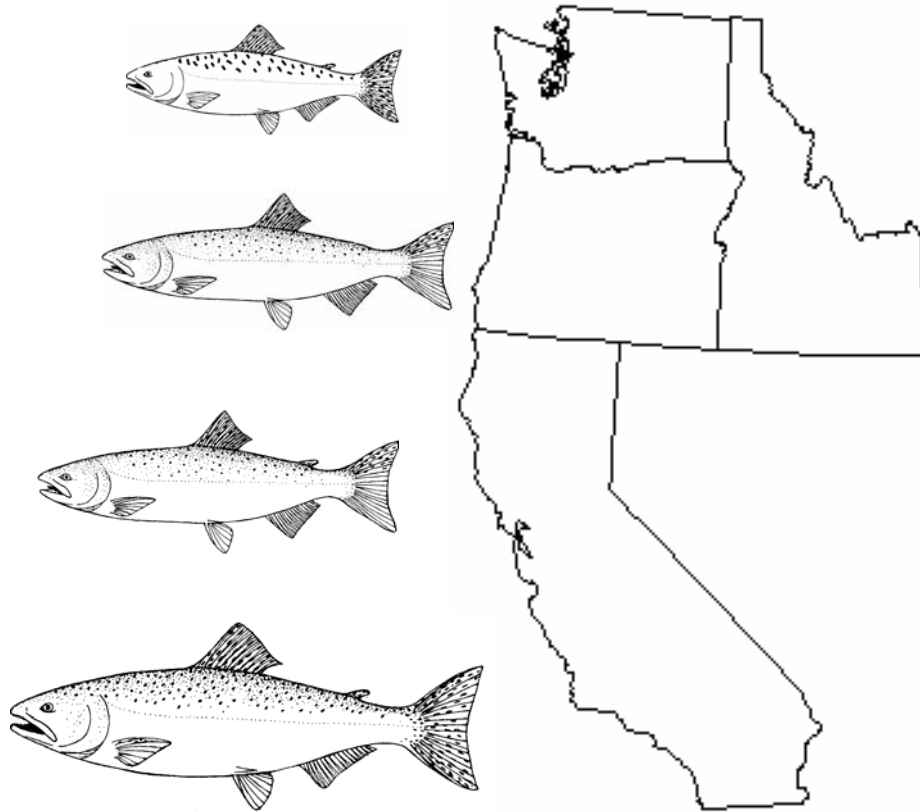


# **PRESEASON REPORT II**

## **ANALYSIS OF PROPOSED REGULATORY OPTIONS FOR 2006 OCEAN SALMON FISHERIES**



**Pacific Fishery Management Council**  
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**March 2006**

# PUBLIC HEARINGS ON SALMON OPTIONS

*All Hearings Begin at 7 p.m.*

***Monday, March 27***

Red Lion Hotel  
South Umpqua Room  
1313 N Bayshore Drive  
Coos Bay, OR 97420  
(541) 269-4099

***Monday, March 27***

Chateau Westport  
Beach Room  
710 W Hancock  
Westport, WA 98595  
(360) 268-9101

***Tuesday, March 28***

Flamingo Hotel  
Flamingo Ballroom  
2777 Fourth Street  
Santa Rosa, CA 95405  
(707) 545-8530

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*Public comment on the options will also be accepted during the April Council meeting on Tuesday, April 4, during the public comment period for Agenda Item E.2 at the Doubletree Hotel Sacramento, 2001 Point West Way, Sacramento, CA 95815, Phone: (916) 929-8855 or (800) 222-8733. **Written comments** received at the Council office **by 4:30 p.m., on Tuesday, March 28, 2006** will be distributed to all Council members.*

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A report of the Pacific Fishery Management Council pursuant to National Oceanic and Atmospheric Administration Award Number NA05NMF4410008.

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## LIST OF ACRONYMS AND ABBREVIATIONS

AABM	Aggregate Abundance Based Management
AEQ	adult equivalent
BO	biological opinion
CDFG	California Department of Fish and Game
CFGC	California Fish and Game Commission
CO	central Oregon (Florence south jetty to Humbug Mt.)
Council	Pacific Fishery Management Council
CVI	Central Valley index
CWT	coded-wire tag
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FB	Fort Bragg (Horse Mt. to Point Arena)
FRAM	Fishery Regulation Assessment Model
FMP	fishery management plan
ISBM	Individual Stock Based Management
KC	California Klamath Management Zone (Oregon/California border to Horse Mt.)
KO	Oregon Klamath Management Zone (Humbug Mt. to Oregon/California border)
KOHM	Klamath Ocean Harvest Model
KMZ	Klamath Management Zone (the ocean zone between Humbug Mountain and Horse Mountain where management emphasis is on Klamath River fall Chinook)
LCR	lower Columbia River (coho)
LRH	lower river hatchery (tule fall Chinook returning to hatcheries below Bonneville Dam)
MCB	Mid-Columbia River brights (bright hatchery fall Chinook released in the mid-Columbia River)
MEW	Model Evaluation Workgroup
MO	Monterey (Pigeon Point to Point Sur)
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NO	northern Oregon (Cape Falcon to Florence south jetty)
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RER	rebuilding exploitation rate
RMP	Resource Management Plan
RK	Rogue/Klamath (hatchery coho)
SCH	Spring Creek Hatchery (tule fall Chinook returning to Spring Creek Hatchery)
ST	San Francisco (Point Arena to Pigeon Point)
SRFI	Snake River Fall (Chinook) Index
STT	Salmon Technical Team
TL	total length
URB	upper river brights (bright fall Chinook normally migrating past McNary Dam)
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife



## **INTRODUCTION**

This document has been prepared by the staff of the Pacific Fishery Management Council (Council) and the Salmon Technical Team (STT) to describe the Council's proposed ocean salmon management options for 2006 and characterize their expected impacts on ocean salmon fisheries and the stocks which support them. The Council solicits public comments on the proposed management options in preparation for adopting final management recommendations at its April meeting. This report is analogous to a draft National Environmental Policy Act (NEPA) analysis of a range of alternatives for 2006 ocean salmon management measures.

Oral and written comments may be presented at public hearings at the times and locations displayed on the inside front cover of this report. Additional comment will be accepted at the April Council meeting at the Doubletree Hotel, Sacramento, California. Written comments received at the Council office by March 28, 2006 will be copied and distributed to all Council members (Council staff cannot assure distribution of comments received after March 28).

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

The Council's final ocean salmon season recommendations will be based on the range of options presented in this report and guidance received from deliberations at management fora such as the north of Cape Falcon planning process, sponsored by the States of Washington and Oregon and the treaty Indian tribes in that area; the Klamath Fishery Management Council; and from public hearings sponsored by the Council and the States of Washington, Oregon, and California. Final recommendations concerning catch quotas and exploitation rates may vary from the range of options presented in this report depending upon determination of allocations, allowable harvest levels, public comment, or the final impact analyses completed by the STT. Elements of the options may be recombined to alter season patterns; measures such as bag limits, days of fishing per week, special landing restrictions, and other specific regulatory details may also change. In addition, inseason modification of management measures may be used to ensure achievement of the Council's management objectives.

Specific details pertaining to season structure and special regulations for the treaty Indian troll fishery north of Cape Falcon are established in tribal regulations. Chinook and coho quota levels for the treaty Indian troll fishery may be adjusted if significant changes in incidental fishing mortality result from tribal regulations, preseason or inseason.

The impact analyses presented in this document reflect uncertainties and limitations of information available at the time of the March 2006 Council meeting. At this point in the planning cycle, the STT's impact assessments reflect four key assumptions: (1) abundance levels for Canadian Chinook and coho stocks identical to 2005 forecasts; (2) 2006 catch levels for southeast Alaskan, north-central British Columbia, and West Coast Vancouver Island (WCVI) fisheries equal to 2005 catch ceilings established under the aggregate abundance based management provisions of the 1999 Pacific Salmon Treaty (PST) Agreement (WCVI sport catch assumed to equal the 2005 observed level), with minimum size limits identical to those in place for 2005; (3) 2005 observed catch levels and size limits for Canadian fisheries operating under individual stock based management regimes pursuant to the 1999 PST agreement ; and (4) base packages for management of southern U.S. inside fisheries. In mid-March, U.S. and Canadian fishery managers will exchange information regarding preseason expectations for fisheries and the status of Chinook and coho stocks. Following this exchange, the Pacific Salmon Commission's (PSC's) Chinook model will be calibrated to determine the allowable catch ceilings under the 1999 PST agreement, abundances and fishery expectations will be adjusted in the Council's fishery planning models, and inside fisheries will be shaped by state and tribal co-managers. The adjustments of stock abundances and fishery expectations, and the shaping of inside fisheries, may result in estimated stock impacts that differ from those presented in this report. The final regulations adopted by the Council in

April are intended to be consistent with guidance provided by the National Marine Fisheries Service (NMFS) and obligations under the PST.

The projected abundance of Klamath River fall Chinook in 2006 is such that the natural spawning escapement will fall short of the Council's conservation objective for that stock, even without any additional fishery impacts. The Council's Salmon Fishery Management Plan (FMP) requires Council area salmon fisheries impacting such a stock be closed. Therefore, any option that includes fisheries impacting the stock would require implementation by emergency rule, which would temporarily amend the FMP. Options I and II for the area between Cape Falcon, Oregon and Point Sur, California, adopted for public review at the March Council meeting, include fisheries that would impact Klamath River fall Chinook, and would therefore require implementation by emergency rule.

### *Salmon Technical Team Concerns*

#### **Uncertain Effects of Oceanographic Conditions on Abundance Projections**

Highly unusual oceanographic conditions were observed off the coasts of Washington, Oregon, and California during 2005. Upwelling conditions, which bring cold, nutrient-rich waters to the surface, did not materialize as usual in mid-April (very strong upwelling conditions were observed during mid-summer after the period of heaviest entry of juvenile salmon) resulting in conditions that had not been observed in the last 50 years (Bill Peterson, NOAA, Newport, OR). Large numbers of seabird deaths and reproductive failures were also reported coastwide, attributed to starvation. Large numbers of Humboldt squid were observed hundreds of miles north of their usual grounds. Very low catches of juvenile rockfish and salmon were encountered in ocean sampling programs, including the lowest incidence of juvenile salmon reported since surveying began in 1998. For example, in September only four juvenile coho were encountered compared to the usual 150-200 (Laurie Weitkamp, NOAA Fisheries, personal communication). Several abundance forecasts suggest that survivals and production will be substantially below levels observed in recent years. Unusual conditions are likely to affect stocks differently, depending on local effects. The STT advises that the projections of abundance which are generated by forecasting models under abnormal conditions not experienced before should be viewed with greater caution.

#### **Modeling of Chinook Impacts South of Cape Falcon Using Chinook FRAM**

The STT is concerned that the methods previously used to project stock-specific impacts for the area south of Cape Falcon, Oregon may have been underestimating impacts on stocks represented in Chinook FRAM. Since the Chinook FRAM was designed primarily to evaluate fishery impacts for northerly migrating stocks from the Columbia River and Puget Sound, fishery impacts for the area south of Cape Falcon are evaluated using a single fishery strata and projections of effort days derived from the Klamath Ocean Harvest Model. There are two principal areas of concern: (1) the distribution of effort among areas south of Cape Falcon is likely to differentially affect stocks; and (2) the assumption that Chinook catch per effort day has remained unchanged from the base period used for Chinook FRAM is unlikely to hold. Since coho retention has not been permitted by troll fisheries south of Cape Falcon for several years, troll effort is now directed solely at Chinook. These changes in effort are suspected to have contributed to bias in FRAM predictions that have led to underestimation of impacts during the preseason process.

To account for these changes in fisheries south of Cape Falcon, in the Chinook FRAM runs used in this report the base period effort in commercial troll fisheries was partitioned between Chinook and coho directed effort proportional to the catch of each species south of Cape Falcon. In addition, a stock-specific scaling factor was applied to lower Columbia River tule fall Chinook to account for differences between the base period and recent observed CWT distribution of Cowlitz tule fall Chinook south of Cape Falcon.



## **Evaluation of Fishery Impacts on Recently Listed Lower Columbia River Coho**

Lower Columbia River (LCR) natural coho were listed in 2005 as threatened under the Endangered Species Act. There is considerable uncertainty regarding the distribution of these stocks. Only a small number of CWT studies were conducted from the Clackamas River and the degree to which these data might be representative of the entire stock complex is unknown. Coho FRAM evaluates impacts on two different hatchery stocks from the Columbia River, late and early. These stocks have different ocean distribution patterns with the late stock having a more northerly distribution pattern. The STT investigated alternative methods to evaluate impacts on the Lower Columbia River natural coho stock complex. The STT considered similarities between Lower Columbia River natural coho, OCN coho and early and late Columbia River hatchery coho stocks in terms of their run timing and the distributions of ocean recoveries of CWTs. In modeling the impacts of ocean fisheries on lower Columbia River coho, the STT used an aggregate of early and late hatchery stocks, weighted by the predicted ocean abundance of the unmarked component of each stock.

## **Changes to Canadian Fishery Patterns**

The Chinook fishery planning tools employed by the PSC and the Council are based on coded-wire tag (CWT) recovery data from the late 1970's to early 1980's. During this period, the predominant West Coast Vancouver Island (WCVI) troll harvest of Chinook occurred from May through September. In recent years, Canada has conducted its Chinook troll fishery off the WCVI in a much different pattern so as to minimize impacts on stocks of domestic conservation concern, particularly WCVI fall Chinook and Interior Fraser (Thompson River) coho. Changes include the use of a smaller size limit (55 cm), taking the vast majority of Chinook harvest from October to June, and dynamic inseason management to minimize impacts on WCVI Chinook and Thompson River coho based on results of DNA sampling. The quality of impact projections of the WCVI troll fishery using existing Chinook models becomes more uncertain as the magnitude of the harvest taken under these new fishing patterns increases. However, the available information on the stock and age composition of the WCVI Chinook troll harvest under these recent fishing patterns does not form an adequate basis for modifying the Council's methods for preseason planning of Chinook fisheries in 2006. The PSC is examining alternative methods to accounting for these impacts.

## **Rebuilding Exploitation Rates (RER)**

The STT is concerned that the an evaluation of the correspondence between RERs employed as jeopardy standards for certain Endangered Species Act (ESA) listed Chinook stocks and exploitation rates estimated by the Chinook Fishery Regulation Assessment Model (FRAM) has not been completed. In addition, the STT is concerned that for some stocks, the methods used to compute RERs are inconsistent with the biological characteristics of those stocks and recommends that state and tribal comanagers undertake a review to determine if those methods are still appropriate.

## **Need for Landing Requirements**

The STT recommends that landing restrictions be employed to require landings within the area where the fish are caught. Unless such restrictions are adopted, fleet mobility increases the difficulty of inseason management, catch accountability, and collection of biological data such as coded-wire-tag (CWT) recoveries.

## DESCRIPTION AND OBJECTIVES OF PROPOSED OPTIONS

This report displays four regulatory options for 2006 commercial troll and recreational ocean salmon fisheries. Complete descriptions of the non-Indian commercial and recreational options are presented in Tables 1 and 2, respectively. Management measures for the treaty Indian ocean troll fishery are presented in Table 3. Quotas under the various options are summarized in Table 4.

North of Cape Falcon, Option I has seasons which are the most liberal and Options III the most conservative. The pattern of options is different south of Cape Falcon where the alternatives address the allocation of Klamath River fall Chinook among the various fishery sectors and the need to limit impacts on stocks listed under the ESA. This arrangement demonstrates the trade-offs necessary to meet the constraints on limiting stocks south of Cape Falcon. Because Klamath River fall Chinook are not expected to achieve their conservation objective absent any further ocean or river fishing in 2006, any Option that is expected to result in fishery impacts on Klamath River fall Chinook (between Cape Falcon, Oregon and Point Sur, California) will require an Emergency Rule from the Secretary of Commerce if it is to be implemented. The primary aim in shaping seasons south of Cape Falcon is to reduce fishery impacts on Klamath fall Chinook to a level close to zero in 2006 ocean fisheries between May 1 and August 31. Option III is intended to reflect a zero ocean impact option south of Cape Falcon. Option I allocates 15% of the non-tribal share of Klamath River fall Chinook harvest to the Klamath River recreational fishery (the 2005 allocation for this fishery was 15%). Options II and III allocate 0% of the non-tribal harvest to this fishery. The California Fish and Game Commission (CFGC) will decide this allocation during the April Council meeting at the CFGC meeting on April 7th. The selection and analysis of the options in this document were intended to provide perspective on that issue. A synopsis of management objectives for the 2006 options is presented below.

### *SOUTH OF CAPE FALCON*

Projections of Chinook and coho abundance relevant to harvest south of Cape Falcon are lower in 2006 compared to the 2005 levels.

- The 2006 Central Valley Index (CVI) forecast is similar to 2001 and is 38% of the 2005 preseason forecast. This stock is capable of supporting large harvests especially in the area south of Point Arena.
- The 2006 Klamath River fall Chinook forecast is 46% of the 2005 preseason forecast, and absent any further fishing in 2006 is not expected to meet the minimum spawner escapement floor of 35,000 naturally spawning adult fish.
- The 2006 Oregon Coastal Natural (OCN) coho forecast of 60,800 is 40% of the 2005 preseason forecast of 152,000.
- The 2006 forecast for hatchery coho from the Columbia River and the coast south of Cape Falcon of 398,800 is slightly higher than the 2005 forecast of 389,900.

The abundance of LCR and OCN coho allows consideration of limited selective fisheries off Oregon and Washington for coho marked with a healed adipose fin clip (marked) and provides access to Columbia River hatchery coho.

Key items to note in the proposed options south of Cape Falcon include:

### **Oregon**

- The Oregon commercial Chinook fisheries between Cape Falcon and the Oregon/California border and the recreational Chinook fisheries between Cape Falcon and Humbug Mt. were scheduled to open on March 15, 2006. At the March Council meeting, inseason action was taken to cancel the scheduled March and April commercial fishery season between Cape Falcon and the Oregon/California border due to concerns with the low abundance of Klamath River fall Chinook.
- The commercial Chinook fishery between Cape Falcon and Humbug Mt. have July and August closures in Options I and II and a minimum Chinook size limit of 28 inches. There is no fishing proposed in Option III.
- Under commercial Option I, a landing and possession limit of 50 Chinook per calendar week would apply to the area between Cape Falcon and Humbug Mt. during September and October. Under commercial Option II, landing and possession limits of 100 Chinook per open period (calendar week in June) would apply to the area between Cape Falcon and Florence south jetty in May and June and 50 Chinook per calendar week in September; landing and possession limits of 75 Chinook per open period (calendar week in June) would apply to the area between Florence south jetty and Cape Arago in May and June and 50 Chinook per calendar week in September. Under both Options I and II vessels are required to land their catch within the area designated for landing and possession limits, and vessels landing salmon within an area with landing and possession limits would be prohibited from salmon fishing in another Oregon area south of Cape Falcon during that open period (calendar week in June).
- Under Option II, the commercial fishery between Cape Arago and Humbug Mt. is closed.

A recreational fishery selective for marked coho is proposed for the area between Cape Falcon and the Oregon/California border. The mark selective fishery under Option I would have a quota of 35,000 marked coho, and under Option II a quota of 20,000 marked coho. The season dates for the area between Cape Falcon and Humbug Mt. would be June 17 through August 31 under Option I and June 17 through July 31 under Option II. The season dates for the area between Humbug Mt. and the Oregon/California border would be June 17-July 4 and August 14-31 under Option I and July 1-4 under Option II. The entire area from Cape Falcon to the Oregon/California border is closed under Option III.

### **Klamath Management Zone**

- In the Oregon portion of the Klamath Management Zone (KMZ), commercial Chinook fisheries are proposed for September 3 through September 30 with quotas of 2,000 and 1,500 Chinook, for Options I and II, respectively. The area is closed under Option III.
- In the California portion of the KMZ (Oregon/California border to Humboldt South Jetty), a September commercial fishery with a quota of 2,000 Chinook is proposed in Option I. The area is closed in Options II and III.
- The KMZ recreational fishery is open May 26 through July 4 and August 14 through September 11 in Option I. In Option II it is open May 28-31, July 1-4, and August 23 through September 6. In Option III it is closed. The minimum size limit in all three Options is 24 inches.

- The Oregon portion of the KMZ will participate in a mark-selective recreational fishery for coho, if otherwise open for Chinook as indicated above for the selective fishery, beginning June 17 through July 4 in Option I, and July 1-4 in Option II. There is no fishing proposed in Option III.

## **California**

- The Fort Bragg commercial season is open September 1-30 in Option I; September 1-15 in Option II; and closed in Option III. The minimum size limit under all Options is 27 inches. The fishery reopens 15 March 2007 with a 27 inch minimum size limit, but this opening could be modified following Council review at its March 2007 meeting.
- The San Francisco commercial fishery is open July 4 through August 29 and September 1-30 in Option I. In Option II, the season is open July 1-15; August 1-29 and September 1-30. This fishery is closed in Option III. In Options I and II there is a 50 Chinook landing and possession limit per vessel per calendar week, and the fishery between Point Reyes and Point San Pedro is open October 2-6, 9-13. Under both Options I and II vessels are required to land their catch within the area designated for landing and possession limits, and vessels landing salmon within an area with landing and possession limits would be prohibited from salmon fishing in another California area having landing and possession limits during that calendar week. All options have a minimum size limit of 28 inches in July and August, 27 inches in September, and 26 inches in October.
- In the Monterey area from Pigeon Point to Point Sur, the commercial season is open in Option I May 1-31, July 4 through August 29, and September 1-30. In Option II it is open May 1-31, August 1-29, and September 1-30. In Option III this area is closed. All options have minimum size limits of 27 inches in May and September, and 28 inches in July and August. Under both Options I and II there is a 100 Chinook landing and possession limit per vessel per calendar week in this area. Vessels are required to land their catch within the area designated for landing and possession limits, and vessels landing salmon within an area with landing and possession limits would be prohibited from salmon fishing in another California area having landing and possession limits during that calendar week.
- South of Monterey from Point Sur to U.S./Mexico border, the commercial seasons is open from May 1 through September 30. The minimum size limit is 27 inches in May, June, and September; and 28 inches in July and August in all three Options.
- The Fort Bragg recreational fishery is open from February 18 through July 10, July 16-17, and July 23 through November 12 in Option I. In Option II the season is open from February 18 through April 30, July 1-9, September 16 through October 15, and November 1-7. In Option III the season is open from February 18 through April 30. All options have a 20 inch minimum size limit and the fishery will reopen 17 February 2007.
- The San Francisco recreational fishery is open continuously from May 1 through November 12 in Option I. In Option II it is open May 1-15, June 24 through July 9, September 1-15, and October 16 through November 6. In Option III the Fishery is closed. All Options have a 20 inch minimum size limit and the fishery will reopen 7 April 2007.
- The Monterey (Pigeon Point to Point Sur) recreational fishery is open May 1 through September 24 in Option I. In Option II it is open May 1-31, and September 1-12. In Option III it is closed. All options have a 20 inch minimum size limit and the fishery will reopen on 7 April 2007.
- The Point Sur to U.S./Mexico Border recreational fishery is open April 1 through September 24 in all Options with a 20 inch minimum size limit, and the fishery will reopen on 7 April 2007.

## Chinook Salmon Management

Key Chinook salmon management objectives shaping the 2005 options are:

- For Sacramento River winter Chinook (ESA-endangered), limitations on the duration and timing of the commercial and recreational fisheries south of Point Arena were provided by NMFS in a letter received by the Council on March 10, 2006, which stated the following:

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

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

- For Klamath River fall Chinook: adult natural spawning escapement of no fewer than 35,000 fish, 50:50 tribal:non-tribal sharing of adult harvest, and a range of 0% to 15% of the non-tribal adult harvest to the river recreational fishery. Under the three Options: the spawning escapement floor is not expected to be met; the 50:50 tribal:non-tribal sharing of harvest is expected to be met; and a range of 0% to 15% of the non-tribal harvest is allocated to the river recreational fishery.
- An age-4 ocean harvest rate no greater than 16.0% on Klamath River fall Chinook to protect California coastal Chinook (ESA-threatened, NMFS ESA consultation standard). This standard is expected to be exceeded under Option I (17%), but is met in Option II (14.8%) and Option III (6.7%).

Sacramento River fall Chinook adult spawning escapement of between 122,000 and 180,000 fish. This escapement goal is exceeded under all three Options.

- The total adult equivalent (AEQ) exploitation rate on Snake River fall Chinook age-3 and age-4 over all ocean fisheries, including Alaska and Canada (Snake River Fall Index; Snake River fall Chinook index [SRFI]), is not to exceed 70.0% of the 1988-1993 average rates (NMFS ESA consultation standard). Under the assumptions used in this report, Option I is not predicted to meet the consultation standard. Snake River fall Chinook are impacted by fisheries both north and south of Cape Falcon. These fisheries may require further shaping prior to final adoption of 2006 management measures if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an SRFI at or below 0.700.
- The total AEQ exploitation rate on lower Columbia River tule Chinook (ESA threatened), represented by Coweeman River tule fall Chinook, over all ocean (including Alaska and Canada) and freshwater fisheries not to exceed the rebuilding exploitation rate (RER) of 49.0% (NMFS ESA consultation standard). Under the assumptions used in this report, Option I is not predicted to meet the consultation standard. Coweeman River tule fall Chinook are impacted by fisheries both north and south of Cape Falcon. These fisheries may require further shaping prior to final adoption of 2006 management measures if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an AEQ exploitation rate at or below 49.0%.

## **Coho Salmon Management**

Key coho salmon management objectives shaping the 2006 options are:

- LCR coho were listed as threatened under the ESA in June, 2005. For 2006, LCR coho will be managed subject to a total (marine and Columbia River mainstem) exploitation rate limit of  $\leq 15.0\%$  on the aggregate of LCR early and late unmarked hatchery coho stocks. Council area fisheries will be managed on a combined rate for early and late components, but the Columbia River fisheries will have a specific harvest rate limit that will apply to each of the early and late returning components that, when added to the combined marine exploitation rate, will not exceed 15.0%.
- Under the harvest matrix in the salmon FMP, the management objective is a combined marine/freshwater exploitation rate no greater than 20% on OCN coho. Based on its review of salmon FMP Amendment 13, the OCN Coho Work Group developed a modified this matrix, which was accepted by the Council as expert biological advice at the November, 2000 Council meeting. The modified matrix provides for a combined marine/freshwater exploitation rate in 2006 no greater than 15.0%.
- A marine exploitation rate no greater than 13.0% on Rogue/Klamath (RK) hatchery coho, used as a surrogate to protect Southern Oregon/Northern California coho (ESA-threatened, NMFS ESA consultation standard).
- Prohibit retention of all coho off California to protect Central California Coast coho (ESA-threatened, NMFS ESA consultation standard).

### ***NORTH OF CAPE FALCON***

Projections of Chinook and coho abundance relevant to fisheries north of Cape Falcon in 2006:

- Production of Columbia River hatchery tules (Lower River Hatchery and Spring Creek Hatchery stocks) is predicted to be 44% less than the 2005 preseason expectations, resulting in a range of Chinook quotas less than that adopted for 2005.
- Production of hatchery coho from the Columbia River is predicted to be 1% less than the 2005 preseason levels. The Columbia River early coho forecast is 14% lower than last year, while the Columbia River late coho forecast is 46% greater than last year. New NMFS guidance in 2006 for Columbia River natural coho results in consideration of considerably smaller coho quotas than what was adopted in 2005.

Key items to note in the proposed options north of Cape Falcon include:

- None of the options contain preseason trades between non-Indian commercial troll and recreational fisheries. However, trades may be considered at the April Council meeting.
- All non-Indian commercial troll options provide Chinook only quota fisheries in May and June. Additional fisheries allowing the retention of all salmon species, including selective retention of marked coho, start in July. In all options, there are at least partial gear restrictions for plugs 6 inches or longer in the all-species fisheries. In Option I, gear restrictions are lifted in the area south of Leadbetter Point beginning August 5.
- All recreational options provide for selective retention of marked coho beginning in June or July.

- In non-Indian commercial troll Option II an inseason conference call late in the season is possible to consider non-mark-selective coho retention.
- All recreational options for the La Push area include a small set aside fishery in late September and early October with quotas of 100 Chinook or 50 coho. The fishery is restricted to the area defined by a northern boundary of 48°00'00" N latitude and a southern boundary of 47°50'00" N latitude.
- Recreational Option III includes an Area 4B add-on fishery for coho with a healed adipose fin clip with a 6,000 coho quota.
- All treaty Indian troll options include May-June Chinook directed fisheries and July-September all species fisheries. In addition, the options allow for a ceremonial and subsistence fishery for the Quileute Tribe from September 15-October 15; fish taken during this fishery are to be counted against treaty troll quotas established for the 2006 season.

### **Chinook Salmon Management**

The key Chinook salmon management objectives shaping the 2006 options are:

- The total AEQ exploitation rate on Snake River fall Chinook age-3 and age-4 over all ocean fisheries, including Alaska and Canada (SRFI), is not to exceed 70.0% of the 1988-1993 average rates (NMFS ESA consultation standard). Under the assumptions about Canadian stock abundances and catch levels used in this report (same as 2005 preseason expectations), and the assumptions used South of Cape Falcon this year, Option I is not predicted to meet the consultation standard. Snake River fall Chinook are impacted by fisheries both north and south of Cape Falcon. These fisheries may require further shaping prior to final adoption of 2006 management measures if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an SRFI at or below 0.700.
- The total AEQ exploitation rate on lower Columbia River tule Chinook (ESA threatened), represented by Coweeman River tule fall Chinook, over all ocean (including Alaska and Canada) and freshwater fisheries not to exceed the rebuilding exploitation rate (RER) of 49.0% (NMFS ESA consultation standard). Under the assumptions used in this report, Option I is not predicted to meet the consultation standard. Coweeman River tule fall Chinook are impacted by fisheries both north and south of Cape Falcon. These fisheries may require further shaping prior to final adoption of 2006 management measures if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an AEQ exploitation rate at or below 49.0%.
- Beginning in 2004, fisheries impacting threatened naturally produced Chinook from Puget Sound and the Strait of Juan de Fuca were exempted from ESA take limitations by virtue of being managed under a Resource Management Plan (RMP) submitted under Limit 6 of the 4(d) rule. This exemption is applicable until the biological consultation is reinitiated. The RMP provides a two tiered harvest regime depending on abundance of individual Puget Sound stocks, and includes a mixture of escapement goals and RERs. NMFS provided guidance to the Council in its March meeting (see table below) consistent with the objectives of the RMP. It is anticipated that the fishery regime developed by the state and tribal managers during the preseason planning process will be consistent with these goals.

## Coho Salmon Management

The key coho salmon management objectives shaping the 2006 options are:

- LCR coho were listed as threatened under the ESA in June, 2005. For 2006, LCR coho will be managed subject to a total (marine and Columbia River mainstem) exploitation rate limit of  $\leq 15.0\%$  on the aggregate of LCR early and late unmarked hatchery coho stocks. Council area fisheries will be managed on a combined rate for early and late components, but the Columbia River fisheries will have a specific harvest rate limit that will apply to each of the early and late returning components that, when added to the combined marine exploitation rate, will not exceed 15.0%.
- An exploitation rate limit in southern U.S. fisheries of 10.0% for Interior Fraser (including Thompson River) coho established under the Southern Coho Management Plan adopted by the PSC in February 2002. All of the options are projected to exceed this limit under the inside harvest regime assumed in this analysis. Fisheries will need to be restructured in the North of Falcon forum to result in a total exploitation rate in U.S. fisheries south of the U.S./Canada border of no more than 10.0% as required by the 2002 PSC agreement.
- Under the harvest matrix in the salmon FMP, the management objective is a combined marine/freshwater exploitation rate no greater than 20% on OCN coho. Based on its review of salmon FMP Amendment 13, the OCN Coho Work Group developed a modified this matrix, which was accepted by the Council as expert biological advice at the November, 2000 Council meeting. The modified matrix provides for a combined marine/freshwater exploitation rate in 2006 no greater than 15.0%.
- Minimum escapement of 50% of Upper Columbia coho above Bonneville Dam (U.S. v. Oregon annual management agreement).
- Providing sufficient escapement of Columbia River early and late coho to meet hatchery egg take goals and inriver harvest impacts.

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

NMFS, in a letter received by the Council on March 10, 2006, provided guidance on protective measures for species listed under the ESA during the 2006 fishing season. The letter summarized the requirements of NMFS' biological opinions (BOs) on the effects of potential actions under the salmon FMP on listed salmon and provided the anticipated consultation standards of the BOs in preparation for the 2006 management season, as well as further guidance and recommendations for the 2006 management season.

The ESA consultation standards, exploitation rates, and other criteria, projected for the 2006 management measures are presented below. Some listed stocks are either rarely caught in Council fisheries (e.g., spring Chinook from the upper Columbia River) or already receive sufficient protection from other salmon FMP and ESA standards (e.g., Central Valley spring Chinook). NMFS has determined that management actions designed to limit catch from these evolutionarily significant units (ESUs), beyond what will be provided by harvest constraints for other stocks, are not necessary.



Listed ESUs of species managed by the Council, NMFS consultation standards, and NMFS guidance to the Council for the 2006 season.

ESU	Stock Representation in FMP	Consultation Standard	Council Guidance for 2006
Central Valley spring Chinook - threatened	· Sacramento River spring	No consultation standard.	Same as winter Chinook guidance.
Sacramento River winter Chinook - endangered	· Sacramento River winter	Open recreational fishery south of Point Arena no earlier than first Saturday in April and close no later than the first Sunday in October south of Pigeon Point, and no later than the second Sunday in November from Point Arena to Pigeon Point, with a minimum size limit no less than 20 inches. Open commercial fishery south of Point Arena no earlier than May 1 and close no later than Sept 30, except Point Reyes to Point San Pedro to close no later than Oct 15, with a minimum size limit no less than 26 inches.	Same as consultation standard.
California Coastal Chinook - threatened	· Eel, Mattole, and Mad Rivers	≤16.0% age-four ocean harvest rate on Klamath River fall Chinook.	Same as consultation standard.
Lower Columbia River Chinook - threatened	· Sandy, Cowlitz, Kalama, Lewis spring · Sandy, Cowlitz, Kalama, fall  · North Fork Lewis River fall	· No consultation standard. · ≤ 49.0% brood year adult equivalent exploitation rate on Coweeman tule fall Chinook. · 5,700 MSY level adult spawning escapement.	· Meet hatchery escapement goals. · Same as consultation standard.  · Same as consultation standard.
Upper Willamette Chinook - threatened	· Upper Willamette River spring	No specific requirements. Rare occurrence in Council fisheries.	Same as consultation standard.
Upper Columbia River spring Chinook - endangered	· Upper Columbia River spring	No specific requirements. Rare occurrence in Council fisheries.	No additional constraints. Council area ocean fishery impacts are very minor.
Snake River fall Chinook - threatened	· Snake River fall	At least a 30.0% reduction from the 1988-1993 average adult equivalent age-3/age-4 exploitation rate for all ocean fisheries.	Same as consultation standard.
Snake River spring/summer Chinook - threatened	· Snake River spring/summer	No specific requirements. Rare occurrence in Council fisheries.	Same as consultation standard.
Puget Sound Chinook - threatened	· Western JDF · Elwha summer/fall  · Dungeness summer/fall  · Mid-Hood Canal summer/fall · Skokomish summer/fall · Nooksack spring · Skagit summer/fall · Skagit spring · Stillaguamish summer/fall · Snohomish summer/fall · Lake Washington summer/fall · Green River summer/fall · White River spring · Puyallup summer/fall · Nisqually River summer/fall	NMFS guidance to the Council for shaping the 2006 fishing seasons is to manage fisheries consistent with the RMP covering the 2004-2009 fishing seasons.	· 10.0% S.U.S. E.R. · 10.0% S.U.S. E.R.  · 10.0% S.U.S. E.R.  · 12.0% PT S.U.S. E.R.  · 15.0% PT S.U.S. E.R. · 7.0% S.U.S. E.R. · 50.0% Total E.R. · 38.0% Total E.R. · 15.0% S.U.S. E.R.  · 15.0% S.U.S. E.R. · 15.0% PT S.U.S. E.R.  · 15.0% PT S.U.S. E.R.  · 20.0% Total E.R. · 50.0% Total E.R. · 1,100 spawners
Central California Coast coho - threatened	Not yet represented.	No retention of coho in commercial and recreational fisheries off California.	Same as consultation standard.
S Oregon/N California Coastal coho - threatened	· S. Oregon coast natural · Northern California	≤13.0% marine exploitation rate on Rogue/Klamath hatchery coho.	Same as consultation standard.

Listed ESUs of species managed by the Council, NMFS consultation standards, and NMFS guidance to the Council for the 2006 season.

ESU	Stock Representation in FMP	Consultation Standard	Council Guidance for 2006
Lower Columbia River Coho - threatened	Not yet represented in FMP. STT used combined Columbia River early and late unmarked hatchery coho as surrogate for 2006	15.0% combined marine and Columbia River mainstem exploitation rate.	Same as consultation standard.

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

**Sockeye**

Snake River (endangered)

Ozette Lake Sockeye (threatened)

**Chum**

Columbia River (threatened)

Hood Canal summer (threatened)

**Steelhead**

Southern California (endangered)  
 South-central California coast (threatened)  
 Upper Columbia River (endangered)  
 Middle Columbia River (threatened)  
 Snake River Basin (threatened)

Central Valley, California (threatened)  
 Central California coast (threatened)  
 Upper Willamette River (threatened)  
 Lower Columbia River (threatened)  
 Northern California (threatened)

Council fisheries do not have identifiable impacts on any of the listed sockeye, chum, or steelhead ESUs. Of the listed Chinook and coho, Council-managed fisheries have the most significant impact on Sacramento River winter Chinook, Central Valley spring Chinook, California Coastal Chinook, Snake River fall Chinook, lower Columbia River fall Chinook, and all of the coho stocks. Other listed Chinook stocks are not significantly impacted in Council area fisheries. (Further discussion of ocean fishery impacts on all listed stocks will be provided in Preseason Report III).

***OBLIGATIONS UNDER THE PACIFIC SALMON TREATY***

**Chinook Salmon Management**

Under the 1999 PST Agreement, Council fisheries are subject to the Individual Stock Based Management (ISBM) provisions of Annex 4, Chapter 3. These provisions require the AEQ harvest rate by all U.S. fisheries south of the U.S./Canada border be reduced by 40% from the 1979-1982 base period for Chinook stocks failing to achieve escapements at or above levels associated with maximum sustainable harvest as adopted by the PSC.

Chinook stocks of concern to the Council are affected by fisheries off Canada and Alaska. Allowable catches by Aggregate Abundance Based Management (AABM) fishery complexes off the WCVI, Northern British Columbia, and Southeast Alaska are determined through the annual calibration of the PSC Chinook Model. Canadian fisheries that are not included in AABM complexes are managed under ISBM constraints which require a 36.5% reduction in AEQ harvest rates on Chinook stocks that are not expected to achieve spawning escapement goals relative to the 1979-1982 base period. Once the PSC Chinook Model calibration and manager-to-manager information exchanges are completed in late March, expectations for Canadian and Alaskan fisheries and abundance forecasts will be incorporated into Chinook FRAM for use during the remainder of the Council's pre-season management planning.

Key considerations for Canadian domestic fishery management for Chinook in 2006 include, (a) meeting domestic conservation obligations for WCVI, Strait of Georgia, and Fraser River stocks; (b) Chinook harvests by native fisheries; and (c) incidental impacts during commercial and native fisheries directed at sockeye and chum. It is anticipated that the details of the fishery regulatory package off WCVI will be driven by levels of allowable impact on WCVI, Strait of Georgia, and Fraser River Chinook and Interior Fraser (Thompson River) coho.

## Coho Salmon Management

On February 14th, 2002, the PSC adopted a management plan for coho salmon originating in Washington and Southern British Columbia river systems. The plan is directed at the conservation of key management units, four from Southern British Columbia (Interior Fraser, Lower Fraser, Strait of Georgia Mainland, Strait of Georgia Vancouver Island) and nine from Washington (Skagit, Stillaguamish, Snohomish, Hood Canal, Strait of Juan de Fuca, Quillayute, Hoh, Queets, and Grays Harbor). Under the plan, exploitation rate limits for intercepting fisheries are established for individual management units through formulas specified in the 2002 PSC Coho Plan, based on total allowable fishery exploitation rates. Based on preseason abundance forecasts, total allowable exploitation rates for U.S. management units are summarized in the table below.

Summary of 2006 total exploitation rate constraints (all U.S. and Canadian fisheries combined) for U.S. coho management units.

U.S. Management Unit	Total Exploitation Rate Constraint <sup>a/</sup>	Categorical Status <sup>b/</sup>
Skagit	60%	Abundant
Stillaguamish	50%	Abundant
Snohomish	60%	Abundant
Hood Canal	65%	Abundant
Strait of Juan de Fuca	40%	Moderate
Quillayute Fall <sup>c/</sup>	0%-57% (24%)	Moderate
Hoh <sup>c/</sup>	22%-69% (45%)	Abundant
Queets <sup>c/</sup>	0%-30% (0%)	Low
Grays Harbor	47%	Abundant

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

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

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

Key considerations for Canadian fishery management for coho in 2006 are expected to include, (a) meeting domestic conservation obligations for Interior Fraser (including Thompson River) coho; (b) coho harvests by native fisheries; (c) incidental impacts during commercial and native fisheries directed at Chinook, sockeye, and chum; and (d) the desire to provide increased opportunity for sport fisheries through mark-selective retention regulations. It is anticipated that the details of the Canadian fishery

regimes affecting coho will be driven by Canadian domestic allowable impacts on the Thompson River component of the Interior Fraser management unit (in previous years, Canadian fisheries were managed so as not to exceed a 3% maximum exploitation rate).

The projected status of Canadian coho management units in 2006 has not been officially provided to the U.S.; however, preliminary information received from the Canadian Department of Fisheries and Oceans indicates continuing concerns for the condition of Interior Fraser coho. Thompson coho, a component of the Interior Fraser management unit, was recently listed under Canada's Species At Risk Act, the Canadian law analogous to the Endangered Species Act in the United States. The Interior Fraser coho management unit is anticipated to remain in *low* status, resulting in a requirement to constrain the total mortality fishery exploitation rate for all 2006 U.S. fisheries south of the U.S./Canada border to a maximum of 10.0%.

Note that the categorical status of U.S. coho management units is reported to comply with obligations pursuant to the 2002 PSC Southern Coho Agreement. Categorical status is a concept that is employed by the PST Coho Agreement to indicate general ranges of allowable total exploitation rates for U.S. and Canadian coho management units. Three categories are employed: low (total exploitation rate <20%), moderate (total exploitation rate 20%-40%), and abundant (total exploitation rate >40%). Actual exploitation rate constraints for Canadian fisheries on U.S. coho management units are determined by formulas that specify sharing of allowable exploitation rates and a "composite rule." The composite rule adjusts constraints for Canadian fishery exploitation rates based on the number of U.S. management units which fall in a given category. For example, if only one Washington coastal coho management unit is in low status, Canadian fisheries are constrained to a total exploitation rate on that unit of 12%; if two or more Washington coastal management units are in low status, the constraint becomes 10%. The minimum allowable exploitation rate by Canadian fisheries on U.S. coho management units is 10%.

Some confusion may arise from the methods employed to report the categorical status for Washington coastal coho management units. For these units, a range is reported for the allowable exploitation rates based on the relationship between the pre-season abundance forecast and the upper and lower values of the spawning escapement ranges corresponding to MSY production. Maximum exploitation rates are computed using the lower end of the escapement range and minimum exploitation rates are computed using the upper end of the escapement range. For purposes of reporting the categorical status, an allowable exploitation rate is computed using the mid-point of the MSY escapement range. Based on this methodology, the allowable total exploitation rate for the Queets coho management unit is zero; consequently, the categorical status is "low." However, this should not be interpreted to indicate that the maximum allowable exploitation rate on the Queets coho management unit is zero. The exploitation rate could be as high as 30% and still result in a spawning escapement within the MSY escapement range.

The annual status of coho management units and fishery expectations will be discussed during a manager-to-manager meeting scheduled for mid-March. Once the information exchange is completed, expectations for Canadian fisheries will be incorporated into Coho FRAM for use during the remainder of the Council's pre-season management planning process.

## **IMPACT ASSESSMENT OF PROPOSED OPTIONS**

Ocean Chinook and coho harvest quotas are summarized in Table 4. The STT's preliminary analyses of the harvest impacts of 2006 management options, including projected ocean escapements, landings, bycatch, and bycatch mortality are summarized in Tables 5 and 6. Table 7 provides a breakdown of the LCR, OCN, and RK coho impacts by fishery. Table 8 presents the expected mark rates for coho in fisheries proposed for selective retention of marked hatchery coho.

The nonretention mortality rate on coho for commercial fisheries is estimated at 26% of the fish hooked-and-released, plus 5% of total encounters to account for drop-off (e.g., predation loss), and allowances for noncompliance derived from observations in previous years. The nonretention mortality rate for mark selective recreational fisheries is estimated at 14% of the unmarked fish hooked-and-released, plus 5% of total encounters to account for drop-off and allowances for noncompliance derived from observations in previous years. Information on the procedures and assumptions employed in making these assessments can be obtained from the STT at the April Council meeting and will be available in the annual STT model summary available from the Council.

## *ACHIEVEMENT OF STOCK MANAGEMENT GOALS SOUTH OF CAPE FALCON*

### **Chinook Salmon**

All options satisfy the NMFS 2006 ESA guidance to the Council with respect to the duration and timing of commercial and recreational fisheries south of Point Arena.

Options II and III are expected to meet the NMFS ESA consultation standard established for California Coastal Chinook: an age-4 ocean harvest rate no greater than 16.0% on Klamath River fall Chinook, but Option I is expected to exceed it (Table 5). In 2005, the final management measures adopted by the Council were expected to result in an age-4 ocean harvest rate of 8%, but the (preliminary) postseason estimate is 24%. This is the third consecutive year in which this key rate for management has been substantially underpredicted. The STT has reviewed and identified the sources for these underpredictions and has adjusted the 2006 KOHM harvest rate predictor accordingly. The details of this review and predictor adjustment are provided in Appendix A of this report.

Options II and III meet NMFS ESA consultation standard for Snake River fall Chinook and lower Columbia River tule fall Chinook, however Option I does not. Stock forecasts for some Canadian stocks, and the actual PST limits on Canadian fisheries are not known at this time, and preliminary values have been used in the analyses presented in this report. These forecasts and landings limits will be available prior to the April Council meeting and may result in lower impacts on Snake River fall Chinook than those presented here. Fisheries south of Cape Falcon have substantial impacts on tule fall Chinook, but have only minor impacts on Snake River fall Chinook. If updated analyses do not result in compliance with the NMFS consultation standards, Option I will not be a viable option and impacts in Council-area fisheries will need to be reduced to bring the impacts into compliance.

None of the three Options are expected to meet the Klamath River fall Chinook management objective of at least 35,000 adult spawning fish in natural areas. All three Options do provide for 50:50 tribal:non-tribal sharing of Klamath River fall Chinook adult harvest. Option I allocates 15% of the non-tribal adult harvest of this stock to the Klamath River recreational fishery. This fishery is closed in Options II and III. The sharing of Klamath River fall Chinook adult harvest between the California:Oregon commercial fisheries under the three Options ranges from approximately 55:45 to 19:81 (Table 5). None of the Options provide for a 17% share of the non-tribal Klamath River fall Chinook adult harvest share to the KMZ recreational fishery (Table 5). The above objectives are the primary constraint on fisheries south of Cape Falcon, Oregon, in 2006.

All three Options are expected to result in a Sacramento River fall Chinook adult spawner escapement well above the escapement goal range of 122,000 to 180,000 adult spawners (Table 5). This objective is not a constraint on fisheries south of Cape Falcon, Oregon, in 2006.

All options are expected to result in Oregon coastal Chinook stock returns in 2006 that would be at or near recent year averages. The generalized expectations for North Oregon Coast and Mid-Oregon Coast

stocks in 2006 is below recent years average abundance based on the density index of total spawners. Recent years have shown a declining trend while continuing to exceed the 60-90 spawners per mile goal.

### **Coho Salmon**

All options satisfy the NMFS ESA consultation standards for ESA-listed coho. Retention of coho is not allowed south of the Oregon/California border, but limited mark selective recreational fisheries allowing retention of marked hatchery coho are proposed between Cape Falcon and the Oregon/California border.

The marine exploitation rate on RK hatchery coho ranges from 6.2% to 0.5% across the options, below the NMFS ESA consultation standard of 13.0%, and less than that expected for OCN coho (Table 5).

The combined marine/freshwater exploitation rate on OCN coho is projected to be 11.7%, 8.0%, and 3.0% in Options I, II, and III, respectively. All options are below the 20% limit under the salmon FMP, and the 15% limit under the OCN Work Group matrix.

In a letter received by the Council on March 10, 2006, NMFS recommended a combined marine and Columbia River mainstem exploitation rate of no more than 15.0% on Lower Columbia River unmarked early and late hatchery coho as a surrogate for lower Columbia River natural coho, which were listed as threatened under the federal ESA in 2005. All options satisfy this criterion, with marine exploitation rates ranging from 14.0% to 5.9%. These exploitation rates, while satisfying the combined marine and freshwater fisheries, represent marine fisheries only. Shaping of the inriver fisheries could require changes in marine fisheries to meet the combined marine and freshwater exploitation rate.

Under all options, ocean escapement of Columbia River early and late coho is expected to be sufficient to meet the combined egg-take goal for Columbia River hatcheries, provided inriver fisheries targeting more abundant stocks are carefully shaped. All options also meet *U.S. v. Oregon* management agreement requirements for sharing of upriver origin Columbia River coho.

## **ACHIEVEMENT OF STOCK MANAGEMENT GOALS NORTH OF CAPE FALCON**

### **Chinook Salmon**

Ocean escapement objectives for lower Columbia River hatchery (LRH), Spring Creek hatchery (SCH), upper Columbia River bright (URB), and mid-Columbia River bright (MCB) fall Chinook are expected to be met under all options (Table 5). Lewis River wild and Coweeman River tule fall Chinook stocks are key fall Chinook indicators for the lower Columbia River Chinook ESU (ESA threatened). The Lewis river wild stock meets its objective under all three options, but the Coweeman River tule fall Chinook does not meet its ESA consultation standard under option I.

Options II and III meet NMFS ESA consultation standard for Snake River fall Chinook, however Option I does not. Stock forecasts for some Canadian stocks, and the actual PST limits on Canadian fisheries are not known at this time, and preliminary values have been used in the analyses presented in this report. These forecasts and landings limits will be available prior to the April Council meeting and may result in lower impacts on Snake River fall Chinook and Coweeman tule fall Chinook than those presented here. If updated analyses do not result in compliance with the NMFS consultation standards, Option I will not be a viable option and impacts in Council-area fisheries will need to be reduced to bring the impacts into compliance.

Council-area fisheries have a minor impact on ESA-listed Puget Sound Chinook and negligible impacts on most Chinook stocks subject to the 1999 PST Agreement. At this point there appears to be sufficient

flexibility within Council and inside area fisheries as a whole to achieve protection for the Puget Sound Chinook ESU.

## **Coho Salmon**

All options satisfy the NMFS ESA consultation standards for ESA-listed coho

The marine exploitation rate on RK hatchery coho ranges from 6.2% to 0.5% across the options, below the NMFS ESA consultation standard of 13.0%, and less than that expected for OCN coho (Table 5).

The combined marine/freshwater exploitation rate on OCN coho is projected to be 11.7%, 8.0%, and 3.0% in Options I, II, and III, respectively. All options are below the 20% limit under the salmon FMP, and the 15% limit under the OCN Work Group matrix.

In a letter received by the Council on March 10, 2006, NMFS recommended a combined marine and Columbia River mainstem exploitation rate of no more than 15.0% on Lower Columbia River unmarked early and late hatchery coho as a surrogate for lower Columbia River natural coho, which were listed as threatened under the federal ESA in 2005. All options satisfy this criterion, with marine exploitation rates ranging from 14.0% to 5.9%. These exploitation rates, while satisfying the combined marine and freshwater fisheries, represent marine fisheries only. Shaping of the inriver fisheries could require changes in marine fisheries to meet the combined marine and freshwater exploitation rate.

Under all options, ocean escapement of Columbia River early and late coho is expected to be sufficient to meet the combined egg-take goal for Columbia River hatcheries, provided inriver fisheries targeting more abundant stocks are carefully shaped. All options also meet U.S. v. Oregon management agreement requirements for sharing of upriver origin Columbia River coho.

Under all options, ocean escapements of Washington coastal natural coho stocks are sufficient to meet escapement objectives while providing for inside fishery harvest opportunity (Table 5).

As allowed under the salmon FMP, Washington Department of Fish and Wildlife (WDFW) and affected treaty tribes have established limits on total mortality exploitation rates for all fisheries combined as annual management objectives for Puget Sound coho stocks in 2005. Table 5 presents projected exploitation rates for Council options and for total exploitation rates for ocean fisheries anticipated under preliminary expectations for inside fishery regimes. When considered with preliminary plans for inside fisheries, all options meet exploitation rate constraints for key Puget Sound coho stocks; when combined with impacts from preliminary inside fisheries, all options meet total exploitation rate constraints for Interior Fraser (including Thompson River) coho.

Through the preseason planning process, regimes for ocean and inside fisheries will be adjusted so that, (a) total exploitation rates on Puget Sound coho do not exceed the levels specified by WDFW and treaty tribes; and (b) the total exploitation rate by U.S. fisheries south of the Canadian border does not exceed 10.0% on Interior Fraser coho, and (c) at least 50% of the coho bound for areas above Bonneville Dam will be passed through ocean and lower Columbia River fisheries.

## SOCIOECONOMIC IMPACTS OF PROPOSED OPTIONS

The economic effects of the proposed options for non-Indian fisheries are shown in Tables 9 and 10. Table 9 shows troll impacts expressed in terms of estimates of potential exvessel value. Table 10 shows recreational impacts in terms of trips generated and coastal community personal income impacts associated with the recreational fishery under each option. The exvessel values provided for the troll fishery options in Table 9 and income impact values provided for the recreational fishery options in Table 10 are not directly comparable.

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

Over the last two-and-half decades (back through 1979), the height of the salmon fishery occurred in 1979 when the combined state level personal income impacts associated with the non-Indian commercial and recreational fishery were \$317 million dollars (inflation adjusted). This was just before imposition of the Boldt decisions which resulted in significant cutbacks in non-Indian fishing in the area north of Cape Falcon.

For the area south of Cape Falcon, which could face significant reductions in fisheries to protect Klamath River fall Chinook, the height of the fishery for 1979 through 2005 occurred in 1988, when the combined state level impacts were \$243 million (inflation adjusted). The average over the entire period was \$133 million (inflation adjusted). Over the last 5 years (2001 through 2005), the average state level income impacts were \$64 million (inflation adjusted; \$37.5 million in the commercial fishery and \$26.2 million in the recreational fishery) and the state level income impacts associated with the 2005 fishery were \$58 million (\$35.6 million in the commercial fishery and \$22.2 million in the recreational fishery). For 2006, the south of Cape Falcon income impacts for the commercial fishery are projected to be \$18.2 million under Option I, \$13.6 million under Option II and approximately \$0.1 million under Option III (includes landings from the north of Cape Falcon catch area). For 2006, the south of Cape Falcon income impacts for the recreational fishery are projected to be \$19.8 million under Option I, \$8.8 million under Option II and approximately \$1.4 million under Option III.

For the area north of Cape Falcon, the height of the fishery between 1979 and 2005 occurred in 1979, when the combined state level impacts associated with the non-Indian commercial and recreational fisheries were \$100 million (inflation adjusted). The average over the entire period was \$21 million (inflation adjusted). Over the last 5 years (2001 through 2005), the average state level income impacts were \$13 million (inflation adjusted; \$3.0 million in the commercial fishery and \$10.5 million in the recreational fishery) and the state level income impacts associated with the 2005 fishery were \$12 million (\$2.8 million in the commercial fishery and \$8.8 million in the recreational fishery). For 2006, the north of Cape Falcon income impacts for the commercial fishery are projected to be \$2.4 million under Option I, \$1.8 million under Option II and approximately \$1.2 million under Option III. For 2006, the south of Cape Falcon income impacts for the recreational fishery are projected to be \$6.8 million under Option I, \$5.2 million under Option II and approximately \$3.4 million under Option III.

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



In past years the KMZ has benefited from the landing of commercial fish caught in the area between Cape Falcon and Humbug Mountain. In 2005, it appears that just under 10% of the fish caught off the central Oregon coast (Cape Falcon to Humbug Mountain) were landed in a KMZ port. These landings accounted for the large majority of the landings in the KMZ, primarily in the Brookings port area. The exvessel value of these landings were approximately \$600,000 and the estimated income impacts approximately \$1.1 million. Proposed restrictions on out-of-area landings of catch taken from Cape Falcon to Humbug Mountain area will likely limit KMZ landings to catch from within the KMZ harvest area.

The near term effect of additional harvest of Klamath River fall Chinook will depend on escapements projected for 2007 and 2008 (whether they are near or below the escapement floor) and the degree to which harvest policy may be adjusted to allow the harvest of some Klamath River fall Chinook in fisheries when escapement is projected to be below the floor. If projected escapements for 2007 and 2008 end up near or below the floor, then 2006 harvest may exacerbate restrictions required in those years.

Over the long term, the effect of Option I and II, which allow substantially greater impacts on Klamath River fall Chinook than Option III, would depend on whether ocean and the Klamath River basin conditions are able to support the kind of stock rebound that has been observed in some previous years.

In past years, the North of Cape Falcon recreational fishery has generally been limited by the season duration or coho quota. It appears that for the 2006, effort will be limited by Chinook harvest guidelines, except possibly in the Neah Bay area where the coho quota or season may be limiting. Average 2006 angler success rates have been applied to Chinook harvest guidelines to estimate the number of trip for all north of Cape Falcon ports except Neah Bay, for which the average 2006 coho success rate was used.

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 1 of 9)		
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
<p>1. Overall non-Indian TAC: 65,000 Chinook and 110,000 coho marked with a healed adipose fin clip (marked). Trade: May be considered at the April Council meeting.</p> <p>2. Non-Indian commercial troll TAC: 32,500 Chinook and 17,600 marked coho; all retained coho must be marked.</p> <p>3. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 50,000 Chinook and 80,000 coho marked with a healed adipose fin clip (marked). Trade: May be considered at the April Council meeting.</p> <p>2. Non-Indian commercial troll TAC: 25,000 Chinook and 12,800 marked coho; all retained coho must be marked.</p> <p>3. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 35,000 Chinook and 50,000 coho marked with a healed adipose fin clip (marked). Trade: May be considered at the April Council meeting.</p> <p>2. Non-Indian commercial troll TAC: 17,500 Chinook and 8,000 marked coho; all retained coho must be marked.</p> <p>3. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>
<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>• May 1 through earlier of June 30 or 21,500 Chinook quota.</li> </ul> <p>Open May 1-2 with a 75 Chinook per vessel landing and possession limit for the two-day open period; beginning May 6, open Saturday through Tuesday with a 100 Chinook possession and landing limit per four-day open periods. If insufficient quota remains to prosecute openings prior to the June 24-27 open period, the remaining quota will be provided for a June 29-30 open period with a 30 Chinook per vessel landing and possession limit. All salmon except coho (C.7). Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3).</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>• May 1 through earlier of June 30 or 16,666 Chinook quota.</li> </ul> <p>Open May 1-2 with a 75 Chinook per vessel landing and possession limit for the two-day open period; beginning May 6, open Saturday through Tuesday with a 75 Chinook possession and landing limit per four-day open periods. If insufficient quota remains to prosecute openings prior to the June 24-27 open period, the remaining quota will be provided for a June 29-30 open period with a 30 Chinook per vessel landing and possession limit. All salmon except coho (C.7). Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3).</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>• May 1 through earlier of June 30 or 11,666 Chinook quota.</li> </ul> <p>Open May 1-2 with a 50 Chinook per vessel landing and possession limit for the two-day open period; beginning May 6, open Saturday through Tuesday with a 50 Chinook possession and landing limit per four-day open periods. If insufficient quota remains to prosecute openings prior to the June 24-27 open period, the remaining quota will be provided for a June 29-30 open period with a 30 Chinook per vessel landing and possession limit. All salmon except coho (C.7). Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3).</p>
<p>Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon, to notify ODFW within one hour of delivery or prior to transport away from the port of landing by calling 541-867-0300 Ext. 271. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>		

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 2 of 9)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>July 8 through earlier of Sept. 12 or 11,000 preseason Chinook guideline (C.8) or a 17,600 marked coho quota (C.8.d). Cape Flattery and Columbia Control Zones closed (C.5). Open Saturday through Tuesday July 8 through July 25. All salmon; landing and possession limit of 50 Chinook per vessel per four day open period. Gear restricted to plugs 6 inches (15.2 cm) or longer (C.2, C.3).</li> </ul> <p><b>U.S./Canada Border to Leadbetter Point:</b> Open August 5 through September 12; Saturday through Tuesday. All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7); landing and possession limit of 50 Chinook per vessel per four day open period. All retained coho must be marked. Gear restricted to plugs 6 inches (15.2 cm) or longer (C.2, C.3). Vessels fishing in the area are not permitted to fish or land fish in the area between Leadbetter Point and Cape Falcon during the same weekly open period.</p> <p><b>Leadbetter Point to Cape Falcon</b> August 5 through September 12; open Saturday through Tuesday. All Salmon (C.7); landing and possession limit of 20 Chinook and 100 marked coho per four-day open period. No special gear restrictions. Vessels fishing in the area are not permitted to fish or land fish in the area between Leadbetter Point and the U.S./Canada border during the same weekly open period.</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>July 15 through earlier of Sept. 12 or 8,334 preseason Chinook guideline (C.8) or a 12,800 marked coho quota.</li> </ul> <p>Open Saturday through Tuesday through August 8. All salmon except no chum retention north of Cape Alava, Washington in August; landing and possession limit of 40 Chinook per vessel per four day open period. Gear restricted to plugs or whole herring 6 inches (15.2 cm) or longer; one flasher per line without hooks allowed (C.2, C.3). Cape Flattery and Columbia Control Zones closed (C.5).</p> <p>August 12 through September 12; open Saturday through Tuesday. All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7); landing and possession limit of 15 Chinook and 100 marked coho per four-day open period. All retained coho must be marked, <b>except an inseason conference call may occur to consider allowing retention of all legal sized coho beginning no earlier than September 1 (C.8.d).</b> No special gear restrictions. Cape Flattery and Columbia Control Zones closed (C.5).</p>	<p><b>U.S./Canada Border to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>July 22 through earlier of Sept. 25 or 5,834 preseason Chinook guideline (C.8) or an 8,000 marked coho quota.</li> </ul> <p>Open Saturday through Monday through August 15. All salmon except no chum retention north of Cape Alava, Washington in August and September (C.7); landing and possession limit of 35 Chinook per vessel per three day open period. Gear restricted to plugs 6 inches (15.2 cm) or longer (C.2, C.3). Cape Flattery and Columbia Control Zones closed (C.5).</p> <p>August 19 through September 25; open Saturday through Monday. All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7); landing and possession limit of 15 Chinook and 75 marked coho per three-day open period. All retained coho must be marked. No special gear restrictions. Cape Flattery and Columbia Control Zones closed (C.5).</p>
<p>Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon, to notify ODFW within one hour of delivery or prior to transport away from the port of landing by calling 541-867-0300 Ext. 271. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>		

A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Klamath River recreational fishery allocation: 15%. Fisheries may need to be adjusted to meet NMFS ESA consultation standards or other management objectives if the California Fish and Game Commission recommends a different allocation.</p> <p>2. Non-Indian commercial troll Klamath fall Chinook impact allocation 55% California:45% Oregon.</p> <p>3. Tribal allocation equal to non-Indian Klamath catch.</p>	<p>1. Klamath River recreational fishery allocation: 0%. Fisheries may need to be adjusted to meet NMFS ESA consultation standards or other management objectives if the California Fish and Game Commission recommends a different allocation.</p> <p>2. Non-Indian commercial troll Klamath fall Chinook impact allocation 50% California:50% Oregon.</p> <p>3. Tribal allocation equal to non-Indian Klamath catch.</p>	<p>1. Klamath River recreational fishery allocation: 0%. Fisheries may need to be adjusted to meet NMFS ESA consultation standards or other management objectives if the California Fish and Game Commission recommends a different allocation.</p> <p>2. Non-Indian commercial troll Klamath fall Chinook impact allocation 19% California:81% Oregon.</p> <p>3. Tribal allocation equal to non-Indian Klamath catch.</p>
<p><b>Cape Falcon to Humbug Mt. (Newport –Coos Bay)</b></p> <ul style="list-style-type: none"> <li>• May 1-3, 8-10, 15-17, 22-24, 29-30; June 1-30;</li> <li>• September 1-23; October 1-31 with a 50 Chinook landing and possession limit per calendar week (C.9).</li> </ul> <p>All salmon except coho (C.7). Chinook 28 inch total length minimum size (B). All vessels fishing in the area must land their fish in the area. In September and October, vessels landing fish in the area are prohibited from participating in any other commercial salmon fishery in the State of Oregon south of Cape Falcon during the open period in which salmon were landed in the area. See gear restrictions and definitions (C.2, C.3) and Oregon State regulations for a description of special regulations at the mouth of Tillamook Bay.</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch total length Chinook minimum size limit.</p>	<p><b>Cape Falcon to Florence South Jetty (Newport)</b></p> <ul style="list-style-type: none"> <li>• May 1-3, 8-10, 15-17, 22-24, 29-30; June 1-30; with a 100 Chinook landing and possession limit per vessel per open period (per calendar week in June).</li> <li>• September 5-9, 20-25; with a 50 Chinook landing and possession limit per open period (C.9).</li> </ul> <p>All salmon except coho (C.7). Chinook 28 inch total length minimum size (B). All vessels fishing in the area must land their fish in the area. Vessels fishing in the area are not permitted to fish or land fish in the area between Florence South Jetty and the Oregon/California border during the same open period (or calendar week in June). See gear restrictions and definitions (C.2, C.3) and Oregon State regulations for a description of special regulations at the mouth of Tillamook Bay.</p> <p>In 2007, same as Option I</p>	<p><b>Cape Falcon to Humbug Mt. (Newport-Coos Bay)</b></p> <p>Closed in 2006.</p> <p>In 2007, same as Option I.</p>

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 4 of 9)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
	<p><b>Florence South Jetty to Cape Arago (Coos Bay)</b></p> <ul style="list-style-type: none"> <li>• May 1-3, 8-10, 15-17, 22-24, 29-30; June 1-30; with a 75 Chinook landing and possession limit per vessel per open period (per calendar week in June).</li> <li>• September 5-9, 20-25; with a 50 Chinook landing and possession limit per period (C.9).</li> <li>• (C.9)</li> </ul> <p>All salmon except coho (C.7). Chinook 28 inch total length minimum size (B). All vessels fishing in the area must land their fish in the area. Vessels fishing in the area are not permitted to fish or land fish in the area between Florence South Jetty and Cape Falcon or the area between Cape Arago and the Oregon/California border during the same open period (or calendar week in June). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, same as Option I</p> <p><b>Cape Arago to Humbug Mt. (Coos Bay)</b> Closed in 2006.</p> <p>In 2007, same as Option I</p>	
<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• September 3 through earlier of September 30, or a 2,000 Chinook quota (C.9)</li> </ul> <p>All salmon except coho. Chinook 28 inch total length minimum size. Possession and landing limit of 45 fish per day per vessel in September. See gear restrictions and definitions (C.2, C.3). Vessels must land their fish in Gold Beach, Port Orford, or Brookings, Oregon, and within 24 hours of closure. State regulations require fishers intending to transport and deliver their catch to other locations after first landing in one of these ports notify ODFW prior to transport away from the port of landing by calling 541-867-0300 Ext. 271, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery.</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch Chinook minimum size limit.</p>	<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• September 3 through earlier of September 30, or a 1,500 Chinook quota (C.9)</li> </ul> <p>All salmon except coho. Chinook 28 inch total length minimum size limit. Possession and landing limit of 45 fish per day per vessel in September. See gear restrictions and definitions (C.2, C.3). Vessels must land their fish in Gold Beach, Port Orford, or Brookings, Oregon, and within 24 hours of closure. State regulations require fishers intending to transport and deliver their catch to other locations after first landing in one of these ports notify ODFW prior to transport away from the port of landing by calling 541-867-0300 Ext. 271, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery.</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch Chinook minimum size limit.</p>	<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b> Closed in 2006.</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch Chinook minimum size limit.</p>

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 5 of 9)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
<p><b>OR/CA Border to Humboldt South Jetty (California KMZ)</b></p> <ul style="list-style-type: none"> <li>September 3 through earlier of September 30, or 2,000 Chinook quota.</li> </ul> <p>All salmon except coho. Chinook minimum size limit of 28 inches total length. Possession and landing limit of 30 fish per day per vessel. All fish caught in this area must be landed within the area. See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.). See California State regulations for additional closures adjacent to the Smith and Klamath rivers. When the fishery is closed between the OR/CA border and Humbug Mt. and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival.</p>	<p><b>OR/CA Border to Humboldt South Jetty (California KMZ)</b></p> <p>Closed in 2006.</p>	<p><b>OR/CA Border to Humboldt South Jetty (California KMZ)</b></p> <p>Closed in 2006</p>
<p><b>Humboldt South Jetty to Horse Mt.</b></p> <p>Closed.</p>	<p><b>Humboldt South Jetty to Horse Mt.</b></p> <p>Closed.</p>	<p><b>Humboldt South Jetty to Horse Mt.</b></p> <p>Closed.</p>
<p><b>Horse Mt. to Point Arena (Fort Bragg)</b></p> <ul style="list-style-type: none"> <li>September 1-30.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length. See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 27 inch total length Chinook minimum size limit. This opening could be modified following Council review at its March 2007 meeting.</p>	<p><b>Horse Mt. to Point Arena (Fort Bragg)</b></p> <ul style="list-style-type: none"> <li>September 1-15.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length. See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, same as Option I.</p>	<p><b>Horse Mt. to Point Arena (Fort Bragg)</b></p> <p>Closed in 2006.</p> <p>In 2007, same as Option I.</p>

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 6 of 9)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
<p><b>Pt. Arena to Pigeon Pt. (San Francisco)</b></p> <ul style="list-style-type: none"> <li>July 4 through August 29; September 1-30 with a 50 Chinook landing and possession limit per vessel per calendar week.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length in September; 28 inches in July and August. All vessels fishing in the area must land their fish in the area. Vessels landing fish in the area are prohibited from participating in any other commercial salmon fishery in the State of California during the same calendar week in which salmon were landed in the area. See gear restrictions and definitions (C.2, C.3).</p> <p><b>Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)</b></p> <ul style="list-style-type: none"> <li>October 2-13.</li> </ul> <p>Open Monday through Friday. All salmon except coho. Chinook minimum size limit 26 inches total length. See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pt. Arena to Pigeon Pt. (San Francisco)</b></p> <ul style="list-style-type: none"> <li>July 1-15; August 1-29; September 1-30 with a 50 Chinook landing and possession limit per vessel per calendar week.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length in September; 28 inches in July and August. All vessels fishing in the area must land their fish in the area. Vessels landing fish in the area are prohibited from participating in the Pigeon Point to Point Sur commercial salmon fishery during the same calendar week in which salmon were landed in the area. See gear restrictions and definitions (C.2, C.3).</p> <p><b>Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)</b></p> <ul style="list-style-type: none"> <li>October 2-13.</li> </ul> <p>Open Monday through Friday. All salmon except coho. Chinook minimum size limit 26 inches total length. See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pt. Arena to Pigeon Pt. (San Francisco)</b> Closed in 2006.</p> <p><b>Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)</b> Closed in 2006.</p>
<p><b>Pigeon Point to Pt. Sur (Monterey)</b></p> <ul style="list-style-type: none"> <li>May 1-31; July 4 through August 29; September 1-30 with a 100 Chinook landing and possession limit per vessel per calendar week.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length in May and September; 28 inches total length in July and August. All vessels fishing in the area must land their fish in the area. Vessels landing fish in the area are prohibited from participating in any other commercial salmon fishery in the State of California during the same calendar week in which salmon were landed in the area. See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pigeon Point to Pt. Sur (Monterey)</b></p> <ul style="list-style-type: none"> <li>May 1-31; August 1-29; September 1-30 with a 100 Chinook landing and possession limit per vessel per week.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length in May and September; 28 inches total length in August. All vessels fishing in the area must land their fish in the area. Vessels landing fish in the area are prohibited from participating in the Point Arena to Pigeon Point commercial salmon fishery during the same calendar week in which salmon were landed in the area. See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pigeon Point to Pt. Sur (Monterey)</b> Closed in 2006.</p>
<p><b>Pt. Sur to U.S./Mexico Border (Monterey)</b></p> <ul style="list-style-type: none"> <li>May 1 through September 30.</li> </ul> <p>All salmon except coho. Chinook minimum size limit 27 inches total length in May, June, and September; 28 inches total length in July and August. See gear restrictions and definitions (C.2, C.3).</p>	<p><b>Pt. Sur to U.S./Mexico Border (Monterey)</b> Same as Option I.</p>	<p><b>Pt. Sur to U.S./Mexico Border (Monterey)</b> Same as Option I</p>

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 7 of 9)

<b>B. MINIMUM SIZE (Inches) (See C.1)</b>					
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
Cape Falcon to OR/CA Border	28.0	21.5	-	-	None
OR/CA Border to Horse Mt.	28.0	21.5	-	-	None
Horse Mt. To Pt. Arena	27.0	20.5	-	-	None
Pt. Arena to U.S./Mexico Border					
Prior to July 1 and September 1-30	27.0	20.5	-	-	None
July 1-August 31	28.0	21.5	-	-	None
October 3-14	26.0	19.5	-	-	None

**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. Cape Falcon, Oregon, to the OR/CA border: No more than 4 spreads are allowed per line.
- c. OR/CA border to U.S./Mexico border: No more than 6 lines are allowed per vessel, and barbless circle hooks are required when fishing with bait by any means other than trolling.

C.3. Gear Definitions:

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

*Troll fishing gear defined*: One or more lines that drag hooks behind a moving fishing vessel. In that portion of the fishery management area (FMA) off Oregon and Washington, the line or lines must be affixed to the vessel and must not be intentionally disengaged from the vessel at any time during the fishing operation.

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

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

C.4. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll or recreational gear in the water while transiting any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species, and no salmon are in possession.



TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 8 of 9)

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

**C.5. Control Zone Definitions:**

- a. *Cape Flattery Control Zone* - The area from Cape Flattery (48°23'00" N. lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to Cape Alava (48°10'00" N. lat.) and east of 125°05'00" W. long.
- 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" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- c. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six 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 six nautical miles south of the Klamath River mouth).

**C.6. Notification When Unsafe Conditions Prevent Compliance with Regulations:** If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board, and the estimated time of arrival.

**C.7. Incidental Halibut Harvest:** During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. Halibut retained must be no less than 32 inches in total length, measured from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail, and must be landed with the head on. License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone: 206-634-1838). Applicants must apply prior to April 1 of each year. Incidental harvest is authorized only during May and June troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825). ODFW and Washington Department of Fish and Wildlife (WDFW) will monitor landings. If the landings are projected to exceed the 39,918 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to close the incidental halibut fishery.

- Option I: Beginning May 1, license holders may land no more than one Pacific halibut per each three Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).
- Option II: Beginning May 1, license holders may land no more than one Pacific halibut per each 2 Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 40 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).
- Option III: Beginning May 1, license holders may land no more than one Pacific halibut per each 3 Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 24 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

A "C-shaped" yelloweye rockfish conservation area is an area to be avoided for salmon trolling. NMFS and the Council request salmon trollers voluntarily avoid this area in order to protect yelloweye rockfish. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (Washington marine area 3), with the following coordinates in the order listed:

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

TABLE 1. Commercial troll management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 9 of 9)

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

- C.8. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
- a. Chinook remaining from the May through June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.
  - b. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the areas' representatives on the SAS.
  - c. At the March 2007 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2006).
  - d. If retention of unmarked coho is permitted in the area from the U.S./Canada border to Cape Falcon, Oregon, by inseason action, the allowable coho quota will be adjusted to ensure preseason projected mortality of critical stocks is not exceeded.
- C.9. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the States of Washington, Oregon, and California may establish limited seasons in state waters. Oregon State-water fisheries are limited to Chinook salmon. Check state regulations for details.
- C.10. For the purposes of California Department of Fish and Game (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 adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 1 of 8)		
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
<p>1. Overall non-Indian TAC: 65,000 Chinook and 110,000 coho marked with a healed adipose fin clip (marked). Trade: May be considered at the April Council meeting.</p> <p>2. Recreational TAC: 32,500 Chinook and 92,400 marked coho; all retained coho must be marked.</p> <p>3. No Area 4B add-on fishery.</p> <p>4. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 7,700 marked coho in August and September.</p> <p>5. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 50,000 Chinook and 80,000 coho marked with a healed adipose fin clip (marked). Trade: May be considered at the April Council meeting.</p> <p>2. Recreational TAC: 25,000 Chinook and 67,200 marked coho; all retained coho must be marked.</p> <p>3. No Area 4B add-on fishery.</p> <p>4. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 8,300 marked coho in August and September.</p> <p>5. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 35,000 Chinook and 50,000 coho marked with a healed adipose fin clip (marked). Trade: May be considered at the April Council meeting.</p> <p>2. Recreational TAC: 17,500 Chinook and 42,000 marked coho; all retained coho must be marked.</p> <p>3. Area 4B add-on fishery of 6,000 marked coho with Chinook non-retention opens upon ocean closure (C.5).</p> <p>4. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 8,900 marked coho in August and September.</p> <p>5. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>
<p><b>U.S./Canada Border to Cape Alava (Neah Bay Subarea)</b></p> <ul style="list-style-type: none"> <li>June 20 through earlier of September 2 or 9,610 marked coho subarea quota with a subarea guideline of 3,400 Chinook.</li> </ul> <p>Tuesday through Saturday. All salmon, except no chum retention August 1 through Sept. 2, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>June 30 through earlier of Sept. 16 or 6,989 marked coho subarea quota with a subarea guideline of 2,600 Chinook.</li> </ul> <p>Tuesday through Saturday. All salmon, except no chum retention August 1 through Sept. 16, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>July 11 through earlier of Sept. 16 or 3,260 marked coho subarea quota with a subarea guideline of 1,800 Chinook.</li> </ul> <p>Tuesday through Saturday. All salmon, except no chum retention August 1 through Sept. 16, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>

TABLE 2. <b>Recreational</b> management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 2 of 8)		
<b>A. SEASON OPTION DESCRIPTIONS</b>		
OPTION I	OPTION II	OPTION III
<p><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>• June 20 through earlier of September 2 or 2,352 marked coho subarea quota with a subarea guideline of 1,300 Chinook. Tuesday through Saturday.</li> <li>• September 23 through October 8 or 50 marked coho quota or 100 Chinook quota: In the area north of 47°50'00 N. lat. and south of 48°00'00" N. lat. (C.5). Seven days per week.</li> </ul> <p>All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>• June 30 through earlier of September 16 or 1,697 marked coho subarea quota with a subarea guideline of 1,000 Chinook. Tuesday through Saturday.</li> <li>• September 23 through October 8 or 50 marked coho quota or 100 Chinook quota: In the area north of 47°50'00 N. lat. and south of 48°00'00" N. lat. (C.5). Seven days per week.</li> </ul> <p>All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>• July 11 through earlier of September 16 or 1,114 marked coho subarea quota with a subarea guideline of 700 Chinook. Tuesday through Saturday.</li> <li>• September 23 through October 8 or 50 marked coho quota or 100 Chinook quota: In the area north of 47°50'00 N. lat. and south of 48°00'00" N. lat. (C.5). Seven days per week.</li> </ul> <p>All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>
<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>• June 18 through earlier of September 4 or 34,188 marked coho subarea quota with a subarea guideline of 19,000 Chinook.</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>• July 3 through earlier of September 17 or 24,860 marked coho subarea quota with a subarea guideline of 14,600 Chinook.</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Beginning August 1, Grays Harbor Control Zone closed (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>• July 10 through earlier of September 17 or 16,578 marked coho subarea quota with a subarea guideline of 10,200 Chinook.</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>

TABLE 2. <b>Recreational</b> management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 3 of 8)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
<p><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>July 3 through earlier of September 4 or 46,200 marked coho subarea quota with a subarea guideline of 8,700 Chinook.</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.a). Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>July 3 through earlier of September 30 or 33,600 marked coho subarea quota with a subarea guideline of 6,700 Chinook.</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.a). Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>July 17 through earlier of September 30 or 21,000 marked coho subarea quota with a subarea guideline of 4,700 Chinook.</li> </ul> <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit); all retained coho must be marked (B). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.a). Closed between Cape Falcon and Tillamook Head beginning July 15. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>

TABLE 2. <b>Recreational</b> management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 4 of 8)		
<b>A. SEASON OPTION DESCRIPTIONS</b>		
OPTION I	OPTION II	OPTION III
South of Cape Falcon	South of Cape Falcon	South of Cape Falcon
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Klamath River recreational fishery allocation: 15%. Fisheries may need to be adjusted to meet NMFS ESA consultation standards or other management objectives if the California Fish and Game Commission recommends a different allocation.</p> <p>2. KMZ recreational fishery share: 7.7%.</p> <p>3. Tribal allocation equal to non-Indian Klamath catch.</p> <p>4. All retained coho must be marked with a healed adipose fin clip (marked).</p>	<p>1. Klamath River recreational fishery allocation: 0%. Fisheries may need to be adjusted to meet NMFS ESA consultation standards or other management objectives if the California Fish and Game Commission recommends a different allocation.</p> <p>2. KMZ recreational fishery share: 5.9%.</p> <p>3. Tribal allocation equal to non-Indian Klamath catch.</p> <p>4. All retained coho must be marked with a healed adipose fin clip (marked).</p>	<p>1. Klamath River recreational fishery allocation: 0%. Fisheries may need to be adjusted to meet NMFS ESA consultation standards or other management objectives if the California Fish and Game Commission recommends a different allocation.</p> <p>2. KMZ recreational fishery share: 8.4%.</p> <p>3. Tribal allocation equal to non-Indian Klamath catch.</p>
<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>Except as provided below during the selective fishery, the season will be March 15 through October 31 (C.6). All salmon except coho. Two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</li> </ul> <p>Selective fishery: Cape Falcon to OR/CA Border June 17 through earlier of August 31 or a landed catch of 35,000 marked coho, except that the area south of Humbug Mt. will only be open June 17 through July 4 and August 14-31, concurrent with the KMZ season listed below.</p> <p>Open seven days per week, all salmon, two fish per day (C.1). All retained coho must be marked. Fishing in the Stonewall Bank groundfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (see 70 FR 20304, and call the halibut fishing hotline 1-800-662-9825 for additional dates) (C.3, C.4.e). Open days may be adjusted inseason to utilize the available quota (C.5). All salmon except coho seasons reopen the earlier of September 1 or attainment of the coho quota.</p> <p>In 2007, the season will open March 15 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>	<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>Except as provided below during the selective fishery, the season will be March 15 through October 31 (C.6). All salmon except coho. Two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</li> </ul> <p>Selective fishery: Cape Falcon to OR/CA Border June 17 through earlier of July 31 or a landed catch of 20,000 marked coho, except that the area south of Humbug Mt. will only be open July 1-4.</p> <p>Open seven days per week, all salmon, two fish per day (C.1). All retained coho must be marked. Fishing in the Stonewall Bank groundfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (see 71 FR 10850, and call the halibut fishing hotline 1-800-662-9825 for additional dates) (C.3, C.4.e). Open days may be adjusted inseason to utilize the available quota (C.5). All salmon except coho seasons reopen the earlier of August 1 or attainment of the coho quota.</p> <p>In 2007, same as Option I.</p>	<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>March 15 through April 30 (C.6). All salmon except coho. Two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</li> </ul> <p>In 2007, same as Option I.</p>

TABLE 2. <b>Recreational</b> management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 5 of 8)		
<b>A. SEASON OPTION DESCRIPTIONS</b>		
OPTION I	OPTION II	OPTION III
<p><b>Humbug Mt. to Horse Mt. (Klamath Management Zone)</b></p> <ul style="list-style-type: none"> <li>Except as provided above during the selective fishery, the season will be May 26 through July 4; and August 14 through September 11 (C.6).</li> </ul> <p>All salmon except coho, except as noted above in the coho selective fishery. Chinook minimum size limit 24 inches total length (B). Seven days per week, two fish per day (C.1). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.c). See California State regulations for additional closures adjacent to the Smith, Klamath, and Eel rivers.</p>	<p><b>Humbug Mt. to Horse Mt. (Klamath Management Zone)</b></p> <ul style="list-style-type: none"> <li>Except as provided above during the selective fishery, the season will be May 28-31; July 1-4; and August 23 through September 6 (C.6).</li> </ul> <p>All salmon except coho, except as noted above in the coho selective fishery. Chinook minimum size limit 24 inches total length (B). Seven days per week, two fish per day (C.1). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.c). See California State regulations for additional closures adjacent to the Smith, Klamath, and Eel rivers.</p>	<p><b>Humbug Mt. to Horse Mt. (Klamath Management Zone)</b></p> <p>Closed in 2006.</p>
<p><b>Horse Mt. to Point Arena (Fort Bragg)</b></p> <ul style="list-style-type: none"> <li>February 18 through July 10; July 16-17; July 23 through November 12.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, season opens February 17 (nearest Saturday to February 15) for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>	<p><b>Horse Mt. to Point Arena (Fort Bragg)</b></p> <ul style="list-style-type: none"> <li>February 18 through April 30; July 1-9; September 16 through October 15; November 1-7.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, same as Option I.</p>	<p><b>Horse Mt. to Point Arena (Fort Bragg)</b></p> <ul style="list-style-type: none"> <li>February 18 through April 30.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, same as Option I.</p>
<p><b>Point Arena to Pigeon Point (San Francisco)</b></p> <ul style="list-style-type: none"> <li>May 1 through November 12.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open April 7 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>	<p><b>Point Arena to Pigeon Point (San Francisco)</b></p> <ul style="list-style-type: none"> <li>May 1-15; June 24-July 9; September 1-15; October 16 through November 6.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, same as Option I.</p>	<p><b>Point Arena to Pigeon Point (San Francisco)</b></p> <p>Closed in 2006.</p> <p>In 2007, same as Option I.</p>

TABLE 2. <b>Recreational</b> management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 6 of 8)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
<p><b>Pigeon Point to Point Sur (Monterey)</b></p> <ul style="list-style-type: none"> <li>• May 1 through September 24.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open April 7 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>	<p><b>Pigeon Point to Point Sur (Monterey)</b></p> <ul style="list-style-type: none"> <li>• May 1-31; September 1-12.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, same as Option I.</p>	<p><b>Pigeon Point to Point Sur (Monterey)</b></p> <p>Closed in 2006.</p> <p>In 2007, same as Option I.</p>
<p><b>Point Sur to U.S./Mexico Border (Monterey)</b></p> <ul style="list-style-type: none"> <li>• April 1 through September 24.</li> </ul> <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open April 7 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>	<p><b>Point Sur to U.S./Mexico Border (Monterey)</b></p> <p>Same as Option I</p> <p>In 2007, same as Option I</p>	<p><b>Point Sur to U.S./Mexico Border (Monterey)</b></p> <p>Same as Option 1.</p> <p>In 2007, same as Option I.</p>



TABLE 2. **Recreational** management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 7 of 8)

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

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon	24.0	16.0	None
Cape Falcon to Humbug Mt.	20.0	16.0	None
Humbug Mt. to Horse Mountain	24.0	-	None, except 20.0 off CA
Horse Mt. to U.S./Mexico Border	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.

*Ocean Boat Limits*: Off the coast of Washington, Oregon, and California, each fisher aboard a vessel may continue to use angling gear until the combined daily limits of salmon for all licensed and juvenile anglers aboard has been attained (additional state restrictions may apply).

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

C.3. Gear Definitions:

- a. *Recreational fishing gear defined*: Angling tackle consisting of a line with no more than one artificial lure or natural bait attached. Off Oregon and Washington, the line must be attached to a rod and reel held by hand or closely attended; the rod and reel must be held by hand while playing a hooked fish. No person may use more than one rod and line while fishing off Oregon or Washington. Off California, the line must be attached to a rod and reel held by hand or closely attended. Weights directly attached to a line may not exceed four pounds (1.8 kg). While fishing off California north of Point Conception, no person fishing for salmon, and no person fishing from a boat with salmon on board, may use more than one rod and line. Fishing includes any activity which can reasonably be expected to result in the catching, taking, or harvesting of fish.
- b. *Trolling defined*: Angling from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
- c. *Circle hook defined*: A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

TABLE 2. **Recreational** management options adopted by the Council for non-Indian ocean salmon fisheries, 2006. (Page 8 of 8)**C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)****C.4. 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" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).
- c. *Klamath Control Zone*: The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six 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).
- d. *The Bonilla-Tatoosh Line*: A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°28'00" N. lat., 124°45'00" W. long.), then in a straight line to Bonilla Point (48°35'30" N. lat., 124°43'00" W. long.) on Vancouver Island, British Columbia.
- e. *Stonewall Bank Groundfish Conservation Area*: The area defined by the following coordinates in the order listed:
  - 44°37.46' N. lat.; 124°24.92' W. long.;
  - 44°37.46' N. lat.; 124°23.63' W. long.;
  - 44°28.71' N. lat.; 124°21.80' W. long.;
  - 44°28.71' N. lat.; 124°24.10' W. long.;
  - 44°31.42' N. lat.; 124°25.47' W. long.;
  - and connecting back to 44°37.46' N. lat.; 124°24.92' W. long.

- C.5. **Inseason Management**: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
  - a. Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
  - b. Coho may be transferred inseason among recreational subareas north of Cape Falcon on an impact neutral basis to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Council's SAS recreational representatives north of Cape Falcon.
  - c. Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon on an impact neutral basis if there is agreement among the representatives of the SAS.
  - d. If retention of unmarked coho is permitted in the area from the U.S./Canada border to Cape Falcon, Oregon, by inseason action, the allowable coho quota will be adjusted to ensure preseason projected mortality of critical stocks is not exceeded.

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

TABLE 3. Management Options adopted by the Council for 2006 Treaty Indian ocean troll fisheries. (Page 1 of 2)		
A. SEASON OPTION DESCRIPTIONS		
OPTION I	OPTION II	OPTION III
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall Treaty-Indian TAC: 50,000 Chinook and 45,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries and stocks.</p>	<p>1. Overall Treaty-Indian TAC: 33,200 Chinook and 35,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries and stocks.</p>	<p>1. Overall Treaty-Indian TAC: 25,000 Chinook and 25,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, or upon conclusion of negotiations in the North of Falcon forum, or receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries and stocks.</p>
<ul style="list-style-type: none"> <li>• May 1 through the earlier of June 30 or 30,000 Chinook quota.</li> </ul> <p>All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> <li>• May 1 through the earlier of June 30 or 20,000 Chinook quota.</li> </ul> <p>All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> <li>• May 1 through the earlier of June 30 or 12,000 Chinook quota.</li> </ul> <p>All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season. See size limit (B) and other restrictions (C).</p>
<ul style="list-style-type: none"> <li>• July 1 through the earlier of September 15, or 20,000 preseason Chinook quota, or 45,000 coho quota.</li> </ul> <p>All salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> <li>• July 1 through the earlier of September 15, or 13,200 preseason Chinook quota, or 35,000 coho quota.</li> </ul> <p>All salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> <li>• July 1 through the earlier of September 15, or 13,000 preseason Chinook quota, or 25,000 coho quota.</li> </ul> <p>All salmon. See size limit (B) and other restrictions (C).</p>

TABLE 3. Management Options **adopted by the Council** for 2006 **Treaty Indian ocean troll** fisheries. (Page 2 of 2)

<b>B. MINIMUM SIZE (Inches)</b>					
Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	24.0 (61.0 cm)	18.0 (45.7 cm)	16.0 (40.6 cm)	12.0 (30.5 cm)	None

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

C.1. Tribe and Area Boundaries. All boundaries may be changed to include such other areas as may hereafter be authorized by a Federal court for that tribe's treaty fishery.

S'KLALLAM - Washington State Statistical Area 4B (All)

MAKAH - Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.

QUILEUTE - That portion of the FMA between 48°07'36" N. lat. (Sand Pt.) and 47°31'42" N. lat. (Queets River) and east of 125°44'00" W. long.

HOH - That portion of the FMA between 47°54'18" N. lat. (Quillayute River) and 47°21'00" N. lat. (Quinault River) and east of 125°44'00" W. long.

QUINAULT - That portion of the FMA between 47°40'06" N. lat. (Destruction Island) and 46°53'18"N. lat. (Point Chehalis) and east of 125°44'00" W. long.

C.2 Gear restrictions

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

b. No more than 8 fixed lines per boat.

c. No more than four hand held lines per person in the Makah area fishery (Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.)

C.3 Quotas

a. The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 through September 15.

b. The Makah encounter rate study will occur between May 1 and September 15. Salmon taken in the study by treaty Indian vessels will be counted towards the overall treaty Indian troll quota.

c. The Quileute Tribe will continue a ceremonial and subsistence fishery during the time frame of September 15 through October 15 in the same manner as in 2004. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2006 season (estimated harvest during the October ceremonial and subsistence fishery: 100 Chinook; 200 coho).

C.4 Area Closures

a. The area within a six nautical mile radius of the mouths of the Queets River (47°31'42" N. lat.) and the Hoh River (47°45'12" N. lat.) will be closed to commercial fishing.

b. A closure within two nautical miles of the mouth of the Quinault River (47°21'00" N. lat.) may be enacted by the Quinault Nation and/or the State of Washington and will not adversely affect the Secretary of Commerce's management regime.

TABLE 4. Chinook and coho harvest quotas and guidelines (\*) for 2006 ocean salmon fishery management options adopted by the Council. (Page 1 of 1)

Fishery or Quota Designation	Chinook for Option			Coho for Option		
	I	II	III	I	II	III
<b>NORTH OF CAPE FALCON</b>						
TREATY INDIAN OCEAN TROLL <sup>a/</sup>						
U.S./Canada Border to Cape Falcon (All Except Coho)	30,000	20,000	12,000	-	-	-
U.S./Canada Border to Cape Falcon (All Species)	20,000	13,200	13,000	45,000	35,000	25,000
Subtotal Treaty Indian Ocean Troll	50,000	33,200	25,000	45,000	35,000	25,000
NON-INDIAN COMMERCIAL TROLL						
U.S./Canada Border to Cape Falcon (All Except Coho)	21,500	16,666	11,666	-	-	-
U.S./Canada Border to Cape Falcon (All Species) <sup>c/</sup>	11,000	8,334	5,834	17,600	12,800	8,000
Subtotal Non-Indian Commercial Troll	32,500	25,000	17,500	17,600	12,800	8,000
RECREATIONAL <sup>b/</sup>						
U.S./Canada Border to Cape Alava	3,400 *	2,600 *	1,800 *	9,610	6,989	3,260 <sup>c/</sup>
Cape Alava to Queets River	1,400 *	1,100 *	800 *	2,402	1,747	1,164
Queets River to Leadbetter Pt.	19,000 *	14,600 *	10,200 *	34,188	24,860	16,578
Leadbetter Pt. to Cape Falcon <sup>d/</sup>	8,700 *	6,700 *	4,700 *	46,200	33,600	21,000
Subtotal Recreational	32,500	25,000	17,500	92,400	67,196	42,002
<b>TOTAL NORTH OF CAPE FALCON</b>	<b>115,000</b>	<b>83,200</b>	<b>60,000</b>	<b>155,000</b>	<b>114,996</b>	<b>75,002</b>
<b>SOUTH OF CAPE FALCON</b>						
COMMERCIAL TROLL (all except coho)						
Humbog Mt. to Oregon/California border (Sept)	2,000	1,500	0	-	-	-
Oregon/California Border to Humboldt S. Jetty (Sept.)	2,000	0	0	-	-	-
Subtotal Troll	4,000	1,500	0	-	-	-
RECREATIONAL						
Cape Falcon to Oregon/California Border <sup>b/</sup>	-	-	-	35,000	20,000	0
<b>TOTAL SOUTH OF CAPE FALCON</b>	<b>4,000</b>	<b>1,500</b>	<b>0</b>	<b>35,000</b>	<b>20,000</b>	<b>0</b>

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

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

c/ Does not include Area 4B add on selective fishery of 6,000 coho marked with healed adipose fin clips.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria adopted by the Council for ocean fishery options, 2006.<sup>a/</sup> (Page 1 of 3)

Key Stock/Criteria	Projected Ocean Escapement <sup>b/</sup> or Other Criteria (Council Area Fisheries)			Spaw ner Objective or Other Comparative Standard as Noted
	Option I	Option II	Option III	
<b>CHINOOK</b>				
Columbia Upriver Brights	250.5	251.7	252.7	57.3 Minimum ocean escapement to attain 46.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
Mid-Columbia Brights	86.8	87.2	87.6	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.
Columbia Low er River Hatchery Tules	54.0	57.0	61.3	31.1 Minimum ocean escapement to attain 14.1 adults for hatchery egg-take, with average conversion and no low er river mainstem or tributary harvest.
Columbia Low er River Natural Tules <sup>c/</sup> (threatened)	52.4%	48.1%	41.8%	≤49.0% ESA guidance met by a total adult equivalent fishery exploitation rate on Cow eeman tules (NMFS ESA consultation standard).
Columbia Low er River Wild (threatened)	16.6	16.7	16.8	5.7 MSY spaw ner goal for North Lew is River fall chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	49.9	54.7	59.0	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	77.0%	68.6%	58.4%	≤70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Klamath River Fall	13.8	18.8	25.4	35.0 Minimum number of adult spaw ners to natural spaw ning areas.
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0% Equals 16.6, 12.3, and 6.1 (thousand) adult fish for Yurok and Hoopa tribal fisheries.
Adult river mouth return	44.2	45.7	50.7	NA
Age 4 ocean harvest rate	17.0%	14.8%	6.7%	≤16.0% NMFS ESA consultation standard for threatened California coastal chinook.
KMZ sport fishery share	7.7%	5.9%	8.4%	17.0% 2006 KFMC recommendation.
CA:OR troll fishery share	55:45	50:50	19:81	50:50 2006 KFMC recommendation.
River recreational fishery allocation	15.0%	0.0%	0.0%	15.0% 2005 California Fish and Game Commission specification; none specified for 2006. Equals 2.5, 0.0, and 0.0 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)				Recreational season betw een Point Arena and Pigeon Point shall open no earlier than the first Saturday in April and close no later than the second Sunday in November; the recreational season betw een Pigeon Point and the U.S./Mexico Border shall open no earlier than the first Saturday in April and close no later than the first Sunday in October. The minimum size limit shall be at least 20 inches total length. Commercial seasons betw een Point Arena and the U.S./Mexico border shall open no earlier than May 1 and close no later than September 30, with the exception of an October season conducted Monday through Friday betw een Point Reyes and Point San Pedro, which shall end no later than October 15. The minimum size limit shall be at least 26 inches total length. (NMFS ESA consultation standard).
Sacramento River Fall	385.3	440.1	550.3	122.0-180.0 Sacramento River fall natural and hatchery adult spaw ners.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2006 ocean fishery options adopted by the Council.<sup>a/</sup> (Page 2 of 3)

Key Stock/Criteria	Projected Ocean Escapement or Other Criteria (Council Area Fisheries)			Spaw ner Objective or Other Comparative Standard as Noted
	Option I	Option II	Option III	
				<b>COHO</b>
Interior Fraser (Thompson River)	9.2%(4.0%)	8.1%(3.0%)	7.3%(2.2%)	≤10.0% Total exploitation rate for all U.S. fisheries south of the U.S./Canada border based on 2002 PSC coho agreement.
Skagit	36%(4.5%) 87.6	35%(2.7%) 88.5	35%(2.0%) 89.2	≤60.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement <sup>e/</sup> 30.0 MSP level of adult spaw ners Identified in FMP.
Stillaguamish	41%(5.2%) 32.4	40%(3.9%) 33	37%(2.7%) 33.4	≤50.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement <sup>e/</sup> 17.0 MSP level of adult spaw ners Identified in FMP.
Snohomish	39%(5.2%) 97.3	38%(3.9%) 98.9	35%(2.7%) 100.2	≤60.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement <sup>e/</sup> 70.0 MSP level of adult spaw ners Identified in FMP.
Hood Canal	38%(3.2%) 46.8	37%(2.4%) 47.3	34%(1.9%) 47.7	≤65.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement <sup>e/</sup> 21.5 MSP level of adult spaw ners Identified in FMP.
Strait of Juan de Fuca	11%(3.7%) 23.6	10%(2.8%) 23.8	7%(1.7%) 24.1	≤40.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement <sup>e/</sup> 12.8 MSP level of adult spaw ners Identified in FMP.
Quillayute Fall	12.8	13.1	13.4	6.3-15.8 MSY adult spaw ner range (not annual target). Annual management objectives may be different and are subject to agreement betw een WDFW and the treaty tribes under U.S. District Court orders.
Hoh	5.4	5.6	5.7	2.0-5.0 MSY adult spaw ner range (not annual target). Annual management objectives may be different and are subject to agreement betw een WDFW and the treaty tribes under U.S. District Court orders.
Queets Wild	7.0	7.2	7.4	5.8-14.5 MSY adult spaw ner range (not annual target). Annual management objectives may be different and are subject to agreement betw een WDFW and the treaty tribes under U.S. District Court orders.
Grays Harbor	59.8	60.7	61.7	35.4 MSY adult spaw ner range (not annual target). Annual management objectives may be different and are subject to agreement betw een WDFW and the treaty tribes under U.S. District Court orders.
Low er Columbia River Natural (threatened)	14.0%	10.0%	5.9%	≤15.0% Marine and mainstem Columbia River fishery exploitation rate (NMFS ESA consultation standard). Value depicted is ocean fishery exploitation rate only.
Upper Columbia <sup>a/</sup>	>50%	>50%	>50%	50% Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	162.2	184.4	210.4	38.7 Minimum ocean escapement to attain hatchery egg-take goal of 16.0 early adult coho, w ith average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	52.7	66.4	83.1	15.2 Minimum ocean escapement to attain hatchery egg-take goal of 9.7 late adult coho, w ith average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	11.7%	8.0%	3.0%	≤15.0% Marine and freshw ater fishery exploitation rate.
Northern California (threatened)	6.2%	2.3%	0.5%	≤13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2006 ocean fishery options adopted by the Council.<sup>a/</sup> (Page 3 of 3)

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a/ Projections in the table assume a WCVI mortality for coho of the 2005 observed level. Southeast Alaska, North Coast BC, and WCVI troll and outside sport fisheries were assumed to have the same exploitation rates as expected preseason in 2005. Assumptions for these chinook fisheries will be changed prior to the April meeting when allowable catch levels for 2006 under the PST are known.

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. Exploitation rates for OCN coho include impacts of freshwater fisheries.

c/ Annual management objectives may be different than FMP goals, and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. 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. These total exploitation rates reflect the initial base package for inside fisheries developed by state and tribal managers. It is anticipated that total exploitation rates will be adjusted by state and tribal managers during the preseason planning process to comply with stock specific exploitation rate constraints.

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

e/ The fisheries in this option will need to be restructured if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in an SRFI at or below 0.700 as required by the NMFS ESA consultation standard.

f/ The fisheries in this option will need to be restructured if negotiations in the North of Falcon forum or final preseason catch expectations for Canadian and Alaskan fisheries do not result in a total exploitation rate for all U.S. fisheries south of the U.S./Canada border of no more than 10.0% as required by the 2002 PSC agreement.

g/ Includes projected impacts of inriver fisheries that have not yet been shaped, but have been reduced from 2005 preseason levels based on 2006 abundance.



TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2006 ocean salmon fishery management options adopted by the Council. (Page 1 of 2)

Area and Fishery	2006 Catch Projection			2006 Bycatch Mortality <sup>a/</sup> Projection			2006 Bycatch Projection <sup>b/</sup>			Observed in 2005	
	I	II	III	I	II	III	I	II	III	Catch	Bycatch Mortality
<b>OCEAN FISHERIES<sup>c/</sup>: CHINOOK (thousands of fish)</b>											
<b>NORTH OF CAPE FALCON</b>											
Treaty Indian Ocean Troll	50.0	33.2	25.0	24.6	16.5	14.1	72.6	48.8	42.0	41.9	6.2 <sup>d/</sup>
Non-Indian Commercial Troll	32.5	25.0	17.5	13.6	10.3	7.1	39.3	29.5	20.4	46.6	9.5 <sup>d/</sup>
Recreational	32.5	25.0	17.5	4.3	3.3	2.3	14.2	10.7	7.6	40.0	5.2
<b>CAPE FALCON TO HUMBUG MT.</b>											
Commercial Troll	146.2	103.7	0.0	18.9	13.4	0.0	46.4	32.9	0.0	238.4	26.2
Recreational	14.2	12.1	0.0	2.2	1.9	0.0	9.0	7.7	0.0	18.6	1.6
<b>HUMBUG MT. TO HORSE MT.</b>											
Commercial Troll	4.7	2.2	0.7	0.6	0.3	0.1	1.5	0.7	0.2	7.2	0.9 <sup>d/</sup>
Recreational	9.9	4.1	0.5	1.5	0.6	0.1	6.3	2.6	0.3	17.2	2.7 <sup>d/</sup>
<b>SOUTH OF HORSE MT.</b>											
Commercial	153.6	119.2	0.0	19.8	15.4	0.0	48.8	37.9	0.0	333.3	43.0 <sup>d/</sup>
Recreational	78.2	27.9	4.2	12.2	4.3	0.7	40.8	14.8	2.7	126.0	19.7 <sup>d/</sup>
<b>TOTAL OCEAN FISHERIES</b>											
Commercial Troll	387.0	283.3	43.2	77.5	55.9	21.3	208.6	149.8	62.7	667.4	85.9
Recreational	134.8	69.1	22.2	20.2	10.1	3.1	70.3	35.8	10.6	201.8	29.2
<b>INSIDE FISHERIES:</b>											
Buoy 10	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.3	NA

TABLE 6. Preliminary projections of chinook and coho harvest impacts for 2006 ocean salmon fishery management options adopted by the Council. (Page 2 of 2)

Area and Fishery	2006 Catch Projection			2006 Bycatch Mortality <sup>a/</sup> Projection			2006 Bycatch Projection <sup>b/</sup>			Observed in 2005	
	I	II	III	I	II	III	I	II	III	Catch	Bycatch Mortality
<b>COHO (thousands of fish)</b>											
<b>NORTH OF CAPE FALCON</b>											
Treaty Indian Ocean Troll	45.0	35.0	25.0	3.3	2.4	1.7	10.5	7.8	5.3	23.9	2.0
Non-Indian Commercial Troll <sup>e/</sup>	17.6	12.8	8.0	10.5	7.7	4.9	34.0	24.8	15.7	4.1	2.5
Recreational <sup>e/</sup>	92.4	67.2	42.0	19.3	13.6	8.6	101.4	71.8	45.5	61.7	14.8
<b>SOUTH OF CAPE FALCON</b>											
Commercial Troll	-	-	-	3.3	3.2	0.0	10.6	10.3	0.0	-	6.2
Recreational <sup>e/</sup>	35.0	20.0	0.0	13.9	8.6	0.1	73.2	45.3	0.5	3.6	1.6
<b>TOTAL OCEAN FISHERIES</b>											
Commercial Troll	62.6	47.8	33.0	17.1	13.3	6.6	55.1	42.9	21.0	28.0	4.5
Recreational	127.4	87.2	42.0	33.2	22.2	8.7	174.6	117.1	46.0	65.3	16.4
<b>INSIDE FISHERIES:</b>											
Area 4B <sup>e/</sup>	-	-	6.0	-	-	1.5	-	-	8.1	-	-
Buoy 10 <sup>e/</sup>	7.7	8.3	8.9	1.6	1.6	1.6	8.6	8.3	8.2	6.9	1.6

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

Commercial: 26%.

Recreational, north of Pt. Arena: 14%.

Recreational, south of Pt. Arena: 23% (based on the expected proportion of fish that will be caught using mooching versus trolling gear, and the HRMs of 42.2% and 14% for these two respective gear types).

b/ Bycatch calculated as dropoff mortality plus fish released.

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

d/ Based on observed sublegal encounter rates.

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

TABLE 7. Expected coastwide lower Columbia River (LCR) Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho exploitation rates by fishery for 2006 ocean fisheries management options adopted by the Council. (Page 1 of 1)

Fishery	Exploitation Rate (Percent)								
	LCR			OCN			RK		
	I	II	III	I	II	III	I	II	III
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BRITISH COLUMBIA	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
PUGET SOUND/STRAIT	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
NORTH OF CAPE FALCON									
Treaty Indian Ocean Troll	2.0%	1.6%	1.1%	0.7%	0.6%	0.4%	0.0%	0.0%	0.0%
Recreational	6.0%	4.2%	2.6%	1.3%	0.9%	0.6%	0.0%	0.0%	0.0%
Non-Indian Troll	1.6%	1.1%	0.6%	0.5%	0.4%	0.2%	0.0%	0.0%	0.0%
SOUTH OF CAPE FALCON									
Recreational:	3.3%	2.0%	0.0%						
Cape Falcon to Humbug Mt.				4.2%	3.1%	0.0%	0.2%	0.2%	0.0%
Humbug Mt. OR/CA border (KMZ)				0.3%	0.1%	0.0%	0.4%	0.2%	0.0%
OR/CA border to Horse Mt. (KMZ)				0.5%	0.1%	0.0%	1.4%	0.5%	0.0%
Fort Bragg				0.7%	0.1%	0.0%	1.6%	0.3%	0.0%
South of Pt. Arena				0.7%	0.1%	0.0%	1.2%	0.3%	0.0%
Troll:	0.5%	50.0%	0.0%						
Cape Falcon to Humbug Mt.				0.3%	0.5%	0.0%	0.0%	0.0%	0.0%
Humbug Mt. OR/CA border (KMZ)				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
OR/CA border to Horse Mt. (KMZ)				0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
Fort Bragg				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
South of Pt. Arena				0.5%	0.3%	0.0%	0.7%	0.4%	0.0%
BUOY 10	1.0%	0.9%	0.9%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%
ESTUARY/FRESHWATER	NA	NA	NA	1.1%	1.1%	1.2%	0.2%	0.2%	0.2%
TOTAL	14.0%	10.0%	5.9%	11.7%	8.0%	3.0%	6.2%	2.3%	0.5%

TABLE 8. Projected coho mark rates for 2006 fisheries under base period fishing patterns (% marked). (Page 1 of 1)

Area	Fishery	June	July	August	Sept
Canada					
Johnstone Strait	Recreational	-	20%	19%	-
West Coast Vancouver Island	Recreational	44%	17%	11%	8%
North Georgia Strait	Recreational	32%	32%	32%	29%
South Georgia Strait	Recreational	36%	34%	27%	27%
Juan de Fuca Strait	Recreational	36%	34%	38%	37%
Johnstone Strait	Troll	31%	8%	9%	-
NW Vancouver Island	Troll	20%	17%	21%	24%
SW Vancouver Island	Troll	34%	31%	34%	36%
Georgia Strait	Troll	42%	42%	43%	37%
Puget Sound					
Strait of Juan de Fuca (Area 5)	Recreational	45%	38%	38%	39%
Strait of Juan de Fuca (Area 6)	Recreational	40%	35%	40%	37%
San Juan Island (Area 7)	Recreational	27%	44%	41%	31%
North Puget Sound (Areas 6 & 7A)	Net	-	32%	35%	40%
Council Area					
Neah Bay (Area 4/4B)	Recreational	31%	45%	40%	45%
LaPush (Area 3)	Recreational	47%	41%	51%	31%
Westport (Area 2)	Recreational	56%	55%	58%	62%
Columbia River (Area 1)	Recreational	72%	69%	68%	71%
Tillamook	Recreational	62%	58%	56%	52%
New port	Recreational	60%	59%	56%	46%
Coos Bay	Recreational	57%	57%	50%	35%
Brookings	Recreational	56%	41%	41%	20%
Neah Bay (Area 4/4B)	Troll	43%	39%	42%	45%
LaPush (Area 3)	Troll	38%	45%	44%	42%
Westport (Area 2)	Troll	39%	44%	55%	46%
Columbia River (Area 1)	Troll	56%	57%	62%	64%
Tillamook	Troll	57%	54%	58%	53%
New port	Troll	56%	56%	55%	55%
Coos Bay	Troll	56%	56%	50%	40%
Brookings	Troll	49%	48%	51%	41%
Columbia River					
Buoy 10	Recreational	-	-	-	69%

TABLE 9. Preliminary projected exvessel value under Council-adopted 2006 non-Indian commercial troll regulatory options. (Page 1 of 1)

Exvessel Value (thousands of dollars) <sup>a/</sup>						
Management Area	Option	2006 Projected <sup>b/</sup>	2005 Actual	Percent Change from 2005	2001-2005 Average <sup>c/</sup>	Percent Change From 2001-2005 Average
North of Cape Falcon	I	1,415	1,464	-16%	1,318	7%
	II	1,079		-36%		-18%
	III	743		-56%		-44%
Cape Falcon to Humbug Mt.	I	4,942	8,138	-39%	7,195	-31%
	II	3,505		-57%		-51%
	III	0		-100%		-100%
Humbug Mt. to Horse Mt.	I	156	314	-50%	353	-56%
	II	72		-77%		-80%
	III	22		-93%		-94%
Horse Mt. to Pt. Arena	I	880	1,464	-40%	2,685	-67%
	II	440		-70%		-84%
	III	0		-100%		-100%
South of Pt. Arena	I	4,868	10,974	-56%	8,381	-42%
	II	4,068		-63%		-51%
	III	0		-100%		-100%
Total South of Cape Falcon	I	10,845	20,890	-48%	18,614	-42%
	II	8,085		-61%		-57%
	III	22		-100%		-100%
West Coast Total	I	12,260	22,354	-46%	19,932	-38%
	II	9,164		-59%		-54%
	III	765		-97%		-96%

a/ Exvessel values are not comparable to the community income impacts shown in Table 10.

b/ Dollar value estimates are based on expected catches in the Council management area, 2005 exvessel prices and 2005 average weight per fish.

c/ Values adjusted to 2005 dollars.

TABLE 10. Preliminary projected angler trips and coastal community income impacts generated under Council-adopted 2006 recreational ocean salmon fishery regulatory options compared to 2005 and the 1976-1990 average (inflation adjusted). (Page 1 of 1)

Management Area	Option	Angler Trips (thousands)			Coastal Community Income Impacts (thousands of dollars) <sup>a/</sup>			Percent Change in Income Impacts	
		Estimates		2001-2005 Avg.	Estimates		2001-2005 Avg.	Compared to 2005 Actual	Compared to 2001-2005 Avg.
		Based on the Options	2005 Actual		Based on the Options	2005 Actual			
North of Cape Falcon <sup>b/</sup>	I	81.2	103.9	122.9	6,844	8,753	10,460	-22%	-35%
	II	61.8			5,207			-41%	-50%
	III	40.4			3,401			-61%	-67%
Cape Falcon to Humbug Mt.	I	53.7	50.2	83.3	3,770	3,519	5,976	7%	-37%
	II	49.7			3,487			-1%	-42%
	III	0.0			0			-100%	-100%
Humbug Mt. to Horse Mt.	I	26.9	29.7	39.3	1,851	2,047	2,711	-10%	-32%
	II	10.0			692			-66%	-74%
	III	0.0			0			-100%	-100%
Horse Mt. to Pt. Arena	I	23.7	24.0	28.2	2,375	2,403	2,796	-1%	-15%
	II	4.7			471			-80%	-83%
	III	2.2			223			-91%	-92%
South of Pt. Arena	I	108.6	130.8	131.0	11,776	14,188	14,759	-17%	-20%
	II	37.9			4,116			-71%	-72%
	III	11.1			1,205			-92%	-92%
Total South of Cape Falcon <sup>c/</sup>	I	212.8	234.6	281.7	19,771	22,157	26,242	-11%	-25%
	II	102.4			8,767			-60%	-67%
	III	13.3			1,428			-94%	-95%
West Coast Total	I	294.1	338.5	404.6	26,616	30,910	36,702	-14%	-27%
	II	164.2			13,975			-55%	-62%
	III	53.7			4,829			-84%	-87%

a/ Income impacts are sums of the impacts for individual communities within each management area. Note that these exclude some of the additional income impacts resulting from economic linkages between individual communities and between the communities and the greater economic region. Income impacts are not comparable to the exvessel values shown in Table 9. All dollar values are adjusted to 2005 real values.

b/ Based on 2005 effort success rates for selective fisheries.

c/ South of Cape Falcon estimates based on selective coho fishery quotas and season dates as compared to the 2005 seasons.

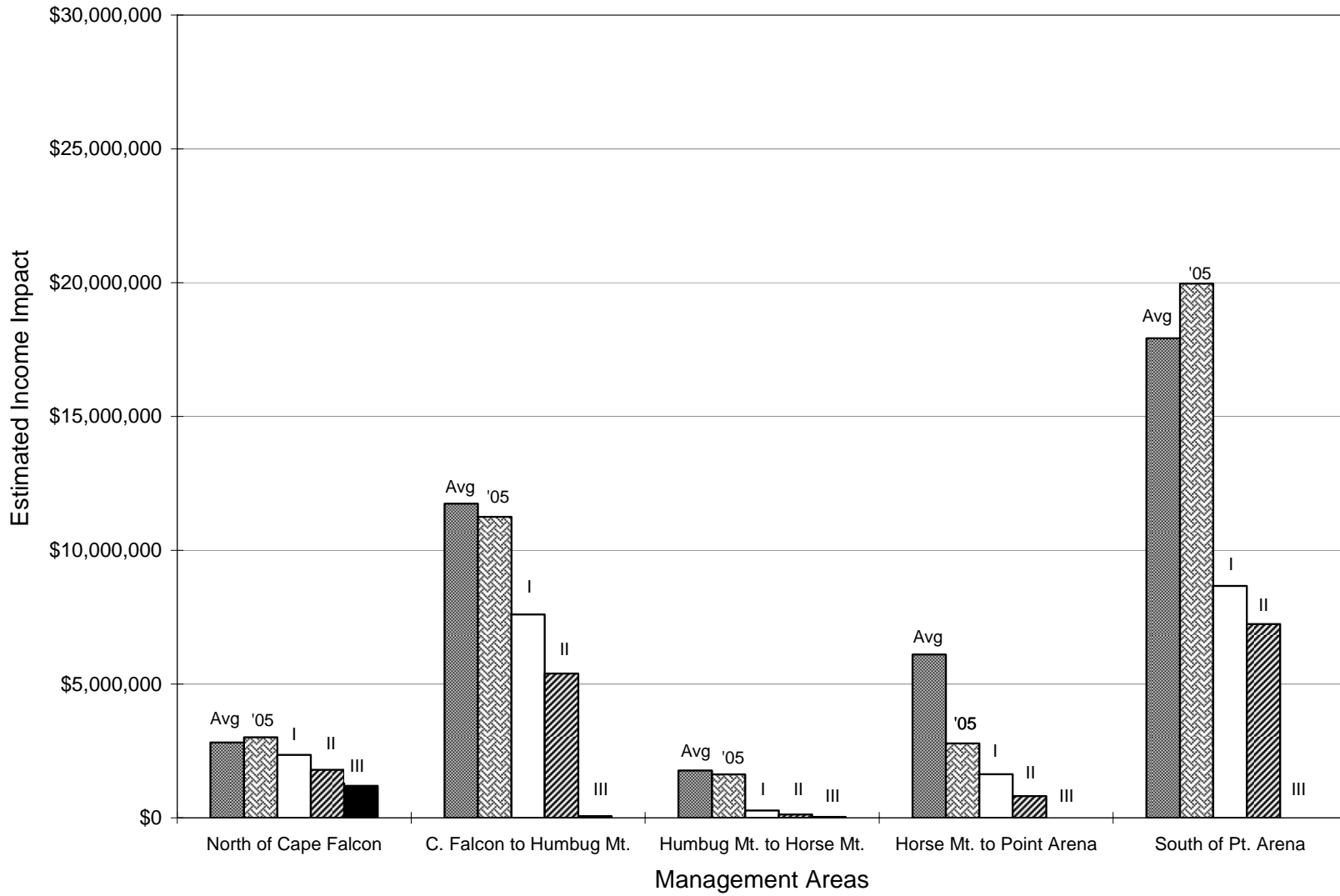


FIGURE 1. Projected coastal community income impacts associated with the Council adopted 2006 commercial fishery options compared to 2005 and the 1976-1990 average in real (inflation adjusted) dollars.

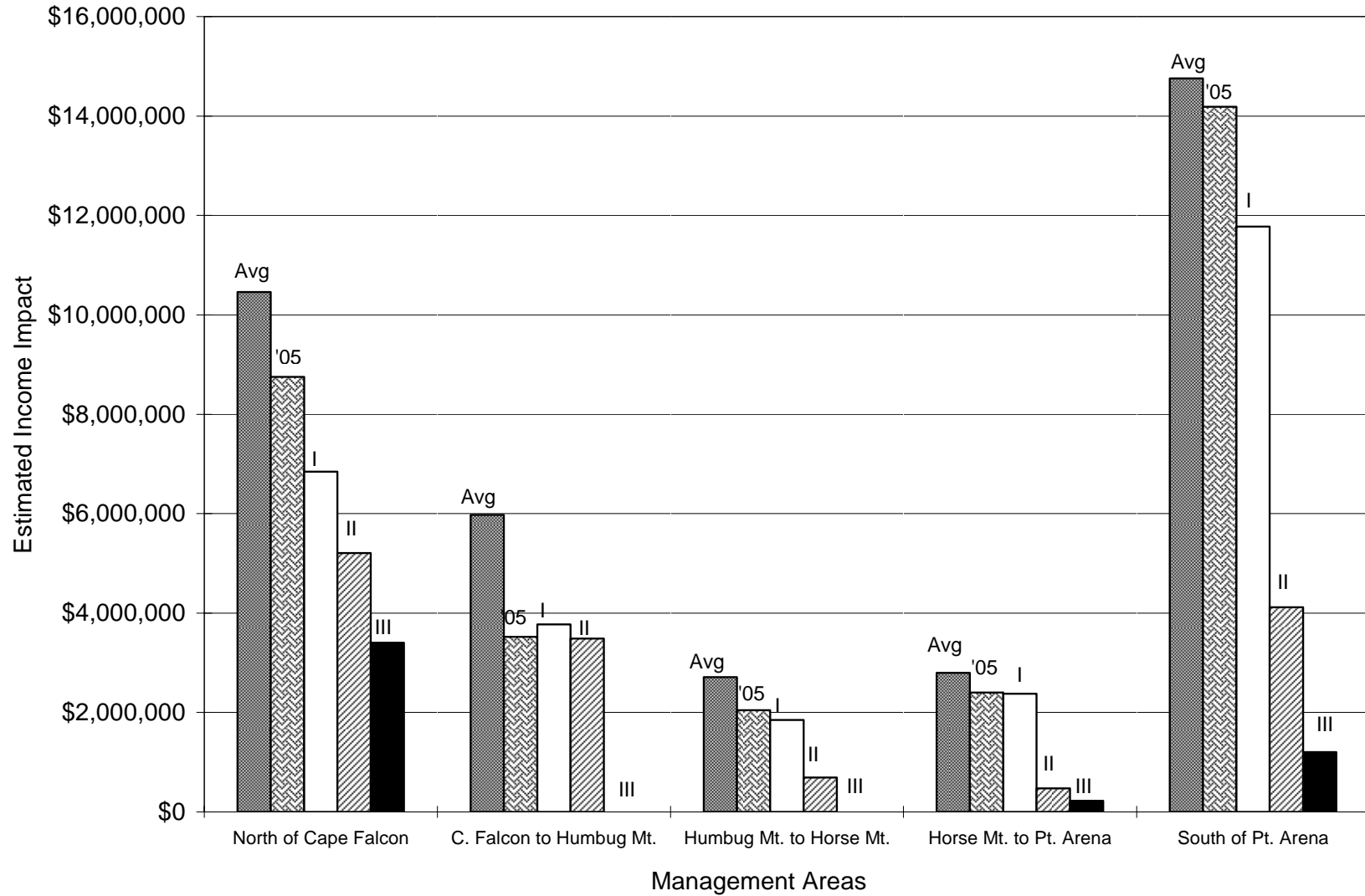


FIGURE 2. Projected coastal community income impacts associated with the Council adopted 2006 recreational fishery options compared to 2005 and the 1976-1990 average in real (inflation adjusted) dollars.



## APPENDIX A

### *KOHM ADJUSTMENTS FOR 2006 FISHERIES*

The age-4 ocean harvest rate on Klamath River fall Chinook has been significantly under-predicted for three consecutive years. Table A-1 lists the preseason and postseason estimates for these years, stratified by sector (commercial, recreational) and time period (September-December, January-August).

The recreational sector preseason estimates have not been particularly problematic (Table A-1). The commercial sector preseason estimates for the previous September-December period have been somewhat more problematic, but it is not yet clear whether the estimator is positively biased versus generally uncertain (September-December 2002 was over-estimated, Table A-1). The preseason estimates for the September-December period are actually preliminary “postseason” estimates based on coded-wire tag recoveries in these fisheries (these fisheries are prosecuted prior to the preseason planning process) coupled with the current ocean abundance forecasts. These preliminary “postseason” estimates for the September-December period are inputs to the KOHM—not outputs. The primary source for the substantial under-prediction of the age-4 ocean harvest rate in 2003, 2004, and 2005, has been the commercial sector preseason prediction for the January-August period (as highlighted in Table A-1). The preseason predictions for this time period are outputs of the KOHM, and the STT therefore reviewed the KOHM harvest rate predictors for the commercial sector during the January-August period, and adjusted these predictors for the recent observed patterns in the postseason estimates as described below.

The KOHM January-August period age-4 ocean harvest rate predictors are a function of the sector-area-month-specific expected contact rate per unit of effort and the expected level of effort per day open. For the expected contact rate per unit of effort, the KOHM default predictor is a ratio estimator fit to all available data (postseason estimates from 1983–2005). Figure A-1 displays these area-month-specific postseason estimates and contact rate predictors for the commercial sector. The small dots are 1983–2002 postseason values; the large dots are the postseason values of the last three years (2003–2005). The thin predictor line is the ratio estimator fit to the entire dataset (KOHM default); the thick predictor line is the ratio estimator fit to the 2003–2005 data. For the northern Oregon (NO) and central Oregon (CO) areas in March and April, the high contact rates per unit effort in 2003–2005 were initially unanticipated by the KOHM, but the 2006 predictors have now adapted to the recent accumulation of these data and do not appear in need of any adjustment (Figure A-1). During the May-Aug period in the NO and CO areas, there are a few outlying points from the last three years but for the most part the recent data is consistent with the historical data pattern, indicating no adjustment is necessary for these months (Figure A-1). Adjustment of the Oregon KMZ (KO) and California KMZ (KC) predictors is also judged to be unnecessary (Figure A-1). For the Fort Bragg (FB), San Francisco (SF), and Monterey (MO) areas however, there has been a fairly consistent under-prediction of the contact rate per unit of effort across the May-August period (Figure A-1). The consistency of this recent upward shift in the data across this broad geographic area and time period (years, and months within years) argues for restricting the database for these areas to the 2003–2005 period, and this adjustment was made. In summary, for the commercial sector, the 2006 KOHM contact rate per unit of effort predictors for the NO, CO, KO, and KC areas will be the ratio estimator based on all available data (thin line), and for the FB, SF, MO areas will be the ratio estimator based on the 2003–2005 data (thick line).

For the expected level of effort per day open, the KOHM default predictor for the commercial sector is a ratio estimator fit to all available data since 1991 (postseason estimates from 1991–2005). There are two exceptions to this. First, if there is insufficient pre-existing data for a given area in a particular month (e.g., early season fisheries), the effort predictor for the following month in the same area is used (for

early season fisheries this predictor will probably be conservative). Second, in the FB, SF, and MO areas the predictors account for effort shift expected under partial closure of the overall area (effort from the closed areas is assumed to move into the open areas). The FB, SF, and MO effort predictors have worked reasonably well in recent years and do not appear in need of adjustment. The KO and KC effort predictors also appear to be satisfactory. For the NO and CO areas however, there has been relatively high levels of effort in the last few years, and in particular in 2005. While the 2005 NO and CO commercial fisheries were substantially restricted in time and area, the observed levels of effort in those areas and months that were open was unexpectedly high (near record highs in several months), with the result that overall effort across these areas within a month and for the season as a whole was not dampened. In other words, there was considerable effort shift within months, and a concentration of effort across months, in the NO and CO areas in 2005. The effort predictors for the NO and CO areas were thus adjusted in two ways for modeling 2006 fisheries. First, effort shift between these two areas within a month was incorporated into the predictor (as is presently done for the FB, SF, and MO areas): within a particular month, if NO is closed, all of the NO effort is assumed to move into the CO area; and vice-versa. Second, to account for the concentration of effort across months expected under the proposed 2006 options which further restrict opportunity in these areas compared to 2005, the STT concludes that the best available effort predictor for the NO and CO areas in 2006 is the area-month-specific effort per day values observed in 2005. In summary, for the commercial sector, the 2006 KOHM effort per day open predictors for the KO, KC, FB, SF, MO areas will be the ratio estimator based on the 1991–2005 data, and for the NO and CO areas will be the ratio estimator based on the 2005 data. Effort transfer has now been incorporated into the NO and CO area predictors, as it is for the FB, SF, MO area predictors.

To gauge the net effect of these adjustments on the age-4 ocean harvest rate forecast, Table A-2 compares the 2005 preseason prediction versus that which would have resulted had the adjusted KOHM been used for preseason prediction in 2005. In this example, the adjusted KOHM forecasts closely track the January-August postseason results, with the largest unaccounted for errors arising from the September-December preliminary “postseason” estimated values (Table A-2).

Table A-1. 2003-2005 preseason, postseason estimates of Klamath River fall Chinook age-4 ocean harvest rates (percent).

Year (t)	Commercial			Recreational			Combined		
	Sep-Dec(t-1)	Jan-Aug(t)	Sep(t-1)-Aug(t)	Sep-Dec(t-1)	Jan-Aug(t)	Sep(t-1)-Aug(t)	Sep-Dec(t-1)	Jan-Aug(t)	Sep(t-1)-Aug(t)
Pre 2003	3.6	9.9	13.6	0.2	2.3	2.5	3.8	12.2	16.0
Post 2003	2.0	19.8	21.8	0.1	1.2	1.3	2.1	20.9	23.0
Post-Pre 2003	-1.6	9.8	8.2	-0.1	-1.1	-1.2	-1.7	8.7	7.0
Pre 2004	3.4	9.0	12.4	0.5	2.1	2.6	3.9	11.1	15.0
Post 2004	7.5	40.8	48.2	1.0	3.2	4.2	8.5	44.0	52.4
Post-Pre 2004	4.1	31.8	35.9	0.5	1.1	1.6	4.6	32.8	37.4
Pre 2005	2.9	3.0	5.9	0.3	1.4	1.7	3.3	4.4	7.7
Post 2005	8.0	13.6	21.6	0.8	1.6	2.3	8.8	15.2	23.9
Post-Pre 2005	5.1	10.5	15.6	0.4	0.2	0.6	5.5	10.7	16.3

Table A-2. 2005 preseason, adjusted KOHM, and postseason estimates of Klamath River fall Chinook age-4 ocean harvest rates (percent).

Year (t)	Commercial			Recreational			Combined		
	Sep-Dec(t-1)	Jan-Aug(t)	Sep(t-1)-Aug(t)	Sep-Dec(t-1)	Jan-Aug(t)	Sep(t-1)-Aug(t)	Sep-Dec(t-1)	Jan-Aug(t)	Sep(t-1)-Aug(t)
Pre 2005	2.9	3.0	5.9	0.3	1.4	1.7	3.3	4.4	7.7
Post 2005	8.0	13.6	21.6	0.8	1.6	2.3	8.8	15.2	23.9
Post-Pre 2005	5.1	10.5	15.6	0.4	0.2	0.6	5.5	10.7	16.3
KOHM adj 2005	2.9	13.4	16.3	0.3	1.3	1.6	3.3	14.7	18.0
Post 2005	8.0	13.6	21.6	0.8	1.6	2.3	8.8	15.2	23.9
Post-Pre 2005	5.1	0.1	5.2	0.4	0.3	0.7	5.5	0.4	6.0

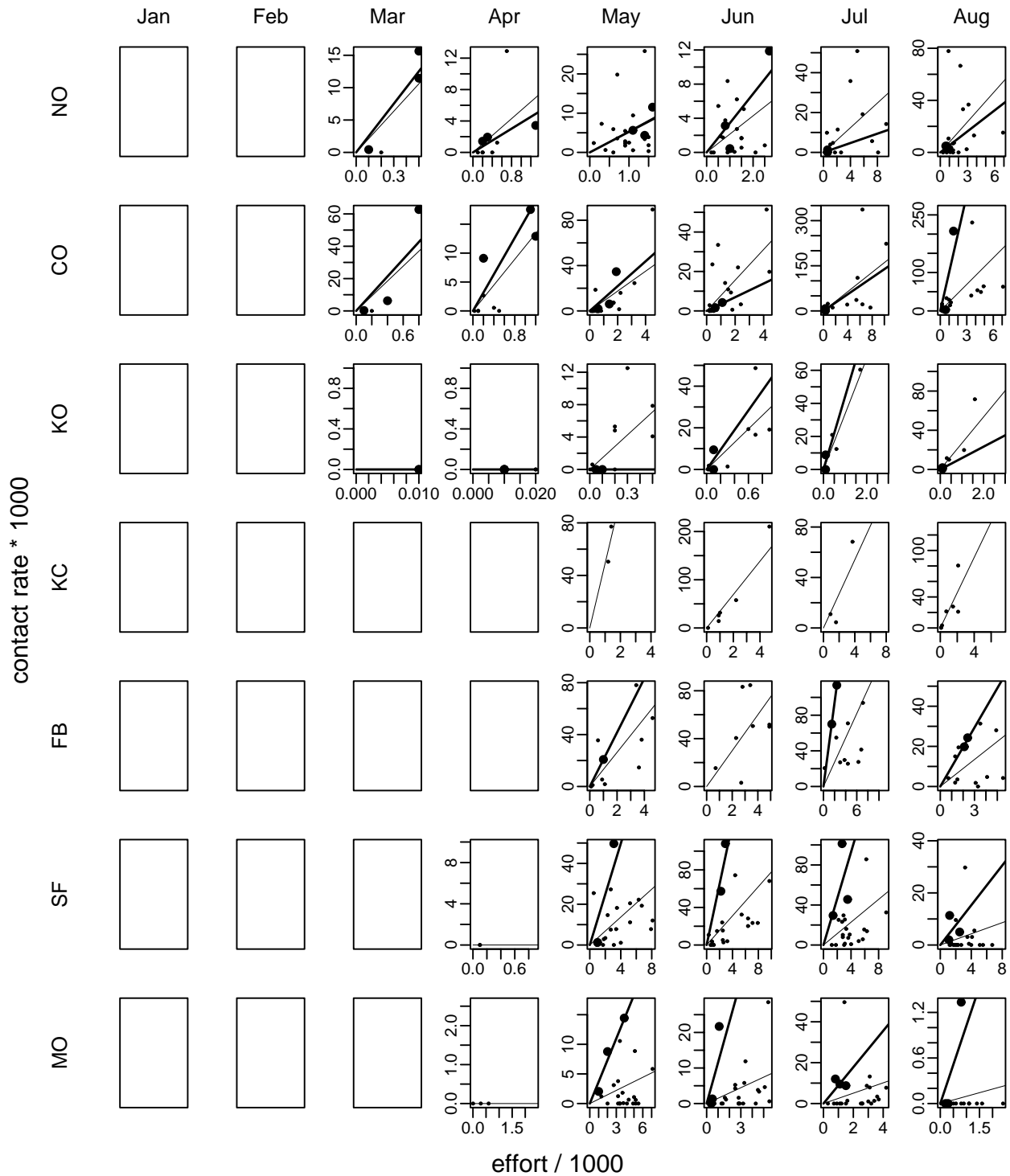


FIGURE A-1. Klamath River fall Chinook commercial age-4 contact rate versus effort for KOHLM management areas by month, January through August. Large dots are 2003-2005 postseason values; small dots are 1983-2002 postseason values; thick lines are predictors based on the 2003-2005 data; thin lines are the KOHLM default predictors based on all data (1983-2005). See Appendix A text for further details.

