/Fall Chinook	52% Total ER	4,800 spawners (n)
Stillaguamish Summer/Fall	25% Total ER	500 spawners (n)
Snohomish Summer/Fall	32% Total ER	2,000 spawners (n)
Lake Washington Chinook Cedar River Index	15% pre-terminal SUS ER Terminal – 1,200 spawners	200 spawners (n)
Green River Chinook	15% pre-terminal SUS ER Terminal – 5,800 spawners	1,800 spawners (c)
White River Spring Chinook	17% Total ER	200 spawners (c)
Puyallup River Chinook	50% Total ER	500 spawners (c)
Nisqually River Chinook	1,100 spawners	500 spawners (c)

(n) – low abundance measures as natural origin recruits.

(c) - low abundance measures as composite escapement of natural and hatchery returns

1/ Interim management ceiling during recovery phase as estimated by the Fishery Regulation and Assessment Model (FRAM).

2/ Level of forecasted spawning abundance that triggers additional management action. Thresholds are set with consideration to stock-specific characteristics and genetic viability concerns.

3/ FRAM exploitation rate measured as total exploitation rate in southern U.S. fisheries. This objective represents the average exploitation rate by southern United States fisheries during 1992-1996 determined from run reconstruction.

4/ In the interim, management guidance will be derived from Appendix C application.

Nooksack River Management Unit

The management objectives for Nooksack early chinook constrain harvest under co-manager jurisdiction so that it will not impede recovery, while allowing for the exercise of treaty-reserved fishing rights and providing non-treaty fishing opportunity.

For the next two years it is not expected that the abundance of natural origin spawners returning to either of the Nooksack early chinook stocks will exceed the critical abundance thresholds. The co-managers and the NMFS will work together toward the development of an acceptable recovery exploitation rate to be implemented when the returning abundance of natural origin spawners exceeds the critical abundance threshold for both stocks.

When the projected escapement to the spawning grounds, in preseason modeling, is below the critical abundance threshold of 1,000 natural spawners for either of the Nooksack early chinook stocks, fisheries that impact the escapement of these stocks will be shaped so the exploitation rate in southern US fisheries, that is defined by modeling the fisheries regime listed in Appendix C with the current season's forecast abundance, is not exceeded.

Skagit River Management Unit

The management objectives for Skagit summer/fall and spring chinook include recovery exploitation rates that insure, while maintaining fishing opportunity, that harvest will not impede recovery, and low abundance thresholds that guard against abundance falling below the point of instability (Hayman 2000). The intent of this plan is to take actions that prevent extinction of individual populations, while maximizing long-term harvestable numbers and achieving ESA jeopardy standards for the two Skagit wild chinook management units

If the projected escapement of either management unit, or of any Skagit summer/fall stock falls below the low abundance threshold, further management actions will be triggered to reduce fishing mortality, as described in Appendix C.

For the summer/fall management unit, the low abundance threshold is 4,800; for the spring management unit, the low abundance threshold is 576. For the summer/fall unit, low abundance thresholds have been developed for each component population, so that forecast weakness in any one population may trigger the more conservative harvest regime. The crisis escapement thresholds for Upper Skagit summers, Lower Sauk summers, and Lower Skagit falls are 2,200, 400, and 900, respectively (Hayman 2000c). For spring chinook, data to calculate population-specific low abundance thresholds are not yet available.

Stillaguamish River Management Unit

The management guidelines for Stillaguamish chinook include an exploitation rate objective and a critical escapement threshold. The Washington co-managers have set an exploitation rate guideline of 0.25, as estimated by the FRAM simulation model, for the Stillaguamish chinook management unit. The critical escapement threshold is 500 natural-origin spawners. Whenever spawning escapement is projected to be below this level, fisheries will be managed to achieve a lower rate than the interim exploitation rate objective.

Snohomish River Management Unit

Management objectives for Snohomish summer/fall chinook include an upper limit on total exploitation rate, to insure that harvest does not impede the recovery of the component stocks, and a critical threshold for spawning escapement to maintain the viability of the stocks. Fisheries in Washington will be managed to achieve a total, adult equivalent exploitation rate, associated with all coastal fisheries, not to exceed 32 percent. A low escapement threshold of 2,000 spawners (natural origin, naturally spawning fish) for the management unit is established as a reference for pre-season harvest planning. If escapement is projected to fall below this threshold under a proposed fishing regime, extraordinary measures will be adopted to minimize harvest mortality.

Lake Washington Management Unit

The co-managers expect to manage impacts to Lake Washington natural chinook in all of the various fisheries throughout Puget Sound so as to constrain total exploitation rates in southern U. S. fisheries to a level within the range observed in recent years, e.g., 1998-2000. During the next two years, if estimated impacts are predicted to exceed the range observed in recent years, the co-managers will meet and discuss what additional actions, if any, may be appropriate to bring the exploitation rate back within the range.

Fisheries will be managed to achieve an escapement 1,550 to Lake Washington streams, which will be determined by live counts in the Cedar River index reach of 1,200 chinook. The low abundance threshold is defined as spawning escapement of 200 in the Cedar River index reach. If pre-season fishery simulation modeling indicates that escapement will fall below this level, conservation measures will be implemented to reduce fisheries mortality to the level defined by modeling the fisheries regime detailed in Appendix C.

Green River Management Unit

The co-managers manage fisheries to meet or exceed the spawning escapement goal of 5,800 Green River chinook. Management objectives for Green River chinook include an exploitation rate objective for pre-terminal fisheries and a procedure to manage terminal-area fisheries, based on an inseason abundance update (ISU), to assure that the escapement goal will be achieved. A low abundance threshold is identified to guard against abundance falling below the point of instability. Pre-terminal fisheries in Washington are managed to achieve a 15 percent ('SUS') exploitation rate, as estimated by the FRAM model. Terminal fisheries are managed to achieve the escapement goal of 5,800.

A low-abundance threshold of 1,800 natural spawners is established for the Green River management unit. If natural escapement is projected to fall below this threshold during pre-season planning, then additional management measures will be implemented in accordance with procedures established in Appendix C, to minimize fishery-related mortality. The terminal fishery may also be shaped to increase escapement if the in-season update indicates that the threshold will not be attained.

White River Management Unit

Fisheries in Washington will be managed to achieve a total exploitation rate, including fisheries in British Columbia, no greater than 17 percent, as measured by the FRAM simulation model.

If preseason fishery simulation modeling suggests that escapement will not exceed the low abundance threshold (200 chinook), further conservation measures will be implemented in fisheries that catch White River chinook, so as to reduce their total exploitation rate to a level that is defined by modeling the fishing regime described in Appendix C.

Puyallup Management Unit

The harvest management objective for Puyallup fall chinook is to not exceed a total exploitation rate of 50 percent, to assure that a viable, natural-spawning population is perpetuated. A low abundance threshold of 500 is established for the Puyallup fall management unit. If escapement is projected to fall below this threshold, fisheries-related mortality will be reduced to a level defined by the fisheries regime described in Appendix C.

Nisqually River Management Unit

This inseason assessment of natural run strength will enable the fishery to be managed for the 1,100 escapement goal. When the in-season update indicates that the escapement goal (1,100) will not be achieved, terminal area fisheries will be constrained by agreement between the co-managers with the objective of increasing spawner abundance to a level at or above the escapement goal.

Skokomish River Management Unit

Pre-terminal fisheries in southern U.S. areas (SUS), will be managed to ensure a total rate of exploitation of 15%, or less, as estimated by the FRAM model (est. of 1997-1999 SUS preseason impacts). Terminal fisheries are managed to achieve the escapement goal of 3,150. If the recruit abundance is insufficient for the goal to be met, OR regardless of the total escapement, the naturally spawning component of this population is expected to fall below 1,200 spawners, OR the hatchery component is expected to result in less than 1,000 spawners, additional terminal fishery management measures will be considered.

If, despite the implementation of additional measures, the projected escapement is less than 1,300 total spawners, OR regardless of the total escapement, the naturally spawning component of this population is expected to fall below the low threshold of 800 spawners, OR the hatchery component is expected to result in less than 500 spawners, pre-terminal SUS fisheries will be constrained to minimize mortality, in accordance with conservation measures described in Appendix C. In Hood Canal terminal areas the co-managers will consider and implement additional actions as necessary, including fishery closures, in order to increase the escapement to a level closer to, or above, the low thresholds.

Mid-Hood Canal Management Unit

Pre-terminal fisheries in southern U.S. areas (SUS), are managed to achieve a total rate of exploitation of 15%, or less, as estimated by the FRAM model. When the escapement goal of 750 spawners (established as interim MSY in HCSMP) is not expected to be met, additional management measures will be considered for terminal area recreational and commercial fisheries in order to ensure that the total SUS exploitation rate will not exceed 15%.

A low abundance threshold of 400 chinook spawners has been established for the Mid-Hood Canal management unit, which is approximately 50% of the current MSY goal for the Mid-Canal rivers, in the hood Canal Salmon Management Plan (1985). If escapement is projected to fall below this threshold, further conservation measures, which are described in Appendix C, will be implemented in pre-terminal and terminal fisheries to reduce mortality.

Dungeness Management Unit

Pre-terminal harvest in Washington waters will be constrained such that the southern U.S. exploitation rate does not exceed 10 percent (based on approximation of the 1997-99 mean SUS incidental rate, as estimated in FRAM). The critical escapement threshold for the Dungeness River is 500 natural spawners, which is approximately 50% of the (presumed MSY) escapement goal. Whenever natural spawning escapement for these stocks is projected to be below this threshold, pre-terminal fisheries will be managed to minimize mortality. Until the supplementation program is successful in rebuilding escapement to levels above this threshold, harvest will be constrained, in accordance with Appendix C, to minimize mortality.

Elwha River Management

Fisheries in Washington waters, including those under jurisdiction of the Pacific Fisheries Management Council, when the escapement goal is not projected to be met, will be managed so as not to exceed a 'Southern U.S.' exploitation rate of 10 percent on Elwha chinook (based on approximation of the 1997-99 mean SUS incidental rate, as estimated in FRAM). Harvest at this level will assist in providing adequate escapement returns to the river to perpetuate natural spawning in the limited habitat available, and provide broodstock for the supplementation program. It represents a significant decline in harvest pressure from southern U.S. fisheries.

The critical escapement threshold for the Elwha River is 1,000 spawners, which represents a composite of 500 natural and 500 hatchery spawners. Whenever spawning escapement for this stock is projected to be below these levels, fisheries will be managed to achieve a lower rate in southern U.S. waters, in accordance with base fishery levels specified in Appendix C.

Appendix Table C-1. Range of exploitation rates (ER) expected with application of the Minimum Fishery Regulation Regime, under assumptions of recent year stock and species abundance.

Natural Chinook Management Units	Recovery Exploitation Rate Ceiling	Appendix C Ranges
Western Strait – Hoko R	10% SUS ER	8 – 10% SUS ER
Elwha River	10% SUS ER	8 – 10% SUS ER
Dungeness	10% SUS ER	8 – 10% SUS ER
Mid-Hood Canal	15% pre-terminal SUS ER Terminal – 750 spawners	13 – 15% pre-terminal SUS ER plus terminal ¹
Skokomish	15% pre-terminal SUS ER Terminal – 3,150 spawners	12 - 15% pre-terminal SUS ER plus terminal ¹
Nooksack Early	Under development ²	5 – 7% SUS ER
Skagit Spring	42% Total ER	15 - 17% SUS or 21-23% Total ER
Skagit Summer/Fall	52% Total ER	12 - 17% SUS or 29-33% Total ER
Stillaguamish Summer/Fall	25% Total ER	9 - 10% SUS or 15-16% Total ER
Snohomish Summer/Fall	32% Total ER	19 - 20% SUS or 24-26% Total ER
Lake Washington Cedar R	15% pre-terminal SUS ER Terminal – 1,200 spawners	11 - 15% pre-terminal SUS ER plus terminal ¹
Green River	15% pre-terminal SUS ER Terminal – 5,800 spawners	10 - 15% pre-terminal SUS ER plus terminal ¹
White River Spring	17% Total ER	12% SUS or 13% Total ER
Puyallup River	50% Total ER	26% SUS or 36% Total ER
Nisqually River	1,100 spawners	Terminal ¹

¹ The management intent is to take necessary action in the terminal and pre-terminal fisheries to achieve the low abundance threshold or to maximize the spawning escapement given the maximum regulatory effect that can be achieved for the management unit. Refer to the stock profiles for details on management intent.

² The co-managers and NMFS are currently working on developing a recovery exploitation rate ceiling for this management unit. For the next two years it is not expected that the abundance of natural origin spawners will exceed the low abundance threshold. Therefore it is anticipated that southern US fisheries will be managed at impact levels generated from the application of Appendix C.

SCIENTIFIC AND STATISTICAL COMMITTEE COMMENTS ON
FINAL REVIEW OF METHODOLOGY CHANGES TO THE
KLAMATH OCEAN HARVEST MODEL (KOHM) AND COHO
FISHERY REGULATION ASSESSMENT MODEL (FRAM)

At the November 2001 Council meeting, the Scientific and Statistical Committee (SSC) received updates on the progress of changes to the coho salmon Fishery Regulation and Assessment Model (FRAM) and the Klamath Ocean Harvest Model (KOHM). At that time both models still had several issues that needed to be addressed before the models could be used in the 2002 management process. Joint meetings of the SSC salmon subcommittee and the Salmon Technical Team (STT) were held on January 3 and February 5, 2002 to receive progress reports on the work to address the outstanding issues for the FRAM and the KOHM, respectively.

Coho FRAM:

Mr. Jim Packer and Mr. Larrie LaVoy from the Washington Department of Fish and Wildlife (WDFW) presented the progress report on the coho FRAM. At the November meeting, it was determined the critical problem that needed resolution before FRAM could be updated was a methodology for combining or "averaging" fishery exploitation rate estimates across the six years in the new 1986-1991 base period. Since that meeting, Mr. Packer and Mr. LaVoy have investigated four possible methods of "averaging" base period exploitation rates:

1. stock-fishery-time specific exploitations rates averaged over six years,
2. stock-fishery-time specific exploitations rates averaged over open fisheries only during the six years,
3. stock-fishery-time specific catches averaged over six years (then divided by an average cohort size), and
4. stock-fishery-time specific catches averaged over open fisheries only during the six years (then divided by an average cohort size).

Detailed comparisons of the results of using each averaging method in the final 2001 preseason FRAM run were presented. The SSC recommended that method 2 be used to estimate stock-fishery-time specific exploitations rates in the model for 2002, because this method is considered to be less biased than the others, and it can most easily incorporate new information (i.e., exploitation rates outside the base period) into the model if it becomes available. The SSC also recommends further analysis of alternative methods before the 2003 management season.

At the November meeting, the following additional tasks were identified which needed to be completed prior to the March 2002 meeting: (1) those parties responsible for producing preseason forecasts for input to FRAM needed to be aware of new stock requirements and prepare forecasts in a format compatible with the updated FRAM; (2) all output reports for the Council, South of Falcon, and North of Falcon management processes needed to be developed and incorporate the new stocks and fishery units; (3) the Terminal Area Management Models (TAMMs), which have been external to the old FRAM model, are now internal to the model, and reports analogous to the TAMM output sheets needed to be developed; (4) there are a number of other management models that use output from the FRAM as input and compatibility between models needs to continue; and (5) Washington coastal terminal area fisheries are now part of the updated FRAM. In the past, analyses for these fisheries were conducted external to the model. Agreement on the methods to be used for Washington coastal terminal area fisheries in 2002 is needed. All of these issues have been satisfactorily addressed. With reference to issue 5, WDFW and the Tribes will consider both methods of analysis (external to the model and internal to the model).

Given that all identified issues of concern have been addressed, the SSC recommends the revised FRAM for use in the 2002 fishery management process. In addition, the SSC recommends that Model Evaluation Subgroups be formed for both the coho and chinook FRAM models. These groups should have participants from all interested agencies. The purpose of these subgroups would be to:

- Increase the number of people who understand the model, can run the model, and make changes to the model; so the departure of any single person does not disrupt the viability of the FRAMs.
- Validate and document the current model. Before validation can be done, it is necessary to define an appropriate approach for model validation.
- Review and verify any changes to the model and conduct postseason evaluations of model performance.
- Propose changes to the model that would improve the model for its intended management purposes.
- Conduct a sensitivity analysis of model outputs to specific model inputs.
- Implement methods to quantify the uncertainty of model predictions.

Finally, it is very difficult for the SSC to assess the scientific validity of the FRAM models because of the lack of postseason validations and model documentation. Although there has been some progress in this area, more is needed before the SSC can comprehensively evaluate the FRAM. However, using the 1986-1991 coho cohort database for the new baseline is clearly an improvement over the previous 1979-1981 base period.

Klamath Ocean Harvest Model:

Mr. Michael Mohr and Mr. Allen Grover provided an update on the revision to the Klamath Ocean Harvest Model (KOHM). At the November meeting there were three unresolved issues that needed to be addressed prior to model use: (1) the appropriate contact rate for naturally-produced fish needed to be determined; (2) a method was needed to incorporate the non-Klamath catch into the model; and (3) a comparison of the new model with the old model and, more importantly, a hindcast evaluation of the new model using abundance and harvest estimates from previous years were needed. All three of these issues have been satisfactorily addressed. With reference to issue 3, extensive test runs indicate the model code does not contain obvious errors. Hindcast catches and exploitation rates were in the range of observed values.

The KOHM revision is a vast improvement of the model, and the SSC recommends its use for this year's management cycle. The model base data are fully documented, and the input files and sub-models within the KOHM can be easily revised to incorporate new information or to assess the effects of various management regulations. Further work that needs to be done on the KOHM are (1) a report documenting the current model and its verification needs to be produced; (2) the model interface needs to be improved to facilitate its use by other groups; and (3) methods to quantify the uncertainty of model predictions need to be implemented. For example, if uncertainty were characterized the probability of the natural spawner escapement falling below the escapement floor could be estimated.

SALMON TECHNICAL TEAM COMMENTS ON THE METHODOLOGICAL REVIEW OF
REVISIONS TO THE KLAMATH OCEAN HARVEST MODEL AND THE
COHO FISHERY REGULATION ASSESSMENT MODEL

KOHM

The Salmon Technical Team (STT) recommends that the revised KOHM be applied beginning in 2002. Based on several reviews of the revised model, the STT believes that the new KOHM represents a thoughtful, well-reasoned modeling approach that can be expected to substantially improve the capacity of the Council to evaluate the impacts of fishery regulations on Klamath fall chinook. The revised model represents a significant improvement from the previous version in several important ways, including:

- Available data and information regarding Klamath fall chinook from a variety of sources are integrated into a cohesive form with a sound theoretical basis.
- A new historical database has been created which contains CWT data, catches, effort, and escapements necessary to parameterize the KOHM. This database is to be updated to incorporate new information as it becomes available over time.
- The fishery-time strata used in the new KOHM provide for separate assessment of troll and sport fisheries and significant refinement of management areas. These stratifications and changes in parameterization improve the visibility of the assumptions employed in the estimation of fishery impacts.
- Cohort analysis procedures have been modified to be consistent with algorithms used in model projections, including incorporation of drop-off mortalities and current release mortality rate estimates.
- Cohort analyses have been performed on five components of Klamath fall chinook production (Iron Gate Hatchery fingerling and yearling releases, Trinity River Hatchery fingerling and yearling releases, and Klamath Naturals).
- The structure of the KOHM and the data employed are now more transparent:
 - ❖ Methods, assumptions, and algorithms are well documented, improving understanding the components that affect impact predictions and the significance of key model parameters.
 - ❖ The KOHM has been coded in R, a statistical programming language, improving the ability to understand and modify algorithms and identify interrelationships between model parameters.
 - ❖ Visibility of underlying data has been improved.
 - ❖ The new structure uses all historical data and has provisions for future data and parameters that may improve the prediction of fishery impacts.
 - ❖ The new time/area strata makes integration of the KOHM with other ocean harvest models more transparent.

The STT and the SSC recommended in November of 2001 that additional evaluation of the KOHM be conducted. Since then, the model code has been error checked, and model algorithms have been validated by hindcasting the 1991 through 2000 seasons. This hindcasting exercise revealed no bias in estimated mortality rates or escapements and increased the STT's confidence in the KOHM.

The determination of whether or not the new KOHM be used should not be based on a comparison of results with the previous version.. It is likely that results of the revised KOHM will differ from those of the previous version in several ways due to differences in structure, databases, and parameterization. A comparison of the previous and new versions of the KOHM may provide users with some insight into model behavior, but would not provide useful information regarding the performance of the revised KOHM in accurately estimating fishery impacts.

Coho FRAM

The STT recommends that the Council approve the use of the new base period dataset for Coho FRAM. No changes in algorithms or functional structure from the Coho FRAM used last year are involved. Changes are confined to the model input data, specifically to the development of a new base period data set. Estimation methods for the generation of base period data rely upon the Mixed Stock Model (MSM) supplemented by other data (e.g., escapements), estimation methods, and models. These methods have been previously reviewed so the development of the new base period data primarily involves the application of approved methods to a specific set of data.

There are trade-offs involved in changing base period data sets. The current base period for Coho FRAM reflects exploitation patterns observed from 1979-1981. Fisheries during this period were consistent, occurred over an extensive geographic area, and were intensive so that CWT recovery data were of high quality. However, tagging of stocks contributing to fisheries during this period was incomplete so that data were not available to directly estimate base period impacts for some populations of concern.

The new base period covers the years from 1986-1991. CWT releases for many more groups of fish contributed to fisheries during this time period, but fishing patterns were inconsistent. As management attention focused on the protection of individual stocks, uncertainty over estimates of fishery impacts increased as harvest rates were reduced and fishery regimes became more variable.

Agencies were consulted extensively during development of the new base period database to ensure that representative CWT groups were selected and that the correct data were employed. The methods employed to generate the new base period data attribute all catch to modeled stock groups, and eliminate many ad-hoc data manipulations and terminal fishery calculations that had to be done outside the model in the past.

Considering these trade-offs, the STT believes that the new 1986-1991 base period database represents a substantial improvement over the 1979-1981 base period data currently used by Coho FRAM.

Changes in fishery and stock stratifications resulting from the use of a new base period are summarized in the following table:

	Current Data Set	Proposed New Data Set
Base Period Catch Years	1979-1981	1986-1991
Stocks	13	18
Fisheries	1	7
Time Periods	(Dec-Dec)	Jan-June, July, Aug, Sep-Dec)
CWT Groups in Base	10 (10.8 million tags)	40 (44.2 million tags)
Stocks without CWT data during base	Skagit, Grays Harbor, Willapa)	the

SALMON ADVISORY SUBPANEL REPORT ON
FINAL REVIEW OF METHODOLOGY CHANGES TO THE KLAMATH OCEAN HARVEST MODEL AND
COHO FISHERY REGULATION ASSESSMENT MODEL

The Salmon Advisory Subpanel (SAS) supports the adoption of the methodology changes to the Klamath Ocean Harvest Model and the Coho Fishery Regulation Assessment Model. We are very appreciative of the time and hard work expended by the scientific community to upgrade these models and hope their use will better represent current fishery patterns and stock status.

PPMC
03/12/02

DRAFT SUMMARY MINUTES SALMON TECHNICAL TEAM

Pacific Fishery Management Council
Embassy Suites Hotel
Spruce Room
7900 NE 82nd Ave
Portland, OR 97220
(503) 460-3000
January 3, 2002

Call To Order

The Salmon Technical Team (STT) met in conjunction with the Scientific and Statistical Committee's (SSC) Salmon Subcommittee to review the methodological changes proposed for the coho Fishery Regulation Assessment Model (FRAM). Mr. Larrie LaVoy and Mr. Jim Packer from Washington Department of Fish and Wildlife (WDFW) presented the proposed changes. These minutes do not represent the final recommendations of the STT, the SSC Salmon Subcommittee, or the full SSC, but reflect group discussions and statements by individuals at the meeting. The STT and the full SSC will develop formal recommendations to the Council regarding the proposed changes for the March 2002 Council Meeting.

Members In Attendance

SSC - Dr. Pete Lawson, Dr. Brain Allee, Mr. Alan Byrne, Mr. Robert Conrad, Dr. Kevin Hill, Dr. Shijie Zhou

STT - Mr. Dell Simmons, Mr. Mike Burner, Dr. Robert Kope, Mr. Doug Milward, Dr. Gary Morishima

PFMC - Mr. Chuck Tracy

WDFW - Mr. Jim Packer, Mr. Larrie LaVoy

Observers - Mr. Don Stevens; Mr. Gary Graham; Mr. Sam Sharr, ODFW; Mr. Andy Rankis, NWFIC; Mr. John Frieberg, NWIFC; Mr. Dan Leinan

Agenda Review

The approved agenda included:

Methods for combining six years (1986-1991) into an appropriate base period

Report on stock forecast requirements from state and tribal agencies

Development of suitable output reports

Incorporation of Terminal Area Management Models (TAMMs) into the FRAM

Development of a Model Evaluation Subgroup (MES)

Methods for Combining 6 Years Into Base Period

Four methods for combining the 1986 to 1991 information into a single base period for each time, area, fishery strata were presented:

- A. Average catch for all six years (divided by average cohort size for all six years)
- B. Average of annual exploitation rates for all six years (annual catches divided by average cohort size for all six years)
- C. Average catch for years with open fisheries (divided by average cohort size for all six years)
- D. Average of annual exploitation rates for years with open fisheries (annual catches with open fisheries divided by average cohort size for all six years)

Mr. Packer indicated a preference for method A, because the model will reproduce historical catches from the base period years, and the average is weighted to the years with the most reliable information.

Dr. Lawson indicated that reproducing catches from the base period years indicates the model code is functioning correctly, not that the model provides the best management tool. He believes the SSC/STT

should recommend a management tool based on scientific principles and robustness and one that will best represent reality when fishery regulations and other model inputs area changed.

Dr. Morishima indicated the objective should drive the choice of method (i.e., are exploitation rates or catches needed for management decisions?).

Dr. Zhou indicated pooling catch from all six years will introduce bias, and the average should be weighted (i.e., using exploitation rate).

Mr. Packer indicated that since the exploitation rates were divided into time periods, they do not represent unbiased or evenly weighted values; changing the cohort size at time steps gives different results than an annual exploitation rate.

Dr. Lawson questioned the use of all six years in estimating the average cohort size for methods using open fishery years rather than just the years with open fisheries. Using a 6-year average may bias exploitation rates low and under predict impacts.

Dr. Zhou was concerned with the use of ratio estimators and whether they were appropriate.

Dr. Morishima indicated a preference for the method using exploitation rates for open fisheries, because it is defensible, and it allows relatively straightforward incorporation of new information where current exploitation rate estimates are weak or assumed from other strata.

Mr. LaVoy indicated that when model input is restricted to dead fish (i.e., quota fisheries or expected catches), the difference in results from the various methods is drastically reduced.

The consensus of the STT members present was the method using average exploitation rates when fisheries were open (Method D) is preferable at this time.

Stock Forecasts

Dr. Lawson inquired about the ability of agencies and tribes to comply with the new stock specific forecasts required by the FRAM.

Mr. Packer indicated WDFW and ODFW are able to meet the requirements. Canada, Alaska, and California may be problematic, and some educated guesses (e.g., recent year averages) may be required; however, the problems should not be too critical due to scaled back fisheries.

Six Coastal Coho Stocks

Mr. LaVoy indicated the technical issue of how to handle six Washington coastal stocks in the terminal fisheries is being discussed among the technical staff.

Output Reports

Mr. Packer indicated the new model addresses all of the Council needs, and most other needs, including incidental mortality (bycatch) estimates. There are still some terminal area issues to be resolved including a South Sound/Nooksack treaty Indian/ non-Indian sharing issue.

Dr. Morishima asked if exploitation rates for marked and unmarked stocks for a given area can be compared (for the purpose of comparing effects of selective fisheries).

Mr. Packer indicated they can not with current reports, but creating new reports would be fairly easy, and hatchery and wild comparisons can be included.

TAMMs

Mr. Packer indicated the new model has been successfully tested by taking data from TAMM into FRAM, but not vice-versa yet. TAMMs for some stocks that will be different than the old FRAM output based models are still being negotiated.

Dr. Morishima inquired if the estimates of ocean escapement the 2001 FRAM were equal to estimates from the new FRAM set with no coastal terminal fisheries (assuming the same base period and model inputs).

Mr. Packer and Mr. Milward indicated they were equal.

Model Evaluation Subgroup

Dr. Lawson indicated the reestablishment of a model evaluation subgroup would be desirable to increase feedback to the model developers, work out bugs, expand the pool of model developers, and include new information in the base period as it became available.

Public Comment

Mr. Don Stevens was concerned with an accounting procedure that included fish landed in the Columbia River area troll fishery during August 2-3 in the Month of July due to the use of statistical weeks, which overlap months.

Mr. Stevens also expressed dissatisfaction and a profound concern with potential bias introduced into the model by using stock component information from treaty Indian troll landings in a different area to represent non-Indian troll catch in the Columbia River area.

Conclusions

The new model is scheduled for release in mid-January, presumably after the January 18 comanager meeting to decide on its application.

There are no unresolved issues for the short term.

Long term issues in need of further exploration include:

- use of the six year average cohort size for the denominator in the annual exploitation rates used for the base period,
- formation of a model evaluation subgroup, and
- verification and validation of the model (task for the model evaluation subgroup).

ADJOURN 3 P.M.

PFMC
1/22/02

FINAL REVIEW OF METHODOLOGY CHANGES TO THE KLAMATH OCEAN HARVEST MODEL AND
COHO FISHERY REGULATION ASSESSMENT MODEL

Situation: Each year, the Scientific and Statistical Committee (SSC) completes a methodology review to help assure new or significantly modified methodologies employed to estimate impacts of the Council's salmon management use the best available science. This review is preparatory to the Council's adoption of all proposed changes to be implemented in the coming season or, in certain limited cases, providing directions for handling any unresolved methodology problems prior to the formulation of salmon management options.

In November 2001, the SSC's review of the revised Klamath Ocean Harvest Model (KOHM) and the new cohort analysis for the coho Fishery Regulation Assessment Model (FRAM) was not completed, pending some resolution of technical issues with the authors. The Council gave tentative approval of the revised models for use in the 2002 management season contingent on satisfactory resolution of the technical issues in the interim. The SSC salmon subcommittee and the Salmon Technical Team (STT) held joint meetings in January and February to complete the review and to provide the STT with guidance on model selection for use in developing Preseason Report I.

Based on the results of the January and February meetings, the STT was satisfied the technical issues were adequately addressed for both the coho FRAM (Exhibit B.2, Attachment 1) and the KOHM. They employed the revised models in their analysis of 2001 fishery management measures using projected 2002 abundance estimates, and incorporated those results into Preseason Report I. If the Council does not approve the revised model(s) for use in the 2002 salmon management season, the STT will need to revise the analyses in Preseason Report I using the previous version of the model(s).

Council Action:

1. **Approve methodology changes as appropriate for implementation in the 2002 salmon season.**
2. Provide guidance as needed for any unresolved methodology issues.

Reference Materials:

1. Summary Minutes of the Salmon Technical Team (Exhibit B.2, Attachment 1).
2. Salmon Technical Team Comments on Salmon Methodology Review (Exhibit B.2.c, STT Report).
3. Scientific and Statistical Committee Comments on Salmon Methodology Review (Exhibit B.2.b, Supplemental SSC Report).

Agenda Order:

- | | |
|--|-------------|
| a. Agendum Overview | Chuck Tracy |
| b. Scientific and Statistical Committee (SSC) Report | Pete Lawson |
| c. Reports and Comments of Advisory Bodies | |
| d. Public Comment | |
| e. Council Action: Consider and Approve Appropriate Methodology Changes to the KOHM and Coho FRAM | |

PFMC
2/21/02

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
REVIEW OF 2001 FISHERIES AND SUMMARY OF 2002 STOCK ABUNDANCE ESTIMATES

Mr. Dell Simmons, Chair of the Salmon Technical Team (STT), reviewed the 2001 ocean salmon fisheries and preliminary salmon stock abundance estimates for 2002 for the Scientific and Statistical Committee (SSC). The STT forecasts a high ocean abundance of chinook and low ocean abundance of coho salmon in 2002. The SSC did not identify any major problems with the preseason salmon abundance estimates.

PFMC
03/12/02



**STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
ENFORCEMENT PROGRAM**

2001 WASHINGTON COASTAL SELECTIVE SALMON FISHERY

The following report is a synopsis of enforcement activities by Washington Department of Fish and Wildlife (WDFW) Officers, for the 2001 Coastal Selective Salmon Fishery. Enforcement presence in the four salmon management areas was accomplished by vessel, dock patrols, special investigations, and joint operations with the United States Coast Guard.

Developing compliance rate estimations for fish and wildlife violations are difficult. Uniformed presence on the water or at the dock provides visible deterrence to violations, thereby altering the behavior of those who may violate natural resource laws or regulations. In some instances, the contact to violation rate may be merely a reflection of the effectiveness of the individual officer at discovering a violation. Therefore, estimated compliance rates compiled from uniformed enforcement activity may not be an accurate measure of the actual compliance rate, but rather, serves best as an index when comparing one area to another, or one season to the next.

Efforts to apprehend intentional violators resulted in some notable prosecutions. Three separate investigations involving illegal charter activities were generated during this salmon season. In each case, WDFW Officers and Detectives, along with the assistance of the United States Coast Guard (USCG), launched in depth investigations and apprehended each suspect in the act of circumventing WDFW and USCG limited entry charter license and safety requirements. Each violator was properly processed through the judicial system. Vessels and associated gear used in the criminal acts were seized under Washington States equipment forfeiture laws. Criminal penalties along with the loss of vessels and equipment amounted to thousands of dollars.

Many have compared Coastal salmon harvest successes in 2001 to the memorable seasons of yesteryear. This exceptional year also provided for the temptation to violate the rules. Once again, with this fishery being elevated to a high priority within WDFW, officers from their local area as well as officers from all over the State of Washington were utilized to meet enforcement commitments. An early and aggressive patrol presence to address a marked increase in angler interest was most certainly responsible for ensuring yet another orderly fishery. The Coast-wide average for estimated compliance with the wild coho release rule was 98.3%.

AREA ONE
(Ilwaco, WA):

Enforcement Hours:

Docks -	437
Vessel -	124
Investigative -	81
Interagency -	<u>17</u>
Total -	659 hours

Contacts: **2778 total**

License (no license / fail to record salmon catch) - 39 arrest citations; 56 warnings.
Gear (more than one line/ barbed hook) - 11 arrest citations; 17 warnings.
Possess *Wild* Coho - 32 arrest citations; 2 warnings.
Overlimit salmon - 22 arrest citations; 0 warnings
Season / closed area / species i.e (closed for chinook) - 43 arrest citations; 12 warnings.
Vessel safety - gear / registration / PFD's - 9 arrest citations
Illegal Chartering - 3 arrest citations; 0 warnings
Undersized Chinook - 4 arrest citations; 2 warnings
Other violations - Fail to submit catch / crab violations / etc. 15 arrest citations; 2 warnings.

Total Citations: 178
Total Warnings: 91

Estimated compliance regarding overall salmon rules was 91.3 %.*
Estimated compliance regarding the possession of wild coho was 98.8 %.**

2000/2001 comparison of compliance with unmarked coho release rule: same as 2000.
2000/2001 comparison of compliance with overall salmon rules: up by 4%.
2000/2001 comparison of enforcement hours: up by 408 hours.
2000/2001 comparison of anglers contacted: up by 1,701 contacts.

AREA TWO
(Westport, WA.):

Enforcement Hours:

Docks - 127
Vessel - 108
Investigative - 2
Interagency - 0
Total - 237 hours

Contacts: 1,475 total

License (no license / fail to record salmon catch) - 56 arrest citations; 25 warnings
Gear (more than one line/ barbed hook) - 9 arrest citations; 0 warnings.
Possess *Wild* Coho - 25 arrest citations; 0 warnings.
Over limit salmon - 6 arrest citations; 0 warnings.
Season / closed area / species i.e (closed for chinook) - 2 arrest citations; 0 warnings.
Vessel safety - gear / registration / PFD's - 3 arrest citations; 1 warning.
Illegal Chartering - 0 arrests.
Undersized Chinook - 2 arrests; 1 warning.
Other violations - Fail to submit catch / crab violations / etc. 5 arrest citations; 0 warnings.

Total Citations: 108
Total Warnings: 27

Estimated compliance regarding overall salmon rules was 91.5 %.*
Estimated compliance regarding the possession of wild coho was 98.4%**
2000/2001 comparison of compliance with unmarked coho release rule: up by .3%
2000/2001 comparison of compliance with overall salmon rules: up by .5% .
2000/2001 comparison of enforcement hours: down by 8 hours.
2000/2001 comparison of anglers contacted: up by 915 contacts.

AREA THREE
(LaPush, WA.):

Enforcement Hours:

Docks - 28
Vessel - 0
Investigative - 0
Interagency - 0
Total - 28 hours

Contacts: 159 total

License (no license / fail to record salmon catch) - 9 arrest citations.
Gear (more than one line/ barbed hook) - 0 arrest citations.
Possess *Wild* Coho - 0 arrest citations.
Over limit salmon - 0 arrest citations.
Season / closed area / species i.e (closed for chinook) - 0 arrest citations.
Vessel safety - gear / registration / PFD's - 0 arrest citations.
Illegal Chartering - 0 arrest citations.
Undersized Chinook - 0 arrest citations..
Other violations - Fail to submit catch / crab violations / etc. 1 arrest citations.

Total Citations: 10
Total Warnings: 0

Estimated compliance regarding overall salmon rules was 94.4 %.*
The estimated compliance regarding the possession of wild coho was 100 %. **
2000/2001 comparison of compliance with unmarked coho release rule: up by 1%.
2000/2001 comparison of compliance with overall salmon rules: down by 2.6%.
2000/2001 comparison of enforcement hours: down by 40 hours.

AREA FOUR
(Neah Bay, WA.):

Enforcement Hours:

Docks -	127
Vessel -	108
Investigative -	2
Interagency -	0
Total -	362 hours

Contacts: **1,001 total**

License (no license / fail to record salmon catch) - 36 arrest citations; 47 warnings
Gear (more than one line/ barbed hook) - 77 arrest citations; 4 warnings.
Possess *Wild* Coho - 40 arrest citations; 0 warnings.
Over limit salmon - 13 arrest citations; 1 warning.
Season / closed area / species i.e (closed for chinook) - 16 arrest citations; 6 warnings.
Vessel safety - gear / registration / PFD's - 2 arrest citations; 2 warning.
Illegal Chartering - 0 arrests.
Undersized Chinook - 0 arrests; 0 warnings.
Other violations - Fail to submit catch / crab violations / etc. 3 arrest citations; 0 warnings.

Total Citations: 187
Total Warnings: 60

Estimated compliance regarding overall salmon rules was 76.1 %.*
The estimated compliance regarding the possession of wild coho was 96.1 %**
2000/2001 comparison of compliance with unmarked coho release rule: down by 2.8%.
2000/2001 comparison of compliance with overall salmon rules: down by 14.6%.
2000/2001 comparison of enforcement hours: down by 150 hours.
2000/2001 comparison of anglers contacted: up by 135 contacts.

* % compliance with overall salmon regulations = total rule violations associated with **salmon only** (license, gear, possession, season and area) / total contacts.

** % compliance for possession of unmarked coho = total unmarked fish violations / total contacts.

REVIEW OF 2001 FISHERIES AND SUMMARY OF 2002 STOCK ABUNDANCE ESTIMATES

Situation: Mr. Dell Simmons, Salmon Technical Team Chairman, will review the results of the 2001 fisheries and the stock abundance projections for 2002. The agencies, tribes, Council advisors, and public will then be afforded an opportunity to comment on these issues. Under agency comments, the states of Oregon and Washington may also provide details of the 2001 selective recreational and commercial fisheries (retention of coho only if marked by a healed adipose fin clip).

Council Task:

1. Receive information.

Reference Materials:

1. *Review of 2001 Ocean Salmon Fisheries* (Included with Briefing Book).
2. *Preseason Report I Stock Abundance Analysis for 2002 Ocean Salmon Fisheries* (Included with Briefing Book).

Agenda Order:

- a. Report of the Salmon Technical Team (STT)
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. Council Discussion

Dell Simmons

PFMC
02/20/02

Proposed April 1 Opener for Oregon Troll and Recreational Chinook Fisheries

Beginning in 1997, chinook directed fisheries from Cape Falcon to Humbug Mountain opening date was April 1. Chinook catches during these April fisheries have been highly variable due to weather and fish distribution patterns. Starting dates and approximate commercial effort and catches in April for years 1997-2001 were as follows:

<u>Year</u>	<u>Opening Date</u>	<u>Effort (Boat Days)</u>	<u>Catch</u>
1997	15 April	400	4,500
1998	15 April	900	20,000
1999	1 April	200	800
2000	1 April	300	1,200
2001	1 April	900	18,200

Recreational catch and effort during April fisheries have been extremely low with combined 1997-2001 landings of less than 100 fish.

An opening date of April 1 is again proposed for 2002 for the recreational fisheries from Cape Falcon to Humbug Mountain. An opening date of March 20 is proposed for commercial troll fisheries from Cape Falcon to the Oregon / California border. All gear and bag limits would remain the same as 2002. Additionally, the control zone at the mouth of Tillamook Bay shall be subject to closure under state regulations.

SALMON ADVISORY SUBPANEL REPORT ON
INSEASON MANAGEMENT RECOMMENDATIONS FOR OPENINGS PRIOR
TO MAY 1 OFF THE OREGON COAST

The Salmon Advisory Subpanel (SAS) requests the Council adopt the following starting dates in the Oregon area from Cape Falcon to the Oregon/California border.

Troll: March 20, 2002
Recreational: April 1, 2002

(Both Fisheries - Chinook Only)

PFMC
03/12/02

INSEASON MANAGEMENT RECOMMENDATIONS FOR OPENINGS PRIOR TO MAY 1

Situation: The 2001 ocean salmon fishing regulations specify the Council will make inseason recommendations to the National Marine Fisheries Service (NMFS) at the March Council meeting for certain fisheries which may open earlier than May 1, 2002. The fisheries under consideration are the commercial and recreational fisheries off Oregon, south of Cape Falcon. Last year, the Council opened commercial and recreational fisheries between Cape Falcon and Humbug Mountain on April 1.

Council Action:

1. Provide NMFS with recommendations for inseason action to set opening dates for any all-salmon-except-coho commercial and recreational fisheries the Council wishes to open prior to May 1 off Oregon.

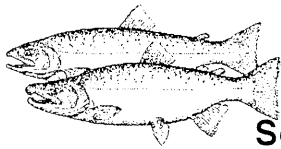
Reference Materials: None.

Agenda Order:

- a. Agendum Overview
- b. Oregon Department of Fish and Wildlife (ODFW) Recommendations
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. **Council Action:** Adopt Opening Dates for Fisheries off the Coast of Oregon

Chuck Tracy
Burnie Bohn

PFMC
02/25/02



Southern Coho Management Plan

Developed pursuant to 1999 PSC Agreement





Conservation-Based



Objectives

1. Constrain exploitation rates (ERs) for key natural management units
 - MSH while preserving genetic & ecological diversity
2. Improve prospects for sustaining healthy fisheries
3. Regimes responsive to resource status and new information
4. Predictable basis for management planning
5. Objective monitoring, evaluation, & revision



Key Management Units

Canadian Management Units • Interior Fraser (Including Thompson) • Lower Fraser • Strait of Georgia Mainland • Strait of Georgia Vancouver Island	U.S. Inside Management Units • Skagit • Stillaguamish • Snohomish • Hood Canal • Strait of Juan de Fuca U.S. Outside Management Units • Quillayute • Hoh • Queets • Grays Harbor
---	---



Three Status Levels

- Low ($\leq 20\%$ ER)
- Moderate ($> 20\%$ and $\leq 40\%$ ER)
- Abundant ($>40\%$ ER)

Targets determined by producing Party



Principle 1

- For MUs in *low* status
 - Both Parties shape fisheries to minimize impacts
 - Producing Party expected to bear a greater share of the conservation responsibility
 - Intercepting Party not required to reduce its ER impact below 10%



Principle 2

- For MUs in *moderate* status
 - Producing Party should receive the majority of the allowable ER
- For MUs in *abundant* status
 - Producing Party should receive greater majority of the allowable ER



Principle 3

- Neither Party should be unduly prevented from accessing its own stocks to achieve its fishery objectives or harvesting other allocations agreed under the PST



ER Caps For Intercepting Fisheries

- Canadian on U.S. Inside MUs
- Canadian on U.S. Outside MUs
- U.S. on Canadian MUs



Normal & Composite ER Caps on U.S. MUs

- Accommodate Canadian concerns over disparate nature of MUs proposed by Canada and the U.S.
- **Composite** rules apply if only 1 MU is in *Low* or *Moderate* Status
 - Inside & Outside MUs Treated Separately
 - Canada required to respond, but not to full extent
- **Normal** rules apply if more than 1 MU is in *Low* or *Moderate* status



Canadian ER Caps on U.S. Inside MUs

50% Share Pt

Normal Low	0.11	None
Composite Low	0.13	None
Normal Moderate	$.124 + .13 \times \text{ER}$	.335
Composite Moderate	$.134 + .13 \times \text{ER}$	.362
Abundant $0.40 < \text{Total ER} \leq 0.60$	$.084 + .28 \times \text{ER}$	All
Abundant $0.60 < \text{Total ER}$	$.024 + .38 \times \text{ER}$	All



Prioritized Bilateral Review of MU Target ERs

- **Skagit**
 - Target ER at Moderate Status = 0.35
- **Stillaguamish**
 - Target ER at Abundant Status = 0.55
- **Lower Fraser**
- **Interior Fraser**





Canadian ER Caps on U.S. Outside MUs

50% Share Pt

Normal Low	0.10	0.20
Composite Low	0.12	None
Normal Moderate	$.024 + .38 \times \text{ER}$	.283
Composite Moderate	$.054 + .33 \times \text{ER}$	.312
Abundant	$.024 + .38 \times \text{ER}$	All





U.S. ER Caps on Canadian MUs

Low	0.10
Moderate	0.12
Abundant	0.15





ER Caps are Maximums

- Apply to each MU individually
- All fishery impacts
- Intercepting Party may take less
- Producing Party may take unused portion provided that the cumulative ER limit established is not exceeded

Parties may request

- Reductions or increases from general ER Caps



Preseason Planning

- Each Party provides status of MUs and target ERs
- Exchange factors expected to govern fishery plans – manager-to-manager discussions
- Provide pre-season plans



Obligations for PFMC

- Constrain exploitation rates by all U.S. fisheries on Canadian MUs within allowable caps.
- Constrain total ERs on each U.S. MU so as not to exceed the established limit



U.S. Obligation for Canadian MUs

Total Allowable Exploitation Rate for MU

↓

U.S. Interception Cap for MU

- 10% for *Low*
- 12% for *Moderate*
- 15% for *Abundant*



U.S. and PFMCObligations for U.S. MUs

Total Allowable Exploitation Rate for MU
- Anticipated Canadian ER on MU

U.S. Exploitation Rate Cap for MU





Bilateral Tools

- Commitment to develop bilateral regional planning tools and protocols in time for 2004 season.





Regimes to Evolve

- Adapt to new information and development of bilateral tools
- Development and implementation oversight by Southern Panel



2005 Review

- Evaluate performance
- ER Targets – address issues unresolved by bilateral technical review



Process Steps

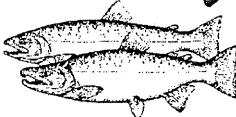
- Consideration by National Sections
- Consideration by PSC
- Consideration by Parties



Decision to be Made



OR



PACIFIC SALMON COMMISSION ACTIVITIES
PACIFIC FISHERY MANAGEMENT COUNCIL BRIEFING PAPER

In 1999, U.S. and Canadian negotiators reached a comprehensive agreement that resolved long-standing disputes relating to Pacific salmon and the Pacific Salmon Treaty. The agreement established abundance-based fishing regimes for the major salmon intercepting fisheries in the U.S. and Canada. These regimes, which allow catches in fisheries to vary from year-to-year, are designed to implement the conservation and harvest sharing principles of the Pacific Salmon Treaty. Larger catches are allowed when abundance is higher and catches are constrained in years when abundance is down.

Relative to coho salmon, the 1999 U.S. and Canada agreement essentially represented a commitment to develop a rules-based regime to conserve naturally spawning coho stocks. The regime was to encompass boundary area fisheries in southern British Columbia and Washington State.

As many of you already know, the Pacific Salmon Commission's (PSC) deliberations on coho were concluded on February 14 after several months of intensive bilateral negotiations. The Southern Coho Management Plan adopted by the PSC reflects a commitment to constrain total fishing mortality rates on key management units of naturally spawning coho originating in southern British Columbia, Puget Sound and the Washington Coast. The Plan provides for domestic managers to establish target exploitation rates that are associated with categorical (*Low, Moderate, and Abundant*) status determinations for each management unit and specifies how those exploitation rates will be shared between the Parties. The objective is to implement a multi-year agreement that outlines a basic management framework for key U.S. and Canadian coho management units. The key U.S. coho management units include: U.S. Outside Management Units – Quillayute, Hoh, Queets, Grays Harbor; U.S. Inside Management Units – Skagit, Stillaguamish, Snohomish, Hood Canal, Strait of Juan de Fuca. The key Canadian Management Units include: Interior Fraser (including Thompson), Lower Fraser, Strait of Georgia Mainland, Strait of Georgia Vancouver Island. The exploitation rate constraints included in the Plan extend beyond the boundary area fisheries specified in the 1999 Agreement and now include all fisheries that harvest these management units.

The Plan has been transmitted to the governments of the United States and Canada with the expectation that it will be forwarded to domestic managers for implementation. Consequently, for 2002 and the following six seasons, specific bilateral constraints for coho salmon will enter into Council deliberations. The Council and other U.S. domestic managers will be required to plan their fisheries within specified exploitation rates limits for U.S. and Canadian management units. Preliminary information suggests the total allowable exploitation rate by U.S. fisheries on Canadian management units is likely to be 10% in 2002 and that Canadian fisheries will continue to be constrained by conservation concerns for Interior Fraser coho. The status of U.S. management units and target exploitation rates will be identified during domestic preseason planning processes. The Council should now proceed on structuring its fishing regimes focused on addressing our domestic coho conservation issues in a manner that is consistent with the new bilateral coho management plan. It is my understanding the Salmon Technical Team intends to incorporate this PSC compliance assessment into the output reports from the new Council adopted coho FRAM model for the 2002 fisheries.

PPMC
03/05/02

Lead by Paul Kirk
KLAMATH FISHERY MANAGEMENT COUNCIL
REPORT and RECOMMENDATIONS
to the
PACIFIC FISHERY MANAGEMENT COUNCIL

The KFMC met February 28-March 1, and March 10-11, 2002, to discuss management of Klamath River fall chinook salmon for 2002. A summary of our discussions and recommendations follows:

STATUS OF APPOINTMENTS

During the past few months, KFMC members and their respective agencies have made a concerted effort to obtain appointments for all members. As of this moment, nine of the eleven positions on the KFMC are occupied by duly appointed members, and the remaining two are near completion within the Department of Commerce. Under the advice of the Department of Interior, the KFMC is operating with nine duly-appointed members. However, the KFMC's recommendations presented here were developed by a working group composed of all eleven interests represented on the KFMC.

ACCEPTANCE OF KRTAT REPORT

The Council received and endorsed the KRTAT report of March 8, 2002. Although Klamath fall chinook abundance is relatively high, floor management is still in effect.

THE KLAMATH OCEAN HARVEST MODEL

The new Klamath Ocean Harvest Model (KOHM) is being used this year. A major effect of the new model is to remove inherent biases associated with the previous model, which tended to over-estimate ocean fishery impacts. The removal of these biases should result in an equal probability that escapement will be over-predicted or under-predicted.

2002 REGULATION OPTIONS

The KFMC has recommended three options for use by the SAS. The options are presented here with no particular ranking implied. The California Troll Option and the Oregon Troll Option each allow a 16 percent age-four ocean harvest rate, while the third option is based on a 15 percent age-four ocean harvest rate. We also forward the Klamath Coalition's recommended three options for the zone recreational fishery. (All of the above are attached.)

ESA EFFECTS ON TRIBAL HARVEST

The KFMC reviewed its previous recommendations with respect to full utilization of fishery resources and the effects of ESA restrictions on the determination of the total available harvest of Klamath River fall chinook. In 2002, absent ESA constraints, the expected tribal harvest would be approximately 52,000 fish. However, any shift of harvest allocations from ocean to river fisheries results in a reduction in overall available harvests, and therefore reduces the tribal allocation. (Modeling results attached.)

DFG TO MONITOR SPORT FISHERY

As they did in 2001, the California Department of Fish and Game (CDFG) has agreed to monitor the 2002 in-river sport fishery and project season catch in real-time.

KFMC Option I
12 Mar 2002

Escapement

Absent fishing: 154225
Hatcheries: 59382
Natural areas: 94843

With fishing
Mature adults: 128770
Strays: 562
Klamath Basin: 128208
Spawners: 57066
Hatcheries: 21998
Natural areas: 35069 (objective: >= 35000)
Reduction rate: 0.630 (objective: <= 0.631)

Harvest

Total: 102285
River: 66383
Ocean: 35902

Tribal: 51142 0.500 (objective: 0.500)

Non-tribal: 51142
River: 15240 0.298 (objective: 0.298)
Ocean troll: 30152
CA / OR: 0.590 / 0.410
Ocean sport: 5750
KMZ: 3939 0.110 (objective: 0.170)
Age-four o.harv.rate: 0.157 (objective: <= 0.16)

Harvest: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	107	59	0	0	0	0	0	485	735	296	650	1663	3997
CO	282	0	154	0	0	0	0	114	413	686	2672	2611	6932
KO	184	0	0	0	0	0	0	0	123	323	0	816	1445
KC	1054	0	0	0	0	0	0	0	0	0	0	1799	2853
FB	0	0	0	0	0	0	0	0	5236	0	0	1732	6968
SF	50	0	0	0	0	0	0	0	1303	2595	1790	474	6211
MO	0	0	0	0	0	0	0	0	488	573	680	5	1746
Total	1677	59	154	0	0	0	0	600	8298	4474	5791	9099	30152

Harvest: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	0	0	0	0	0	0	0	0	2	3	86	26	118
CO	58	0	0	0	0	0	0	0	9	63	178	13	321
KO	121	0	0	0	0	0	0	0	4	231	355	776	1486
KC	194	0	0	0	0	0	0	0	101	749	669	740	2453
FB	0	0	0	0	0	0	0	20	52	155	272	20	520
SF	0	0	0	0	0	0	0	69	27	239	307	8	651
MO	0	0	0	0	0	0	0	43	10	25	108	15	201
Total	372	0	0	0	0	0	0	132	206	1466	1975	1599	5750

Days open: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	0	30	31	30	23	29
CO	NA	NA	NA	NA	0	0	0	30	31	30	23	29
KO	NA	NA	NA	NA	0	0	0	0	31	0	0	0

KFMC Option I
12 Mar 2002

KC	NA	NA	NA	NA	0	0	0	0	0	0	0	14
FB	NA	NA	NA	NA	0	0	0	0	31	0	0	31
SF	NA	NA	NA	NA	0	0	0	0	31	30	31	31
MO	NA	NA	NA	NA	0	0	0	0	31	30	31	31

Days open: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	0	30	31	30	31	31
CO	NA	NA	NA	NA	0	0	0	30	31	30	31	31
KO	NA	NA	NA	NA	0	0	0	0	7	30	15	31
KC	NA	NA	NA	NA	0	0	0	0	7	30	15	31
FB	NA	NA	NA	NA	0	12	31	30	31	30	31	31
SF	NA	NA	NA	NA	0	0	0	17	31	30	31	31
MO	NA	NA	NA	NA	0	0	1	30	31	30	31	31

Quotas: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500	NA	3000
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Quotas: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Size limits: ocean

	fishery	month	area	limit
1	10	9	SF	27
2	10	10	SF	27
3	10	11	SF	27
4	10	12	SF	27
5	10	7	SF	27
6	10	8	SF	27
7	10	9	MO	27
8	10	10	MO	27
9	10	11	MO	27
10	10	12	MO	27
11	10	7	MO	27
12	10	8	MO	27
13	40	2	FB	24
14	40	3	FB	24
15	40	4	FB	24
16	40	5	FB	24
17	40	4	SF	24
18	40	5	SF	24
19	40	6	SF	24
20	40	3	MO	24
21	40	4	MO	24
22	40	5	MO	24
23	40	6	MO	24

OR sport coho opportunity, July:

NO: 1
CO: 1

Allocation objective:

River Sport: 0.298
KMZ Sport: 0.17

KFMC Option II
12 Mar 2002

Escapement

Absent fishing: 154225
Hatcheries: 59382
Natural areas: 94843

With fishing
Mature adults: 128400
Strays: 561
Klamath Basin: 127840
Spawners: 57047
Hatcheries: 21989
Natural areas: 35057 (objective: >= 35000)
Reduction rate: 0.630 (objective: <= 0.631)

Harvest

Total: 102385
River: 66039
Ocean: 36347

Tribal: 51193 0.500 (objective: 0.500)

Non-tribal: 51193
River: 14846 0.290
Ocean troll: 30620
CA / OR: 0.521 / 0.479
Ocean sport: 5727
KMZ: 3918 0.108
Age-four o.harv.rate: 0.160 (objective: <= 0.16)

Harvest: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	107	59	0	0	0	0	194	484	734	296	649	1642	4166
CO	282	0	154	0	0	0	46	114	412	685	2668	2582	6943
KO	184	0	0	0	0	0	0	0	122	323	2128	816	3573
KC	1054	0	0	0	0	0	0	0	0	0	0	0	1054
FB	0	0	0	0	0	0	0	0	5228	0	0	1713	6941
SF	50	0	0	0	0	0	0	0	1301	2592	1788	469	6199
MO	0	0	0	0	0	0	0	0	488	572	679	5	1744
Total	1677	59	154	0	0	0	240	599	8285	4468	7912	7226	30620

Harvest: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	0	0	0	0	0	0	0	0	2	3	86	26	117
CO	58	0	0	0	0	0	0	0	9	63	178	13	321
KO	121	0	0	0	0	0	0	0	4	231	354	766	1476
KC	194	0	0	0	0	0	0	0	101	749	668	731	2442
FB	0	0	0	0	0	0	0	20	52	155	272	20	519
SF	0	0	0	0	0	0	0	69	27	239	307	8	650
MO	0	0	0	0	0	0	0	43	10	25	108	15	201
Total	372	0	0	0	0	0	0	132	205	1465	1973	1579	5727

Days open: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	12	30	31	30	23	29
CO	NA	NA	NA	NA	0	0	12	30	31	30	23	29
KO	NA	NA	NA	NA	0	0	12	30	31	0	0	0

KFMC Option II

12 Mar 2002

KC	NA	NA	NA	NA	NA	0	0	0	0	0	0	0	0
FB	NA	NA	NA	NA	NA	0	0	0	0	31	0	0	31
SF	NA	NA	NA	NA	NA	0	0	0	0	31	30	31	31
MO	NA	NA	NA	NA	NA	0	0	0	0	31	30	31	31

Days open: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
NO	NA	NA	NA	NA	NA	0	0	0	30	31	30	31	31
CO	NA	NA	NA	NA	NA	0	0	0	30	31	30	31	31
KO	NA	NA	NA	NA	NA	0	0	0	0	7	30	15	31
KC	NA	NA	NA	NA	NA	0	0	0	0	7	30	15	31
FB	NA	NA	NA	NA	NA	0	12	31	30	31	30	31	31
SF	NA	NA	NA	NA	NA	0	0	0	17	31	30	31	31
MO	NA	NA	NA	NA	NA	0	0	1	30	31	30	31	31

Quotas: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500	4000	3000
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Quotas: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Size limits: ocean

	fishery	month	area	limit
1		10	9	SF 27
2		10	10	SF 27
3		10	11	SF 27
4		10	12	SF 27
5		10	7	SF 27
6		10	8	SF 27
7		10	9	MO 27
8		10	10	MO 27
9		10	11	MO 27
10		10	12	MO 27
11		10	7	MO 27
12		10	8	MO 27
13		40	2	FB 24
14		40	3	FB 24
15		40	4	FB 24
16		40	5	FB 24
17		40	4	SF 24
18		40	5	SF 24
19		40	6	SF 24
20		40	3	MO 24
21		40	4	MO 24
22		40	5	MO 24
23		40	6	MO 24

OR sport coho opportunity, July:

NO: 1

CO: 1

Allocation objective:

River Sport: 0.29

KMZ Sport: 0.17

KFMC Option III
12 Mar 2002

Escapement

Absent fishing: 154225
Hatcheries: 59382
Natural areas: 94843

With fishing
Mature adults: 130049
Strays: 567
Klamath Basin: 129481
Spawners: 57016
Hatcheries: 21980
Natural areas: 35036 (objective: >= 35000)
Reduction rate: 0.631 (objective: <= 0.631)

Harvest

Total: 101800
River: 67697
Ocean: 34103

Tribal: 50900 0.500 (objective: 0.500)

Non-tribal: 50900
River: 16797 0.330
Ocean troll: 28353
CA / OR: 0.564 / 0.436
Ocean sport: 5750
KMZ: 3939 0.116
Age-four o.harv.rate: 0.150 (objective: <= 0.16)

Harvest: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	107	59	0	0	0	0	0	485	735	296	650	1563	3997
CO	282	0	154	0	0	0	0	114	413	686	2672	2611	6932
KO	184	0	0	0	0	0	0	0	123	323	0	816	1445
KC	1054	0	0	0	0	0	0	0	0	0	0	0	1054
FB	0	0	0	0	0	0	0	0	5236	0	0	1732	6968
SF	50	0	0	0	0	0	0	0	1303	2595	1790	474	6211
MO	0	0	0	0	0	0	0	0	488	573	680	5	1746
Total	1677	59	154	0	0	0	0	600	8298	4474	5791	7300	28353

Harvest: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	0	0	0	0	0	0	0	0	2	3	86	26	118
CO	58	0	0	0	0	0	0	0	9	63	178	13	321
KO	121	0	0	0	0	0	0	0	4	231	355	776	1486
KC	194	0	0	0	0	0	0	0	101	749	669	740	2453
FB	0	0	0	0	0	0	0	20	52	155	272	20	520
SF	0	0	0	0	0	0	0	69	27	239	307	8	651
MO	0	0	0	0	0	0	0	43	10	25	108	15	201
Total	372	0	0	0	0	0	0	132	206	1466	1975	1599	5750

Days open: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	0	30	31	30	23	29
CO	NA	NA	NA	NA	0	0	0	30	31	30	23	29
KO	NA	NA	NA	NA	0	0	0	0	31	0	0	0

RPMC Option III
12 Mar 2002

KC	NA	NA	NA	NA	0	0	0	0	0	0	0	0
FB	NA	NA	NA	NA	0	0	0	0	31	0	0	31
SF	NA	NA	NA	NA	0	0	0	0	31	30	31	31
MO	NA	NA	NA	NA	0	0	0	0	31	30	31	31

Days open: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	0	30	31	30	31	31
CO	NA	NA	NA	NA	0	0	0	30	31	30	31	31
KO	NA	NA	NA	NA	0	0	0	0	7	30	15	31
KC	NA	NA	NA	NA	0	0	0	0	7	30	15	31
FB	NA	NA	NA	NA	0	12	31	30	31	30	31	31
SF	NA	NA	NA	NA	0	0	0	17	31	30	31	31
MO	NA	NA	NA	NA	0	0	1	30	31	30	31	31

Quotas: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500	NA	3000
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Quotas: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Size limits: ocean

	fishery	month	area	limit
1	10	9	SF	27
2	10	10	SF	27
3	10	11	SF	27
4	10	12	SF	27
5	10	7	SF	27
6	10	8	SF	27
7	10	9	MO	27
8	10	10	MO	27
9	10	11	MO	27
10	10	12	MO	27
11	10	7	MO	27
12	10	8	MO	27
13	40	2	FB	24
14	40	3	FB	24
15	40	4	FB	24
16	40	5	FB	24
17	40	4	SF	24
18	40	5	SF	24
19	40	6	SF	24
20	40	3	MO	24
21	40	4	MO	24
22	40	5	MO	24
23	40	6	MO	24

OR sport coho opportunity, July:

NO: 1
CO: 1

Allocation objective:

River Sport: 0.33
KMZ Sport: 0.17

KMZ Coalition options for the 2002 ocean recreation season are detailed below:

Option 1

The 2002 season would be similar to last year's season with a 2 fish daily and 6 fish weekly bag limit. The season would run for a total of 86 days, opening Saturday, May 25 and running through Monday, July 17 with a 15-day closure in July for OCN. It would reopen July 23 and run through Monday, September 2.

Option 2

This would be the same days fished last year although the start dates do not coincide. The season would open May 17 and run through July 8 with a 19-day closure for OCN. It would restart July 27 and run through September 3. There would be a two fish a day, 4 fish a week bag limit in this 92-day fishing season.

Option 3

This option would have the longest season at 105 days. The season would open May 15 and run through July 7, close for 19 days for OCN and then reopen July 27 with a September 1 closure. There would be a 2 fish a day, 4 fish a week bag limit. This is the fishing season option proposed by the Brookings Chamber of Commerce.

 KFMC "Absent CA Coastal Chinook constraint"
 12 Mar 2002

Escapement

```

Absent fishing:      154225
  Hatcheries:       59382
  Natural areas:    94843

With fishing
  Mature adults:    122710
    Strays:         537
    Klamath Basin:  122172
  Spawners:         57624
    Hatcheries:     22204
    Natural areas:  35420
    Reduction rate: 0.627
                                     (objective: >= 35000)
                                     (objective: <= 0.631)
  
```

Harvest

```

Total:      104109
  River:    59863
  Ocean:    44246

Tribal:      52054    0.500    (objective: 0.500)

Non-tribal:  52054
  River:      7808    0.150    (objective: 0.150)
  Ocean troll: 37270
    CA / OR:   0.679 / 0.321
  Ocean sport: 6976
    KMZ:       5212    0.118    (objective: 0.170)
  Age-four o.harv.rate: 0.195    (objective: <= 0.16)
  
```

 Harvest: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	107	59	0	0	0	0	0	485	735	296	616	1571	3870
CO	282	0	154	0	0	0	0	114	413	685	2536	2481	6666
KO	184	0	0	0	0	0	0	0	123	323	0	816	1445
KC	1054	0	0	0	0	0	0	0	0	0	0	0	1054
FB	0	0	0	0	0	0	0	0	5236	9549	0	1646	16431
SF	50	0	0	0	0	0	0	0	1303	2591	1701	452	6096
MO	0	0	0	0	0	0	0	0	488	572	643	5	1708
Total	1677	59	154	0	0	0	0	600	8298	14016	5495	6971	37270

Harvest: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
NO	0	0	0	0	0	0	0	0	2	3	82	25	113
CO	58	0	0	0	0	0	0	0	9	63	170	13	313
KO	121	0	0	0	0	0	0	0	18	231	701	734	1804
KC	194	0	0	0	0	0	0	0	448	748	1321	697	3408
FB	0	0	0	0	0	0	0	20	52	155	260	19	506
SF	0	0	0	0	0	0	0	69	27	239	294	8	637
MO	0	0	0	0	0	0	0	43	10	25	103	14	196
Total	372	0	0	0	0	0	0	132	566	1464	2931	1510	6976

 Days open: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	0	30	31	30	23	29
CO	NA	NA	NA	NA	0	0	0	30	31	30	23	29
KO	NA	NA	NA	NA	0	0	0	0	31	0	0	0

KC	NA	NA	NA	NA	0	0	0	0	0	0	0	0
FB	NA	NA	NA	NA	0	0	0	0	31	22	0	31
SF	NA	NA	NA	NA	0	0	0	0	31	30	31	31
MO	NA	NA	NA	NA	0	0	0	0	31	30	31	31

KFMC "Absent ecc
constraint"

Days open: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	0	0	0	30	31	30	31	31
CO	NA	NA	NA	NA	0	0	0	30	31	30	31	31
KO	NA	NA	NA	NA	0	0	0	0	31	30	31	31
KC	NA	NA	NA	NA	0	0	0	0	31	30	31	31
FB	NA	NA	NA	NA	0	12	31	30	31	30	31	31
SF	NA	NA	NA	NA	0	0	0	17	31	30	31	31
MO	NA	NA	NA	NA	0	0	1	30	31	30	31	31

12 Mar 2002

Page 2 of 2

Quotas: ocean troll

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500	NA	3000
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Quotas: ocean sport

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SF	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Size limits: ocean

	fishery	month	area	limit
1		10	9	SF 27
2		10	10	SF 27
3		10	11	SF 27
4		10	12	SF 27
5		10	7	SF 27
6		10	8	SF 27
7		10	9	MO 27
8		10	10	MO 27
9		10	11	MO 27
10		10	12	MO 27
11		10	7	MO 27
12		10	8	MO 27
13		40	2	FB 24
14		40	3	FB 24
15		40	4	FB 24
16		40	5	FB 24
17		40	4	SF 24
18		40	5	SF 24
19		40	6	SF 24
20		40	3	MO 24
21		40	4	MO 24
22		40	5	MO 24
23		40	6	MO 24

OR sport coho opportunity, July:

NO: 1
CO: 1

Allocation objective:

River Sport: 0.15
KMZ Sport: 0.17



B.5.e
Exhibit B.1
Supplemental Attachment 1
March 2002

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

*Read by Bill Robinson under Agenda
Item B.5.e*

1514-04-020

MAR 8 2002

Mr. Hans Radtke
Chairman
Pacific Fisheries Management Council
2130 SW Fifth Avenue, Suite 224
Portland, Oregon 97201

Dear Mr. Radtke:

Amendment 14 to the Pacific Coast Salmon Fishery Management Plan (Salmon FMP) requires that the Pacific Fishery Management Council (PFMC or Council) manage their fisheries consistent with consultation standards developed by the National Marine Fisheries Service (NMFS) regarding actions necessary to protect species listed under the Endangered Species Act (ESA). This letter summarizes NMFS' consultation standards and provides guidance for the 2002 season for listed species.

Chinook Salmon

Puget Sound Chinook Salmon

This is the third year that NMFS will provide guidance to the Council related to the Puget Sound chinook ESU. NMFS' consultation standards for Puget Sound chinook stocks are expressed in terms of total or southern U.S. fishery exploitation rate ceilings, or terminal escapement objectives. Procedurally, the Council forum, and associated North of Falcon process, provide the appropriate forums for doing the necessary management planning. Under the current management structure, PFMC 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 PFMC and Puget Sound fisheries. Therefore, in adopting its regulations, the Council must determine that its fisheries in the ocean, 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 for management planning purposes, it is also appropriate to acknowledge that impacts on Puget Sound chinook stocks in Council fisheries are generally quite low. NMFS estimated in its 2000 PFMC opinion that the exploitation rates on Puget Sound chinook spring and fall chinook stock aggregates have been zero and three percent or less, respectively, in recent years. Management actions taken to



meet exploitation rate targets will therefore occur primarily in the Puget Sound fisheries, but the nature of the existing process is such that ocean fishery impacts will be accounted for, and are at least potentially liable to constraint if necessary to meet particular targets.

In April, 2001, NMFS exempted fishery activities conducted in accordance with a Resource Management Plan (RMP) submitted under Limit 6 of the 4(d) rule (65 FR 42422, 66 FR 31603) from ESA section 9 take prohibitions. The RMP, titled *Puget Sound Comprehensive Chinook Management Plan: Harvest Management Component*, was developed jointly by the Washington Department of Fish and Wildlife and the Puget Sound Treaty Tribes, and includes stock-specific harvest management objectives for Puget Sound chinook. Therefore, PFMC fisheries should be managed such that the total stock-specific impacts across all fisheries are no greater than those specified in Table 6, Appendix A, and Appendix Table C-1 of the RMP (enclosed).

Lower Columbia River Chinook

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 three remaining spring stocks within the ESU include those on the Cowlitz, Kalama, and Lewis rivers. The historic habitat for these spring chinook stocks is now largely inaccessible due to impassable dams. Although some spring chinook spawn naturally in each of these rivers, these are presumed to be largely hatchery-origin fish with little resulting natural production. The remaining spring stocks are therefore dependent, for the time being, on the associated hatchery production programs. The hatcheries have met their escapement objectives in recent years, and are expected to do so again in 2002, thus ensuring that what remains of the genetic legacy is preserved until a more comprehensive recovery program designed to reestablish self-sustaining populations is implemented. No additional management constraints in PFMC fisheries are considered necessary.

Three natural-origin bright stocks have been identified in the LCR ESU. The North Fork Lewis stock is used as a harvest indicator stock for ocean and in-river fisheries. The North Fork Lewis stock has exceeded its escapement objective of 5,700 every year since 1980 except that it was below goal in 1999 with an escapement of about 3,200 adults. The escapement shortfall has been attributed to severe flooding in 1995 and 1996. Escapements for the last two years have again been well above goal with returns of 8,700 and 11,300 in 2000 and 2001, respectively. Given the long history of healthy returns, NMFS does not anticipate the need to take specific management actions in the ocean to protect the bright component of the LCR ESU in 2002. NMFS does expect that the management agencies will continue to take appropriate actions through their usual authorities, to ensure that the escapement goal continues to be met.

Unlike the spring stocks or the bright component of the ESU, LCR tule stocks are impacted substantially in PFMC fisheries. There are four self-sustaining populations of tule chinook in the Lower Columbia River (Coweeman, East Fork Lewis, Clackamas, and Sandy) that are not substantially influenced by hatchery strays. Apart from these stocks, the system is dominated by hatchery production and whatever natural spawning does occur is heavily influenced by hatchery strays. The effect of hatchery operations on the ESU is currently the subject of a separate

section 7 consultation. Tule production in the lower River has already been reduced by more than half as a result of funding reductions.

NMFS reviewed the status of LCR tules in recent biological opinions related to the 1999 Pacific Salmon Treaty Agreement (PST) and the 2001 fall season fisheries in the Columbia River. Tules will benefit substantially from the ocean harvest regime in the PST agreement because of their ocean distribution, which is centered off the west coast of Vancouver Island and the Washington coast. NMFS developed a preliminary Rebuilding Exploitation Rate (RER) for the Coweeman population of 65% as part of the PST consultation. NMFS has since reviewed the available information and provided a revised RER of 49%. Although further review of this estimate is warranted, NMFS believes that an RER of 49% for the Coweeman stock is consistent with its continued survival and recovery, and expects the 2002 PFMC fisheries to be managed such that the total exploitation rate from all fisheries does not exceed that level. Further work on the tule component of the LCR ESU is needed, but NMFS believes that the appropriate course is to integrate future harvest management actions with recovery planning efforts that will seek to rebuild a broad range of self-sustaining, naturally producing tule stocks.

Upper Columbia River Spring Chinook
Upper Willamette River Chinook Salmon
Snake River Spring/Summer Chinook

Spring stocks from the Upper Columbia River and Willamette River Basins and spring/summer stocks from the Snake River are rarely caught in PFMC fisheries. Management actions designed to limit catch from these ESUs beyond what will be provided by harvest constraints for other stocks are therefore not considered necessary.

Snake River Fall Chinook Salmon

NMFS' guidance with respect to Snake River fall chinook is unchanged from that of the last several years. NMFS requires that the Southeast Alaska, Canadian, and PFMC fisheries, in combination, achieve a 30% reduction in the total age-3 and age-4 adult equivalent exploitation rate relative to the 1988-1993 base period. The PFMC fisheries therefore must be managed to ensure that the 30% base period reduction criterion for the aggregate of all ocean fisheries is achieved.

California Coastal Chinook Salmon

The California Coastal chinook ESU was listed as threatened effective November 15, 1999. The absence of reliable estimates of ocean exploitation rates on Central Valley chinook and the uncertainty regarding population abundance and short term trends for California coastal chinook populations make it difficult to assess the potential for coastal chinook populations to recover under the existing salmon FMP conservation objectives and ESA requirements. The April 18, 2000 biological opinion for coastal chinook considered the uncertainty regarding population trends and the magnitude of ocean harvest rates on the populations in the ESU. The opinion concluded that ocean fisheries would likely jeopardize the continued existence of coastal

chinook if ocean harvest rates on coastal chinook were to rise substantially above those observed in recent years. The opinion required that the age-4 ocean harvest rate forecast for Klamath River fall chinook not exceed 0.17, which was the maximum observed since 1996.

The Klamath Fishery Management Council recently completed a major revision of the Klamath Ocean Harvest Model (KOHM). Under the new KOHM, harvest rates are no longer expressed as a fraction of the May 1 abundance, but rather as a fraction of the previous year's September 1 abundance. All historical data have been adjusted to be consistent with the September 1 reference point. This change in the definition of harvest rate, as well as corrections to the cohort reconstruction, have generally resulted in a decrease in the values of past harvest rates (Table 1, from the 2001 and 2002 Preseason Report I).

Table 1. Estimates of ocean harvest rates of age-4 Klamath River fall chinook using the old May 1 abundance convention and the new September 1 convention.

Year	Old (May 1)	New (Sept 1)
1986	0.52	0.46
1987	0.53	0.43
1988	0.45	0.39
1989	0.44	0.36
1990	0.61	0.55
1991	0.21	0.18
1992	0.04	0.07
1993	0.11	0.16
1994	0.07	0.09
1995	0.21	0.13
1996	0.17	0.16
1997	0.10	0.06
1998	0.10	0.09
1999	0.12	0.09
2000	0.12	0.10
2001	NA	0.09

The corrections to the cohort reconstruction, the expression of harvest rates as a fraction of the September 1 abundance rather than the May 1 abundance, and the resulting changes in age-4 Klamath River fall chinook harvest rate estimates do not change the conclusions of NMFS' 2000 biological opinion. NMFS' determinations that 1) harvest rates of Klamath River fall chinook are the best available indicator of harvest rates of California Coastal chinook; and 2) the actual harvest rate of coastal chinook is probably intermediate between the harvest rate of Klamath River fall chinook and that of Central Valley fall chinook, remain unchanged. The opinion required that the age-4 harvest rate of Klamath River fall chinook not increase substantially above that observed between 1996 and 1999, pending the development of ocean harvest indices that allow more specific protection for California Coastal chinook stocks. For that period of time the estimates of rates have all decreased; the highest rate observed for those years is now estimated to be 0.16 rather than 0.17. Therefore, the RPA of the 2000 biological opinion will be implemented through a limit on the Klamath River fall chinook age-4 ocean harvest rate of 0.16.

Sacramento River Winter Chinook Salmon

The February 18, 1997, amendment to the March 8, 1996, biological opinion required constraints on ocean harvest sufficient to produce a 31% increase in the winter chinook adult replacement rate relative to a base period of 1989. The opinion provided that the requirement would remain in effect through the 2001 salmon seasons, and that NMFS would then reassess the need for restrictions on ocean harvest to protect winter chinook. NMFS has decided to issue a biological opinion and incidental take statement that will cover only the 2002 and 2003 fishing seasons. A two-year opinion is advisable for several reasons. NMFS has recommended that the PFMC amend the Pacific Coast Salmon Plan to specify recovery and long term conservation objectives for Sacramento River winter chinook and Central Valley spring chinook. A short term opinion

will accommodate that process. In January 2002 the Department of Fish and Game recommended to NMFS that carcass survey data replace the counts at Red Bluff Diversion Dam as the best available estimate of the size of spawning population. NMFS agrees with this approach but would like to work with the Department in evaluating which methodology is most appropriate for estimating the population size. In addition, the Department has revised its historical time series of escapement estimates based on Red Bluff Diversion Dam counts. The changes create substantial problems with respect to extending the current ESA requirements for winter chinook. NMFS will issue a 2 year opinion prior to the onset of the 2002 seasons. NMFS anticipates that the requirements will include the following:

1. The duration and timing of the 2002 and 2003 recreational seasons south of Point Arena, California, shall not change substantially relative to the past two years.

The delay in the opening of the season implemented by the California Fish and Game Commission in 2000 provides protection for both Sacramento River winter and spring run chinook and must remain in effect. The area between Point Arena and Pigeon Point should open the Saturday nearest April 15, and close the Sunday nearest Nov 7; the area between Pigeon Point and the U.S.-Mexico border should open the Saturday nearest April 1, and close the Sunday nearest September 30.

Increased minimum size limits have been used as a means of reducing winter chinook mortality in recreational and commercial fisheries. The magnitude of the mortality reduction associated with higher minimum size limits is dependent on hook and release mortality rates, which are difficult to estimate. NMFS believes that a time series of coded wire tag recoveries, which is not biased by annual changes in minimum size limit regulations, will be an important component in the future management of winter chinook. NMFS recommends that the use of increased minimum size limits be phased out over the course of several seasons, if the spawning population continues to increase in size. In 2002, the scheduled minimum size limit of 24 inches prior to May 1 could return to 20 inches on May 1 rather than July 1 as in 2001.

The CDFG and PFMC have recommended certain terminal gear restrictions designed to reduce hook and release mortality. Those restrictions should continue.

2. The duration and timing of the 2002 and 2003 commercial seasons south of Point Arena, California shall not change substantially relative to the past two years.

CWT recoveries indicate that the catch of winter chinook by commercial fisheries is substantially less than that by recreational fisheries. For 2002 and 2003, commercial seasons will be controlled by the FMP management objective for Klamath River fall chinook and by the NMFS 2000 biological opinion on California Coastal chinook, which limits the age-4 harvest rate on Klamath fall chinook to 0.16.

In recent years, experimental commercial fisheries have been conducted to provide data on the contribution rates of certain stocks to commercial fisheries opening prior to May 1. NMFS approves of quota-controlled experimental fisheries designed to gather data on contribution rates

and distribution of stocks, including listed species, provided that they meet the PFMC protocol for experimental fisheries.

Central Valley Spring Chinook Salmon

The Central Valley spring chinook ESU was listed as threatened effective November 15, 1999. NMFS' 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 FMP and NMFS biological opinions for winter chinook, were not likely to jeopardize the continued existence of Central Valley spring chinook. The opinion noted that the two week delay in the opening of the recreational seasons south of Point Arena implemented for the 2000 season would provide additional protection to spring chinook.

Although the 2001 estimate of escapement to Deer, Mill and Butte creeks (12,300) declined relative to the 1998 estimate, it exceeded all other years on record except 1998. For the 2002 season, NMFS has no ESA requirements in addition to those for Sacramento River winter chinook and California Coastal chinook.

Coho Salmon

NMFS considered the effects of west coast ocean fisheries on listed populations of coho salmon in a supplemental biological opinion dated April 28, 1999. The opinion provided ESA consultation standards for the three listed coho ESUs in Oregon and California: Oregon Coastal Natural (OCN), Southern Oregon/Northern California Coastal (SONCC), and Central California Coastal (CCC) coho salmon. The requirements of that opinion, which are summarized below, will remain in effect for the 2002 season.

Oregon Coastal Coho Salmon

Amendment 13 provides separate exploitation rate targets for four OCN sub-stocks that depend on measures of escapement during the applicable brood year and ocean survival. NMFS requires that the three northern sub-stocks be managed according to the provisions of Amendment 13. The southern sub-stock is part of the SONCC coho ESU and will be managed in accordance with the requirements for that ESU.

When the PFMC adopted Amendment 13 in 1997, they stipulated that it be reviewed and updated on a periodic basis. The first review, conducted by an ad hoc OCN Work Group, was completed in November, 2000. The Work Group's report recommended several changes to the original management matrix including a lower range of exploitation rates when spawner abundance and marine survival are very low. At its November, 2000 meeting, the Council adopted the OCN Work Group report as "expert biological advice to help guide Council management of OCN coho". For the 2002 season, both the applicable parental spawner status and marine survival index are in the "low" category. Under these circumstances, both the report and the exploitation rate matrix in Amendment 13 require that exploitation rates be limited to no more than 15%.

NMFS is also aware of efforts by the State of Oregon to integrate management for OCN coho and Lower Columbia River (LCR) coho. LCR coho are listed as endangered under the State's ESA. LCR coho are a candidate for listing under the federal ESA, but are not currently listed or proposed for listing. Oregon has developed a management matrix for LCR coho that is conceptually equivalent to that used for OCN coho. The circumstances related to LCR coho in 2002 lead to a recommendation for fisheries that are more conservative than the 15% exploitation rate that is allowed based on considerations for OCN coho. Although NMFS has not reviewed Oregon's management matrix for LCR coho in detail (the associated report was just recently brought to our attention), we do generally support Oregon's proposal to manage fisheries conservatively to meet the needs of the weaker of the two principle coho stocks in the region. The result would be more conservative management for OCN coho.

Southern Oregon/Northern California Coastal Coho Salmon

The Rogue/Klamath hatchery stock is used as the harvest indicator for SONCC coho. NMFS' 1999 biological opinion requires that management measures developed under the FMP achieve an ocean exploitation rate on Rogue/Klamath hatchery stocks of no more than 13%. The allowable exploitation rate for SONCC coho this year is therefore less than that for OCN coho, and may continue to be more limiting in the future because of the relative lack of information regarding naturally spawning coho stocks in California streams. NMFS expects that management constraints for OCN coho and LCR coho in 2002 will also limit impacts to SONCC coho stocks. In recent years, estimated exploitation rates for SONCC coho have been significantly less than for OCN coho.

Central California Coastal Coho Salmon

Little information on past harvest rates or current hooking mortality incidental to chinook fisheries exists for Central California Coastal coho. For the 2002 season, coho-directed fisheries and coho retention in chinook-directed fisheries will continue to be prohibited off California.

Chum Salmon

Hood Canal Summer Chum

Chum salmon are not targeted or caught incidentally in PFMC salmon fisheries. Management constraints in ocean fisheries for the protection of Hood Canal summer chum are also not considered necessary.

Sockeye Salmon

Snake River Sockeye Salmon

Ozette Lake Sockeye Salmon

Sockeye salmon are not targeted or caught incidentally in PFMC salmon fisheries. Management

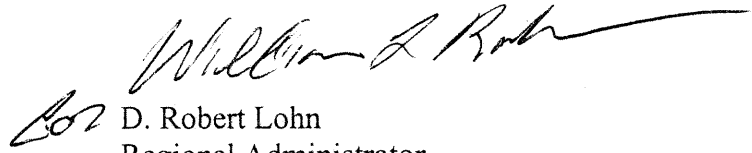
constraints in ocean fisheries for the protection of listed sockeye salmon are therefore not considered necessary.

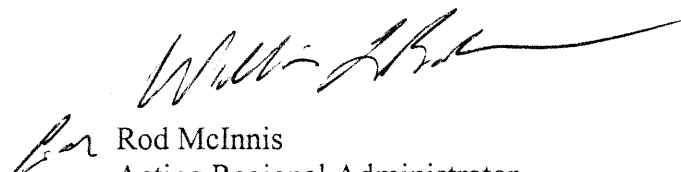
Steelhead

NMFS has listed two ESUs of steelhead as endangered and seven ESUs as threatened in Washington, Oregon, Idaho, and California. Steelhead are rarely caught in ocean fisheries and ocean fishery management actions that seek to shape fisheries to minimize impacts to steelhead are not considered necessary. The Council and states should prohibit the retention of steelhead in ocean recreational fisheries to minimize the effect of whatever catch may occur.

Please call if you have additional questions.

Sincerely,


D. Robert Lohn
Regional Administrator
Northwest Region


Rod McInnis
Acting Regional Administrator
Southwest Region

enclosure

Table 6 - Natural Chinook Management Units and Associated Objectives

Natural Chinook Management Units	Recovery Exploitation Rate Ceiling ¹	Low Abundance Threshold ²
Western Strait Hoko	10% SUS ER ³	500 spawners (c)
Elwha River	10% SUS ER ³	1,000 spawners (c)
Dungeness	10% SUS ER ³	500 spawners (c)
Mid-Hood Canal	15% pre-terminal SUS ER ³ Terminal – 750 spawners	400 spawners (n)
Skokomish	15% pre-terminal SUS ER Terminal – 3,150 spawners/1,200 natural spawners	1,300 spawners/800 natural spawners (c)
Nooksack Early North Fork South Fork	The Co-managers and NMFS are developing a RER assessment for this stock ⁴	1,000 spawners (n) 1,000 spawners (n)
Skagit Spring Chinook	42% Total ER	576 spawners (n)
Skagit Summer/Fall Chinook	52% Total ER	4,800 spawners (n)
Stillaguamish Summer/Fall	25% Total ER	500 spawners (n)
Snohomish Summer/Fall	32% Total ER	2,000 spawners (n)
Lake Washington Chinook Cedar River Index	15% pre-terminal SUS ER Terminal – 1,200 spawners	200 spawners (n)
Green River Chinook	15% pre-terminal SUS ER Terminal – 5,800 spawners	1,800 spawners (c)
White River Spring Chinook	17% Total ER	200 spawners (c)
Puyallup River Chinook	50% Total ER	500 spawners (c)
Nisqually River Chinook	1,100 spawners	500 spawners (c)

(n) – low abundance measures as natural origin recruits.

(c) - low abundance measures as composite escapement of natural and hatchery returns

1/ Interim management ceiling during recovery phase as estimated by the Fishery Regulation and Assessment Model (FRAM).

2/ Level of forecasted spawning abundance that triggers additional management action. Thresholds are set with consideration to stock-specific characteristics and genetic viability concerns.

3/ FRAM exploitation rate measured as total exploitation rate in southern U.S. fisheries. This objective represents the average exploitation rate by southern United States fisheries during 1992-1996 determined from run reconstruction.

4/ In the interim, management guidance will be derived from Appendix C application.

Nooksack River Management Unit

The management objectives for Nooksack early chinook constrain harvest under co-manager jurisdiction so that it will not impede recovery, while allowing for the exercise of treaty-reserved fishing rights and providing non-treaty fishing opportunity.

For the next two years it is not expected that the abundance of natural origin spawners returning to either of the Nooksack early chinook stocks will exceed the critical abundance thresholds. The co-managers and the NMFS will work together toward the development of an acceptable recovery exploitation rate to be implemented when the returning abundance of natural origin spawners exceeds the critical abundance threshold for both stocks.

When the projected escapement to the spawning grounds, in preseason modeling, is below the critical abundance threshold of 1,000 natural spawners for either of the Nooksack early chinook stocks, fisheries that impact the escapement of these stocks will be shaped so the exploitation rate in southern US fisheries, that is defined by modeling the fisheries regime listed in Appendix C with the current season's forecast abundance, is not exceeded.

Skagit River Management Unit

The management objectives for Skagit summer/fall and spring chinook include recovery exploitation rates that insure, while maintaining fishing opportunity, that harvest will not impede recovery, and low abundance thresholds that guard against abundance falling below the point of instability (Hayman 2000). The intent of this plan is to take actions that prevent extinction of individual populations, while maximizing long-term harvestable numbers and achieving ESA jeopardy standards for the two Skagit wild chinook management units

If the projected escapement of either management unit, or of any Skagit summer/fall stock falls below the low abundance threshold, further management actions will be triggered to reduce fishing mortality, as described in Appendix C.

For the summer/fall management unit, the low abundance threshold is 4,800; for the spring management unit, the low abundance threshold is 576. For the summer/fall unit, low abundance thresholds have been developed for each component population, so that forecast weakness in any one population may trigger the more conservative harvest regime. The crisis escapement thresholds for Upper Skagit summers, Lower Sauk summers, and Lower Skagit falls are 2,200, 400, and 900, respectively (Hayman 2000c). For spring chinook, data to calculate population-specific low abundance thresholds are not yet available.

Stillaguamish River Management Unit

The management guidelines for Stillaguamish chinook include an exploitation rate objective and a critical escapement threshold. The Washington co-managers have set an exploitation rate guideline of 0.25, as estimated by the FRAM simulation model, for the Stillaguamish chinook management unit. The critical escapement threshold is 500 natural-origin spawners. Whenever spawning escapement is projected to be below this level, fisheries will be managed to achieve a lower rate than the interim exploitation rate objective.

Snohomish River Management Unit

Management objectives for Snohomish summer/fall chinook include an upper limit on total exploitation rate, to insure that harvest does not impede the recovery of the component stocks, and a critical threshold for spawning escapement to maintain the viability of the stocks. Fisheries in Washington will be managed to achieve a total, adult equivalent exploitation rate, associated with all coastal fisheries, not to exceed 32 percent. A low escapement threshold of 2,000 spawners (natural origin, naturally spawning fish) for the management unit is established as a reference for pre-season harvest planning. If escapement is projected to fall below this threshold under a proposed fishing regime, extraordinary measures will be adopted to minimize harvest mortality.

Lake Washington Management Unit

The co-managers expect to manage impacts to Lake Washington natural chinook in all of the various fisheries throughout Puget Sound so as to constrain total exploitation rates in southern U. S. fisheries to a level within the range observed in recent years, e.g., 1998-2000. During the next two years, if estimated impacts are predicted to exceed the range observed in recent years, the co-managers will meet and discuss what additional actions, if any, may be appropriate to bring the exploitation rate back within the range.

Fisheries will be managed to achieve an escapement 1,550 to Lake Washington streams, which will be determined by live counts in the Cedar River index reach of 1,200 chinook. The low abundance threshold is defined as spawning escapement of 200 in the Cedar River index reach. If pre-season fishery simulation modeling indicates that escapement will fall below this level, conservation measures will be implemented to reduce fisheries mortality to the level defined by modeling the fisheries regime detailed in Appendix C.

Green River Management Unit

The co-managers manage fisheries to meet or exceed the spawning escapement goal of 5,800 Green River chinook. Management objectives for Green River chinook include an exploitation rate objective for pre-terminal fisheries and a procedure to manage terminal-area fisheries, based on an inseason abundance update (ISU), to assure that the escapement goal will be achieved. A low abundance threshold is identified to guard against abundance falling below the point of instability. Pre-terminal fisheries in Washington are managed to achieve a 15 percent ('SUS') exploitation rate, as estimated by the FRAM model. Terminal fisheries are managed to achieve the escapement goal of 5,800.

A low-abundance threshold of 1,800 natural spawners is established for the Green River management unit. If natural escapement is projected to fall below this threshold during pre-season planning, then additional management measures will be implemented in accordance with procedures established in Appendix C, to minimize fishery-related mortality. The terminal fishery may also be shaped to increase escapement if the in-season update indicates that the threshold will not be attained.

White River Management Unit

Fisheries in Washington will be managed to achieve a total exploitation rate, including fisheries in British Columbia, no greater than 17 percent, as measured by the FRAM simulation model.

If preseason fishery simulation modeling suggests that escapement will not exceed the low abundance threshold (200 chinook), further conservation measures will be implemented in fisheries that catch White River chinook, so as to reduce their total exploitation rate to a level that is defined by modeling the fishing regime described in Appendix C.

Puyallup Management Unit

The harvest management objective for Puyallup fall chinook is to not exceed a total exploitation rate of 50 percent, to assure that a viable, natural-spawning population is perpetuated. A low abundance threshold of 500 is established for the Puyallup fall management unit. If escapement is projected to fall below this threshold, fisheries-related mortality will be reduced to a level defined by the fisheries regime described in Appendix C.

Nisqually River Management Unit

This inseason assessment of natural run strength will enable the fishery to be managed for the 1,100 escapement goal. When the in-season update indicates that the escapement goal (1,100) will not be achieved, terminal area fisheries will be constrained by agreement between the co-managers with the objective of increasing spawner abundance to a level at or above the escapement goal.

Skokomish River Management Unit

Pre-terminal fisheries in southern U.S. areas (SUS), will be managed to ensure a total rate of exploitation of 15%, or less, as estimated by the FRAM model (est. of 1997-1999 SUS preseason impacts). Terminal fisheries are managed to achieve the escapement goal of 3,150. If the recruit abundance is insufficient for the goal to be met, OR regardless of the total escapement, the naturally spawning component of this population is expected to fall below 1,200 spawners, OR the hatchery component is expected to result in less than 1,000 spawners, additional terminal fishery management measures will be considered.

If, despite the implementation of additional measures, the projected escapement is less than 1,300 total spawners, OR regardless of the total escapement, the naturally spawning component of this population is expected to fall below the low threshold of 800 spawners, OR the hatchery component is expected to result in less than 500 spawners, pre-terminal SUS fisheries will be constrained to minimize mortality, in accordance with conservation measures described in Appendix C. In Hood Canal terminal areas the co-managers will consider and implement additional actions as necessary, including fishery closures, in order to increase the escapement to a level closer to, or above, the low thresholds.

Mid-Hood Canal Management Unit

Pre-terminal fisheries in southern U.S. areas (SUS), are managed to achieve a total rate of exploitation of 15%, or less, as estimated by the FRAM model. When the escapement goal of 750 spawners (established as interim MSY in HCSMP) is not expected to be met, additional management measures will be considered for terminal area recreational and commercial fisheries in order to ensure that the total SUS exploitation rate will not exceed 15%.

A low abundance threshold of 400 chinook spawners has been established for the Mid-Hood Canal management unit, which is approximately 50% of the current MSY goal for the Mid-Canal rivers, in the hood Canal Salmon Management Plan (1985). If escapement is projected to fall below this threshold, further conservation measures, which are described in Appendix C, will be implemented in pre-terminal and terminal fisheries to reduce mortality.

Dungeness Management Unit

Pre-terminal harvest in Washington waters will be constrained such that the southern U.S. exploitation rate does not exceed 10 percent (based on approximation of the 1997-99 mean SUS incidental rate, as estimated in FRAM). The critical escapement threshold for the Dungeness River is 500 natural spawners, which is approximately 50% of the (presumed MSY) escapement goal. Whenever natural spawning escapement for these stocks is projected to be below this threshold, pre-terminal fisheries will be managed to minimize mortality. Until the supplementation program is successful in rebuilding escapement to levels above this threshold, harvest will be constrained, in accordance with Appendix C, to minimize mortality.

Elwha River Management

Fisheries in Washington waters, including those under jurisdiction of the Pacific Fisheries Management Council, when the escapement goal is not projected to be met, will be managed so as not to exceed a 'Southern U.S.' exploitation rate of 10 percent on Elwha chinook (based on approximation of the 1997-99 mean SUS incidental rate, as estimated in FRAM). Harvest at this level will assist in providing adequate escapement returns to the river to perpetuate natural spawning in the limited habitat available, and provide broodstock for the supplementation program. It represents a significant decline in harvest pressure from southern U.S. fisheries.

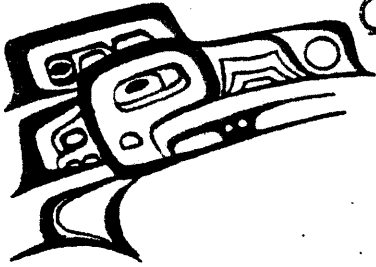
The critical escapement threshold for the Elwha River is 1,000 spawners, which represents a composite of 500 natural and 500 hatchery spawners. Whenever spawning escapement for this stock is projected to be below these levels, fisheries will be managed to achieve a lower rate in southern U.S. waters, in accordance with base fishery levels specified in Appendix C.

Appendix Table C-1. Range of exploitation rates (ER) expected with application of the Minimum Fishery Regulation Regime, under assumptions of recent year stock and species abundance.

Natural Chinook Management Units	Recovery Exploitation Rate Ceiling	Appendix C Ranges
Western Strait – Hoko R	10% SUS ER	8 – 10% SUS ER
Elwha River	10% SUS ER	8 – 10% SUS ER
Dungeness	10% SUS ER	8 – 10% SUS ER
Mid-Hood Canal	15% pre-terminal SUS ER Terminal – 750 spawners	13 – 15% pre-terminal SUS ER plus terminal ¹
Skokomish	15% pre-terminal SUS ER Terminal – 3,150 spawners	12 - 15% pre-terminal SUS ER plus terminal ¹
Nooksack Early	Under development ²	5 – 7% SUS ER
Skagit Spring	42% Total ER	15 - 17% SUS or 21-23% Total ER
Skagit Summer/Fall	52% Total ER	12 - 17% SUS or 29-33% Total ER
Stillaguamish Summer/Fall	25% Total ER	9 - 10% SUS or 15-16% Total ER
Snohomish Summer/Fall	32% Total ER	19 - 20% SUS or 24-26% Total ER
Lake Washington Cedar R	15% pre-terminal SUS ER Terminal – 1,200 spawners	11 - 15% pre-terminal SUS ER plus terminal ¹
Green River	15% pre-terminal SUS ER Terminal – 5,800 spawners	10 - 15% pre-terminal SUS ER plus terminal ¹
White River Spring	17% Total ER	12% SUS or 13% Total ER
Puyallup River	50% Total ER	26% SUS or 36% Total ER
Nisqually River	1,100 spawners	Terminal ¹

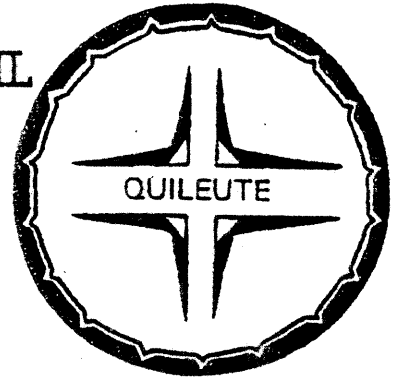
¹ The management intent is to take necessary action in the terminal and pre-terminal fisheries to achieve the low abundance threshold or to maximize the spawning escapement given the maximum regulatory effect that can be achieved for the management unit. Refer to the stock profiles for details on management intent.

² The co-managers and NMFS are currently working on developing a recovery exploitation rate ceiling for this management unit. For the next two years it is not expected that the abundance of natural origin spawners will exceed the low abundance threshold. Therefore it is anticipated that southern US fisheries will be managed at impact levels generated from the application of Appendix C.



QUILEUTE TRIBAL COUNCIL

POST OFFICE BOX 279
LA PUSH, WASHINGTON 98350-0279
TELEPHONE (360) 374-6163
FAX (360) 374-6311



THE QUILEUTE TRIBAL COUNCIL
LA PUSH, WASHINGTON

**RESOLUTION 2001 - 473 INCLUDING
AMENDMENT TO QUILEUTE FISHING ORDINANCE 74-A-5
RE CHARTER FISHING**

WHEREAS, the Quileute Indian Tribe is an Indian Tribe organized under the Indian Reorganization Act, and the Quileute Tribal Council is the duly constituted governing body of the Quileute Indian Tribe by authority of Article III of the Constitution and Bylaws of the Quileute Indian Tribe approved by the Secretary of the Interior on November 11, 1936; and

WHEREAS, the ancestors of the present Quileute Tribe were a party to the Treaty of Olympia of 1855 [12 Stat. 97; II Kappler 719], and enjoy the rights reserved to it by that Treaty; and

WHEREAS, the Quileute Tribal Council is empowered under the Constitution and Bylaws of the Tribe to provide for the maintenance of law and order; to conduct the business of the Tribe; and to safeguard and promote the peace, safety, morals and general welfare of the Tribe; and

WHEREAS, one of the rights retained in the treaty is the right of taking fish at all usual and accustomed grounds and stations, as set forth in United States vs. State of Washington, 384 F. Supp. 312 (W. D. Wash. 1974), aka the Boldt decision, and its subproceedings; and

WHEREAS, the Quileute Natural Resources Department has personnel trained in fish management and enforcement who have the ability to manage the fishery treaty resources to the extent that the Quileute Tribe has been acknowledged formally, since January of 1998 to have self-regulatory capability by the State of Washington (a copy of such acknowledgement attached hereto for all purposes);

WHEREAS, it is in the interest of Quileute fishermen who are authorized to fish under Ordinance 74-A-5 and who are certified for charter vessel operation by the U.S. Coast Guard, to operate charter fishing vessels within the Quileute reservation and within Quileute usual and accustomed fishing grounds and stations; and

WHEREAS, it is in the interest of the Quileute fishermen to have the Quileute Tribal Council authorize and establish a charter fishing vessel licensing and fishing program within the Quileute Tribe;

NOW THEREFORE LET IT BE RESOLVED, that the Quileute Tribal Council does hereby approve and adopt the following amendments to Quileute Fishing Ordinance 74-A-5:

Approved:

Date:

9/12/01

R. J. Maldonado

Superintendent

Olympic Peninsula Agency

Aberdeen, Washington

*** CERTIFICATION ***

I, the undersigned, hereby certify that the above resolution was adopted at a Regular meeting with the presence of a quorum of the Quileute Tribal Council at LaPush, Washington on the 6 day of Sept., 2001 by a vote of 4 FOR and 0 AGAINST
_____ ABSTENTION.

Deborah S. Johnson

Authorized Representative

Quileute Tribal Council

1. Add a new section:

**SECTION 4A: AUTHORIZED CHARTER RECREATIONAL FISHING VESSELS
AND CHARTER MARINE RECREATIONAL FISHERY**

4A.1. Enrolled members of the Quileute Tribe who maintain current certification with the U.S. Coast Guard for charter vessel operation are authorized hereunder to apply for a charter fishing vessel operating license from the Quileute Tribe.

4A.2. Any and all holders of such charter fishing vessel license from the Quileute Tribe must conduct charter operations under such license within the Quileute Reservation or the Quileute Usual and Accustomed Area. Operations elsewhere should be licensed by the appropriate jurisdictional authority(ies) for such area(s).

4A.3. Any and all holders of such charter fishing vessel license from the Quileute Tribe shall be subject to the regulations promulgated hereunder, regarding operation of a charter fishing vessel and any charter fishing therefrom.

4A.4. All passengers must be currently authorized to fish by the appropriate governmental authority and carry proof of such authorization/license with them on the vessel.

4A.5. The category of tribal marine recreational fishery from a Quileute-licensed charter vessel is recognized herein.

4A.6. Any species of fish or shellfish caught from charter fishing vessels when fishing under the license issued by the Quileute Tribe shall be deemed part of the tribal charter marine recreational fishery and attributable to the tribally licensed charter vessel operator, who may, after reporting the tribal catch, distribute the catch to passengers.

4A.7. Violations of this provision will carry penalties as provided below, or as may be further set forth in the regulations promulgated in accordance with this Section 4A.

2. Revise SECTION 15, PENALTIES, to add the following language after the existing language.

15.11 Notwithstanding the foregoing, any Quileute authorized fisherman who is found to have violated SECTION 4A, or any of the regulations promulgated in accordance with that section, may be fined \$100 for each offense. In the case of successive or multiple offenses, the Quileute Tribal Court may, at its discretion, suspend the charter fishing vessel license of the violator for a period of not less than one (1) month and not more than six (6) months, and such discretionary penalties may be cumulative.

Authenticating Signature



Russell Woodruff, Chair
Quileute Tribal Council

IN REPLY REFER TO:



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

Olympic Peninsula Agency
1216 Skyview Drive, P. O. Box 48
Aberdeen, WA 98520

September 12, 2001

Mr. Russell Woodruff, Sr., Chairman
Quileute Tribal Council
P.O. Box 279
LaPush,, WA 98350-0279

Dear Mr. Woodruff:

This is to acknowledge receipt of Quileute Resolution 2001-A-73 relative to Fishing Ordinance 74-A-5. We have reviewed the addition of section 4A and the Revision of section 15, Penalties.

Pursuant to the Quileute Tribal Constitution, all ordinances and amendments thereto, are subject to review by the Secretary of the Interior.

Based on my review, I recommend approval.

The Regional Office has ninety (90) days to approve or rescind the Superintendent's decision.

Sincerely,

RAY F. MALDONADO

Superintendent

CC: Tribal Gov't SVCS, NWRO W/attachments
Nellie Williams, Quileute Natural Resources



State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N • Olympia, WA 98501-1091 • (360) 902-2200. TDD: (360) 902-2207
Main Office Location: Natural Resources Building • 1111 Washington Street SE • Olympia, WA

January 29, 1998

Mr. Mel Moon
Quileute Tribe
Post Office Box 279
LaPush, Washington 98350

This letter is recognition by the State that the Quileute Tribe meets criteria under U.S. v. Washington, 384 F. Supp. 312 (W.D. Wa. 1974) to regulate its own fishery. Only 3 tribes in Washington have this status.

Dear Mr. Moon:

Thank you very much for providing the additional information we requested regarding the Quileute Tribe's enforcement staffing and capabilities.

Based upon all of the information which you have provided, the Washington Department of Fish and Wildlife is satisfied that the Quileute Tribe meets all of the qualifications for self-regulatory status as defined in Judge Boldt's Order at 384 F. Supp. 340-341. Further, the Department of Fish and Wildlife is confident that the Quileute Tribe will comply with the conditions of self-regulatory status as also defined in the Order at 384 F. Supp. 341. We are pleased to have been able to have reached this decision without the need for litigation of these issues.

We agree that the Quileute Tribe meets the qualifications listed. This agreement should not, however, be construed as a waiver of the state's arguments regarding the significance of self-regulatory status and/or its impact on the question of tribal entitlement of other species. It is possible that further discussions and/or further court decisions will eliminate the need to litigate these issues as well. For now, however, the state must preserve its legal positions and arguments on these subjects.

Thank you very much for your cooperation in these matters.

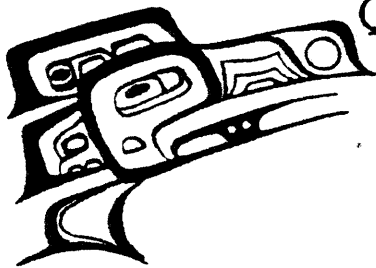
Sincerely,

A handwritten signature in cursive script, likely belonging to Philip Anderson, is written over a horizontal line.

Philip Anderson
Staff Director
Interjurisdictional Resource Management

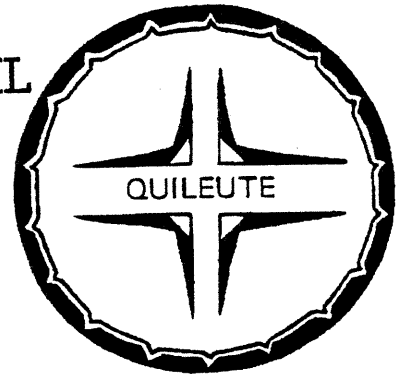
PA:mkr

cc: Rob Costello
Bern Shanks



QUILEUTE TRIBAL COUNCIL

POST OFFICE BOX 279
LA PUSH, WASHINGTON 98350-0279
TELEPHONE (360) 374-6163
FAX (360) 374-6311



RESOLUTION OF THE QUILEUTE TRIBAL COUNCIL QUILEUTE INDIAN RESERVATION RESOLUTION No. 2001-A-74

WHEREAS, the Quileute Indian Tribe is an Indian Tribe organized under the Indian Reorganization Act, and the Quileute Tribal Council is the duly constituted governing body of the Quileute Indian Tribe by authority of Article III of the Constitution and Bylaws of the Quileute Indian Tribe approved by the Secretary of the Interior on November 11, 1936;

WHEREAS, the ancestors of the present Quileute Tribe were a party to the Treaty of Olympia of 1855, and enjoy the rights reserved to it by that Treaty;

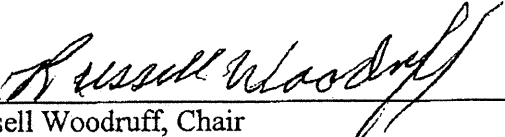
WHEREAS, the Quileute Tribal Council is empowered under the Constitution and Bylaws of the Tribe to provide for the maintenance of law and order; to conduct the business of the Tribe; and to safeguard and promote the peace, safety, morals and general welfare of the Tribe;

WHEREAS, the Tribal Council has authority to enact ordinances and resolutions under the authority provided by Article IV of the Quileute Constitution;

WHEREAS, the Quileute Natural Resources Department has personnel trained in fish management and enforcement who have the ability to manage the fishery treaty resources to the extent that the Quileute Tribe has been acknowledged formally, since January of 1998 to have self-regulatory capability by the State of Washington; and

WHEREAS, the Council has approved an amendment to the Quileute Fishing Ordinance 74-A-5 to provide for a tribal charter marine recreational fishery and for regulations to be promulgated thereunder;

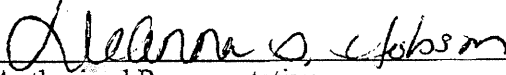
NOW, THEREFORE, the Quileute Tribal Council hereby approves the adoption of the Quileute Tribe Charter Marine Recreational Fishery regulations, attached herewith, to become effective immediately upon the date that the charter fishing amendment is approved by the Bureau of Indian Affairs, through April 30, 2002.



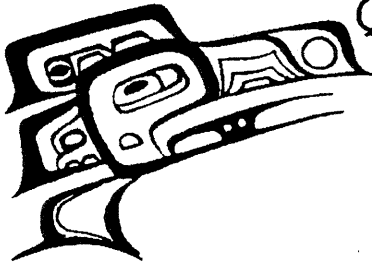
Russell Woodruff, Chair
Quileute Tribal Council

CERTIFICATION

I certify that the foregoing Resolution was adopted at a regular meeting of the Quileute Tribal Council at which time a quorum was present in LaPush, Quileute Indian Reservation, and the foregoing resolution was adopted by a vote of 4 FOR and 0 AGAINST on the 6th day of September, 2001.

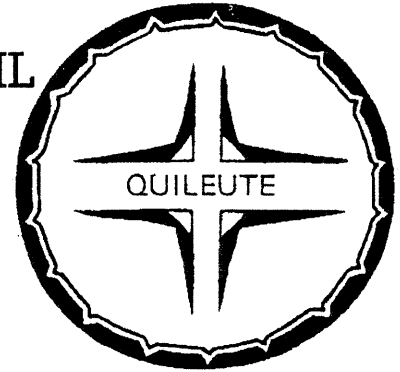


Aleanna S. Johnson
Authorized Representative
Quileute Tribal Council



QUILEUTE TRIBAL COUNCIL

POST OFFICE BOX 279
LA PUSH, WASHINGTON 98350-0279
TELEPHONE (360) 374-6163
FAX (360) 374-6311



Quileute Tribe Charter Recreational Fishery Regulations Approved by Quileute Tribal Council Resolution 2001-A-74 On September 6, 2001

The following regulations are promulgated pursuant to the Quileute Fishing Ordinance No. 74-A5, and any amendments thereto. In the event that such ordinance is replaced or further amended, these regulations will survive throughout their term unless expressly revoked by the new or amended ordinance.

I. Effective date

These regulations shall become effective immediately upon the date that the 2001 charter fishing amendment to the Quileute Fishing Ordinance, 74-A5, is approved by the BIA and shall remain effective through April 30, 2002.

II. Authority to Operate a Charter Vessel

- A. It is a requirement of all Quileute Charter Vessel Operators (hereinafter, QCVOs) to have first received certification from the U.S. Coast Guard to operate a charter vessel.
- B. U.S. Coast Guard Certification must be current. In the event that it is revoked, suspended, or expired, then the Quileute license will be terminated. When the U.S. Coast Guard status is reinstated, the QCVO may reapply for the Quileute license.
- C. All QCVOs must apply for a Quileute Charter Fishing Vessel (QCFV) operator's license. The forms for these are available at Quileute Natural Resources and carry a fee of \$25.00. These QCFV licenses must be granted before the QCFV may leave the port under such license.

III. Authority to Fish in the Quileute Charter Marine Recreational Fishery

- A. The QCVO and any other Quileute fishers must carry the BIA card issued to enrolled tribal members, at all times when on board.
- B. A category of sport fishing known as the tribal marine recreational fishery, operative on the Reservation and within the Quileute Usual and Accustomed Area (III, below) is recognized herein. [This is distinguished from commercial marine or any C&S tribal fishing with sport fishing gear.]

- C. All fishers on a QCFV, other than its captain and working crew, must carry a Quileute fishing license, which is available from Quileute Natural Resources, the Quileute Marina harbor master, or the captain of the charter vessel.
- D. The form shall be designed by Quileute Natural Resources and both the form and fees must first be approved by the Quileute Natural Resources Committee. Fees will be \$5.00 per day for fishing of any species. The form will indicate the number of days for which a license is valid.
- E. Both operating licenses and fishing licenses are payable to the Quileute Tribe, but the fees shall go to the Quileute Tribe Scholarship Fund, in particular.

IV. Designated Area of Operations

The QCVOs will conduct the tribal marine recreational fishery in the marine portion of the Quileute Usual and Accustomed Area, which runs from Sand Point, 48° 07' 36" N lat., to Queets River, 47° 31' 42" N. lat.

V. Recording the Catch

- A. All of the catch is attributable to the QCVO, who must be an enrolled Quileute tribal member, and such catch is part of the treaty share.
- B. The QCVO is responsible for filling out a catch report form for all of the non-commercial catches under these regulations, whether by passengers, captain, or crew; using a form provided by Quileute Natural Resources and available from Quileute Natural Resources. The forms should be completed on the vessel or immediately upon its return to port.
- C. The QCVO or a designee must turn in the non-commercial catch report forms to Quileute Natural Resources staff person in charge of recording tribal catch figures. This should be done as soon as reasonably possible after returning to port, so that an accurate count of the tribal fishery may be maintained.
- D. Nothing herein precludes the QCVO from distributing the catch, after reaching port, among the passengers on the charter vessel.

VI. Types of catch

- A. Any and all species of fish and shellfish may be caught, in accordance with the Tribe's treaty rights.
- B. Notwithstanding the above, no species should be caught on a Quileute Charter Fishing Vessel unless and until currently effective regulations for that species, *for charter fishing*, have been adopted by the Tribe.
- C. When on a charter vessel subject to these regulations, *only* tribal marine recreational fishing may be conducted. No commercial fishing, or ceremonial or subsistence fishing, may be conducted.

VII. Gear

- A. For salmon (Chinook, Coho, Steelhead, or other salmonid species), rod and reel, with definition of other specifics, including gear, to be established by seasonal Quileute regulations, prior to fishing.

- B. For shellfish: sex, size, gear, or other specifics to be established by seasonal Quileute regulations, prior to fishing.
- C. For groundfish: size, gear, or other specifics to be established by seasonal Quileute regulations, prior to fishing.

VIII. Charter Vessel Fees

The QCVO may set fees at levels appropriate for the market for charter fishing.

IX. Public Safety Concerns

- A. All QCFVs must be in compliance with minimum U.S. Coast Guard regulations, before leaving port. The QCVO is the person responsible for assuring that these conditions are met.
- B. The QCVO is responsible for making certain that all applicable licenses and certifications for the QCFV (or legitimate copies thereof) are on the vessel before it leaves port.
- C. The QCVO is responsible for making sure that all fishers (other than captain and working crew) are carrying Quileute fishing licenses before the vessel leaves port.
- D. At no time may the QCVO or crew of the QCFV be intoxicated or be using illegal drugs.
- E. The QCVO reserves the right to refuse passage or to return a fisher/passenger to port if that person is acting in a manner dangerous to himself/herself or to others, including but not limited to intoxication or use of illegal drugs. In the event that a passenger is returned to port, the charter fee paid by that passenger is forfeited.

X. Miscellany

- A. These regulations may be amended at any time, upon the recommendation of the Quileute Natural Resources Committee and the approval of the Quileute Tribal Council.
- B. If any provision of these regulations or their application to any person or circumstance is held to be invalid by a court of competent jurisdiction, the remaining provisions or the application of any remaining provision to other persons or circumstances is not affected.

XI. Citations and Penalties

- A. Citations may be issued for alleged violations of these regulations or of the Quileute Fishing Ordinance, by enforcement officers of the Quileute Tribe.
- B. Citations must clearly state the time and date of the alleged offense and the nature of the alleged offense, referencing these regulations and/or the Ordinance; the name of the alleged offender; the name of the citing officer; and the place the citation was issued. They must also indicate if a court appearance is required, and the time and date of such appearance.

- C. The citing officer has the discretion of requiring a court appearance or of allowing the citation to be settled by payment of a fine by pleading guilty or nolo contendere. Factors that may be considered in requiring a court appearance are whether an alleged violator has received multiple or successive citations under these regulations.
- D. Any alleged violator may request a court appearance.
- E. Any Quileute fisherman who is found by the Quileute Tribal Court to have violated SECTION 4A of the current Quileute Fishing Ordinance, or any of the regulations promulgated in accordance with that section, may be fined \$100 for each offense of which he or she is convicted.
- F. In the case of successive or multiple citations issued to a QCVO that result in a conviction, the Quileute Tribal Court may, at its discretion, suspend the charter fishing vessel license of the violator for a period of not less than one (1) month and not more than six (6) months, and such discretionary penalties may be cumulative.

**WDFW and Tribal 2002 Management Objectives
for Puget Sound Chinook and Coho Salmon**

Amendment 14 to the Pacific Coast Salmon Plan recognizes and allows for annual management targets to be established for Puget Sound chinook and coho salmon pursuant to rules and procedures established under U.S. v. Washington. It further recognized that WDFW and the effected tribes were in the process of establishing new objectives for coho salmon based on stepped exploitation rates, which would replace the previously defined management objectives. It also recognized that for Puget Sound chinook salmon, which are listed as a threatened species under the ESA, additional conservation objectives would be provided by NMFS, WDFW and the tribes.

As provided for in Amendment 14, WDFW and the effected tribes have established, pursuant to their obligations and authorities under U.S. v. Washington, revised management objectives for Puget Sound chinook and coho salmon. These new management objectives were provided to the Council and the Salmon Technical Team last year. The attached tables provide the objectives for use during the 2002 regulation setting process. They are based on the same approach as in 2001, with only minor corrections.

For Puget Sound coho salmon these goals are based on stepped exploitation rates based on defined breakpoints in expected spawning escapement, and are designed to be implemented using the modeling tools that the PFMC currently uses for preseason planning.

For Puget Sound chinook salmon the new goals are based on exploitation rates that will facilitate recovery, and are part of a comprehensive chinook management plan being developed by WDFW and the tribes. The harvest components of the plan were developed under U.S. v. Washington, and were also developed in close coordination with NMFS to ensure adequate consideration of ESA requirements. Last May, NMFS found that the harvest components of the plan meet the requirements of the ESA, under limit #6 of their 4(d) rule for the Puget Sound chinook ESU.

2002 Puget Sound Primary Natural Coho Management Unit Exploitation Rate Ceilings

Management Unit	Preseason Forecast of Abundance	Allowable Exploitation Rate
Strait of Juan de Fuca	21,200	40%
Hood Canal	34,900	45%
Skagit	98,500	60%
Stillaguamish	19,700	35%
Snohomish	123,100	40%

2002 Harvest Management Objectives for Puget Sound Natural Chinook Management Units

Natural Chinook Management Units	Recovery Exploitation Rate Ceiling¹ or Escapement Objective	Low Abundance Threshold ²
Western Strait – Hoko R.	10% SUS ER ³	500
Elwha River	10% SUS ER ³	1,000
Dungeness River	10% SUS ER ³	500
Mid-Hood Canal	15% pre-terminal SUS ER ³ - 750 spawners	400
Skokomish River	15% pre-terminal SUS ER; 3,150 spawners: 1,650 natural; 1500 hatchery.	1,300: 800 nat 500 hatch
Nooksack River Early - North Fk - South Fk	RER under development: interim management according to Appendix C.	1,000 (n) 1,000 (n)
Skagit River Spring	42% Total ER	576 (n)
Skagit River Summer/Fall	52% Total ER	4,800 (n)
Stillaguamish River	25% Total ER	500 (n)
Snohomish River	32% Total ER	2,000 (n)
Lake Washington -Cedar R Index	15% pre-terminal SUS ER - 1,200 spawners	200
Green River	15% pre-terminal SUS ER - 5,800 spawners	1,800
White River	17% Total ER	200
Puyallup River	50% Total ER	500
Nisqually River	1,100 spawners	500

¹ Interim harvest objective during recovery phase expressed in FRAM values.

² Level of forecasted spawning escapement that would trigger additional conservation measures. For some units this threshold is defined as natural-origin spawners (n).

³ Exploitation rate in southern U.S. fisheries.

INTEGRATION OF MANAGEMENT IN OCEAN AND COLUMBIA RIVER FISHERIES IN 2002 TO MEET CONSERVATION REQUIREMENTS FOR OREGON COASTAL NATURAL AND LOWER COLUMBIA RIVER WILD COHO SALMON

Introduction

Oregon Coastal Natural (OCN) coho and wild coho populations from lower Columbia River tributaries are assumed to have similar temporal and spatial distributions in ocean fisheries. OCN coho are listed as threatened under the federal Endangered Species Act (ESA) and lower Columbia River wild coho populations in Oregon have been listed as endangered under Oregon's ESA. A federally approved management plan prepared for the Pacific Fisheries Management Council (PFMC) constrains overall allowable fishery impacts on OCN. A management plan for lower Columbia River wild coho that has been approved by the Oregon Fish and Wildlife Commission (OFWC) includes allowable overall impact rates for all salmon fisheries and separate allowable harvest rates for Columbia River salmon fisheries and ocean salmon fisheries. Whereas all salmon fisheries that affect OCN coho can be controlled under federal ESA jeopardy standards, only a few of the fisheries that impact lower Columbia River wild coho fall within the exclusive jurisdiction of Oregon's endangered species law and the Oregon Department of Fish and Wildlife (ODFW). ODFW's goal is to achieve both federal and state management objectives for OCN coho and state objectives for lower Columbia River coho. To that end, ODFW is requesting that the PFMC consider the conservation needs for OCN coho and lower Columbia River wild coho concurrently when setting 2002 fisheries. What follows are synopses of management plans for OCN and lower Columbia River wild coho and a discussion of how they might be integrated to achieve the objectives of both.

Management of OCN Coho

In 1995, National Marine Fisheries Service (NMFS) proposed coho populations in both the Oregon Coastal and Southern Oregon/ Northern California evolutionarily significant units (ESUs) for listing under the federal ESA. In August of 1998, OCN coho in the Oregon Coast ESU north of Cape Blanco were listed as threatened. In an attempt to restore OCN coho and avert the proposed ESA listings the state of Oregon initiated the Governor's Coastal Salmon Restoration Initiative (Oregon Plan). Concurrently the PFMC began to consider an amendment to their Fishery Management Plan (FMP) that would insure that fishery related impacts would not act as a significant impediment to the recovery of depressed OCN coho stocks.

The PFMC approved Amendment 13 to the FMP in November 1997 (PFMC 1999). Amendment 13 manages fisheries based upon exploitation rates, not spawner escapement objectives. Maximum allowable exploitation rates in Amendment 13 vary in response to changes in observed brood year specific parental spawner abundance and marine survival. Spawner abundance is expressed as a percent of spawners required for full seeding of high quality habitat. Full seeding is estimated from a habitat based production model. Marine survival is estimated as the jack to smolt ratio for hatcheries in the Oregon Production Index area. To implement this approach, managers constructed "Low", "Medium", and "High" categories across the range of observed historic values for both OCN coho parental spawner abundance and jack to smolt survival (marine survival). The categories for parental spawner abundance and marine survival defined the two axes of a three by three harvest management matrix. Maximum allowable exploitation rates calculated for each matrix intersection are based upon estimates of habitat production potential, for the given combination of parental spawner abundance and marine survival.

In November 1999, the PFMC approved the formation of an ad hoc OCN work group composed of representatives from ODFW, PFMC, and NMFS to complete a year 2000 review of Amendment 13. The review focused on parental spawner criteria, marine survival criteria, and allowable impact rates in the harvest management matrix. The amended matrix that the OCN work group recommended includes new "Critical" and "Very Low" parental spawner categories, a new "Extremely Low" marine survival category, allowable fishery impacts for new cells, and some adjustments of allowable impacts in pre-existing cells (Table 1). The new harvest management matrix was adopted as scientific guidance by the PFMC in November 2000.

Management of Lower Columbia River Wild Coho

Under terms of the Oregon's ESA, the OFWC listed lower Columbia River wild coho salmon as an endangered species in July 1999. Under provisions of that same law, the ODFW, with the assistance of staff from the Washington Department of Fish and Wildlife (WDFW) prepared an endangered species management plan that was adopted by the OFWC in July 2001. One of the several required elements in this plan is a description of how state agencies will manage state lands, including a harvest management plan

The harvest management section of the endangered species management plan for naturally produced lower Columbia River wild coho is designed to manage mortality associated with ocean and Columbia River fisheries in a manner that is consistent with the conservation and recovery of the species. The approach to accomplish this goal will be to scale annual fishery impacts to the forecast run strength of each year's return of naturally produced wild coho.

The method to determine the annual maximum fishery impact rates for wild lower Columbia River coho salmon are based upon the same two predictive variables that are used in the Amendment 13 for OCN coho; parental spawner abundance and ocean survival. The integration of these two factors in setting maximum harvest rates is accomplished using the same harvest matrix approach as described for the management of OCN stocks of coho through the Amendment 13 in the annual PFMC management process for ocean fisheries. However, for lower Columbia River coho three harvest matrices are used: one for ocean fisheries (Table 2) and one for fisheries that occur within the Columbia River (Table 3), and one that depicts the maximum allowable cumulative fishery impact rates for ocean and Columbia River fisheries combined (Table 4). In all three matrices, the index of marine survival is the same as the one used for OCN coho in Amendment 13 and parental escapement is the observed number of wild adult coho spawning in the Sandy and Clackamas rivers expressed as a fraction of full seeding. Full seeding in each case is estimated from spawner recruitment analyses. The parental status for each of the two populations is applied to the harvest matrices and a maximum harvest rate for each population is estimated. These allowable maximum harvest rates for the two populations are then averaged to obtain the overall maximum impact rate for wild lower Columbia River coho.

Integration of Management for OCN and Lower Columbia River Coho

In most instances, fishery constraints to protect lower Columbia River wild coho under Oregon's ESA and fishery constraints to protect OCN coho under Plan Amendment 13 and the Federal ESA are complimentary. Management matrices for both incorporate the same marine survival index and a review of historic data indicate that the spawner abundance status for OCN coho and lower Columbia River coho are often the same. Furthermore, even though lower Columbia River coho are impacted at a higher rate in Columbia River fisheries than OCN coho, the allowable cumulative impact rates for the former are higher than for the latter. Hence, if marine survival and parental spawner status are the same for both lower Columbia River and OCN coho and ocean impacts for both are the same, allowable constraints for lower Columbia River coho can still be achieved even with the added impacts from Columbia River fisheries.

In contrast, there may be instances when allowable cumulative fisheries impacts for lower Columbia River wild coho (Table 4) may not be achievable if allowable impacts on OCN coho are higher. The latter instance can occur if OCN coho have a higher parental spawner status than lower Columbia River wild coho. In that instance, to balance needs for Columbia River and ocean fisheries, ODFW may request that co-managers in the PFMC process constrain ocean fisheries beyond what is called for to protect OCN coho in Plan Amendment 13.

As in the previous example, the management criteria for 1999 brood OCN coho and Lower Columbia River wild coho differ. The parental spawner category for 1999 brood year OCN coho was "Low". On the other hand, the 1999 brood year parental spawner status for wild coho in the Clackamas River was "Critical" and in the Sandy River was "Very Low". Marine survival for OPI coho resulting from 1999 parental spawners was "Low". Hence, the maximum allowable cumulative impact rate for OCN coho in all

2002 salmon fisheries is 15% (Table 1) whereas the maximum allowable cumulative harvest rate for lower Columbia River wild coho, including ocean fisheries, is 14% (average of 11.7% and 16.3%, Table 4). This includes an average maximum allowable harvest rate of 5% on lower Columbia River stocks in Columbia River fisheries (average of 4% and 6%, Table 3). Therefore, if co-managers in the Columbia River basin need to craft Columbia River fisheries that utilize the full 5% harvest rate for lower Columbia River wild coho then they must request that the PFMC constrain overall impacts to OCN coho to less than or equal to approximately 10.5%. This is equivalent to an ocean fishery impact rate on OCN and lower Columbia River wild coho of approximately 9.4% also and achieves the cumulative allowable impact rate of 14% for lower Columbia River wild coho (Table 5). Alternatively, co-managers for Columbia River fisheries could agree to constrain in-river fisheries impacts to something less than 5%. In that case, constraints on ocean fisheries could be relaxed accordingly. For example, if the harvest rate in the Columbia River fisheries is reduced to 3.5%, then the allowable overall impact rate of 14% on lower Columbia River coho could be achieved if ocean impacts on lower Columbia River coho were constrained to 10.9%. In that case, the overall impact rate on OCN coho would be approximately 12% (i.e. 10.9% in ocean fisheries and about 1.1% in freshwater fisheries, Table 5). In any case, a strong cooperative effort among co-managers in the PFMC and Columbia River management arenas in 2002 will be required to successfully integrate conservation needs for OCN coho under Federal ESA standards and lower Columbia River wild coho under conditions stipulated by ODFW's endangered species management plan

Samuel Sharr
Fish Division
ODFW
February 25, 2002

Table 1. OCN work group revisions to the harvest management matrix in Plan Amendment 13 showing allowable fishery impacts and ranges of resulting recruitment for each combination of parental spawner abundance and marine survival.

Parent Spawner Status ^{1/}	Marine Survival Index (based on return of jacks per hatchery smolt)						
	Extremely Low (<0.0008)	Low (0.0008 to 0.0014)	Medium (>0.0014 to 0.0040)	High (>0.0040)			
High Parent Spawners > 75% of full seeding	E ≤ 8%	J ≤ 15%	O ≤ 30%	T ≤ 45%			
Medium Parent Spawners > 50% & ≤ 75% of full seeding	D ≤ 8%	I ≤ 15%	N ≤ 20%	S ≤ 38%			
Low Parent Spawners > 19% & ≤ 50% of full seeding	C ≤ 8%	H ≤ 15%	M ≤ 15%	R ≤ 25%			
Very Low Parent Spawners > 4 fish per mile & ≤ 19% of full seeding	B ≤ 8%	G ≤ 11%	L ≤ 11%	Q ≤ 11%			
Critical ^{2/} Parental Spawners ≤ 4 fish per mile	A 0 - 8%	F 0 - 8%	K 0 - 8%	P 0 - 8%			
Sub-aggregate and Basin Specific Spawner Criteria Data							
Sub-aggregate	Miles of Available Spawning Habitat	100% of Full Seeding	"Critical"		Very Low, Low, Medium & High		
			4 Fish per Mile	12% of Full Seeding	19% of Full Seeding	50% of Full Seeding	75% of full Seeding
Northern	899	21,700	3,596	NA	4,123	10,850	16,275
North - Central	1,163	55,000	4,652	NA	10,450	27,500	41,250
South - Central	1,685	50,000	6,740	NA	9,500	25,000	37,500
Southern	450	5,400	NA	648	1,026	2,700	4,050
Coastwide Total	4,197	132,100	15,636		25,099	66,050	99,075

1/ Parental spawner abundance status for the OCN aggregate assumes the status of the weakest sub-aggregate.

2/ "Critical" parental spawner status is defined as 4 fish per mile for the Northern, North-Central, and South-Central sub-aggregates. Because the ratio of high quality spawning habitat to total spawning habitat in the Rogue River Basin differs significantly from the rest of the basins on the coast, the spawner density of 4 fish per mile does not represent "Critical" status for that basin. Instead, "Critical" status for the Rogue Basin (Southern Sub-aggregate) is estimated as 12% of full seeding of high quality habitat.

Table 2. Harvest management matrix for lower Columbia River wild coho salmon showing maximum allowable **OCEAN** fishery mortality rates.

Parental Escapement		Marine Survival Index (based on return of jacks per hatchery smolt)			
		Critical (< 0.0008)	Low (< 0.0015)	Medium (< 0.0040)	High (> 0.0040)
High	> 0.75 full seeding	< 8.0%	< 15.0%	< 30.0%	< 45.0%
Medium	0.75 to 0.50 full seeding	< 8.0%	< 15.0%	< 20.0%	< 38.0%
Low	0.50 to 0.20 full seeding	< 8.0%	< 15.0%	< 15.0%	< 25.0%
Very Low	0.20 to 0.10 of full seeding	< 8.0%	< 11.0%	< 11.0%	< 11.0%
Critical	< 0.10 of full seeding	0 – 8.0%	0 – 8.0%	0 – 8.0%	0 – 8.0%

Table 3. Harvest management matrix for lower Columbia River wild coho salmon showing maximum allowable mortality rates for **COLUMBIA RIVER** fisheries.

Parental Escapement		Marine Survival Index (based on return of jacks per hatchery smolt)			
		Critical (< 0.0008)	Low (< 0.0015)	Medium (< 0.0040)	High (> 0.0040)
High	> 0.75 full seeding	< 4.0%	< 7.5%	< 15.0%	< 22.5%
Medium	0.75 to 0.50 full seeding	< 4.0%	< 7.5%	< 11.5%	< 19.0%
Low	0.50 to 0.20 full seeding	< 4.0%	< 7.5%	< 9.0%	< 12.5%
Very Low	0.20 to 0.10 of full seeding	< 4.0%	< 6.0%	< 8.0%	< 10.0%
Critical	< 0.10 of full seeding	0.0 – 4.0%	0.0 – 4.0%	0.0 – 4.0%	0.0 – 4.0%

Table 4. Likely cumulative exploitation rates for lower Columbia River coho under the combined management protocols proposed for setting ocean and in-river fishery harvest rates.

Parental Escapement ^{1/}		Marine Survival Index (based on return of jacks per hatchery smolt)			
		Critical (<0.0008)	Low (< 0.0015)	Medium (< 0.0040)	High (> 0.0040)
High	> 0.75 full seeding	< 11.7%	< 21.4%	< 40.5 %	< 57.4%
Medium	0.75 to 0.50 full seeding	< 11.7%	< 21.4%	< 29.2%	< 49.8%
Low	0.50 to 0.20 full seeding	< 11.7%	< 21.4%	< 22.7%	< 34.4%
Very Low	0.20 to 0.10 of full seeding	< 11.7%	< 16.3%	< 18.1%	< 19.9%
Critical	< 0.10 of full seeding	0.0 – 11.7%	0.0 – 11.7%	0.0 – 11.7%	0.0 – 11.7%

^{1/} Full Seeding: Clackamas River = 3,800
Sandy River = 1,340

Table 5. Maximum allowable cumulative exploitation rates on lower Columbia River wild coho and how they relate to of maximum allowable harvest rates on lower Columbia River wild coho in Columbia River fisheries, harvest rates on lower Columbia River wild coho in ocean fisheries, and cumulative exploitation rates on OCN coho. Shaded cells depict in-river harvest rates or overall exploitation rates for lower Columbia River coho that exceed the maximum allowable in 2002 given the status of the parental spawners and the marine survival for the 1999 brood year production.

IMPACT RATES ON SURROGATE OCN COHO		FISHERY HARVEST RATES ON LOWER COLUMBIA RIVER COHO												
		IN RIVER												
		OCEAN												
FRESHWATER		OCEAN												
OVERALL		OCEAN												
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December 24, 2001

JAN 02 2002

Mr. Chuck Tracy
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Dear Chuck:

Subject: To move Pt. Arena salmon boundary line to Albion buoy

As per our conversations, I would like to address two concerns that make this request to move the Pt. Arena boundary line a necessity: weather and anchorages.

Boundary line openings create derby style openings; thus, creating dangerous conditions. In the case of the Pt. Arena line, it creates extreme safety hazard because of weather, no anchorages, and long distances to port. In the 2001 season I personally witnessed a number of close calls for fishermen by being forced to fish below the line in extreme weather conditions. Boats from Ft. Bragg traveling down to Pt. Arena find themselves caught in bad weather with no available place to anchor; forcing them to make their way back above Pt. Arena. On several occasions, myself and other skippers of larger boats, escorted groups of smaller vessels around Pt. Arena in case they broke up or sank. It might not be common knowledge among non-fishermen that the weather will back off once above Pt. Arena, allowing these smaller boats to travel safely up the beach to find an anchorage. The big question, and concern, is when will one of these vessels not find themselves back to that safety zone. The death of a fisherman will speak volumes for the necessity of the Pt. Arena boundary line being adjusted. Do we have to wait that long?

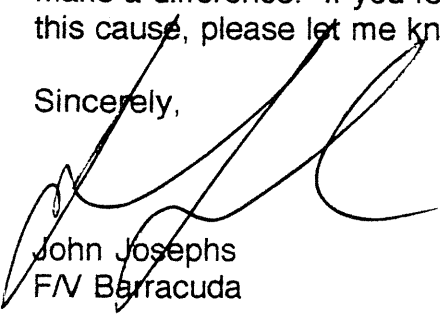
A logical new position for the line without changing the effectiveness of the boundary is the Albion buoy. By making the Albion buoy the new line, it not only eliminates the chance of weather related incidents, it opens up a host of safe anchorages currently not available. The only anchorage now available is Arena Cove, which is completely filled with moorings or is hard rock bottom which is not good holding ground. The new boundary will create seven new safe anchorages: Manchester Beach, Greenwood, Cuffeys Cove, Navarro River Mouth, Albion Bay, and then north of Albion, Little River and Big River. Having seven safe anchorages helps relieve the safety problems of a derby style fishery.

Making boundaries according to the lineage of the coast line is irrelevant; fishermen go by GPS to determine whether they are in accordance to the boundary. A lighthouse is easily obscured by fog, or the position of your boat in relationship to the land can be deceptive. Making boundaries in reference to land is old school.

I do not know any fishermen that would disagree with this boundary adjustment.

Chuck, I would appreciate it if you could pass this letter around to those in a position to make a difference. If you feel a petition signed by fellow fishermen would contribute to this cause, please let me know and I will make that happen.

Sincerely,



John Josephs
F/V Barracuda

cc: Robert Treanor, Executive Director

FILE
RG-CM?
RECEIVED

Ian Tattam
4602 SW 55th Pl.
Portland, OR 97221
(503) 297-4338
psu18148@pdx.edu

FEB - 1 2002

PFMC

January 30, 2002

Sam Sharr
Marine Salmon Fisheries Manager
Oregon Department of Fish and Wildlife
P.O. Box 59
Portland, OR 97207

Re: Hook restrictions in ocean and coastal waters salmon fisheries

Dear Mr. Sharr:

The use of circle hooks (as defined by STT 2001: p. 17) has been required in some California salmon fisheries for several years now. Circle hooks are designed in a fashion to minimize hookings in critical areas, such as the esophagus. Avoiding such critical hooking locations is desirable, especially in fisheries conducted on a selective basis.

"Critical" hooking locations are those which greatly increase the probability of mortality for released fish. The available evidence, as summarized by Lindsay et al. (1998), suggests that for adult salmonids the gill arches, eyes, and esophagus are critical hooking locations. Hookings in these locations contribute to mortality at a rate that is greatly disproportionate to their occurrence. I evaluated the chinook hooking mortality data presented by Schroeder et al. (1999) by assigning individual mortalities to their hooking location observations (Schroeder et al. 1999; Table 15), based upon the control recapture rate of 46%. For chinook captured with bait, this indicated a total of 13 mortalities. Their observations suggest that 92% of these 13 mortalities were associated with critical hooking locations, although critical hooking locations were observed in only 20% of all bait-group chinook. When lure and bait strata were combined to increase sample size, the pattern remained. That is, 73% of the total mortalities occurred to fish which had a critical hooking location, although those fish accounted for only 15% of the total catch. This interpretation of the data presented by Schroeder et al. (1999) suggests that the catch and release mortality observed in a fishery hinges on the rate of hookings in critical locations.

Salmon fisheries in the ocean and coastal waters of Oregon most frequently utilize baitfish (i.e., herring and large anchovies, or parts thereof) as an attractant. Use of these baits with conventional hooks, combined with the feeding tendencies of

coastal salmon, can frequently result in critical hooking locations. In 2001, I evaluated the effectiveness of circle hooks at avoiding critical hooking locations. All of the following observations occurred at the mouth of the Nehalem River, from mid-August through late October. I used both tandem circle hooks (5/0, Eagle Claw L197G), and the combination of an upper circle hook followed by a conventional hook (4/0). Observations by species (with the number of critical hooking locations in parentheses) follow:

Combined circle/conventional hooks: 6 chinook (0), 1 coho (0)

Tandem circle hooks: 5 chinook (0), 9 coho (1)

I did not conduct a paired test with the typically employed tandem conventional hook setup, however, anecdotal observations and past experience suggest that the rate of critical hookings would be substantially higher than that presented for circle hooks. The efficiency of circle hooks (in terms of catch per opportunity) seemed to be comparable to conventional hooks. Hooking location with circle hooks was primarily in the periphery of the mouth, most frequently behind the maxillary or at the juncture of the maxillary and roof of the mouth. I also note that coho display a tendency to roll when hooked (personal observation), which can result in a hooking in the head, eyes, operculum or body when the lower of tandem conventional hooks is in the periphery of the mouth. An additional potential advantage of circle hooks is that, due to the inward curve of the point, they appear to reduce the risk of such a "double" hooking.

I believe that, given the data and observations presented, required use of circle hooks could substantially reduce critical hookings, and thus mortality, of salmon in baitfish-dominated fisheries. Such regulations may potentially contribute to decreased angling mortality of wild fish, and therefore increased opportunity for harvest of hatchery fish. A broader evaluation and paired comparison of hooking locations with circle hooks and conventional hooks is needed. However, as data on survival with various hooking locations exists (e.g., Schroeder et al. 1999), a hooking-*location* study may be sufficient, rather than a larger hooking-mortality study. Does ODFW and/or PFMC have any ongoing studies or projects within which an evaluation of circle hooks could be incorporated?

Sincerely,



Ian Tattam

C: Steve King
John Coon, PFMC

References

- Lindsay, R.B., R.K. Schroeder, and K.R. Kenaston. 1998. Spring Chinook Salmon in the Willamette and Sandy Rivers. Fish Research Project F-163-R-03. Annual Progress Report, Oregon Department of Fish and Wildlife, Portland.
- Schroeder, R.K., K.R. Kenaston, and R.B. Lindsay. 1999. Spring Chinook Salmon in the Willamette and Sandy Rivers. Fish Research Project F-163-R-04. Annual Progress Report, Oregon Department of Fish and Wildlife, Portland.
- STT (Salmon Technical Team). 2001. Preseason Report III: Analysis of Council Adopted Management Measures for 2001 Ocean Salmon Fisheries. PFMC, Portland.

RECEIVED

FEB 21 2002

PFMC

February 14, 2002

Jay Beckman
P.O. Box 1159
Cannon Beach, OR 97110

Pacific Fishery Management Council
700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

Dear Council Members:

I would like to address the Chinook Salmon session, South of Cape Falcon to Humbug Mountain. I have commercial fished for 25 years and I am totally in favor of the earlier start date of March 20th. I would also like to request that the season be extended to November 15th instead of October 31st.

As I am sure you are aware it is a struggle to make a good living Salmon fishing. The earlier start date and later extended fishing date is an excellent opportunity for us to provide the quality Troll Salmon (vs. farmed fish) that is demanded by the market. Additionally, we receive a higher price for the fish because other areas are not open for Salmon fishing.

If providing a quota of Coho fish for the commercial fleet cuts time off our Chinook fishery, it is not to our advantage. The price of Coho is so low that the costs of fishing out weigh the income generated. I would much rather see the Coho given to the sports fleet and our Chinook season extended.

Thank you for your time. I anxiously await the opening of the season.

Sincerely,

Jay Beckman
F/V Legacy

Robert Leslie Little

P.O. Box 544 · Carmel, California 93921 · (408) 624-1230

RAMBELS FROM BOB AGE 81 TO ~~THE DEVED~~ -1-02

PFMC

MAR 5 2002

Let's see now SPORT SALMON ~~PFMC~~ SEASONS STARTS FEB 15
OH/OH! NEW GUYS IN CHARGE MAKE THAT APRIL 1
THINGS TRICKLE DOWN NO OPEN FELL NO CLOSE NOV.
OCEAN IS THEN TO ENJOY SPORT & COMMERCIAL FISHING
NO SPORTING GOODS STORES, ONE BUYER (PREV.)
NO COMMERCIAL SUPPLY STORES

PARTY BOATS NOW SPECIALIZE IN WHALE WATCHING

400 BOATS BROKE ALL RECORDS IN LIMITED
SEASON LATE 80'S AND LATE 90'S used to
be 3500 BOATS. COUPLE HUNDRED CAUGHT
OVER 100 FISH

LAST SEASON BROKE ALL RECORDS NORTH?

WORST OF ALL TIME SOUTH! DID THE TEAM
PREDICT THAT 2. TONS OF BIG FISH POUNDING
THE MONTEREY MARINA IN AUGUST BUT WHEN YOU
GUESSED THIS RIGHT, WE'RE CLOSED! FANTASTIC SPORT
CATCH IN APRIL BUT WE'RE CLOSED! LIMIT THE
BOAT SIZE TO 31' AND LESS AND OPEN THE
COMMERCIAL SEASON SANTA CRUZ-SOUTH ON APRIL 15

MY BROTHER LIVES ON THE CANAL IN DOS PALOS
AND LOVES TO WATCH HUGE SALMON JUMP OVER
THE GATES IN DECEMBER AND JANUARY 200' FROM
DOWN TOWN CENTRAL DOS PALOS. SO WE CAN'T FISH
APRIL 15th AND HAVE OUR BEST CHANCE AT
A SEASON WHILE THE SPAWNERS ENRICH
THE FARMERS FIELDS.

SO AS I FISHED MY SPORT BOAT FOR 50 YEARS
ONE ROD UP AND ONE ROD DOWN AND TWICE
I HAD TWO FISH ON WHEN I NEEDED ONE
TO LIMIT. NATURALLY I RELEASED THE
SMALLEST. BUT NOW ONE ROD AND ONE +
HOOK TO SAVE SALMON MORTALITY - HELLO DOS PALOS
WHO SNAPS ON 6 OR 7 HEADERS? I NEVER
HAVE! WHAT'S WRONG WITH ONE HOOK PER ROD?
WOULD NEVER BOTHERED ME BUT FOR — SAKE
LET ME FISH A COUPLE OF RODS SO I CAN FIND
THE FISH! INCREASE THE TIME! ONE HOOK PER ROD!

WE HAD THE BEST F&G IN AMERICA AND THEY DID
A HELL OF A JOB! LET EM DO IT! CONFINE THE FEDS
TO PROTECTION OF 200 MI ZONE AS ORIGINALLY INTENDED



CHAMBER OF COMMERCE
"Working To Help Our Businesses Grow"

RECEIVED

FEB 28 2002

PFMC

February 26, 2002

Dan Viele, Chair
Klamath Fishery Management Council
US Fish and Wildlife Service
1829 S. Oregon Street
Yreka, CA 96097

On February 20, 2002, the Brookings-Harbor Chamber of Commerce Board of Directors voted to ask that the Chinook season for the Klamath Management Zone have the following dates:

- Wednesday, May 15, 2002, and continuing until Sunday, July 7, 2002.
- Using the remainder of the allocated days to work backward from Sunday, Sept 15, 2002, with the hope of starting the "second season" on Saturday, July 27, 2002.

These dates were suggested to both help spread the economic benefit over a longer period of time and also make certain the Oregon native coho salmon pass through the Klamath Management Zone, thus decreasing the hook-and-release mortality of the native coho. The season dates that we suggest should achieve both of these economic and salmon protection goals. We also feel that the consistency of these dates with the seasons set in the past few years should help visitors to our area make their plans with more certainty.

We also feel that limits of two fish a day or four fish in seven consecutive days would help in allowing our recreational fishermen enjoy the most time on the water.

Thank you for considering our comments as you work to set the 2002 seasons. Our visitors and our fishermen look forward to your final decisions. As you can imagine, we are already receiving calls daily looking for the right dates.

Sincerely,

Peter C. Spratt
President

C: Keith Wilkinson; Nita Rolfe; Ralph Brown; Paul Kirk; Dr. Mc Isaac

GUIDANCE FOR OPTION DEVELOPMENT AND ASSESSMENT

Developing management options is a complex process which may be assisted by following consistent procedures wherever possible. The recommendations below were developed by the Salmon Technical Team (STT), with input from the Salmon Advisory Subpanel (SAS), and approved by the Council to help guide the option development process. They are suggested guidelines and not inflexible requirements.

1. March Management Options:

- a. To aid option assessment, the Council urges pertinent agency and tribal managers to have the Fishery Regulation Assessment Models ready to run no later than the first day of the March Council meeting.
- b. On the first day of the March meeting, the Council should provide specific guidance for the allowable level of impacts on OCN coho and priorities for the allocation of impacts on critical stocks (e.g., Klamath River fall chinook, Sacramento River winter chinook, Snake River fall chinook, etc.). Council staff can modify the option tables to insure these objectives are clearly identified and addressed. Each time the Council reviews the options, it should confirm or amend its guidance on the objectives and priorities.
- c. Generally, Option I should include the SAS's priority seasons and management measures. Options II and III are used to show seasons in which one group or the other gets more or less of its priorities, to illustrate the effect of other management measures (e.g., variations in bag limits for recreational fisheries), or to allow for different inside/outside allocations (e.g., options north of Cape Falcon). The final adopted options should meet basic conservation requirements.
- d. SAS representatives should clearly identify their fishery priorities (e.g., first two fish, continuous season between Point X and Y, etc.) and engage in negotiations as necessary to resolve conflicts among gear groups and areas to arrive at cohesive and coordinated options.
- e. The SAS requests assessments of impacts off California include tables with data for all harvest cells, not just those below Point Arena.
- f. Avoid adopting more than three options. The Council should attempt to identify all significant or new management measures that might be considered for final adoption. However, it is not necessary or possible to model each potential option. Many variations can simply be noted in the description of the three main options. Additional options or variations may be provided for Council consideration during the public comment period which follows the March Council meeting. This period ends with completion of public comment on the tentative adoption of final management measures during the first day of the April Council meeting (Tuesday).

2. April Meeting:

The Council has indicated that on the last day of the March meeting, it will determine the schedule for final adoption of management measures at the April meeting (Thursday afternoon versus Friday).

PPMC
02/13/02

EMERGENCY CHANGES TO THE SALMON FISHERY MANAGEMENT PLAN
(Excerpt from Council Operating Procedures 26)

Criteria

The following criteria will be used to evaluate requests for emergency action by the U.S. Secretary of Commerce:

1. The issue was not anticipated or addressed in the salmon plan or an error was made.
2. Waiting for a plan amendment to be implemented would have substantial adverse biological or economic consequences.
3. In the case of allocation issues, the affected user representatives support the proposed emergency action.
4. The action is necessary to meet fishery management plan objectives.
5. If the action is taken, long-term yield from the stock complex will not be decreased.

Process

The Pacific Fishery Management Council (Council) will consider proposals for emergency changes at the March meeting and decide whether or not a specific issue appears to meet all the applicable criteria. If the Council decides to pursue any proposal, it will direct the Salmon Technical Team (STT) to prepare an impact assessment for review by the Council at the April meeting, prior to final action. Any proposals for emergency change will be presented at the public hearings between the March and April meetings. It is the clear intent of the Council that any proposals for emergency change be considered no later than the March meeting in order that appropriate attention be devoted at the April meeting to developing management recommendations which maximize the social and economic benefits of the harvestable portion of the stocks.

However, the Council may consider other proposals for emergency change at the April meeting if suggested during the public review process, but such proposals must clearly satisfy all of the applicable criteria and are subject to the requirements for an impact assessment by the STT.

PFMC
02/27/02

IDENTIFICATION OF MANAGEMENT OBJECTIVES AND
PRELIMINARY DEFINITION OF 2002 OPTIONS

Situation: Using the Salmon Advisory Subpanel (SAS) management recommendations as a base, the Council should identify the range of management elements in the options for public review (harvest ranges, special restrictions, and basic season structure). The Salmon Technical Team (STT) will attempt to collate the Council's identified management elements into coordinated coastwide options. The collated options will be returned to the Council for review and any further direction on Wednesday, March 13, 2002 followed by STT analysis and final adoption of the options on Friday, March 15, 2002. Exhibit B.5, Attachment 1 provides guidance for developing and assessing the options.

Before defining the options, the Council should be briefed on any pertinent management constraints resulting from: actions by the Pacific Salmon Commission, recommendations of the Klamath Fishery Management Council, and action by the California Fish and Game Commission to set the allocation of Klamath River fall chinook for the inside recreational fishery and constraints for stocks listed under the Endangered Species Act.

Any option considered for adoption which deviates from fishery management plan (FMP) objectives will require implementation by emergency rule. If an emergency rule appears to be necessary, the Council must clearly identify and justify the need for such an action consistent with emergency criteria established by the Council (Exhibit B.5, Attachment 2).

Council Task:

- 1. Using the SAS proposals and other agency and public input, define basic management elements and alternatives for STT collation into coastwide management options.**

Reference Materials:

1. Guidance for Option Development and Assessment (Exhibit B.5, Attachment 1).
2. Emergency Changes to the Salmon FMP (Exhibit B.5, Attachment 2).
3. Integration of Management in Ocean and Columbia River Fisheries in 2002 to Meet Conservation Requirements for Oregon Coastal Natural and Lower Columbia River Wild Coho Salmon (Exhibit B.5.g, ODFW Recommendations).
4. Public Comment (Exhibit B.5.i).
5. SAS Proposed Initial Salmon Management Options for 2002 Non-Indian Ocean Fisheries (Exhibit B.5.h, Supplemental SAS Report).

Agenda Order:

- | | |
|---|---------------------------------|
| a. Agendum Overview | Chuck Tracy |
| b. Report from the Pacific Salmon Commission | B. Bohn/J. Harp |
| c. Report of the Klamath Fishery Management Council (KFMC) | Dan Viele |
| d. Report of the California Fish and Game Commission | Bob Treanor |
| e. NMFS Recommendations | Bill Robinson |
| f. Tribal Recommendations | Jim Harp |
| g. State Recommendations | P. Anderson/B. Bohn/LB Boydston |
| h. Reports and Comments of Advisory Bodies | |
| i. Public Comment | |
| j. Council Recommends Initial Options for STT Collation and Description | |

PFMC
02/27/02

TABLE 6. Expected coastwide Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho **exploitation** rates by fishery under Council proposed ocean fisheries management options, 2002. (Page 1 of 1)

Fishery	Exploitation Rate (Percent)					
	OCN			RK		
	I	II	III	I	II	III
SOUTHEAST ALASKA	0.00	0.00	0.00	0.00	0.00	0.00
BRITISH COLUMBIA	0.00	0.00	0.10	0.00	0.00	0.00
PUGET SOUND/STRAITS	0.10	0.10	0.10	0.00	0.00	0.00
NORTH OF CAPE FALCON						
Treaty Indian Troll	1.30	1.10	0.90	0.00	0.00	0.00
Recreational	0.90	1.00	0.50	0.00	0.00	0.00
Non-Indian Troll	0.80	0.40	0.30	0.00	0.00	0.00
SOUTH OF CAPE FALCON						
Recreational:						
Cape Falcon to Humbug Mt.	2.70	2.10	1.50	0.10	0.10	0.10
Humbug Mt. to Horse Mt. (KMZ)	1.80	1.80	1.90	3.40	3.40	3.70
Fort Bragg	0.90	0.80	0.90	1.70	1.70	1.70
South of Pt. Arena	0.80	0.70	0.80	1.30	1.30	1.30
Troll:						
Cape Falcon to Humbug Mt.	1.70	1.50	1.70	0.10	0.10	0.10
Humbug Mt. to Horse Mt. (KMZ)	0.30	0.40	0.10	0.90	1.50	0.30
Fort Bragg	2.00	0.20	1.60	3.10	3.80	2.60
South of Pt. Arena	1.10	0.80	1.10	1.20	1.20	1.20
BUOY 10	0.40	0.50	0.50	0.00	0.00	0.00
ESTUARY/FRESHWATER	0.90	1.00	1.00	0.20	0.20	0.20
TOTAL	15.90	12.20	13.00	12.10	13.40*	11.20

*Rogue-Klamath impacts do not reflect savings resulting from changes made to reduce OCN impacts in Option II.

COUNCIL RECOMMENDATIONS FOR 2002 MANAGEMENT OPTION ANALYSIS

Situation: The Salmon Technical Team (STT) will present the Council with coordinated coastwide management options which embody, to the extent possible, the management elements identified by the Council under agenda item B.5 on Tuesday. At this time, the Council may need to clarify STT questions and should assure the options presented are those for which the Council desires full STT analysis and consideration for final adoption on Friday.

Council Task:

1. Clarify STT questions.
2. Confirm management options for STT analysis.

Reference Materials:

1. Collation of Preliminary Salmon Management Options for 2002 Ocean Fisheries (Exhibit B.6.b, Supplemental STT Report).

Agenda Order:

- | | |
|---|--------------|
| a. Agendum Overview | Chuck Tracy |
| b. Report of the STT | Dell Simmons |
| c. KFMC Comments | Dan Viele |
| d. Reports and Comments of Advisory Bodies | |
| e. Public Comments | |
| f. Council Direction to the STT and Salmon Advisory Subpanel on Option Development and Analysis | |

PFMC
02/25/02

PACIFIC COAST SALMON PLAN AMENDMENT PROPOSAL
MANAGEMENT OBJECTIVES FOR LISTED CENTRAL VALLEY CHINOOK

I. PROPOSED ACTION

NMFS is proposing revision of the Pacific Coast Salmon Plan to specify in the FMP recovery and long term conservation objectives for Sacramento River winter chinook and Central Valley spring chinook. Both are listed under the federal and state endangered species acts. Although their potential as commercially exploitable stocks may be limited, they represent important components of salmon diversity in California, and ocean salmon fisheries should be managed to ensure recovery and delisting of the populations and to prevent re-listing. Management of winter and spring chinook stocks could continue through the process of NMFS' section 7 consultations. However, NMFS prefers that the Council assume an active role in developing conservation objectives for these populations, with full public involvement in the development and evaluation of alternatives.

The development of management objectives would be accomplished through an FMP plan amendment, with accompanying regulatory impact review, regulatory flexibility analysis and environmental analysis to the extent warranted.

II. MANAGEMENT BACKGROUND

Current FMP Conservation Objectives Sacramento River winter chinook and Central Valley spring chinook are among the stocks that were introduced into the Salmon FMP under Amendments 12 and 14 as a result of being listed under the ESA. Amendment 12 added "species listed under the ESA" to the list of stocks covered by the plan and identified the escapement goal to be "consistent with NMFS jeopardy standards or recovery plans to meet immediate conservation needs and long-term recovery of the species". Amendment 14 specifically identified both stocks in Table 3-1 and their objectives remained NMFS jeopardy standards or recovery plan:

Sacramento River Spring Chinook: NMFS jeopardy standard/recovery plan (not established). No defined objective of ocean management prior to listing.

Sacramento River Winter Chinook: NMFS jeopardy standard/recovery plan. Since 1996, an annual preseason objective of a 31% increase in the adult spawner replacement rate (equivalent to a 1.77 replacement rate) relative to the observed 1989 - 1993 mean rate of 1.35. Objective undefined prior to listing.

Status of the Populations Since 1994, the winter chinook population has demonstrated a positive adult replacement rate; that is, the number of adult winter chinook spawners has increased relative to the number 3 years before. The estimates of the 2001 run size based on the carcass survey are 12,120 (Petersen) and 7,572 (Jolly-Seber). The six available years of carcass survey data yield three estimated replacement rates: 2.7, 3.4, and 1.9. The current ESA target rate is 1.77.

Spawning populations of spring chinook have also increased in the Sacramento River Basin since 1994, particularly the Butte Creek run, which in 2001 returned in numbers comparable to those of winter chinook population. The mean replacement rates since 1994 are 1.7, 1.7 and 2.7 for the Mill, Deer, and Butte Creek populations respectively.

III. POTENTIAL MANAGEMENT ACTIONS

Sacramento River Winter Chinook

A. Alternative I (Status Quo) - Population Growth

The management objective would specify an increase in the spawning population, expressed as an adult 3 year replacement rate. The 1996/97 biological opinion requires constraints on ocean harvest sufficient to produce a 31% increase in the winter chinook adult replacement rate relative to a base period of 1989 - 1993. The goal has been implemented by the Council and NMFS using a harvest model (WCOHM), which relies on recoveries of marked wild fish during the 1970s. The implementation of the ESA objective assumes that either 1) all non-fishing factors that influence adult replacement rates remain unchanged between the base period and the present, or 2) the model used to implement the objective is able to compensate for variations in non-fishing factors in predicting the effects of fishing seasons on adult replacement rates. The limited available data suggests that the WCOHM reasonably reflects the distribution of winter chinook CWT recoveries through time and between sectors. Different replacement rate goals could be specified, depending on the size of the spawning population. The range of populations would include the delisting goal.

Implementation of the objective could be accomplished through:

1. A harvest rate model, such as the WCOHM, possibly revised with CWT data.
2. Ad hoc seasonal constraints applied to recreational and commercial fisheries.
3. Feedback control relating harvest model output to recent adult replacement rates.

B. Alternative II - Spawning Escapement Objective

The management objective would be expressed as an adult escapement goal (or range) associated with certain population sizes (listed and recovered). This alternative could be combined with alternative I and applied to a delisted population.

Implementation (as in Alternative I)

1. Harvest rate model
2. Ad hoc seasonal approach
3. A preseason prediction of ocean abundance and escapement may not be possible due to the relationship of run timing and fishing seasons

C. Alternative III - Harvest Rate

The management objective would be specified as a range of harvest rates (or indicators) associated with various population levels (listed to recovered).

Implementation of a harvest rate goal would minimally require a cohort reconstruction of the Livingston-Stone Hatchery population, which would allow a post season estimate of the harvest rate on the hatchery population. A harvest rate estimate on the entire population would additionally require age composition analysis of naturally spawning fish. It would also be possible to develop a harvest model based on recent CWT data and effort. Other indicators of harvest rate on winter chinook could be considered.

Central Valley Spring Chinook

A. Alternative I (Status Quo) - Use of other stock management objectives

This alternative would rely on the revision of management objectives for other stocks, such as Sacramento River winter chinook, Klamath River fall chinook, or Central Valley fall chinook, to provide adequate harvest management for Central Valley spring chinook. This is the approach taken by NMFS' 2000 biological opinion on Central Valley spring and California Coastal chinook: a limit on the exploitation rate of Klamath River fall chinook is used as a management objective for California coastal chinook, and the winter chinook

requirements are considered sufficient to protect spring chinook. Implementation of the objective should identify a feedback mechanism for adjusting the management objective to specific recovery objectives or milestones.

B. Alternative II - Spawning Escapement Objective

There are at least three populations (Deer, Mill, and Butte Creek) of spring run that should be considered, either individually or as an aggregate. The difficulties associated with the lack of a preseason abundance estimate for winter chinook may also apply to spring run.

Implementation could be accomplished through use of a harvest model or through ad hoc seasonal approaches.

C. Alternative III - Harvest Rate Objective

The Feather River Hatchery spring chinook stock is a potential surrogate for naturally spawning Central Valley spring chinook, although concerns exist regarding introgression with the hatchery fall chinook stock. As with the Livingston-Stone winter chinook population, the Feather River Hatchery spring chinook stock has the potential for providing the necessary data to allow a cohort reconstruction and a post-season harvest rate estimate. The CDFG is tagging relatively large numbers of naturally produced Butte Creek spring chinook which should provide information on the catch distribution of that population relative to the hatchery spring-run stock, as well as age composition data for the natural run.

Implementation of the objective would require additional monitoring and differentiation of the untagged components of the fall and spring run in the Feather River and, if possible, in Butte Creek.

IV. Amendment Schedule

A. March 2002

1. Council decision to proceed with amendment
2. Formation of a plan development team
 - CDFG - two members (OSP and WRTT)
 - ODFW - one member (spring chinook management measures could potentially affect Oregon seasons)
 - NMFS - two members (one from the Region and one from the Science Center)
 - USFWS - one member
 - STT - one member
 - Council Staff
 - NMFS Central Valley Technical Recovery Team
 - Academia

B. November 2002

1. Working draft amendment to Council
2. Comments from Council

C. March/April/June 2003

A revised draft amendment would be resubmitted in early 2003 followed by public review.

D. September/November 2003 Final Adoption

TABLE A-2. Allowable fishery impact rate criteria for OCN coho stock components under Amendment 13. (Page 1 of 1)

PARENT SPAWNER STATUS		MARINE SURVIVAL INDEX (based on return of jacks per hatchery smolt)			
		Low (<0.0009)	Medium (0.0009 to 0.0034)	High (>0.0034)	
		Allowable Total Fishery Impact Rate			
High:	Parent spawners achieved Level #2 rebuilding criteria; grandparent spawners achieved Level #1	$\leq 15\%$	$\leq 30\%$ ^{a/}	$\leq 35\%$ ^{a/}	
Medium:	Parent spawners achieved Level #1 or greater rebuilding criteria	$\leq 15\%$	$\leq 20\%$ ^{a/}	$\leq 25\%$ ^{a/}	
Low:	Parent spawners less than Level #1 rebuilding criteria	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$	
		$\leq 10\text{-}13\%$ ^{b/}			
OCN Coho Spawners by Stock Component					
Rebuilding Criteria	Northern	North-Central	South-Central	Southern	Total
Full Seeding at Low Marine Survival:	21,700	55,000	50,000	5,400	132,100
Level #2 (75% of full seeding):	16,400	41,300	37,500	4,100	99,300
Level #1 (50% of full seeding):	10,900	27,500	25,000	2,700	66,100
38% of Level #1 (19% of full seeding):	4,100	10,500	9,500	1,000	25,100
Stock Component (Boundaries)	Full Seeding of Major Basins at Low Marine Survival (Number of Adult Spawners)				
Northern: (Necanicum River to Neskowin Creek)	Nehalem	Tillamook	Nestucca	Ocean Tribs.	
	17,500	2,000	1,800	400	
North-Central: (Salmon River to Siuslaw River)	Siletz	Yaquina	Alsea	Siuslaw	Ocean Tribs.
	4,300	7,100	15,100	22,800	5,700
South-Central: (Siltcoos River to Sixes River)	Umpqua	Coos	Coquille	Coastal Lakes	
	29,400	7,200	5,400	8,000	
Southern: (Elk River to Winchuck River)	Rogue				
	5,400				

- a/ When a stock component achieves a medium or high parent spawner status under a medium or high marine survival index, but a major basin within the stock component is less than 10% of full seeding: (1) the parent spawner status will be downgraded one level to establish the allowable fishery impact rate for that component and (2) no coho-directed harvest impacts will be allowed within that particular basin.
- b/ This exploitation rate criteria applies when (1) parent spawners are less than 38% of the Level #1 rebuilding criteria, or (2) marine survival conditions are projected to be at an extreme low as in 1994-1996 (<0.0006 jack per hatchery smolt). If parent spawners decline to lower levels than observed through 1998, rates of less than 10% would be considered, recognizing that there is a limit to further bycatch reduction opportunities.

TABLE A-3. Fishery impact rate criteria for OCN coho stock components based on the harvest matrix resulting from the OCN work group 2000 review of Amendment 13. (Page 1 of 1).

Work Group 2000 Review of Data

Parent Spawner Status ^{1/}	Marine Survival Index (based on return of jacks per hatchery smolt)						
	Extremely Low (<0.0008)	Low (0.0008 to 0.0014)	Medium (>0.0014 to 0.0040)	High (>0.0040)			
	High Parent Spawners $> 75\%$ of full seeding	E $\leq 8\%$	J $\leq 15\%$	O $\leq 30\%$	T $\leq 45\%$		
Medium Parent Spawners $> 50\%$ & $\leq 75\%$ of full seeding	D $\leq 8\%$	I $\leq 15\%$	N $\leq 20\%$	S $\leq 38\%$			
Low Parent Spawners $> 19\%$ & $\leq 50\%$ of full seeding	C $\leq 8\%$	H $\leq 15\%$	M $\leq 15\%$	R $\leq 25\%$			
Very Low Parent Spawners > 4 fish per mile & $\leq 19\%$ of full seeding	B $\leq 8\%$	G $\leq 11\%$	L $\leq 11\%$	Q $\leq 11\%$			
Critical ^{2/} Parental Spawners ≤ 4 fish per mile	A $0 - 8\%$	F $0 - 8\%$	K $0 - 8\%$	P $0 - 8\%$			
Sub-aggregate and Basin Specific Spawner Criteria Data							
Sub-aggregate	Miles of Available Spawning Habitat	100% of Full Seeding	"Critical"		Very Low, Low, Medium & High		
			4 Fish per Mile	12% of Full Seeding	19% of Full Seeding	50% of Full Seeding	75% of full Seeding
Northern	899	21,700	3,596	NA	4,123	10,850	16,275
North - Central	1,163	55,000	4,652	NA	10,450	27,500	41,250
South - Central	1,685	50,000	6,740	NA	9,500	25,000	37,500
Southern	450	5,400	NA	648	1,026	2,700	4,050
Coastwide Total	4,197	132,100	15,636		25,099	66,050	99,075

1/ Parental spawner abundance status for the OCN aggergate assumes the status of the weakest sub-aggregate.

2/ "Critical" parental spawner status is defined as 4 fish per mile for the Northern, North-Central, and South-Central subaggregates. Because the ratio of high quality spawning habitat to total spawning habitat in the Rogue River Basin differs significantly from the rest of the basins on the coast, the spawner density of 4 fish per mile does not represent "Critical" status for that basin. Instead, "Critical" status for the Rogue Basin (Southern Sub-aggregate) is estimated as 12% of full seeding of high quality habitat.

Bernie Behn

PROPOSAL TO AMEND THE PACIFIC COAST SALMON PLAN TO REVISE THE
HARVEST MANAGEMENT MATRIX FOR OREGON COASTAL NATURAL COHO
AND
THE ALLOCATION SCHEDULE FOR COHO SALMON IN COMMERCIAL TROLL
AND RECREATIONAL FISHERIES SOUTH OF CAPE FALCON.

The Oregon Department of Fish and Wildlife (ODFW) is proposing an amendment to the Pacific Coast Salmon Plan (FMP) to address the following issues:

1. Revision of the Amendment 13 harvest management matrix for Oregon Coastal Natural (OCN) coho to reflect scientific guidance from a 2000 review of Amendment 13 that was completed an ad hoc committee of the Pacific Fishery Management Council (PFMC).
2. Revision of the existing commercial/recreational allocation schedule for coho in fisheries south of Cape Falcon, OR to account for differential selective fisheries impacts in commercial troll and recreational fisheries.

Revision of the Harvest Management Matrix

The National Marine Fisheries Service (NMFS) proposed listing of OCN coho stocks under the federal Endangered Species Act (ESA) in 1995. The PFMC approved Amendment 13 to the FMP in November 1997 (PFMC 1999) to insure that fishery related impacts on depressed OCN coho stocks would not act as a significant impediment to their recovery. Under Amendment 13, the historic annual estimates of both parental spawner abundance and marine survival for OCN coho are stratified by magnitude. The resulting "low", "medium", and "high" categories for the two attributes are then used to define two axes of a three by three harvest management matrix. Maximum allowable exploitation rates based upon estimates of habitat production potential are calculated for each combination of the parental spawner abundance and marine survival combinations in the matrix.

In November 1999, the PFMC approved the formation of an ad hoc OCN work group composed of representatives from ODFW, PFMC, and NMFS to complete a year 2000 review of Amendment 13. The review focused on parental spawner criteria, marine survival criteria, and allowable impact rates in the harvest management matrix. An amended matrix recommended by work group includes new categories at the low ends of ranges for both parental spawner and marine survival, allowable fishery impacts for new cells defined by these new categories, and some adjustments of allowable impacts in pre-existing cells. The amended management matrix affords additional protection for OCN coho populations when either parental spawner abundance or marine survival is very low. The recommendations of the OCN work group were reviewed by the Salmon Technical Team (STT) and the Scientific and Statistical Committee (SSC) of the PFMC in November of 1999 and adopted as scientific guidance by the PFMC in March 2001.

Revision of the Allocation Schedule for Coho

Selective fisheries on fin-clipped hatchery coho are a management tool that can provide recreational and commercial fishers access to surplus hatchery production while minimizing fishery impacts on wild fish. The PFMC has successfully used this tool since 1998 in some ocean recreational fisheries and since 2000 in some commercial troll fisheries to manage harvests of mass marked hatchery production while still meeting stringent impact constraints on depressed OCN coho under Amendment 13.

To date, in the waters south of Cape Falcon, only the recreational fishery off the central Oregon coast has selectively harvested fin-clipped hatchery coho. Coho retention is still prohibited in all commercial troll fisheries south of Cape Falcon and in all ocean recreational fisheries south of Humbug Mountain. The quota in the selective recreational fishery south of Cape Falcon has increased from 15,000 to 55,000 since 1999 and quotas of 100,000 or more fin-clipped fish are very likely when hatchery coho abundance is high and marine survival and parental spawner abundance for OCN improve.

The formulae for allocating coho salmon among commercial troll and recreational fisheries south of Cape Falcon have remained unchanged since the PFMC adopted the 1997 FMP. They allocate coho harvests in full retention fisheries where the mortality rate per fish encountered is the same for both marked and unmarked fish and likely the same or very similar for commercial and recreational fisheries. In contrast, mortality rates per fish encountered in selective fisheries are obviously quite different between marked and unmarked fish. Furthermore, because the hook and release mortality rate adopted by the PFMC for commercial troll gear is higher than the rate for recreational gear, the impact rate per unmarked fish encountered by the former is higher than for the latter. Consequently, the 1997 FMP method for allocating coho harvest and impacts between full retention commercial and recreational fisheries south of Cape Falcon is no longer applicable.

Amending the FMP

When the PFMC adopted the 2000 Plan Amendment Review as scientific guidance in 2001, ODFW indicated their desire to have recommendations in the review formally incorporated into an FMP amendment. The intent was to initiate the amendment process upon completion of a technical appendix that was recommended by the STT and SSC. However, it is apparent that the significant reductions in maximum allowable fishery impacts imposed by the amended harvest management matrix and the effects of selective fisheries that have been implemented to achieve those reductions will result in significant shifts in allocation between commercial and recreational fisheries. While Plan Amendment 14 addresses the effect of selective fisheries on allocation among fisheries North of Cape Falcon, it does not address fisheries South of Cape Falcon. Consequently, an amendment to the FMP that incorporates the revised harvest management matrix must also include a new allocation plan for fisheries south of Cape Falcon.

The technical changes to Plan Amendment 13 that were recommended by the OCN work group are well documented and have undergone extensive review and comment by agencies, stakeholders, the public, and PFMC science and technical teams. In contrast,

the proposal to amend the allocation plan for fisheries south of Cape Falcon is in the infant stage and has undergone no formal development. Consequently ODFW proposes the following tentative FMP amendment schedule:

- 1) March - June 2002
 - a) Formation of an informal scoping group with ODFW as lead agency
 - i) Agency Representatives Oregon
 - ODFW
 - CDFG
 - SAS Representation
 - Troll
 - Recreational
 - PFMC Staff
 - b) ODFW identifies initial list of allocation issues and potential range of options based on advice from informal scoping group.
 - c) Initiate formal PFMC amendment scoping process
 - i) Identify full suite of participants in formal scoping group
- 2) June - November 2002
 - a) SSC/STT final review of OCN work group recommendations
 - b) Formal scoping group completes draft of allocation issues and options.
- 3) March-June 2003
 - a) First draft of amendment
- 4) June - November 2003
 - a) Public hearings on proposed amendment
- 5) March 2004
 - a) Final adoption of amendment

TABLE 5-3. Allocation of allowable ocean harvest of coho salmon (thousands of fish) south of Cape Falcon.^{a/}

Total Allowable Ocean Harvest	Recreational Allocation		Commercial Allocation	
	Number	Percentage	Number	Percentage
≤100	≤100 ^{b/c/}	100 ^{b/}	b/ ¹	b/ ¹
200	167 ^{b/c/}	84 ^{b/}	33 ^{b/}	17 ^{b/}
300	200	67	100	33
350	217	62	133	38
400	224	56	176	44
500	238	48	262	52
600	252	42	348	58
700	266	38	434	62
800	280	35	520	65
900	290	32	610	68
1,000	300	30	700	70
1,100	310	28	790	72
1,200	320	27	880	73
1,300	330	25	970	75
1,400	340	24	1,060	76
1,500	350	23	1,150	77
1,600	360	23	1,240	78
1,700	370	22	1,330	78
1,800	380	21	1,420	79
1,900	390	21	1,510	79
2,000	400	20	1,600	80
2,500	450	18	2,050	82
3,000	500	17	2,500	83

a/ The allocation schedule is based on the following formula: first 150,000 coho to the recreational base (this amount may be reduced as provided in footnote b); over 150,000 to 350,000 fish, share at 2:1, 0.667 to troll and 0.333 to recreational; over 350,000 to 800,000 the recreational share is 217,000 plus 14% of the available fish over 350,000; above 800,000 the recreational share is 280,000 plus 10% of the available fish over 800,000.

Note: The allocation schedule provides guidance only when coho abundance permits a directed coho harvest, not when the allowable impacts are insufficient to allow general coho retention south of Cape Falcon. At such low levels, allocation of the allowable impacts will be determined in the Council's preseason process. Deviations from the allocation may also be allowed to meet jeopardy standards for ESA listed stocks (e.g., the 1998 biological opinion for California coastal coho requires no retention of coho in fisheries off California).

b/ If the commercial allocation is insufficient to meet the projected hook-and-release mortality associated with the commercial all-salmon-except-coho season, the recreational allocation will be reduced by the number needed to eliminate the deficit.

c/ When the recreational allocation is 167,000 coho or less, special allocation provisions apply to the recreational harvest distribution by geographic area (unless superseded by requirements to meet a jeopardy standard for ESA listed stocks); see text of FMP as modified by Amendment 11 allocation provisions.

SALMON ADVISORY SUBPANEL REPORT ON
SALMON FISHERY MANAGEMENT PLAN AMENDMENT SCOPING

The Salmon Advisory Subpanel (SAS) has been briefed by Mr. Dan Viele on the Central Valley Chinook issue and by Mr. Sam Sharr on the Oregon Coastal Natural (OCN) coho and the coho allocation south of Cape Falcon issues.

Both the Central Valley Chinook issue and the OCN coho issue appear ready for the framework amendment process. However, the coho allocation issue may need additional fleshing out prior to officially entering the process. We encourage Oregon Department of Fish and Wildlife (ODFW) and Oregon ocean user groups to undertake this task as soon as possible.

Excepting the allocation issue we support moving ahead with the first two issues and adding in the allocation issue when it's ready. We also ask that the appropriate SAS members be part of any steering committees set up to advance each issue.

Finally, we also urge the National Marine Fisheries Service and the Council to move forward a process to establish conservation and management objectives for Oregon/California transboundary coho and Klamath spring Chinook.

PFMC
03/14/02

SCHEDULE 2. Salmon fishery management plan amendment process. (Page 1 of 2)

Meeting or
Interim

Activity

The Council may initiate the amendment process by announcing a scoping session in the meeting agenda whenever necessary to meet management needs (the Salmon Advisory Subpanel should be convened at this meeting whenever possible). Once amendment issues have been identified and approved for development, the Council should establish a specific schedule for completing the current process based on management need, work load, budget and the general guidance presented below. All amendments recommended for implementation at the beginning of a salmon season (May) must be approved by the Council no later than the November Council meeting.

First Meeting The Council identifies all pertinent amendment issues based on input from advisory entities and the public (scoping session). All amendment proposals considered by the Council should contain a clear statement of:

- a. the need and purpose of the proposed action, including reference to specific objectives of the fishery management plan, and
- b. a concise description of the specific action proposed.

If necessary, the Council identifies a contact person or sponsor responsible for providing or working with the salmon team and staff to clarify the proposal. All documents provided in support of amendment proposals should include identification of authors and sources of all data. Complex issues may require user meetings to develop initial alternatives before the Council determines whether or not to proceed with review of the amendment.

If not already completed, the Council assigns the salmon team and staff to review the issues and provide the following information at an appropriate subsequent meeting (second meeting):

- a. Assessment of need for action
- b. Alternative ways to address the problem without plan amendment
- c. Potential impacts from the proposed action
- d. Possible amendment alternatives

First Interim Council staff, salmon team and other appropriate persons complete preliminary assessment of amendment issues or begin initial draft amendment if adequate information and direction have been provided at the first meeting.

SCHEDULE 2. Salmon fishery management plan amendment process. (Page 2 of 2)

Meeting or Interim	Activity
Second Meeting	The salmon team and staff present their preliminary assessment of identified amendment issues and all advisors provide recommendations with regard to any further amendment development. Council considers adoption of amendment issues for (1) formal preparation of the amendment package, including draft impact analysis by the salmon team and staff, or (2) further development by appropriate parties (may require repeat of first interim and second meeting steps), or terminates consideration. The Council should provide guidance on the range of alternatives to be considered and clarify any other questions with regard to the form of the amendment issue.
Second Interim	Initial draft amendment package prepared by the salmon team and staff (or appropriate persons) and distributed to Council advisors for review.
Third Meeting	The staff and salmon team present the completed initial draft amendment package for Council consideration. The Council considers advisor and public comment and adopts issues and alternatives for the official draft amendment package for public hearings.
Third Interim	Public hearings on draft amendment.
Fourth Meeting	Council considers final adoption of amendment for implementation by the Secretary of Commerce.

SALMON FISHERY MANAGEMENT PLAN AMENDMENT SCOPING

Situation: Proposals for Salmon Fishery Management Plan amendments addressing three issues are before the Council:

- Conservation objectives for Central Valley winter and spring chinook
- Conservation objectives for Oregon coastal natural (OCN) coho
- Coho allocation south of Cape Falcon

Central Valley Chinook

The current Salmon FMP conservation objective for Sacramento winter chinook is based on the jeopardy standard of the 1997 Biological Opinion (BO) which requires no less than a 31% increase in the adult spawner replacement rate relative to the 1989-1993 mean. Subsequent to the 1999 listing of the Central Valley spring chinook evolutionarily significant units (ESUs), NMFS reinitiated consultation on the Salmon FMP. NMFS issued a BO in 2000 which concluded ocean fisheries managed under the FMP were not likely to jeopardize Central Valley spring chinook, and no additional Endangered Species Act constraints for that ESU were required. An FMP conservation objective has yet to be developed for Central Valley spring chinook.

At the November 2001 Council meeting, NMFS has proposed initiating an FMP amendment to develop a comprehensive set of management objectives for winter and spring run chinook. The Council deferred action on initiating the amendment process, pending further exploration of possible objectives and the role of the Technical Recovery Team in the amendment process.

Mr. Dan Viele will present background information and outline possible management measures, (Exhibit B.7.b, NMFS Report).

OCN Coho

The OCN coho workgroup reviewed Amendment 13 conservation objectives (Exhibit B.7.c, Amendment 13 Matrix) in 2000 and recommended the Council adopt a modified exploitation rate matrix (Exhibit B.7.c, OCN Workgroup Matrix). The modified matrix expanded the matrix with categories for very low and critical parent spawner status and very low marine survival. Exploitation rates as low as 0% to 8% were associated with the new categories, and higher exploitation rates were also associated with high marine survival categories. At the November 2000 meeting, the Council accepted the OCN workgroup findings as expert biological advice and managed 2001 fisheries accordingly.

The Oregon Department of Fish and Wildlife proposes adopting conservation objectives to replace those in Amendment 13 by formalizing the OCN workgroup matrix through an FMP amendment. Mr. Sam Sharr, ODFW ocean salmon manager, will present the proposal to the Council.

Coho Allocation South of Cape Falcon

At the time the salmon FMP allocation schedule for coho south of Cape Falcon was developed, selective coho fisheries were not envisioned (Exhibit B.7.d, Allocation Schedule). With the advent of selective fisheries, additional opportunities are possible for allocating the coho resource between sport and commercial fisheries. Mr. Sam Sharr will brief the Council on issues relative to allocation.

Amendment Process

The Council's Operating Procedures specify that salmon FMP amendments require a at least four meeting process (Exhibit B.7, Attachment 1). This meeting constitutes the first of those and serves as a scoping session to identify pertinent issues. At this meeting the Council could approve issues for development, establish schedules, and identify participants for development of the FMP amendment(s). The COP's require that final adoption of amendments should occur no later than November for implementation in the next management season; however, there is no requirement the process be concluded within a specific time frame (e.g., one year). Given workload priorities and the number of issues proposed, the Council may wish to consider an extended schedule for this amendment process.

Council Action:

4. Identify pertinent issues to be addressed in the proposed amendment(s).
5. Set schedule(s) for remaining meetings to complete the amendment process.
6. Identify participants for developing the amendment(s).

Reference Materials:

1. Council Operating Procedure 11 - Salmon fishery management plan amendment process (Exhibit B.7, Attachment 1).
2. Pacific Coast Salmon Plan Amendment Proposal - Management Objectives for Listed Central Valley Chinook (Exhibit B.7.b, NMFS Report).
3. Table A-2. Allowable fishery impact rate criteria for OCN coho stock components under Amendment 13 (Exhibit B.7.c, Amendment 13 Matrix).
4. Table A-3. Fishery impact rate criteria for OCN coho stock components based on the harvest matrix resulting from the OCN workgroup 2000 review of Amendment 13 (Exhibit B.7.c, OCN Work Group Matrix).
5. Salmon FMP excerpt - south of Cape Falcon coho allocation (Exhibit B.7.d, Allocation Schedule).

Agenda Order:

- | | |
|--|-------------|
| a. Agendum Overview | Chuck Tracy |
| b. Central Valley Conservation Objective | Dan Viele |
| c. Oregon Coastal Natural (OCN) Conservation Objective | Sam Sharr |
| d. Coho Allocation South of Cape Falcon | Sam Sharr |
| e. Reports and Comments of Advisory Bodies | |
| f. Public Comment | |
| g. Council Action: Identify Amendment Issues and Schedule | |

PFMC
02/26/02

SALMON TECHNICAL TEAM

***COLLATION
OF PRELIMINARY
SALMON MANAGEMENT OPTIONS
FOR 2002 OCEAN FISHERIES***

March 15, 2002

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 1 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I North of Cape Falcon	OPTION II North of Cape Falcon	OPTION III North of Cape Falcon
Supplemental Management Information: 1. Overall non-Indian TAC: 150,000 chinook and 150,000 coho Trade: No, but may be considered at the April Council meeting. 2. Non-Indian Troll TAC: 80,000 chinook and 37,500 coho. 3. Treaty Indian commercial ocean troll quotas of 60,000 chinook (30,000 in May and June; 30,000 for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and 70,000 coho.	Supplemental Management Information: 1. Overall non-Indian TAC: 120,000 chinook and 120,000 coho Trade: 14,000 coho to recreational fishery for 3,500 chinook. 2. Non-Indian Troll TAC: 65,500 chinook and 16,000 coho. 3. Treaty Indian commercial ocean troll quotas of 50,000 chinook (25,000 in May and June; 25,000 for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and 60,000 coho.	Supplemental Management Information: 1. Overall non-Indian TAC: 90,000 chinook and 90,000 coho Trade: No, but may be considered at the April Council meeting. 2. Non-Indian Troll TAC: 45,000 chinook and 22,500 coho. 3. Treaty Indian commercial ocean troll quotas of 40,000 chinook (20,000 in May and June; 20,000 for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and 50,000 coho.
U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 60,000 chinook quota. All salmon except coho. Cape Flattery and Columbia River Control Zones closed (C.4). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).	U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 40,000 chinook quota. All salmon except coho. See gear restrictions in C.2. Columbia River Control Zone closed (C.4). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify quotas or harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).	U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 35,000 chinook quota. All salmon except coho. Cape Flattery and Columbia River Control Zones closed (C.4). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify quotas or harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a). For 2003, Council to consider opening a fishery beginning April 20 north of Cape Falcon (C.7.c).
U.S.-Canada Border to Cape Falcon • July 1 through earliest of Sept. 30 or 20,000 chinook quota (C.7.a). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.	U.S.-Canada Border to Cape Falcon • July 1 through earliest of Sept. 10 or 25,500 chinook quota (C.7.a). Columbia River Control Zone closed (C.4). Gear restricted to plugs 6 inches or longer (C.2). Trip limits, gear restrictions, and quotas or guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.	U.S.-Canada Border to Cape Falcon • July 1 through earliest of July 31 or 5,000 chinook quota (C.7.a). Columbia River and Cape Flattery Control Zones closed (C.4). Fishery is continuous until 75% of chinook guideline is caught then changes to 4 days open/3 days closed. Gear restricted to plugs 6 inches or longer (C.2). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.
U.S.-Canada Border to Leadbetter Point - All salmon except coho. Gear restricted to plugs 6 inches or longer (C.2). Leadbetter Point to Cape Falcon - All salmon. Sub area harvest guideline of 20,600 marked coho (all retained coho must have a healed adipose fin clip). Columbia River Control Zone closed (C.4). No special gear restrictions (C.2).		

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 2 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS

OPTION I	OPTION II	OPTION III
		U.S.-Canada Border to Cape Falcon • August 1 through earliest of Sept. 30 or 5,000 chinook quota (see C.7.a), or 18,500 marked coho quota (C.7.b). Columbia River and Cape Flattery Control Zones closed (C.4). Fishery is continuous until 75% of either guideline is caught then changes to 4 days open/3 days closed. Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. All retained coho must have a healed adipose fin clip.
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Cape Falcon to Florence South Jetty • March 20 through July 21; Aug. 1 through Aug. 29 and Sept. 1 through Oct. 31. All salmon except coho. See gear restrictions (C.2) and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.	Cape Falcon to Florence South Jetty • Same as Option I. In 2003, same as Option I.	Cape Falcon to Florence South Jetty • Same as Option I. In 2003, same as Option I.
Florence South Jetty to Humbug Mt. • March 20 through June 30; July 11 through Aug. 29 and Sept. 1 through Oct. 31. All salmon except coho. See gear restrictions (C.2). In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.	Florence South Jetty to Humbug Mt. • Same as Option I. In 2003, same as Option I.	Florence South Jetty to Humbug Mt. • Same as Option I. In 2003, same as Option I.

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 3 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS			
OPTION I	OPTION II	OPTION III	
Humbug Mt. to OR-CA Border • March 20 thru May 31. All salmon except coho. See gear restrictions (C.2). • June 1 thru earlier of June 30 or 1,500 chinook quota; • July 1 thru earlier of July 31 or 1,500 chinook quota; • Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota; • Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. No transfer of remaining quota from earlier fisheries allowed. All salmon except coho. Possession and landing limit of 100 fish per trip. See gear restrictions (C.2). All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings, and within 24 hours of closure. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.	Humbug Mt. to OR-CA Border • March 20 thru May 31. All salmon except coho. See gear restrictions (C.2). • June 1 thru earlier of June 30 or 1,500 chinook quota; • July 1 thru earlier of July 31 or 1,500 chinook quota; • Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota; • Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. No transfer of remaining quota from earlier fisheries allowed. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions (C.2). All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings, and within 24 hours of closure. In 2003, same as Option I.	Humbug Mt. to OR-CA Border • Same as Option II. In 2003, same as Option I.	
OR-CA Border to Humboldt South Jetty • Sept. 1 thru earlier of Sept. 30 or 10,000 chinook quota. All salmon except coho. Possession and landing limit of 30 fish per day. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).	OR-CA Border to Humboldt South Jetty • Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota. • Sept. 1 thru earlier of Sept. 30 or 10,000 chinook quota. No transfer of remaining quota from Aug. fishery allowed. All salmon except coho. Possession and landing limit of 30 fish per day. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).	OR-CA Border to Humboldt South Jetty • Sept. 1 thru earlier of Sept. 29 or 20,000 chinook quota. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).	
Horse Mt. to Pt. Arena (Fort Bragg) • Sept. 1 thru Sept. 30. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2).	Horse Mt. to Pt. Arena (Fort Bragg) • Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota. • Sept. 1 thru Sept. 30. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2).	Horse Mt. to Pt. Arena (Fort Bragg) • Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota. • Sept. 1 thru Sept. 30. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2).	
Pt. Arena to Pigeon Pt. (San Francisco) • May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).	Pt. Arena to Pigeon Pt. (San Francisco) • July 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).	Pt. Arena to Pigeon Pt. (San Francisco) • May 1 thru May 31 and June 16 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).	
Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) • Oct. 1 thru Oct. 15. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).	Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) • Oct. 1 thru Oct. 15. Inside 3 nautical miles. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).		

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 4 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS

OPTION I		OPTION II		OPTION III	
Pigeon Pt. to U.S.-Mexico Border (Monterey)		Pigeon Pt. to U.S.-Mexico Border (Monterey)		Pigeon Pt. to U.S.-Mexico Border (Monterey)	
• May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.		Same as Option I.		Same as Option I.	
For 2003, Council to consider opening a fishery from April 15 thru April 30 south of Pt. Sur (C.7.c).					

B. MINIMUM SIZE (Inches)

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	28.0	21.5	16.0	12.0	None
South of Cape Falcon	26.0 ^{a/}	19.5 ^{a/}	-	-	None
a/ Chinook not less than 26 inches (19.5 inches head-off) taken in open seasons south of Cape Falcon may be landed north of Cape Falcon only when the season is closed north of Cape Falcon.					

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.
- C.2. Gear Restrictions:
- Single point, single shank barbless hooks are required in all fisheries.
 - Off Oregon South of Cape Falcon: No more than 4 spreads are allowed per line.
- Spread defined: A single leader connected to an individual lure or bait.
- c. Off California: No more than 6 lines are allowed per vessel and barbless circle hooks are required when fishing with bait by any means other than trolling.
- Circle hook defined: Options I and II - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle; Option III - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle with no offset between the point and the shank.
- Trolling defined: Fishing from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
- C.3. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll gear in the water while transiting any area closed to salmon fishing while possessing salmon, however, fishing for species other than salmon is not prohibited if the area is open for such species and no salmon are in possession.

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 5 of 5)

C.4.	<u>Control Zone Definitions:</u> a. <i>Cape Flattery Control Zone (Figure 1)</i> - The area from Cape Flattery (48° 23'00" N lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to 48° 15'00" N lat. (Cape of Arches) and west of 125° 05'00" W long. b. <i>Columbia Control Zone</i> - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46° 13'35" N. Lat., 124° 06'50" W. long.) and the green lighted Buoy #7 (46° 15'09" N. lat., 124° 06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46° 14'00" N. lat., 124° 03'07" West. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46° 14'48" N. lat., 124° 05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46° 14'03" N. lat., 124° 04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line. c. <i>Klamath Control Zone</i> - The ocean area at the Klamath River mouth bounded on the north by 41° 38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124° 23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41° 26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
C.5.	<u>Notification When Unsafe Conditions Prevent Compliance with Regulations:</u> If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board and the estimated time of arrival. This stipulation will be implemented by state regulations for California, Oregon and Washington, as required.
C.7.	<u>Inseason Management:</u> In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS: a. Within the overall non-Indian commercial chinook quota north of Cape Falcon: 20,000 chinook Option 1; 10,000 chinook Option 2; 5,000 chinook Option 3; from the May/June quota are the result of impacts assessed at the July-September harvest impact rate. Inseason, these chinook (or remaining portion thereof) may be transferred to the July-September harvest quota at a one-to-one rate if not caught in the May/June fishery. Any remaining chinook from the May/June quota in excess of these amounts may be transferred to the July-September quota on a fishery impact equivalent basis. b. Under Option 1, for the Leadbetter Point to U.S. Canada border chinook only fishery, an estimated 2,500 coho mortalities were modeled pre-season in the July coho retention fishery. Those mortalities were subtracted from the overall north of Cape Falcon coho quota of 37,500 to obtain the 35,000 coho quota for the August/September marked coho retention fishery. Any difference in the coho impacts from the July fishery will be transferred to the August/September fishery coho quota. c. At the March 2003 meeting, the Council will consider inseason recommendations to: (1) open commercial seasons for all salmon except coho prior to May 1 in areas off Oregon and Washington north of Cape Falcon, and off California south of Point Sur, and (2) identify the areas, season, quota, and special regulations for any experimental April fisheries (proposals must meet Council protocol and be received in November 2002).
C.8.	Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.
C.9.	For the purposes of CDFG Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humbug Mt., Oregon to Horse Mt., California.

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 1 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS

OPTION I		OPTION II		OPTION III	
North of Cape Falcon		North of Cape Falcon		North of Cape Falcon	
Supplemental Management Information:		Supplemental Management Information:		Supplemental Management Information:	
1. Overall non-Indian TAC: 150,000 chinook and 150,000 coho Trade: No, but may be considered at the April Council meeting. 2. Recreational TAC: 70,000 chinook and 112,500 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 0 coho. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.	1. Overall non-Indian TAC: 120,000 chinook and 120,000 coho Trade: 3,500 chinook to non-Indian troll for 14,000 coho 2. Recreational TAC: 54,500 chinook and 104,000 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 4,000 coho (chinook nonretention) opens upon ocean closure. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.	1. Overall non-Indian TAC: 90,000 chinook and 90,000 coho Trade: No, but may be considered at the April Council meeting. 2. Recreational TAC: 45,000 chinook and 67,500 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 6,000 coho (chinook nonretention) opens upon ocean closure. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.			
U.S.-Canada Border to Cape Falcon		U.S.-Canada Border to Cape Falcon		U.S.-Canada Border to Cape Falcon	
• U.S. Canada Border to Queets River: May 1 through May 24 (Sundays and Mondays); then U.S. Canada Border to Cape Falcon: May 25 through earlier of June 16 or 20,000 chinook quota (7 days per week). Chinook salmon only; 2 fish per day. Closed south of the northern margin of the Columbia Control Zone (C.3.a).	June 30 • July 6 thru earlier of Sept. 30 or 11,700 coho subarea quota; 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,300 chinook.	June 30 • July 6 thru earlier of Sept. 8 or 10,075 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. Chinook non-retention east of the Bonilla-Tatoosh line during Council managed ocean fishery. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,500 chinook.			
Cape Alava to Queets River (La Push)		Cape Alava to Queets River (La Push)		Cape Alava to Queets River (La Push)	
• July 6 thru earlier of Sept. 20 or subarea sub-quota of 2,825 coho; Sept. 21 through earlier of Oct. 13 or overall subarea quota of 100 coho and 100 chinook; 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 1,600 chinook.	June 30 • July 6 thru earlier of Sept. 8 or 1,850 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,400 chinook.	June 30 • July 6 thru earlier of Sept. 8 or 1,850 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,400 chinook.			

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 2 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
<i>20th</i> Queets River to Leadbetter Pt. (Westport) - June 28 thru earlier of Sept. 30 or 41,625 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week thereafter. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 35,500 chinook. Leadbetter Pt. to Cape Falcon (Columbia River) - July 7 thru earlier of Sept. 30 or 56,250 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week beginning Aug. 16. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 10,600 chinook.	<i>July 7</i> Queets River to Leadbetter Pt. (Westport) - June 30 thru earlier of Sept. 8 or 39,175 coho subarea quota (adjusted for Area 4B add-on). Sun. thru Thurs. prior to Aug. 16, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 30,700 chinook. <i>6-7th</i> Leadbetter Pt. to Cape Falcon (Columbia River) - July 8 thru earlier of Sept. 8 or 52,000 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week beginning Aug. 16. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 9,800 chinook.	<i>June 23rd</i> Queets River to Leadbetter Pt. (Westport) - July 27 thru earlier of Sept. 8 or 26,000 coho subarea quota (adjusted for Area 4B add-on). Sun. thru Thurs. prior to Sept. 1, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 30,900 chinook. <i>14th</i> Leadbetter Pt. to Cape Falcon (Columbia River) - July 18 thru earlier of Sept. 8 or 33,750 coho subarea quota; Sun. thru Thurs. prior to Sept. 1, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 8,800 chinook.
South of Cape Falcon		
Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho; 2 fish per day. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2).2.b. See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2003 the season will open April 1 for all salmon except coho. 2 fish per day. Same gear restrictions as in 2002. This opening could be modified following Council review at its November 2002 meeting. <u>Selective fishery:</u> - July 7 thru earlier of July 31 or a landed catch of 25,000 coho; Sun. thru Thurs. All salmon; 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Note: On closed days during the selective fishery, no angling for any species of salmon is allowed. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 1 or attainment of the coho quota.	Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho; 2 fish per day. See gear restrictions (C.2). See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2003, same as Option I. <u>Selective fishery:</u> - July 15 thru earlier of July 31 or a landed catch of 20,000 coho; Sun. thru Thurs. All salmon; 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Note: On closed days during the selective fishery, no angling for any species of salmon is allowed. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 1 or attainment of the coho quota.	Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho; 2 fish per day. See gear restrictions (C.2). See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2003, same as Option I. <u>Selective fishery:</u> - July 21 thru earlier of Aug. 4 or a landed catch of 18,000 coho; 7 days per week. All salmon; 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 5 or attainment of the coho quota.
South of Cape Falcon		

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 3 of 5) March 14, 2001 (11:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Humbug Mt. to Horse Mt. (KMZ) • May 25 thru July 1 and Aug. 1 thru Sept. 2. All salmon except coho; 2 fish per day; no more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Klamath Control Zone closed (C.3.b).	Humbug Mt. to Horse Mt. (KMZ) • May 17 thru June 30 and Aug. 1 thru Sept. 2. All salmon except coho; 2 fish per day. From May 17 thru June 30, no more than 4 fish in 7 consecutive days. Beginning Aug. 1 no more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Klamath Control Zone closed (C.3.b).	Humbug Mt. to Horse Mt. (KMZ) • May 15 thru June 30 and Aug. 1 thru Sept. 15. All salmon except coho; 2 fish per day; no more than 4 fish in 7 consecutive days. See gear restrictions (C.2). Klamath Control Zone closed (C.3.b).
Horse Mt. to Pt. Arena (Fort Bragg) • Feb. 16 thru July 17 and Aug. 1 thru Nov. 17. All salmon except coho; 2 fish per day. Minimum size 24 inches thru April 30 and 20 inches thereafter. See gear restrictions (C.2).	Horse Mt. to Pt. Arena (Fort Bragg) • Same as Option I.	Horse Mt. to Pt. Arena (Fort Bragg) • Same as Option I.
In 2003, season opens Feb. 15 (nearest Sat. to Feb. 15) for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option I.	In 2003, same as Option I.
Pt. Arena to Pigeon Pt. (San Francisco) • Apr. 13 thru Nov. 10. All salmon except coho; 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. See gear restrictions (C.2).	Pt. Arena to Pigeon Pt. (San Francisco) • Same as Option I <i>April 12th</i>	Pt. Arena to Pigeon Pt. (San Francisco) • Same as Option II
In 2003, the season will open Apr. 12 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, the season will open March 29 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option II.
Pigeon Pt. to U.S.-Mexico Border • Mar. 30 thru Sept. 29. All salmon except coho; 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. See gear restrictions (C.2).	Pigeon Pt. to U.S.-Mexico Border • Same as Option I.	Pigeon Pt. to U.S.-Mexico Border • Same as Option I.
In 2003, the season will open Mar. 29 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option I.	In 2003, same as Option I.

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 4 of 5)

B. MINIMUM SIZE (Total Length in Inches)

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon:			
Options I & III	24.0	16.0	None
Option II	26.0	16.0	None
Cape Falcon to Horse Mt.	20.0	16.0	None, except 20.0 off CA
South of Horse Mountain:			
Prior to May 1	24.0	-	20.0
Beginning May 1	20.0	-	20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

C.2. Gear Restrictions: All persons fishing for salmon, and all persons fishing from a boat with salmon on board must meet the gear restrictions listed below for specific areas or seasons.

- a. *U.S.-Canada Border to Pt. Conception, California:* No more than one rod may be used per angler and single point, single shank barbless hooks are required for all fishing gear. [Note: ODFW regulations in the state-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]
 - b. *Off Oregon between Cape Falcon and Humbug Mt.:* Anglers must use no more than 2 single point, single shank barbless hooks.
 - c. *Off California North of Pt. Conception:* Anglers must use no more than 2 single point, single shank barbless hooks.
 - d. *Off California between Horse Mt. and Pt. Conception:* Single point, single shank, barbless **circle** hooks (see below) must be used if angling with bait by any means other than trolling and no more than 2 such hooks shall be used. When angling with 2 hooks, the distance between the hooks must not exceed 5 inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.
- Circle hook defined:* **Options I and II** - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle;
Option III - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle with no offset between the point and the shank.

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

TABLE 2. **Recreational** management options collated by the STT for ocean salmon fisheries, 2002. (Page 5 of 5)**C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)****C.3. Control Zone Definitions:**

- a. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. Lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" West. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°14'48" N. lat., 124°05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- b. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

- C.4. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines and season duration. Actions could include modifications to bag limits or days open to fishing, and extensions or reductions in areas open to fishing. NMFS may transfer coho inseason among recreational subareas North of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Salmon Advisory Subpanel recreational representatives north of Cape Falcon.

At the November 2002 meeting the Council will consider recommendation to open seasons for all salmon except coho prior to April 13 in areas off California between Pt. Arena and Pigeon Pt.

- C.5. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the states of Washington and Oregon may establish limited seasons in state waters. Oregon state-water fisheries are limited to chinook salmon. Check state regulations for details.

TABLE 3. Chinook and coho harvest quotas and guidelines (*) for STT collated 2002 ocean salmon fishery management options (thousands of fish). (Page 1 of 1)

Fishery or Quota Designation	Chinook for Option			Coho for Option		
	I	II	III	I	II	III
NORTH OF CAPE FALCON						
TREATY INDIAN COMMERCIAL TROLL ^{a/}	60.0	50.0	40.0	70.0	60.0	50.0
NON-INDIAN COMMERCIAL TROLL						
Canada to Cape Falcon (May-June)	60.0	40.0	35.0	-	-	-
Canada to Cape Falcon (July-Sept.) ^{b/}	20.0	25.5	10.0	20.6 ^{c/}	-	18.5
Subtotal Non-Indian Commercial Troll	80.0	65.5	45.0	20.6	0.0	18.5
RECREATIONAL (selective coho fisheries) ^{b/}						
Canada to Cape Falcon (May/June) ^{b/}	20.0	10.0	-	-	-	-
U.S.-Canada Border to Cape Alava ^{b/d/}	2.3*	2.5*	2.9*	11.7	10.1	5.9
Cape Alava to Queets River ^{b/}	1.6*	1.5*	2.4*	2.9	2.8	1.9
Queets River to Leadbetter Pt. ^{b/}	35.5*	30.7*	30.9*	41.6	39.2	26.0
Leadbetter Pt. to Cape Falcon ^{b/}	10.6*	9.8*	8.8*	56.3	52.0	33.8
Subtotal Recreational	70.0	54.5	45.0	112.5	104.0	37.5
TOTAL NORTH OF CAPE FALCON	210.0	170.0	130.0	203.1	164.0	136.0
SOUTH OF CAPE FALCON						
COMMERCIAL TROLL (all except coho)						
Humbug Mt. to OR-CA border (June-Sept.)	8.0	8.0	8.0	-	-	-
Oregon-California Border to Humboldt S. Jetty (Aug.-Sept.)	10.0	13.0	20.0	-	-	-
Horse Mt. to Pt. Arena (May-Aug.)	-	3.0	3.0	-	-	-
Subtotal Troll	18.0	24.0	31.0	-	-	-
RECREATIONAL						
Cape Falcon to Humbug Mt. ^{b/}	-	-	-	25.0	20.0	18.0
TOTAL SOUTH OF CAPE FALCON	18.0	24.0	31.0	25.0	20.0	18.0

a/ For the Makah encounter rate study, legal sized fish retained in open periods will be included in the tribal quota.

b/ The coho quota is a landed catch of coho with a healed adipose fin clip.

c/ Leadbetter Point to Cape Falcon only.

d/ Does not include Area 4B add on fisheries of 4,000 coho (Option II) and 6,000 coho (Option III).

TABLE 4. Projected key stock escapements (thousands of fish) or management criteria for STT collated fishery options, 2002. ^{a/} (Page 1 of 2)

Key Stock/Criteria		Projected Ocean Escapement ^{b/} or Other Criteria	Spawner Objective or Other Comparative Standard as Noted	
CHINOOK				
Upper Columbia River Brights	Option I 274.0	Option II 275.0	Option III 275.2	57.3 Minimum ocean escapement to attain 43.5 adults over McNary Dam, with normal distribution and no mainstem harvest.
Mid-Columbia Brights	93.8	94.0	94.2	16.6 Minimum ocean escapement to attain 5.75 adults for Bonneville Hatchery and 2.0 for Little White Salmon Hatchery egg-take, assuming average conversion and no mainstem harvest.
Lower Columbia River Hatchery Tules	134.5	132.9	142.1	23.4 Minimum ocean escapement to attain 14.3 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest
Lower Columbia River Natural Tules	33%	31%	28%	49% ESA guidance met by a total adult equivalent ocean fishery exploitation rate of no more than 49.0% on Coweeman tules
Lewis River Wild (threatened)	18.5	18.5	18.5	5.7 MSY spawner goal for North Lewis River
Spring Creek Hatchery Tules	137.6	144.8	151.8	11.1 Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	46%	44%	42%	≤70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (ESA jeopardy standard).
Klamath River Fall				35.0 Minimum number of adult spawners to natural spawning areas.
Federally recognized tribal harvest ^{b/}	50%	50%	50%	50.0% Equals 75.5, 75.5, and 75.1 (thousand) fish for Yurok and Hoopa tribal fisheries
Age 4 ocean harvest rate	12%	11%	12%	≤16.0% ESA jeopardy standard for threatened California coastal chinook
KMZ sport fishery allocation	11%	11%	12%	17.0% KFMC allocation agreement
CA/OR allocation (minus KMZ sport)	41% /59 %	34% /66 %	38% /62 %	- None specified for 2002
River recreational fishery allocation	45%	49%	47%	≥15.0% Agreed to by California Fish and Game Commission; Equals 22.5, 29.8, and 32.5 (thousand) fish for recreational river fisheries
Sacramento River Winter (endangered)	Yes	Yes	Yes	Duration and timing of commercial and recreational seasons south of Point Arena do not differ substantially relative to those of 2000 and 2001.
Sacramento River Fall	>180.0	>180.0	>180.0	122.0-180.0 Sacramento River fall natural and hatchery adult spawners

^{a/} Ocean only rate.

^{b/} Klamath are from last years. Need to be updated.

Corrections by Dell Simmons

TABLE 4. Projected key stock escapements (thousands of fish) or management criteria for proposed fishery options, 2002^{a/} (Page 2 of 2)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria			Spawner Objective or Other Comparative Standard as Noted	
COHO					
	Option I	Option II	Option III		
Interior Fraser (Thompson River)	4.1 4.5% ^{d/}	3.3 3.7% ^{c/}	4.7 3.6% ^{c/}	<10%	Total exploitation rate for all US fisheries south of the US/Canada border
Skagit	38%(5.9%) 78.4	38%(5.2%) 79.1	36%(4.3%) 79.8	≤60% 30.0	2001 Annual management ceiling: total exploitation rate ^{d/} MSP level of adult spawners Identified in FMP.
Stillaguamish	40%(9.1%) 13.9	39%(7.7%) 14.2	36%(6.3%) 14.4	≤35% 17.0	2001 Annual management ceiling: total exploitation rate ^{d/} MSP level of adult spawners Identified in FMP
Snohomish	39%(9.1%) 83.1	38%(7.7%) 84.7	35%(6.3%) 86.2	≤40% 70.0	2001 Annual management ceiling: total exploitation rate ^{d/} MSP level of adult spawners Identified in FMP
Hood Canal	54%(5.5%) 25.5	54%(4.8%) 25.8	52%(4.1%) 26.0	≤45% 21.5	2001 Annual management ceiling: total exploitation rate ^{d/} MSP level of adult spawners Identified in FMP
Strait of Juan de Fuca	19%(6.9%) 18.3	18%(5.7%) 18.6	16%(4.7%) 18.7	≤40% 12.8	2001 Annual management ceiling: total exploitation rate ^{d/} MSP level of adult spawners Identified in FMP
COASTAL NATURAL:					
Quillayute Fall	18.3	18.6	19.2	6.3-15.8	MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Hoh	6.7	6.9	7.2	2.0-5.0	MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Queets Wild	10.0	10.3	10.5	5.8-14.5	MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Queets Supplemental	1.5	1.6	1.6	-	
Grays Harbor	48.2	49.2	49.9	35.4	MSP level of adult spawners. Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Oregon Coastal Natural (threatened)	12.5%	11.1%	10.3%	≤15.0%	ESA jeopardy standard for marine and freshwater fishery exploitation rate
Northern California (threatened)	6.6%	6.5%	6.4%	≤13.0%	ESA jeopardy standard for surrogate R/K hatchery coho marine fishery exploitation rate
HATCHERY:					
Columbia River Early	91.8	99.1	105.6	38.7	Minimum ocean escapement to attain hatchery egg-take goal of 19.6 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Late	43.5	56.7	69.6	19.4	Minimum ocean escapement to attain hatchery egg-take goal of 15.2 late adult coho, with average conversion and no mainstem or tributary fisheries.

a/ Projections in the table assume a WCVI mortality of 2,000 coho; Southeast Alaska harvest of 181,400 chinook per PST agreement; 1 WCVI troll catch of 63,400 chinook (includes chinook in the fall of 2000).

b/ Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. The escapement numbers provided for OCN coho are spawners in SRS accounting.

c/ Exploitation rates are for ocean fisheries only.
d/ Annual management objectives may be different than FMP goals, and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. Total exploitation rate includes Alaskan, Canadian, Council area, Puget Sound and freshwater fisheries, and is calculated as total fishing mortality divided by total fishing mortality plus spawning escapement.

TABLE 5. Preliminary projections of chinook and coho **harvest impacts** for STT collated ocean salmon fishery management options, 2002. (Page 1 of 1)

Area and Fishery	2002 Catch Projection			2002 Bycatch Mortality ^{a/} Projection			Observed in 2001	
	I	II	III	I	II	III	Catch	Bycatch Mortality
OCEAN FISHERIES: ^{b/} CHINOOK (thousands of fish)								
NORTH OF CAPE FALCON								
Treaty Commercial Troll	60.0	50.0	40.0	5.5	6.7	8.0	28.1	5.3
Non-Indian Commercial Troll	80.0	65.5	45.0	7.3	13.5	15.6	26.5	15.5
Recreational	70.0	54.5	45.0	6.7	6.6	8.0	25.6	3.8
CAPE FALCON TO HUMBUGH MT.								
Commercial Troll	145.4	146.6	145.7	16.0	16.1	16.0	267.0	29.3
Recreational	2.6	2.3	2.6	0.3	0.3	0.3	17.4	1.9
HUMBUGH MT. TO HORSE MT.								
Commercial Troll	20.3	23.3	20.3	2.2	2.6	2.2	9.7	1.1
Recreational	18.3	19.0	19.1	2.0	2.1	2.1	19.9	2.2
SOUTH OF HORSE MT.								
Commercial	226.0	186.1	208.5	24.8	18.6	22.9	173.4	19.1
Recreational	62.8	63.5	62.9	6.9	7.0	6.9	84.5	9.3
TOTAL OCEAN FISHERIES								
Commercial Troll	531.7	471.5	459.5	55.8	57.5	64.7	505.6	70.3
Recreational	153.7	139.3	129.6	15.9	16.0	17.3	147.4	17.2
INSIDE FISHERIES:								
Buoy 10	NA	NA	NA	NA	NA	NA	-	-
OCEAN FISHERIES: COHO (thousands of fish)								
NORTH OF CAPE FALCON								
Treaty Commercial Troll	70.0	60.0	50.0	3.8	3.2	2.7	57.5	2.8
Non-Indian Commercial Troll ^{c/}	37.5	16.0	22.5	21.9	16.1	11.9	17.5	5.3
Recreational ^{c/}	112.5	104.0	67.5	19.8	19.9	11.9	207.5	24.0
SOUTH OF CAPE FALCON								
Commercial Troll	-	-	-	8.8	8.4	8.7	-	-
Recreational ^{c/}	25.0	20.0	18.0	10.9	10.0	9.1	56.5	11.4
TOTAL OCEAN FISHERIES								
Commercial Troll	107.5	76.0	72.5	34.5	27.7	23.3	75.0	8.1
Recreational	137.5	124.0	85.5	30.7	29.9	21.0	264.0	35.4
INSIDE FISHERIES:								
Area 4B ^{c/}	-	4.0	6.0					
Buoy 10 ^{c/}				3.2	3.8	4.3		

a/ The bycatch mortality reported in this table consists of hook-and-release and drop-off mortality of chinook and coho salmon in fisheries which have special species retention restrictions (e.g., all-salmon-except-coho or all-salmon-except-chinook seasons, or selective fisheries for marked coho). In general, the bycatch mortality rate parameters used by the Council for both chinook and coho in fisheries using barbless hooks are:

Commercial - 26% of fish hooked-and-released plus 5% of total encounters (drop-off, predation, noncompliance, etc.).

Sport north of Pt. Arena - 14% of fish hooked-and-released plus 5% of total encounters (drop-off, etc.).

Sport south of Pt. Arena - 23.2% (weighted average of California style mooching and trolling) of fish hooked-and-released plus 5% of total encounters (drop-off, etc.).

b/ Includes Oregon territorial water, late season chinook fisheries.

c/ Includes one or more selective fishery options that allow only retention of hatchery coho with a healed adipose fin clip.

TABLE 6. Expected coastwide Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho **exploitation** rates by fishery for STT collated ocean fisheries management options, 2002. (Page 1 of 1)

Fishery	Exploitation Rate (Percent)					
	OCN			RK		
	I	II	III	I	II	III
SOUTHEAST ALASKA	0.00	0.00	0.00	0.00	0.00	0.00
BRITISH COLUMBIA	0.10	0.10	0.10	0.00	0.00	0.00
PUGET SOUND/STRAITS	0.10	0.10	0.10	0.00	0.00	0.00
NORTH OF CAPE FALCON						
Treaty Indian Troll	1.30	1.10	0.90	0.00	0.00	0.00
Recreational	0.90	0.90	0.50	0.00	0.00	0.00
Non-Indian Troll	1.00	0.40	0.40	0.00	0.00	0.00
SOUTH OF CAPE FALCON						
Recreational:						
Cape Falcon to Humbug Mt.	2.10	1.80	1.50	0.10	0.10	0.10
Humbug Mt. OR/CA border (KMZ)	0.40	0.40	0.40	0.40	0.40	0.50
OR/CA border to Horse Mt. (KMZ)	0.70	0.70	0.70	1.50	1.40	1.40
Fort Bragg	0.70	0.70	0.70	1.30	1.20	1.20
South of Pt. Arena	0.80	0.80	0.80	1.30	1.30	1.30
Troll:						
Cape Falcon to Humbug Mt.	1.50	1.50	1.50	0.10	0.10	0.10
Humbug Mt. OR/CA border (KMZ)	0.10	0.10	0.10	0.10	0.10	0.10
OR/CA border to Horse Mt. (KMZ)	0.00	0.10	0.00	0.20	0.30	0.20
Fort Bragg	0.00	0.00	0.00	0.00	0.00	0.00
South of Pt. Arena	1.10	0.80	1.10	1.10	0.90	1.10
BUOY 10	0.40	0.50	0.50	0.00	0.00	0.00
ESTUARY/FRESHWATER	1.00	1.00	1.00	0.20	0.20	0.20
TOTAL	12.50	11.10	10.30	6.60	6.50	6.40

Table 7. Comparison of OCN total exploitation rate impacts between SAS recommended options and STT collated options, and changes in management measures based on Council guidance used to achieve objectives.

SOUTH OF CAPE FALCON									
	Option I		OCN (Reduction)	Option II		OCN (Reduction)	Option III		OCN (Reduction)
	SAS	Revised		SAS	Revised		SAS	Revised	
Recreational									
Cape Falcon to Humbug Mt.	Coho Q 35,000	Coho Q 25,000	-0.6	Coho Q 25,000	Coho Q 20,000	-0.3			
Humbug Mt. To Horse Mt. (KMZ)	Jul 15 d	Jul 1 d	-0.8	Jul 17 d	Jul 0 d	-0.7	Jul 12 d	Jul 0 d	-0.7
Fort Bragg	Jul 31 d	Jul 17 d	-0.2	Jul 31 d	Jul 17 d	-0.2	Jul 31 d	Jul 17 d	-0.2
South of Pt. Arena									
Troll									
Cape Falcon to Humbug	Jul 31 d	Jul 21 d	-0.2	Jul 31 d	Jul 21 d	-0.2	Jul 31 d	Jul 21 d	-0.2
Humbug Mt. To OR/CA Border (KMZ-OR)									
OR/CA Border To Horse Mt. (KMZ-CA)	Aug 18 d	Aug 0 d	-0.2	Aug Q 10,000	Aug Q 3,000	-0.3			
Fort Bragg	May 31 d Aug 29 d	May 0 d Aug 0 d	-2.0	May 31 d Jun 10 d Aug 18 d	May 0 d Jun 0 d Aug Q 3,000		May Q 20,000 Jun Q 20,000 Aug Q 20,000 Sep 0 d	May Q 0 Jun Q 0 Aug Q 3,000 Sep 30 d	
San Francisco				May 31 d Jun 30 d	May 0 d Jun 0 d		Jun 30 d	Jun 15 d	0.0
Monterey						-0.3			
Total Reduction									
-4.0 -4.4 -2.7									

COUNCIL DIRECTION FOR 2002 MANAGEMENT OPTIONS

Situation: If necessary, the Salmon Technical Team (STT) will request clarification or direction regarding the management elements identified by the Council under agenda item B.5 on Tuesday and/or B.6 on Wednesday. The Council should assure the options presented are those for which the Council desires full STT analysis and consideration for final adoption on Friday.

Council Task:

1. Clarify STT questions.
2. Additional direction on management option development and STT analysis, as necessary.

Reference Materials: None.

Agenda Order:

- a. Agendum Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. Council Guidance and Direction

C. Tracy/D. Simmons

PFMC
02/22/02

SCHEDULE OF SALMON FISHERY MANAGEMENT OPTION HEARINGS
Pacific Fishery Management Council

April 1-2, 2002^{1/}

Date Time/Day	Location	Council	NMFS	USCG	Staff	Salmon Team	Meeting Facility Contact
April 1 Monday 7 p.m.	Chateau Westport Beach Room 710 West Hancock Westport, WA 98595				J. Coon	D. Milward	Kathie or Chuck (360) 268-9101 Phone (360) 268-1646 Fax
April 1 Monday 7 p.m.	Red Lion Hotel South Umpqua Room 1313 N Bayshore Drive Coos Bay, OR 97420				C. Tracy	M. Burner	Ms. Kristi Snow (541) 269-4099 Phone (541) 267-2884 Fax
April 2 Tuesday 7 p.m.	Red Lion Hotel Eureka Evergreen Room 1929 Fourth Street Eureka, CA 95501				C. Tracy	A. Grover	Carol Clymo-Palmer (707) 441-4712 Phone (707) 445-4712 Fax

PFMC
02/21/02

i/ The Council will also receive public comment at the Portland, Oregon meeting during the week of April 8-12, 2002.

SALMON HEARINGS OFFICERS

Situation: Attachment 1 provides a schedule of public hearings for the Council management options. Three hearings are scheduled as follows: April 1 in Westport, Washington and Coos Bay, Oregon; and April 2 in Eureka, California. The public will also be able to provide their comments and recommendations on the options in Portland, Oregon during the April Council meeting.

In addition to the Council's hearings, California Department of Fish and Game will hold a hearing on April 1, 2002 at 7 p.m. at the Moss Landing Chamber of Commerce in Moss Landing, California. The Oregon Department of Fish and Wildlife is also expected to announce additional hearings.

Council Action:

1. Confirm hearing officers and other official hearing attendees.

Reference Materials:

1. Schedule of Salmon Fishery Management Option Hearings (Exhibit B.9, Attachment 1).

Agenda Order:

- a. Agendum Overview
- b. **Council Action:** Appoint Hearings Officers

Chuck Tracy
Hans Radtke

PFGC

02/21/02

SALMON TECHNICAL TEAM

***ANALYSIS
OF PRELIMINARY
SALMON MANAGEMENT OPTIONS
FOR 2002 OCEAN FISHERIES***

March 15, 2002

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 1 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
North of Cape Falcon	North of Cape Falcon	North of Cape Falcon
Supplemental Management Information: 1. Overall non-Indian TAC: 150,000 chinook and 150,000 coho Trade: No, but may be considered at the April Council meeting. 2. Non-Indian Troll TAC: 80,000 chinook and 37,500 coho. 3. Treaty Indian commercial ocean troll quotas of: 60,000 chinook (30,000 in May and June; 30,000 for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and 70,000 coho.	Supplemental Management Information: 1. Overall non-Indian TAC: 120,000 chinook and 120,000 coho Trade: 14,000 coho to recreational fishery for 3,500 chinook. 2. Non-Indian Troll TAC: 65,500 chinook and 16,000 coho. 3. Treaty Indian commercial ocean troll quotas of: 50,000 chinook (25,000 in May and June; 25,000 for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and 60,000 coho.	Supplemental Management Information: 1. Overall non-Indian TAC: 90,000 chinook and 90,000 coho Trade: No, but may be considered at the April Council meeting. 2. Non-Indian Troll TAC: 45,000 chinook and 22,500 coho. 3. Treaty Indian commercial ocean troll quotas of: 40,000 chinook (20,000 in May and June; 20,000 for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and 50,000 coho.
U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 60,000 chinook quota. All salmon except coho. Cape Flattery and Columbia River Control Zones closed (C.4). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).	U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 40,000 chinook quota. All salmon except coho. See gear restrictions in C.2. Columbia River Control Zone closed (C.4). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify quotas or harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a).	U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 35,000 chinook quota. All salmon except coho. Cape Flattery and Columbia River Control Zones closed (C.4). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify quotas or harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.7.a). For 2003, Council to consider opening a fishery beginning April 20 north of Cape Falcon (C.7.c).
U.S.-Canada Border to Cape Falcon • July 1 through earliest of Sept. 30 or 20,000 chinook quota (C.7.a). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. U.S.-Canada Border to Leadbetter Point - All salmon except coho. Gear restricted to plugs 6 inches or longer (C.2). Leadbetter Point to Cape Falcon - All salmon. Sub area harvest guideline of 20,600 marked coho (all retained coho must have a healed adipose fin clip). Columbia River Control Zone closed (C.4). No special gear restrictions (C.2).	U.S.-Canada Border to Cape Falcon • July 1 through earliest of Sept. 10 or 25,500 chinook quota (C.7.a). Columbia River Control Zone closed (C.4). Gear restricted to plugs 6 inches or longer (C.2). Trip limits, gear restrictions, and quotas or guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.	U.S.-Canada Border to Cape Falcon • July 1 through earliest of July 31 or 5,000 chinook quota (C.7.a). Columbia River and Cape Flattery Control Zones closed (C.4). Fishery is continuous until 75% of chinook guideline is caught then changes to 4 days open/3 days closed. Gear restricted to plugs 6 inches or longer (C.2). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 2 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
South of Cape Falcon Cape Falcon to Florence South Jetty - March 20 through July 21; Aug. 1 through Aug. 29 and Sept. 1 through Oct. 31. All salmon except coho. See gear restrictions (C.2) and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting. Florence South Jetty to Humbug Mt. - March 20 through June 30; July 11 through Aug. 29 and Sept. 1 through Oct. 31. All salmon except coho. See gear restrictions (C.2). In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.	South of Cape Falcon Cape Falcon to Florence South Jetty - Same as Option I. In 2003, same as Option I. Florence South Jetty to Humbug Mt. - Same as Option I. In 2003, same as Option I.	U.S.-Canada Border to Cape Falcon August 1 through earliest of Sept. 30 or 5,000 chinook quota (see C.7.a), or 18,500 marked coho quota (C.7.b). Columbia River and Cape Flattery Control Zones closed (C.4). Fishery is continuous until 75% of either guideline is caught then changes to 4 days open/3 days closed. Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. All retained coho must have a healed adipose fin clip.

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 3 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS			
OPTION I		OPTION III	
Humbug Mt. to OR-CA Border		Humbug Mt. to OR-CA Border	
- March 20 thru May 31. All salmon except coho. See gear restrictions (C.2). - June 1 thru earlier of June 30 or 1,500 chinook quota; - July 1 thru earlier of July 31 or 1,500 chinook quota; - Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota; - Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. No transfer of remaining quota from earlier fisheries allowed. All salmon except coho. Possession and landing limit of 100 fish per trip. See gear restrictions (C.2). All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings, and within 24 hours of closure. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.		- March 20 thru May 31. All salmon except coho. See gear restrictions (C.2). - June 1 thru earlier of June 30 or 1,500 chinook quota; - July 1 thru earlier of July 31 or 1,500 chinook quota; - Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota; - Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. No transfer of remaining quota from earlier fisheries allowed. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions (C.2). All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings, and within 24 hours of closure. In 2003, same as Option I.	
OPTION II		OPTION III	
Humbug Mt. to OR-CA Border		Humbug Mt. to OR-CA Border	
- March 20 thru May 31. All salmon except coho. See gear restrictions (C.2). - June 1 thru earlier of June 30 or 1,500 chinook quota; - July 1 thru earlier of July 31 or 1,500 chinook quota; - Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota; - Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. No transfer of remaining quota from Aug. fishery allowed. All salmon except coho. Possession and landing limit of 30 fish per day. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).		- March 20 thru May 31. All salmon except coho. See gear restrictions (C.2). - June 1 thru earlier of June 30 or 1,500 chinook quota; - July 1 thru earlier of July 31 or 1,500 chinook quota; - Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota; - Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).	
OPTION I		OPTION III	
OR-CA Border to Humboldt South Jetty		OR-CA Border to Humboldt South Jetty	
Sept. 1 thru earlier of Sept. 30 or 10,000 chinook quota. All salmon except coho. Possession and landing limit of 30 fish per day. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).		Sept. 1 thru earlier of Sept. 29 or 20,000 chinook quota. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2). Klamath Control Zone closed (C.4).	
OPTION I		OPTION III	
Horse Mt. to Pt. Arena (Fort Bragg)		Horse Mt. to Pt. Arena (Fort Bragg)	
May 1 thru May 31, Aug. 1 thru Aug. 31, and Sept. 1 thru Sept. 30. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2).		- Aug. 1 thru earlier of Aug. 29 or 3,000 chinook quota. - Sept. 1 thru Sept. 30. All salmon except coho. All fish caught in this area must be landed within the area. See gear restrictions (C.2).	
OPTION I		OPTION III	
Pt. Arena to Pigeon Pt. (San Francisco)		Pt. Arena to Pigeon Pt. (San Francisco)	
May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).		May 1 thru May 31 and June 16 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).	
OPTION I		OPTION III	
Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)		Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)	
Oct. 1 thru Oct. 15. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).		Oct. 1 thru Oct. 15. Inside 3 nautical miles. All salmon except coho. Minimum size limit 26 inches. See gear restrictions (C.2).	

TABLE 1. Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 4 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS

OPTION I	OPTION II	OPTION III
Pigeon Pt. to U.S.-Mexico Border (Monterey) • May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2. For 2003, Council to consider opening an experimental fishery from April 15 thru April 30 south of Pt. Sur (C.7.c).	Pigeon Pt. to U.S.-Mexico Border (Monterey) Same as Option I.	Pigeon Pt. to U.S.-Mexico Border (Monterey) Same as Option I.

B. MINIMUM SIZE (Inches)

	Chinook		Coho	
	Total Length	Head-off	Total Length	Head-off
North of Cape Falcon	28.0	21.5	16.0	12.0
South of Cape Falcon	26.0 ^{a/}	19.5 ^{a/}	-	-

a/ Chinook not less than 26 inches (19.5 inches head-off) taken in open seasons south of Cape Falcon may be landed north of Cape Falcon only when the season is closed north of Cape Falcon.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.
- C.2. Gear Restrictions:
- Single point, single shank barbless hooks are required in all fisheries.
 - Off Oregon South of Cape Falcon: No more than 4 spreads are allowed per line.
- Spread defined*: A single leader connected to an individual lure or bait.
- Off California: No more than 6 lines are allowed per vessel and barbless circle hooks are required when fishing with bait by any means other than trolling.
- Circle hook defined*:
Options I and II - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle;
Option III - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle with no offset between the point and the shank.
- Trolling defined*: Fishing from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
- C.3. **Transit Through Closed Areas with Salmon on Board**: It is unlawful for a vessel to have troll gear in the water while transiting any area closed to salmon fishing while possessing salmon, however, fishing for species other than salmon is not prohibited if the area is open for such species and no salmon are in possession.

TABLE 1. **Commercial troll management options collated by the STT for non-Indian ocean salmon fisheries, 2002. (Page 5 of 5)**

C.4. <u>Control Zone Definitions:</u>	
a.	<i>Cape Flattery Control Zone (Figure 1)</i> - The area from Cape Flattery (48° 23'00" N lat.) to the northern boundary of the U.S. EEZ, and the area from Cape Flattery south to 48° 15'00" N lat. (Cape of Arches) and west of 125° 05'00" W long.
b.	<i>Columbia Control Zone</i> - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46° 13'35" N. Lat., 124° 06'50" W. long.) and the green lighted Buoy #7 (46° 15'09" N. lat., 124° 06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46° 14'00" N. lat., 124° 03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46° 14'48" N. lat., 124° 05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46° 14'03" N. lat., 124° 04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
c.	<i>Klamath Control Zone</i> - The ocean area at the Klamath River mouth bounded on the north by 41° 38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124° 23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41° 26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
C.5.	Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board and the estimated time of arrival.
C.7.	<u>Inseason Management:</u> In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
a.	Within the overall non-Indian commercial chinook quota north of Cape Falcon: 20,000 chinook Option 1; 10,000 chinook Option 2; 5,000 chinook Option 3; from the May/June quota are the result of impacts assessed at the July-September harvest impact rate. Inseason, these chinook (or remaining portion thereof) may be transferred to the July-September harvest quota at a one-to-one rate if not caught in the May/June fishery. Any remaining chinook from the May/June quota in excess of these amounts may be transferred to the July-September quota on a fishery impact equivalent basis.
b.	Under Option 1, for the Leadbetter Point to U.S. Canada border chinook only fishery, an estimated 2,500 coho mortalities were modeled pre-season in the July coho retention fishery. Those mortalities were subtracted from the overall north of Cape Falcon coho quota of 37,500 to obtain the 35,000 coho quota for the August/September marked coho retention fishery. Any difference in the coho impacts from the July fishery will be transferred to the August/September fishery coho quota.
c.	At the March 2003 meeting, the Council will consider inseason recommendations to: (1) open commercial seasons for all salmon except coho prior to May 1 in areas off Oregon and Washington north of Cape Falcon, and off California south of Point Sur, and (2) identify the areas, season, quota, and special regulations for any experimental April fisheries (proposals must meet Council protocol and be received in November 2002).
C.8.	Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.
C.9.	For the purposes of CDFG Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humboldt Mt., Oregon to Horse Mt., California.

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 1 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS			
OPTION I North of Cape Falcon		OPTION II North of Cape Falcon	
Supplemental Management Information: 1. Overall non-Indian TAC: 150,000 chinook and 150,000 coho Trade: No, but may be considered at the April Council meeting. 2. Recreational TAC: 70,000 chinook and 112,500 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 0 coho. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.		Supplemental Management Information: 1. Overall non-Indian TAC: 120,000 chinook and 120,000 coho Trade: 3,500 chinook to non-Indian troll for 14,000 coho 2. Recreational TAC: 54,500 chinook and 104,000 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 4,000 coho (chinook nonretention) opens upon ocean closure. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.	
U.S.-Canada Border to Cape Falcon • U.S. Canada Border to Queets River: May 1 through May 24 (Sundays and Mondays); then U.S. Canada Border to Cape Falcon: May 25 through earlier of June 16 or 20,000 chinook quota (7 days per week). Chinook salmon only; 2 fish per day. Closed south of the northern margin of the Columbia Control Zone (C.3.a).		U.S.-Canada Border to Cape Falcon • May 19 through earlier of June 9 or 10,000 chinook quota; 7 days per week. Chinook salmon only; 2 fish per day. Closed south of the northern margin of the Columbia Control Zone (C.3.a).	
U.S.-Canada Border to Cape Alava (Neah Bay) • June 30 thru earlier of Sept. 30 or 11,500 coho subarea quota; 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,300 chinook.		U.S.-Canada Border to Cape Alava (Neah Bay) • July 7 thru earlier of Sept. 8 or 10,000 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. Chinook non-retention east of the Bonilla-Tatoosh line during Council managed ocean fishery. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,500 chinook.	
Cape Alava to Queets River (La Push) • June 30 thru earlier of Sept. 20 or subarea sub-quota of 2,700 coho; Sept. 21 through earlier of Oct. 13 or overall subarea quota of 100 coho and 100 chinook; 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 1,600 chinook.		Cape Alava to Queets River (La Push) • July 7 thru earlier of Sept. 8 or 2,700 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 1,500 chinook.	
		U.S.-Canada Border to Cape Falcon • No May/June chinook only fishery.	
		U.S.-Canada Border to Cape Alava (Neah Bay) • July 14 thru earlier of Sept. 8 or 5,900 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. Chinook non-retention east of the Bonilla-Tatoosh line during Council managed ocean fishery. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,900 chinook.	
		Cape Alava to Queets River (La Push) • July 14 thru earlier of Sept. 8 or 1,850 coho subarea quota (adjusted for Area 4B add-on); 7 days per week. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 2,400 chinook.	

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 2 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Queets River to Leadbetter Pt. (Westport) June 30 thru earlier of Sept. 30 or 38,350 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week thereafter. All salmon; 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 35,500 chinook.	Queets River to Leadbetter Pt. (Westport) July 7 thru earlier of Sept. 8 or 37,500 coho subarea quota (adjusted for Area 4B add-on). Sun. thru Thurs. prior to Aug. 16, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 30,700 chinook.	Queets River to Leadbetter Pt. (Westport) June 23 thru earlier of Sept. 8 or 26,000 coho subarea quota (adjusted for Area 4B add-on). Sun. thru Thurs. prior to Sept. 1, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 30,900 chinook.
Leadbetter Pt. to Cape Falcon (Columbia River) July 7 thru earlier of Sept. 30 or 54,450 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week beginning Aug. 16. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 10,600 chinook.	Leadbetter Pt. to Cape Falcon (Columbia River) July 7 thru earlier of Sept. 8 or 51,325 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week beginning Aug. 16. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 9,800 chinook.	Leadbetter Pt. to Cape Falcon (Columbia River) July 14 thru earlier of Sept. 8 or 33,750 coho subarea quota; Sun. thru Thurs. prior to Sept. 1, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within a guideline of 8,800 chinook.
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho; 2 fish per day. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2).2.b. See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2003 the season will open April 1 for all salmon except coho. 2 fish per day. Same gear restrictions as in 2002. This opening could be modified following Council review at its November 2002 meeting. <u>Selective fishery:</u> - July 7 thru earlier of July 31 or a landed catch of 25,000 coho; Sun. thru Thurs. All salmon; 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Note: On closed days during the selective fishery, no angling for any species of salmon is allowed. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 1 or attainment of the coho quota.	Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho; 2 fish per day. See gear restrictions (C.2). See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2003, same as Option I. <u>Selective fishery:</u> - July 15 thru earlier of July 31 or a landed catch of 20,000 coho; Sun. thru Thurs. All salmon; 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Note: On closed days during the selective fishery, no angling for any species of salmon is allowed. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 1 or attainment of the coho quota.	Cape Falcon to Humbug Mt - Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho; 2 fish per day. See gear restrictions (C.2). See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. In 2003, same as Option I. <u>Selective fishery:</u> - July 21 thru earlier of Aug. 4 or a landed catch of 18,000 coho; 7 days per week. All salmon; 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 5 or attainment of the coho quota.

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 3 of 5) March 15, 2001 (12:47PM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Humbug Mt. to Horse Mt. (KMZ) • May 25 thru July 1 and Aug. 1 thru Sept. 2. All salmon except coho; 2 fish per day; no more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Klamath Control Zone closed (C.3.b).	Humbug Mt. to Horse Mt. (KMZ) • May 17 thru June 30 and Aug. 1 thru Sept. 2. All salmon except coho; 2 fish per day. From May 17 thru June 30, no more than 4 fish in 7 consecutive days. Beginning Aug. 1 no more than 6 fish in 7 consecutive days. See gear restrictions (C.2). Klamath Control Zone closed (C.3.b).	Humbug Mt. to Horse Mt. (KMZ) • May 15 thru June 30 and Aug. 1 thru Sept. 15. All salmon except coho; 2 fish per day; no more than 4 fish in 7 consecutive days. See gear restrictions (C.2). Klamath Control Zone closed (C.3.b).
Horse Mt. to Pt. Arena (Fort Bragg) • Feb. 16 thru July 17 and Aug. 1 thru Nov. 17. All salmon except coho; 2 fish per day. Minimum size 24 inches thru April 30 and 20 inches thereafter. See gear restrictions (C.2).	Horse Mt. to Pt. Arena (Fort Bragg) • Same as Option I.	Horse Mt. to Pt. Arena (Fort Bragg) • Same as Option I.
In 2003, season opens Feb. 15 (nearest Sat. to Feb. 15) for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option I.	In 2003, same as Option I.
Pt. Arena to Pigeon Pt. (San Francisco) • Apr. 13 thru Nov. 10. All salmon except coho; 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. See gear restrictions (C.2).	Pt. Arena to Pigeon Pt. (San Francisco) • Same as Option I.	Pt. Arena to Pigeon Pt. (San Francisco) • Same as Option I.
In 2003, the season will open Apr. 12 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option I.	In 2003, same as Option I.
Pigeon Pt. to U.S.-Mexico Border • Mar. 30 thru Sept. 29. All salmon except coho; 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. See gear restrictions (C.2).	Pigeon Pt. to U.S.-Mexico Border • Same as Option I.	Pigeon Pt. to U.S.-Mexico Border • Same as Option I.
In 2003, the season will open Mar. 29 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option I.	In 2003, same as Option I.

TABLE 2. **Recreational** management options collated by the STT for ocean salmon fisheries, 2002. (Page 4 of 5)**B. MINIMUM SIZE (Total Length in Inches)**

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon:			
Options I & III	24.0	16.0	None
Option II	26.0	16.0	None
Cape Falcon to Horse Mt.	20.0	16.0	None, except 20.0 off CA
South of Horse Mountain:			
Prior to May 1	24.0	-	20.0
Beginning May 1	20.0	-	20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

C.2. Gear Restrictions: All persons fishing for salmon, and all persons fishing from a boat with salmon on board must meet the gear restrictions listed below for specific areas or seasons.

- U.S.-Canada Border to Pt. Conception, California:* No more than one rod may be used per angler and single point, single shank barbless hooks are required for all fishing gear. [Note: ODFW regulations in the state-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]
- Between Cape Falcon, Oregon and Pt. Conception, California:* Anglers must use no more than 2 single point, single shank barbless hooks.
- Off California between Horse Mt. and Pt. Conception:* Single point, single shank, barbless circle hooks (see below) must be used if angling with bait by any means other than trolling and no more than 2 such hooks shall be used. When angling with 2 hooks, the distance between the hooks must not exceed 5 inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

Circle hook defined: **Options I and II** - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle;

Option III - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle with no offset between the point and the shank.

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

TABLE 2. Recreational management options collated by the STT for ocean salmon fisheries, 2002. (Page 5 of 5)**C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)****C.3. Control Zone Definitions:**

- a. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 ($46^{\circ}13'35''$ N. Lat., $124^{\circ}06'50''$ W. long.) and the green lighted Buoy #7 ($46^{\circ}15'09''$ N. Lat., $124^{\circ}06'16''$ W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at $46^{\circ}14'00''$ N. Lat., $124^{\circ}03'07''$ West. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty ($46^{\circ}14'48''$ N. Lat., $124^{\circ}05'20''$ W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty ($46^{\circ}14'03''$ N. Lat., $124^{\circ}04'05''$ W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- b. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by $41^{\circ}38'48''$ N. Lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by $124^{\circ}23'00''$ W. long. (approximately 12 nautical miles off shore); and, on the south, by $41^{\circ}26'48''$ N. Lat. (approximately 6 nautical miles south of the Klamath River mouth).

- C.4. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines and season duration. Actions could include modifications to bag limits or days open to fishing, and extensions or reductions in areas open to fishing. NMFS may transfer coho inseason among recreational subareas North of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Salmon Advisory Subpanel recreational representatives north of Cape Falcon.

At the November 2002 meeting the Council will consider recommendation to open seasons for all salmon except coho prior to April 13 in areas off California between Pt. Arena and Pigeon Pt.

- C.5. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the states of Washington and Oregon may establish limited seasons in state waters. Oregon state-water fisheries are limited to chinook salmon. Check state regulations for details.

TABLE 3. Chinook and coho harvest quotas and guidelines (*) for STT collated 2002 ocean salmon fishery management options (thousands of fish). (Page 1 of 1)

Fishery or Quota Designation	Chinook for Option			Coho for Option		
	I	II	III	I	II	III
NORTH OF CAPE FALCON						
TREATY INDIAN COMMERCIAL TROLL ^{a/}	60.0	50.0	40.0	70.0	60.0	50.0
NON-INDIAN COMMERCIAL TROLL						
Canada to Cape Falcon (May-June)	60.0	40.0	35.0	-	-	-
Canada to Cape Falcon (July-Sept.) ^{b/}	20.0	25.5	10.0	20.6 ^{d/}	-	18.5
Subtotal Non-Indian Commercial Troll	80.0	65.5	45.0	20.6	0.0	18.5
RECREATIONAL (selective coho fisheries) ^{b/}						
Canada to Cape Falcon (May/June) ^{b/}	20.0	10.0	-	-	-	-
U.S.-Canada Border to Cape Alava ^{b/d/}	2.3*	2.5*	2.9*	11.5	10.0	5.9
Cape Alava to Queets River ^{b/}	1.6*	1.5*	2.4*	2.8	2.7	1.9
Queets River to Leadbetter Pt. ^{b/}	35.5*	30.7*	30.9*	38.4	37.5	26.0
Leadbetter Pt. to Cape Falcon ^{b/}	10.6*	9.8*	8.8*	54.4	51.3	33.8
Subtotal Recreational	70.0	54.5	45.0	107.1	101.5	67.5
TOTAL NORTH OF CAPE FALCON	210.0	170.0	130.0	197.7	161.5	136.0
SOUTH OF CAPE FALCON						
COMMERCIAL TROLL (all except coho)						
Humbug Mt. to OR-CA border (June-Sept.)	8.0	8.0	8.0	-	-	-
Oregon-California Border to Humboldt S. Jetty (Aug.-Sept.)	10.0	13.0	20.0	-	-	-
Horse Mt. to Pt. Arena (Aug.)	-	3.0	3.0	-	-	-
Subtotal Troll	18.0	24.0	31.0	-	-	-
RECREATIONAL						
Cape Falcon to Humbug Mt. ^{b/}	-	-	-	25.0	20.0	18.0
TOTAL SOUTH OF CAPE FALCON	18.0	24.0	31.0	25.0	20.0	18.0

a/ For the Makah encounter rate study, legal sized fish retained in open periods will be included in the tribal quota.

b/ The coho quota is a landed catch of coho with a healed adipose fin clip.

c/ Leadbetter Point to Cape Falcon only.

d/ Does not include Area 4B add on fisheries of 4,000 coho (Option II) and 6,000 coho (Option III).

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TABLE 4. Projected **key stock escapements** (thousands of fish) or management criteria for STT collated fishery options, 2002.^{a/} (Page 1 of 2)

Key Stock/Criteria			Projected Ocean Escapement ^{b/} or Other Criteria	Spawner Objective or Other Comparative Standard as Noted
CHINOOK				
Upper Columbia River Brights	Option I 274.1	Option II 274.7	Option III 275.3	57.3 Minimum ocean escapement to attain 43.5 adults over McNary Dam, with normal distribution and no mainstem harvest.
Mid-Columbia Brights	93.8	94.0	94.3	16.6 Minimum ocean escapement to attain 5.75 adults for Bonneville Hatchery and 2.0 for Little White Salmon Hatchery egg-take, assuming average conversion and no mainstem harvest.
Lower Columbia River Hatchery Tules	133.4	138.0	143.4	23.4 Minimum ocean escapement to attain 14.3 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest
Lower Columbia River Natural Tules	34% ^{d/}	31% ^{c/}	26% ^{c/}	≤49% ESA guidance met by a total adult equivalent fishery exploitation rate of no more than 49.0% on Coweeman tules
Lewis River Wild (threatened)	18.3	18.5	18.6	5.7 MSY spawner goal for North Lewis River
Spring Creek Hatchery Tules	137.4	145.0	153.1	11.1 Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	46%	44%	42%	≤70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (ESA jeopardy standard).
Klamath River Fall	35.1	35.1	35.1	35.0 Minimum number of adult spawners to natural spawning areas.
Federally recognized tribal harvest	50%	50%	50%	Equals 50.8, 49.6, and 49.8 (thousand) fish for Yurok and Hoopa tribal fisheries
Age 4 ocean harvest rate	15%	11%	12%	≤16.0% ESA jeopardy standard for threatened California coastal chinook
KMZ sport fishery allocation	9%	11%	12%	- None specified for 2002
CA/OR allocation (minus KMZ sport)	55%/45%	34%/66%	38%/62%	- None specified for 2002
River recreational fishery allocation	33%	49%	47%	≥15.0% Agreed to by California Fish and Game Commission; Equals 16.9,24.4, and 23.5 (thousand) fish for recreational inriver fisheries
Sacramento River Winter (endangered)	Yes	Yes	Yes	Duration and timing of commercial and recreational seasons south of Point Arena do not differ substantially relative to those of 2000 and 2001.
Sacramento River Fall	483.2	530.7	496.5	122.0-180.0 Sacramento River fall natural and hatchery adult spawners

TABLE 4. Projected key stock escapements (thousands of fish) or management criteria for proposed fishery options, 2002^{a/} (Page 2 of 2)

Key Stock/Criteria	Projected Ocean Escapement or Other Criteria			b/ or Other Criteria		Spawner Objective or Other Comparative Standard as Noted
COHO						
	Option I	Option II	Option III			
Interior Fraser (Thompson River)	5.7% c/ 39%(6.8%) 77.7	5.0% c/ 38%(5.8%) 78.6	4.4% c/ 37%(4.8%) 79.5	≤ 10%	Total exploitation rate for all US fisheries south of the US/Canada border	
Skagit				≤ 60%	2001 Annual management ceiling: total exploitation rate ^{d/} 30.0 MSP level of adult spawners Identified in FMP.	
Stillaguamish	40%(8.9%) 14.0	39%(6.5%) 14.2	38%(6.4%) 14.4	≤ 35%	2001 Annual management ceiling: total exploitation rate ^{d/} 17.0 MSP level of adult spawners Identified in FMP	
Snohomish	39%(8.9%) 83.6	38%(7.6%) 85.0	37%(6.4%) 86.3	≤ 40%	2001 Annual management ceiling: total exploitation rate ^{d/} 70.0 MSP level of adult spawners Identified in FMP	
Hood Canal	55%(6.9%) 25.1	55%(5.7%) 25.5	54%(4.6%) 25.8	≤ 45%	2001 Annual management ceiling: total exploitation rate ^{d/} 21.5 MSP level of adult spawners Identified in FMP	
Strait of Juan de Fuca	18%(5.7%) 18.5	17%(5.0%) 18.7	17%(4.3%) 18.8	≤ 40%	2001 Annual management ceiling: total exploitation rate ^{d/} 12.8 MSP level of adult spawners Identified in FMP	
COASTAL NATURAL:						
Quillayute Fall	18.2	18.6	19.2	6.3-15.8 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.		
Hoh	6.7	6.9	7.2	2.0-5.0 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.		
Queets Wild	10.1	10.3	10.5	5.8-14.5 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.		
Queets Supplemental	1.5	1.6	1.6	-		
Grays Harbor	49.6	50.0	50.4	35.4 MSP level of adult spawners. Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.		
Oregon Coastal Natural (threatened)	13.8%	10.7%	10.1%	≤ 15.0% ESA jeopardy standard for marine and freshwater fishery exploitation rate		
Northern California (threatened)	9.6%	6.5%	6.4%	≤ 13.0% ESA jeopardy standard for surrogate R/K hatchery coho marine fishery exploitation rate		
HATCHERY:						
Columbia River Early	91.3	99.6	106.0	38.7 Minimum ocean escapement to attain hatchery egg-take goal of 19.6 early adult coho, with average conversion and no mainstem or tributary fisheries.		
Columbia River Late	46.8	59.2	70.3	19.4 Minimum ocean escapement to attain hatchery egg-take goal of 15.2 late adult coho, with average conversion and no mainstem or tributary fisheries.		

^{a/} Projections in the table assume a WCVI mortality of 2,000 coho; Southeast Alaska harvest of 181,400 chinook per PST agreement; 1 WCVI troll catch of 63,400 chinook (includes chinook in the fall of 2000).

^{b/} Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. The escapement numbers provided for OCN coho are spawners in SRS accounting.

^{c/} Reported exploitation rates are for ocean fisheries only.

^{d/} Annual management objectives may be different than FMP goals, and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. Total exploitation rate includes Alaskan, Canadian, Council area, Puget Sound and freshwater fisheries, and is calculated as total fishing mortality divided by total fishing mortality plus spawning escapement.

TABLE 5. Preliminary projections of chinook and coho harvest impacts for STT collated ocean salmon fishery management options, 2002. (Page 1 of 1)

Area and Fishery	2002 Catch Projection			2002 Bycatch Mortality ^{a/} Projection			Observed in 2001	
	I	II	III	I	II	III	Catch	Bycatch Mortality
OCEAN FISHERIES:^{b/} CHINOOK (thousands of fish)								
NORTH OF CAPE FALCON								
Treaty Commercial Troll	60.0	50.0	40.0	8.1	6.5	5.1	28.1	5.3
Non-Indian Commercial Troll	80.0	65.5	45.0	15.6	13.0	7.2	26.5	15.5
Recreational	70.0	54.5	45.0	8.7	6.7	5.5	25.6	3.8
CAPE FALCON TO HUMBUG MT.								
Commercial Troll	145.4	146.6	145.7	16.0	16.1	16.0	267.0	29.3
Recreational	2.6	2.3	2.6	0.3	0.3	0.3	17.4	1.9
HUMBUG MT. TO HORSE MT.								
Commercial Troll	20.3	23.3	20.3	2.2	2.6	2.2	9.7	1.1
Recreational	18.3	19.0	19.1	2.0	2.1	2.1	19.9	2.2
SOUTH OF HORSE MT.								
Commercial	226.0	186.1	208.5	24.8	18.6	22.9	173.4	19.1
Recreational	62.8	63.5	62.9	6.9	7.0	6.9	84.5	9.3
TOTAL OCEAN FISHERIES								
Commercial Troll	531.7	471.5	459.5	55.8	57.5	64.7	505.6	70.3
Recreational	153.7	139.3	129.6	15.9	16.0	17.3	147.4	17.2
INSIDE FISHERIES:								
Buoy 10	NA	NA	NA	NA	NA	NA		
OCEAN FISHERIES: COHO (thousands of fish)								
NORTH OF CAPE FALCON								
Treaty Commercial Troll	70.0	60.0	50.0	3.7	3.2	2.7	57.5	2.8
Non-Indian Commercial Troll ^{c/}	37.5	16.0	22.5	21.8	16.1	11.9	17.5	5.3
Recreational ^{c/}	107.1	101.5	67.5	22.3	19.5	11.9	207.5	24.0
SOUTH OF CAPE FALCON								
Commercial Troll	-	-	-	12.4	8.4	8.7	-	-
Recreational ^{c/}	25.0	20.0	18.0	10.9	10.0	9.1	56.5	11.4
TOTAL OCEAN FISHERIES								
Commercial Troll	107.5	76.0	72.5	37.9	27.7	23.3	75.0	8.1
Recreational	132.1	121.5	85.5	33.2	29.5	21.0	264.0	35.4
INSIDE FISHERIES:								
Area 4B ^{c/}	-	4.0	6.0					
Buoy 10 ^{c/}				3.2	3.7	4.3		

a/ The bycatch mortality reported in this table consists of hook-and-release and drop-off mortality of chinook and coho salmon in fisheries which have special species retention restrictions (e.g., all-salmon-except-coho or all-salmon-except-chinook seasons, or selective fisheries for marked coho). In general, the bycatch mortality rate parameters used by the Council for both chinook and coho in fisheries using barbless hooks are:

Commercial - 26% of fish hooked-and-released plus 5% of total encounters (drop-off, predation, noncompliance, etc.).

Sport north of Pt. Arena - 14% of fish hooked-and-released plus 5% of total encounters (drop-off, etc.).

Sport south of Pt. Arena - 23.2% (weighted average of California style mooching and trolling) of fish hooked-and-released plus 5% of total encounters (drop-off, etc.).

b/ Includes Oregon territorial water, late season chinook fisheries.

c/ Includes one or more selective fishery options that allow only retention of hatchery coho with a healed adipose fin clip.

TABLE 6. Expected coastwide Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho exploitation rates by fishery for STT collated ocean fisheries management options, 2002. (Page 1 of 1)

Fishery	Exploitation Rate (Percent)					
	OCN			RK		
	I	II	III	I	II	III
SOUTHEAST ALASKA	0.00	0.00	0.00	0.00	0.00	0.00
BRITISH COLUMBIA	0.10	0.10	0.10	0.00	0.00	0.00
PUGET SOUND/STRAITS	0.10	0.10	0.10	0.00	0.00	0.00
NORTH OF CAPE FALCON						
Treaty Indian Troll	0.70	0.70	0.70	0.00	0.00	0.00
Recreational	1.00	1.00	0.50	0.00	0.00	0.00
Non-Indian Troll	1.00	0.40	0.40	0.00	0.00	0.00
SOUTH OF CAPE FALCON						
Recreational:						
Cape Falcon to Humbug Mt.	2.10	1.80	1.50	0.10	0.10	0.10
Humbug Mt. OR/CA border (KMZ)	0.40	0.40	0.40	0.40	0.40	0.50
OR/CA border to Horse Mt. (KMZ)	0.70	0.70	0.70	1.50	1.40	1.40
Fort Bragg	0.70	0.70	0.70	1.20	1.20	1.20
South of Pt. Arena	0.80	0.80	0.80	1.30	1.30	1.30
Troll:						
Cape Falcon to Humbug Mt.	1.50	1.50	1.50	0.10	0.10	0.10
Humbug Mt. OR/CA border (KMZ)	0.10	0.10	0.10	0.10	0.10	0.10
OR/CA border to Horse Mt. (KMZ)	0.00	0.10	0.00	0.20	0.60	0.20
Fort Bragg	2.00	0.00	0.00	3.10	0.00	0.00
South of Pt. Arena	1.10	0.80	1.10	1.20	0.90	1.10
BUOY 10	0.40	0.50	0.50	0.00	0.00	0.00
ESTUARY/FRESHWATER	1.00	1.00	1.00	0.20	0.20	0.20
TOTAL	13.80	10.70	10.10	9.60	6.50	6.40

ADOPTION OF 2002 MANAGEMENT OPTIONS FOR PUBLIC REVIEW

Situation: The Council will review the Salmon Technical Team (STT) impact analysis (Exhibit B.10.b, Supplemental STT Report) and advisory bodies, tribal, and public comments before adopting proposed ocean salmon fishery management options for public review. The adopted options should meet fishery management plan objectives (spawner escapement goals, allocations, etc.) and encompass a realistic range of alternatives from which the final management measures will emerge. Any need for implementation by emergency rule must be clearly noted and consistent with the Council's emergency criteria (see Exhibit B.5, Attachment 2).

Council Action:

1. Adopt final ocean salmon fishery management options for public review.

Reference Materials:

1. Analysis of Preliminary Salmon Management Options for 2002 Ocean Fisheries (Exhibit B.10.b, Supplemental STT Report).

Agenda Order:

- a. Agendum Overview
- b. Report of the STT
- c. Reports and Comments of Advisory Bodies
- d. Public Comments
- e. **Council Action:** Adopt Management Options for Public Review

Chuck Tracy
Dell Simmons

PFMC
02/26/02

SALMON ADVISORY SUBPANEL

***PROPOSED
INITIAL SALMON MANAGEMENT OPTIONS
FOR 2002 NON-INDIAN OCEAN FISHERIES***

March 12, 2002

TABLE 1. Commercial troll management options recommended by the SAS for non-Indian ocean salmon fisheries, 2002. (Page 1 of 6) 3/12/01 (9:40 AM)

A. SEASON OPTION DESCRIPTIONS

OPTION I North of Cape Falcon			OPTION II North of Cape Falcon		OPTION III North of Cape Falcon
Supplemental Management Information:			Supplemental Management Information:		Supplemental Management Information:
1. Overall non-Indian TAC: 150,000 chinook and 150,000 coho Trade: No, but may be considered at the April Council meeting. 2. Non-Indian Troll TAC: 80,000 chinook and 37,500 coho. 3. Treaty Indian commercial ocean troll quotas of: chinook (in May and June; for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and coho.			1. Overall non-Indian TAC: 120,000 chinook and 120,000 coho Trade: 18,000 coho to recreational fishery for 4,500 chinook. 2. Non-Indian Troll TAC: 66,500 chinook and 40,000 coho. 3. Treaty Indian commercial ocean troll quotas of: chinook (in May and June; for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and coho.		1. Overall non-Indian TAC: 90,000 chinook and 90,000 coho Trade: No, but may be considered at the April Council meeting. 2. Non-Indian Troll TAC: 45,000 chinook and 22,500 coho. 3. Treaty Indian commercial ocean troll quotas of: chinook (in May and June; for all-salmon season in Jul.-Sept. 15 with no rollover allowed from chinook season); and coho.
U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 60,000 chinook quota (see C.7.a). All salmon except coho. Cape Flattery and Columbia Control Zones closed (C.4.a and C.4.b). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (see C.7.a).			U.S.-Canada Border to Cape Falcon • May 1 thru earlier of June 30 or 40,000 chinook quota (see C.7.a). All salmon except coho. See gear restrictions in C.2. Columbia Control Zone closed (C.4.b). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify quotas or harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (see C.7.a).		U.S.-Canada Border to Cape Falcon ^{34,000} • May 1 thru earlier of June 30 or 35,000 chinook quota (see C.7.a). All salmon except coho. Cape Flattery and Columbia Control Zones closed (C.4.a and C.4.b). Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. Inseason actions may modify quotas or harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (see C.7.a).
U.S.-Canada Border to Cape Falcon • July 1 through earliest of Sept. 30 or 20,000 chinook quota (see C.7.a). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. U.S.-Canada Border to Leadbetter Point - All salmon except coho. Gear restricted to plugs 6 inches or longer; (see also C.2). Leadbetter Point to Cape Falcon - All salmon. Sub area harvest guideline of 15,000 marked coho (all retained coho must have a healed adipose fin clip). Columbia River Control Zone closed (C.4.b)			U.S.-Canada Border to Cape Falcon • July 1 through earliest of Sept. 10 or 26,500 chinook quota (see C.7.a). Columbia River Control Zone closed (C.4.b). Gear restricted to plugs 6 inches or longer (see also C.2). Trip limits, gear restrictions, and quotas or guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.		U.S.-Canada Border to Cape Falcon • July 1 through earliest of July 31 or 5,000 chinook quota (see C.7.a). Columbia River and Cape Flattery Control Zones closed (C.4.a). Fishery is continuous until 75% of chinook guideline is caught then reverts to 4 days open/3 days closed. Gear restricted to plugs 6 inches or longer (see also C.2). Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery.

TABLE 1. Commercial troll management options recommended by the SAS for non-Indian ocean salmon fisheries, 2002. (Page 2 of 6) 3/12/01 (9:40 AM)

A. SEASON OPTION DESCRIPTIONS

OPTION I	OPTION II	OPTION III
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Cape Falcon to Florence South Jetty - March 20 through October 31 with two day closure at the end of August for Klamath accounting (C.7.c). All salmon except coho. Includes staggered closures in July as necessary, similar to 2001. See gear restrictions C.2 and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting. Florence South Jetty to Humbug Mt. - March 20 through October 31 with two day closure at the end of August for Klamath accounting (C.7.c). All salmon except coho. Includes staggered closures in July as necessary, similar to 2001. See gear restrictions C.2 and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.	Cape Falcon to Florence South Jetty - April 1 through October 31 with two day closure at the end of August for Klamath accounting (C.7.c). All salmon except coho. Includes staggered closures in July as necessary, similar to 2001. See gear restrictions C.2 and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting. Florence South Jetty to Humbug Mt. - April 1 through October 31 with two day closure at the end of August for Klamath accounting (C.7.c). All salmon except coho. Includes staggered closures in July as necessary, similar to 2001. See gear restrictions C.2 and Oregon State regulations for a description of the closed area at the mouth of Tillamook Bay. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.	U.S.-Canada Border to Cape Falcon August 1 through earliest of Sept. 30 or 5,000 chinook quota (see C.7.a), or 18,500 marked coho quota (see C.7.b). Columbia River and Cape Flattery Control Zones closed (C.4.a). Fishery is continuous until 75% of either guideline is caught then reverts to 4 days open/3 days closed. Trip limits, gear restrictions, and guidelines may be implemented or adjusted inseason. Vessels must land and deliver their fish within the area or in adjacent areas that are closed to all commercial non-Indian salmon fishing, and within 24 hours of any closure of this fishery. (all retained coho must have a healed adipose fin clip).
	Cape Falcon to Florence South Jetty Same as Option 2.	Florence South Jetty to Humbug Mt. Same as Option 2.

TABLE 1. Commercial troll management options recommended by the SAS for non-Indian ocean salmon fisheries, 2002. (Page 3 of 6) 3/12/01 (9:40 AM)

A. SEASON OPTION DESCRIPTIONS

OPTION I			OPTION II		OPTION III	
Humbog Mt. to OR-CA Border			Humbog Mt. to OR-CA Border		Humbog Mt. to OR-CA Border	
- March 20 thru May 31 (C.7.c). All salmon except coho. See gear restriction C.2. - June 1 thru earlier of June 30 or chinook quota to be determined. All salmon except coho. Possession and landing limit of 100 fish per trip. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. - July 1 thru earlier of July 31 or chinook quota to be determined. All salmon except coho. Possession and landing limit of 100 fish per trip. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. - Aug. 1 thru earlier of Aug. 31 or chinook quota to be determined. All salmon except coho. Possession and landing limit of 100 fish per trip. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. - Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. All salmon except coho. Possession and landing limit of 100 fish per trip. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. In 2003 the season will open March 15 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.			- March 20 thru May 31 (C.7.c). All salmon except coho. See gear restriction C.2. - June 1 thru earlier of June 30 or chinook quota to be determined. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. - July 1 thru earlier of July 31 or chinook quota to be determined. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. - Aug. 1 thru earlier of Aug. 31 or chinook quota to be determined. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. - Sept. 1 thru earlier of Sept. 30 or 2,000 chinook quota. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions C.2. All salmon must be landed and delivered to Gold Beach, Port Orford, or Brookings within 24 hours of closure. In 2003 the season will open April 1 for all salmon except coho. This opening could be modified following Council review at its November 2002 meeting.		Same as Option 2.	
OR-CA Border to Humboldt South Jetty			OR-CA Border to Humboldt South Jetty		OR-CA Border to Humboldt South Jetty	
- Aug. 12 thru Aug. 30, 2002. 2415 - Sept. 1 thru earlier of Sept. 30 or 10,000 chinook quota. All salmon except coho. Possession and landing limit of 30 fish per day. See gear restrictions in C.2. Klamath Control Zone closed (C.4.).			Aug. 1 thru earlier of Aug. 30 or 10,000 chinook quota. Sept. 1 thru earlier of Sept. 30 or 10,000 chinook quota. All salmon except coho. Possession and landing limit of 30 fish per day. All fish caught in this area must be landed within the area. See gear restrictions in C.2. Klamath Control Zone closed (C.4.).		Sept. 1 thru earlier of Sept. 30 or 10,000 chinook quota. All salmon except coho. Possession and landing limit of 30 fish per day. All fish caught in this area must be landed within the area. See gear restrictions in C.2. Klamath Control Zone closed (C.4.).	
Horse Mt. to Pt. Arena (Fort Bragg)			Horse Mt. to Pt. Arena (Fort Bragg)		Horse Mt. to Pt. Arena (Fort Bragg)	
May 1 thru May 31; Aug. 1-Sept. 30. All fish caught in this area must be landed within the area. All salmon except coho. Minimum size 26 inches. See gear restrictions in C.2.			May 1 thru June 10; Aug. 12-Sept. 30. All salmon except coho. Minimum size 26 inches. See gear restrictions in C.2.		May 1 thru earlier of May 31 or 20,000 chinook quota. June 1 thru earlier of June 30 or 20,000 chinook quota. Aug. 1 thru earlier of Aug. 31 or 20,000 chinook quota. All fish caught in this area must be landed within the area. All salmon except coho. Minimum size 26 inches. See gear restrictions in C.2.	

Aug 29th

Aug 29th

TABLE 1. Commercial troll management options recommended by the SAS for non-Indian ocean salmon fisheries, 2002. (Page 4 of 6) 3/12/01 (9:40 AM)

A. SEASON OPTION DESCRIPTIONS

OPTION I		OPTION II		OPTION III	
Pt. Arena to Pigeon Pt. (San Francisco) • May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.		Pt. Arena to Pigeon Pt. (San Francisco) • May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.		Pt. Arena to Pigeon Pt. (San Francisco) • May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.	
Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) • Oct. 1 thru Oct. 15. Inside 3 nautical miles. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.		Pt. Reyes to Pt. San Pedro (Fall Area Target Zone) • Oct. 1 thru Oct. 15. Inside 3 nautical miles. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.			
Pigeon Pt. to U.S.-Mexico Border (Monterey) • May 1 thru Sept. 30. All salmon except coho. Minimum size limit 26 inches. See gear restrictions in C.2.		Pigeon Pt. to U.S.-Mexico Border (Monterey) Same as Option I.		Pigeon Pt. to U.S.-Mexico Border (Monterey) Same as Option I.	

For 2003, Council to consider opening a fishery from April 15 thru April 30 south of Pt. Sur.

B. MINIMUM SIZE (Inches)

Area (when open)	Chinook			Coho		
	Total Length	Head-off		Total Length	Head-off	Pink
North of Cape Falcon	28.0	21.5 ^{a/}		16.0	12.0	None
Cape Falcon to Pt. Arena	26.0 ^{a/}	19.5 ^{a/}		-	-	None
South of Pt. Arena prior to July 1	26.0 ^{a/}	19.5 ^{a/}		-	-	None
South of Pt. Arena after June 30	27.0 ^{a/}	20.25 ^{a/}		-	-	None

a/ Chinook not less than 26 inches (19.5 inches head-off) taken in open seasons south of Cape Falcon may be landed north of Cape Falcon only when the season is closed north of Cape Falcon.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

C.2. Gear Restrictions:

a. Single point, single shank barbless hooks are required in all fisheries.

b. Off Oregon South of Cape Falcon: No more than 4 spreads are allowed per line.

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

c. Off California: No more than 6 lines are allowed per vessel and barbless circle hooks are required when fishing with bait by any means other than trolling.

Circle hook defined: Options I and III - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle; Option II - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle with no offset between the point and the shank.

TABLE 1. Commercial troll management options proposed by the Council for non-Indian ocean salmon fisheries, 2001. (Page 5 of 5)

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

C.3. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll gear in the water while transiting any area closed to salmon fishing while possessing salmon, however, fishing for species other than salmon is not prohibited if the area is open for such species and no salmon are in possession.

C.4. Control Zone Definitions:

a. *Cape Flattery Control Zone (Figure 1)* - The area from Cape Flattery (48° 23'00" N lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to 48° 15'00" N lat. (Cape of Arches) and west of 125° 05'00" W long.

b. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46° 13'35" N. Lat., 124° 06'50" W. long.) and the green lighted Buoy #7 (46° 15'09" N. lat., 124° 06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46° 14'00" N. lat., 124° 03'07" West. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46° 14'48" N. lat., 124° 05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46° 14'03" N. lat., 124° 04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.

c. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41° 38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124° 23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41° 26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

C.5. Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board and the estimated time of arrival. This stipulation will be implemented by state regulations for California, Oregon and Washington, as required.

C.7. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

a. Within the overall non-Indian commercial chinook quota north of Cape Falcon:

20,000 chinook Option 1

10,000 chinook Option 2

5,000 chinook Option 3;

from the May/June quota are the result of impacts assessed at the July-September harvest impact rate. Inseason, these chinook (or remaining portion thereof) may be transferred to the July-September harvest quota at a one-to-one rate if not caught in the May/June fishery. Any chinook remaining in the May/June quota in excess of these amounts may be transferred to the July-September quota on a fishery impact equivalent basis.

b. An estimated 4,000 coho mortalities were modeled pre-season in the July fishery. Those mortalities were subtracted from the overall north of Cape Falcon coho quota of 22,500 to obtain the 18,500 coho quota for the August/September fishery. Any difference in the estimated 4,000 coho impacts from the July fishery will be transferred to the August/September fishery coho quota.

C. At the March 2003 meeting, the Council will consider inseason recommendations to: (1) open commercial seasons for all salmon except coho prior to May 1 in areas off Oregon and California south of Point Sur, and (2) identify the areas, season, quota, and special regulations for any experimental April fisheries (proposals must meet Council protocol and be received in November 2002).

C.8. Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.

C.9. For the purposes of CDFG Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humbug Mt., Oregon to Horse Mt., California.

TABLE 2. Recreational management options recommended by the SAS for ocean salmon fisheries, 2002. (Page 1 of 5) 3/12/01 (9:13 AM)

A. SEASON OPTION DESCRIPTIONS			
OPTION I		OPTION II	
North of Cape Falcon		North of Cape Falcon	
Supplemental Management Information:		Supplemental Management Information:	
1. Overall non-Indian TAC: 150,000 chinook and 150,000 coho Trade: No, but may be considered at the April Council meeting. 2. Recreational TAC: 70,000 chinook and 112,500 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 0 coho. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.		1. Overall non-Indian TAC: 120,000 chinook and 120,000 coho Trade: 4,500 chinook to non-Indian troll for 18,000 coho 2. Recreational TAC: 53,500 chinook and 108,000 marked hatchery coho. 3. Neah Bay/La Push agreed coho allocation as per Amendment 14. 4. Area 4B add-on fishery of 4,000 coho (chinook nonretention) opens upon ocean closure. 5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.	
U.S.-Canada Border to Cape Falcon Chinook salmon only; 2 chinook per day. Closed south of the northern margin of the Columbia Control Zone (C.3.a). Inseason management may be used to sustain season length and keep harvest within a quota of 20,000 chinook. • U.S. Canada Border to Queets River: May 1 through May 24, Sundays and Mondays • U.S. Canada Border to Cape Falcon: May 25 through June 16, 7 days per week.		U.S.-Canada Border to Cape Falcon • May 25 through June 16, 7 days per week. Chinook salmon only; 2 chinook per day. Closed south of the northern margin of the Columbia Control Zone (C.3.a). Inseason management may be used to sustain season length and keep harvest within a quota of 10,000 chinook.	
U.S.-Canada Border to Cape Alava (Neah Bay) • July 6 thru earlier of Sept. 30 or 11,700 coho subarea quota. All salmon (7 days per week). 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 50,000 chinook for north of Cape Falcon.		U.S.-Canada Border to Cape Alava (Neah Bay) • July 6 thru earlier of Sept. 8 or 10,500 coho subarea quota (adjusted for Area 4B add-on). All salmon (7 days per week). 2 fish per day and all retained coho must have a healed adipose fin clip. Chinook non-retention east of the Bonilla-Tatoosh line during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within an overall quota of 43,500 chinook for north of Cape Falcon.	
Cape Alava to Queets River (La Push) • July 6 thru earlier of Sept. 20 or subarea sub- quota of 2,825 coho; Sept. 21 through earlier of Oct. 13 or overall subarea quota of 100 coho and 100 chinook. All salmon (7 days per week). 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 50,000 chinook for north of Cape Falcon.		Cape Alava to Queets River (La Push) • July 6 thru earlier of Sept. 8 or 2,860 coho subarea quota (adjusted for Area 4B add-on). All salmon (7 days per week). 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 43,500 chinook for north of Cape Falcon.	
		U.S.-Canada Border to Cape Alava (Neah Bay) • July 13 thru earlier of Sept. 8 or 5,900 coho subarea quota (adjusted for Area 4B add-on). All salmon (7 days per week). 2 fish per day and all retained coho must have a healed adipose fin clip. Chinook non-retention east of the Bonilla-Tatoosh line during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within an overall quota of 45,000 chinook for north of Cape Falcon.	
		Cape Alava to Queets River (La Push) • July 13 thru earlier of Sept. 8 or 1,850 coho subarea quota (adjusted for Area 4B add-on). All salmon (7 days per week). 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 45,000 chinook for north of Cape Falcon.	

OPTION III

North of Cape Falcon

Supplemental Management Information:

1. Overall non-Indian TAC: 90,000 chinook and 90,000 coho
Trade: No, but may be considered at the April Council meeting.
2. Recreational TAC: 45,000 chinook and 67,500 marked hatchery coho.
3. Neah Bay/La Push agreed coho allocation as per Amendment 14.
4. Area 4B add-on fishery of 6,000 coho (chinook nonretention) opens upon ocean closure.
5. Buoy 10 fishery opens Aug. 1 with an expected landed catch of coho in Aug. and coho in Sept. All retained coho must have a healed adipose fin clip.

U.S.-Canada Border to Cape Falcon

- No May/June chinook only fishery.

TABLE 2. Recreational management options recommended by the SAS for ocean salmon fisheries, 2002. (Page 2 of 5) 3/12/01 (9:13 AM)

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Queets River to Leadbetter Pt. (Westport) • June 23 thru earlier of Sept. 30 or 41,625 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 50,000 chinook for north of Cape Falcon. Leadbetter Pt. to Cape Falcon (Columbia River) • July 7 thru earlier of Sept. 30 or 56,250 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week beginning Aug. 16. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Inseason management may be used to sustain season length and keep harvest within an overall quota of 50,000 chinook for north of Cape Falcon.	Queets River to Leadbetter Pt. (Westport) • June 30 thru earlier of Sept. 8 or 40,640 coho subarea quota (adjusted for Area 4B add-on). Sun. thru Thurs. prior to Aug. 16, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 43,500 chinook for north of Cape Falcon. Leadbetter Pt. to Cape Falcon (Columbia River) • July 8 thru earlier of Sept. 8 or 54,000 coho subarea quota. Sun. thru Thurs. prior to Aug. 16, 7 days per week beginning Aug. 16. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). Inseason management may be used to sustain season length and keep harvest within an overall quota of 43,500 chinook for north of Cape Falcon.	Queets River to Leadbetter Pt. (Westport) • July 7 thru earlier of Sept. 8 or 26,000 coho subarea quota (adjusted for Area 4B add-on). Sun. thru Thurs. prior to Sept. 1, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Inseason management may be used to sustain season length and keep harvest within an overall quota of 45,000 chinook for north of Cape Falcon. Leadbetter Pt. to Cape Falcon (Columbia River) • July 15 thru earlier of Sept. 8 or 33,750 coho subarea quota; Sun. thru Thurs. prior to Sept. 1, 7 days per week thereafter. All salmon. 2 fish per day and all retained coho must have a healed adipose fin clip. Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Columbia Control Zone closed (C.3.a). Inseason management may be used to sustain season length and keep harvest within an overall quota of 45,000 chinook for north of Cape Falcon.
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Cape Falcon to Humbug Mt • Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho. 2 fish per day. No more than 6 fish in 7 consecutive days. See gear restrictions in C.2.b. See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. <u>Selective fishery:</u> • Sun. thru Thurs., July 7 thru earlier of July 31 or a landed catch of 35,000 coho. All salmon. 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. Note: On closed days during the selective fishery, no angling for any species of salmon is allowed. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 1 or attainment of the coho quota. In 2003 the season will open April 1 for all salmon except coho. 2 fish per day. Same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.	Cape Falcon to Humbug Mt • Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho. 2 fish per day. See gear restrictions in C.2.b. See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. <u>Selective fishery:</u> • Sun. thru Thurs., July 15 thru earlier of July 31 or a landed catch of 25,000 coho. All salmon. 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. Note: On closed days during the selective fishery, no angling for any species of salmon is allowed. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 1 or attainment of the coho quota. In 2003 the season will open April 1 for all salmon except coho. 2 fish per day. Same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.	Cape Falcon to Humbug Mt • Except as provided below during the selective fishery, the season will be: Apr. 1 thru Oct. 31. All salmon except coho. 2 fish per day. See Oregon State regulations for a description of a closure at the mouth of Tillamook Bay. Same gear restrictions as in 2000 (see Option III in C.2.b). <u>Selective fishery:</u> • 7 days per week, July 21 thru earlier of Aug. 4 or a landed catch of 18,000 coho. All salmon. 2 fish per day, all retained coho must have a healed adipose fin clip. No more than 6 fish in 7 consecutive days. Open days may be adjusted to utilize the available quota. All salmon except coho season reopens the earlier of Aug. 5 or attainment of the coho quota. In 2003 the season will open April 1 for all salmon except coho. 2 fish per day. Same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.

TABLE 2. Recreational management options recommended by the SAS for ocean salmon fisheries, 2002. (Page 3 of 5) 3/12/01 (9:13 AM)

A. SEASON OPTION DESCRIPTIONS

OPTION I			OPTION II		OPTION III	
Humbug Mt. to Horse Mt. (KMZ)			Humbug Mt. to Horse Mt. (KMZ)		Humbug Mt. to Horse Mt. (KMZ)	
May 25 thru July 7 and July 24 thru Sept. 2. All salmon except coho. 2 fish per day; no more than 6 fish in 7 consecutive days. Klamath Control Zone closed (C.3.b). See gear restrictions in C.2.			May 17 thru July 8 and July 23 thru Sept. 2. All salmon except coho. 2 fish per day. From May 17 thru July 8, no more than 4 fish in 7 consecutive days. Beginning July 24, no more than 6 fish in 7 consecutive days. See gear restrictions in C.2. Klamath Control Zone closed (C.3.b).		May 15 thru July 7 and July 27 thru Sept. 15. All salmon except coho. 2 fish per day; no more than 4 fish in 7 consecutive days. See gear restrictions in C.2. Klamath Control Zone closed (C.3.b).	
Horse Mt. to Pt. Arena (Fort Bragg)			Horse Mt. to Pt. Arena (Fort Bragg)		Horse Mt. to Pt. Arena (Fort Bragg)	
Feb. 16 thru Nov. 17. All salmon except coho. 2 fish per day. Minimum size 24 inches thru April 30 and 20 inches thereafter. Gear restrictions include: one rod per angler, no more than 2 barbless hooks, and circle hooks when not trolling (C.2.a, C.2.c and C.2.d).			Same as Option I.		Same as Option I.	
In 2003, season opens Feb. 15 (nearest Sat. to Feb. 15) for all salmon except coho. 2 fish per day, 24 inch minimum size limit through April 30, then 20 inch minimum size limit thereafter; same gear restrictions as in 2002.			In 2003, same as Option I.		In 2003, same as Option I.	
Pt. Arena to Pigeon Pt.			Pt. Arena to Pigeon Pt.		Pt. Arena to Pigeon Pt.	
Apr. 13 thru Nov. 10. All salmon except coho. 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. One rod per angler. Gear restrictions include: one rod per angler, no more than 2 barbless hooks, and circle hooks when not trolling (C.2.a, C.2.c and C.2.d).			Same as Option I.		Same as Option II.	
In 2003, the season will open Apr. 12 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.			In 2003, the season will open March 29 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.		In 2003, same as Option II.	
Pt. Arena to Pigeon Pt.			Pt. Arena to Pigeon Pt.		Pt. Arena to Pigeon Pt.	
Apr. 13 thru Nov. 10. All salmon except coho. 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. One rod per angler. Gear restrictions include: one rod per angler, no more than 2 barbless hooks, and circle hooks when not trolling (C.2.a, C.2.c and C.2.d).			Same as Option I.		Same as Option II.	
In 2003, the season will open Apr. 12 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.			In 2003, the season will open March 29 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002. This opening could be modified to allow an earlier opening date following Council review at its November 2002 meeting.		In 2003, same as Option II.	

TABLE 2. Recreational management options recommended by the SAS for ocean salmon fisheries, 2002. (Page 4 of 5) 3/12/01 (9:13 AM)

A. SEASON OPTION DESCRIPTIONS

OPTION I	OPTION II		OPTION III
	Pigeon Pt. to U.S.-Mexico Border • Same as Option I.	Pigeon Pt. to U.S.-Mexico Border • Same as Option I.	
Pigeon Pt. to U.S.-Mexico Border • Mar. 30 thru Sept. 29. All salmon except coho. 2 fish per day. Minimum size limit 24 inches thru April 30 and 20 inches thereafter. Gear restrictions include: no more than 2 barbless hooks and circle hooks when not trolling (C.2.c and C.2.d).			
In 2003, the season will open Mar. 29 for all salmon except coho. 2 fish per day, 24 inch minimum size limit and the same gear restrictions as in 2002.	In 2003, same as Option I.	In 2003, same as Option I.	

TABLE 2. Recreational management options proposed by the Council for ocean salmon fisheries, 2001. (Page 4 of 5)

B. MINIMUM SIZE (Total Length in Inches)

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon:			
Options I & III	24.0	16.0	None
Option II	26.0	16.0	None
Cape Falcon to Horse Mt.	20.0	16.0	None, except 20.0 off CA
Horse Mountain to Pt. Arena:			
Prior to June 1	24.0	-	20.0
Beginning June 1	20.0	-	20.0
South of Pt. Arena:			
Prior to June 1	24.0*	-	20.0
Beginning June 1	20.0*	-	20.0

* Except: Option II & III - 24.0 inches prior to July 1; 20.0 inches beginning July 1.

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

C.2. Gear Restrictions: All persons fishing for salmon, and all persons fishing from a boat with salmon on board must meet the gear restrictions listed below for specific areas or seasons.

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

b. Off Oregon between Cape Falcon and Humbug Mt.:

Anglers must use no more than 2 single point, single shank barbless hooks.

- c. Off California North of Pt. Conception: Anglers must use no more than 2 single point, single shank barbless hooks.
- d. Off California between Horse Mt. and Pt. Conception: Single point, single shank, barbless **circle** hooks (C.2.d below) must be used if angling with bait by any means other than trolling and no more than 2 such hooks shall be used. When angling with 2 hooks, the distance between the hooks must not exceed 5 inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

Circle hook defined: **Options I and III** - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle;

Option II - A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle with no offset between the point and the shank.

TABLE 2. Recreational management options proposed by the Council for ocean salmon fisheries, 2001. (Page 5 of 5)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (Continued)

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

C.3. Control Zone Definitions:

- a. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. Lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" West. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°14'48" N. lat., 124°05'20" W. long.) and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- b. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

C.4. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines and season duration. Actions could include modifications to bag limits or days open to fishing, and extensions or reductions in areas open to fishing. NMFS may transfer coho inseason among recreational subareas North of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Salmon Advisory Subpanel recreational representatives north of Cape Falcon.

At the November 2002 meeting the Council will consider recommendation to open seasons for all salmon except coho prior to April 13 in areas off California between Pt. Arena and Pigeon Pt. At the March 2003 meeting, the Council will consider an inseason recommendation to open seasons for all salmon except coho prior to May 1 in areas off Oregon.

C.5. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the states of Washington and Oregon may establish limited seasons in state waters. Oregon state-water fisheries are limited to chinook salmon. Check state regulations for details.

