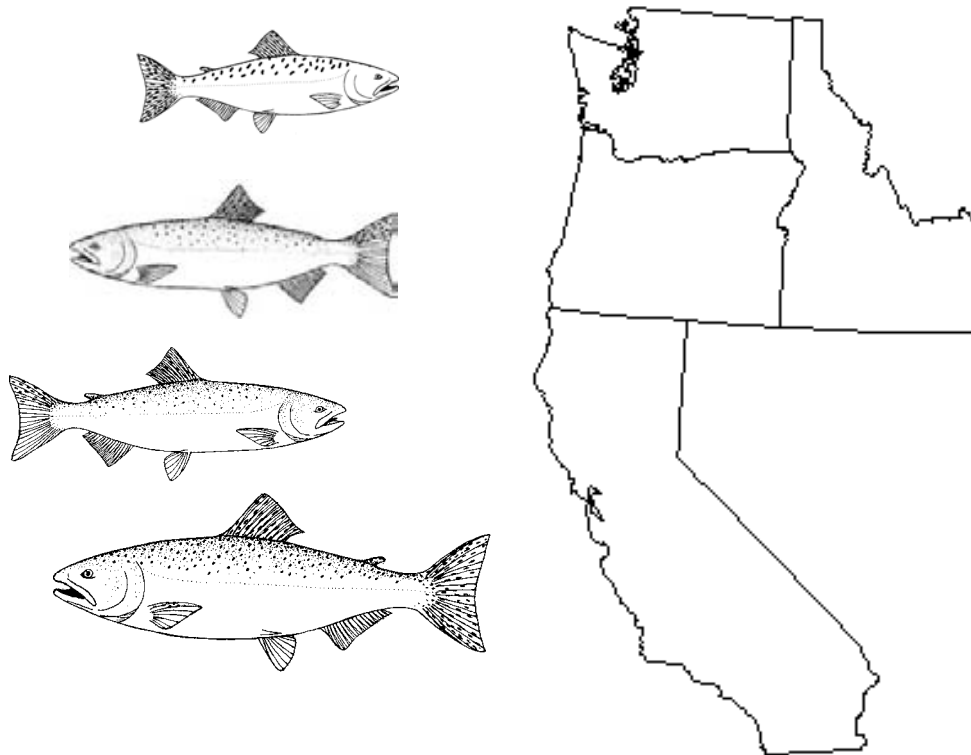


PRESEASON REPORT III

ANALYSIS OF COUNCIL ADOPTED MANAGEMENT MEASURES
FOR 2005 OCEAN SALMON FISHERIES

PREPARED BY THE SALMON TECHNICAL TEAM AND COUNCIL STAFF



PREPARED BY THE
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LIST OF ACRONYMS AND ABBREVIATIONS

AEQ	adult equivalent
CCC	Central California Coastal (coho)
CDFG	California Department of Fish and Game
CERC	critical exploitation rate ceiling
Council	Pacific Fishery Management Council
CTC	Chinook Technical Committee (Pacific Salmon Commission)
EEZ	Exclusive Economic Zone
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FMA	fishery management area
FMP	fishery management plan
FONSI	finding of no significant impact
HRM	hook-and-release mortality
ISBM	individual stock based management
KFMC	Klamath Fishery Management Council
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
MSP	maximum sustainable production
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RK	Rogue/Klamath (hatchery coho)
SAS	Salmon Advisory Subpanel
SONCC	Southern Oregon/Northern California Coastal (coho)
SRFI	Snake River Fall (chinook) Index
SRW	Sacramento River winter (chinook)
STT	Salmon Technical Team
TAC	total allowable catch
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife

INTRODUCTION

This is the last in a series of three preseason reports prepared by the Pacific Fishery Management Council's (Council) Salmon Technical Team (STT) and staff. The reports document and help guide salmon fishery management in the exclusive economic zone (EEZ) from three to 200 nautical miles off the coasts of Washington, Oregon, and California, and within state territorial waters. This report summarizes the STT analysis of the 2005 ocean salmon fishery management measures adopted by the Council for submission to the U.S. Secretary of Commerce. A biological evaluation of expected impacts on stocks listed under the Endangered Species Act (ESA) is included in Appendix A. This report serves as the basis for a supplemental Finding of No Significant Impact (FONSI), addressing the 2005 ocean salmon management measures, and is analogous to a preferred alternative in a National Environmental Policy Act (NEPA) analysis.

ADOPTED MANAGEMENT MEASURES

The Council's recommendations for the 2005 ocean salmon fishery regulations meet or exceed the objectives of the *Pacific Coast Salmon Plan* (Salmon FMP), obligations under the Pacific Salmon Treaty (PST), and the level of protection required by all consultation standards for salmon species listed under the ESA. The following figures and tables describe the 2005 Council-adopted management measures:

- Table 1-Non-Indian commercial ocean salmon management measures, pages 10-13;
- Figure 1-geographic outline of commercial troll (non-Indian) ocean salmon seasons, page 14;
- Table 2-recreational ocean salmon management measures, pages 15-18;
- Figure 2-geographic outline of recreational ocean salmon seasons, page 19;
- Table 3-treaty Indian commercial ocean management measures, page 20; and
- Table 4-allowable catch quotas for chinook and coho, page 21.

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

The 2005 seasons are constrained primarily by (1) endangered Sacramento River winter chinook south of Point Arena, (2) Klamath River fall chinook south of Cape Falcon; (3) threatened Snake River fall chinook north of Cape Falcon, and (4) management goals for naturally produced coho salmon over the entire Council management area, including southern Oregon and California coastal stocks, which are listed as threatened under the ESA, and Puget Sound, Washington coastal, and Interior Fraser (British Columbia) naturally spawning coho populations subject to provisions of the PST. Both recreational and non-Indian commercial fisheries operate under restrictions that permit retention of coho with healed adipose fin clips, although there are two provisions for inseason action to allow the retention of all legal size coho regardless of mark status: one in the non-Indian commercial fishery in the area between Cape Falcon, Oregon and the Queets River, Washington, during the month of September, and the second in the recreational fishery between Cape Alava and the Queets River, Washington, September 24 through October 9.

Regulations and expected fishing patterns for the treaty-Indian troll fisheries were developed by the Hoh, S'Klallam, Makah, Quileute, and Quinault tribes for their respective fisheries. The Council recommendations include continuation of the encounter rate study to be conducted by the Makah Tribe in the Cape Flattery area. The purpose of the study is to estimate encounter rates of sub-legal and legal size chinook and coho salmon during troll fisheries directed at each species.

INSEASON MANAGEMENT

Some management measures may be modified through inseason action by the National Marine Fisheries Service (NMFS) after consultation with the Council Chair, affected management agencies, and pertinent tribes and public (e.g., changing the days or number of days of fishing allowed per calendar week; or modifying open areas, bag limits, species retention limits, mark dependent retention restrictions, and quotas—including trades between commercial and recreational fisheries north of Cape Falcon). Inseason changes are made to meet the preseason intent of the management measures described in this document, but must also meet the Council's Salmon FMP goals, especially in regard to conservation and allocation goals, Federally-recognized Indian fishing rights, consultation standards for ESA-listed salmon stocks, and obligations under the PST.

Inseason actions that are anticipated for 2005 include, but are not limited to, the following possibilities:

1. Adjustments in landing limits and days open for non-Indian commercial fisheries north of Cape Falcon.
2. Allowing retention of coho regardless of mark status in non-Indian commercial and recreational fisheries north of Cape Falcon.
3. Opening recreational fisheries north of Cape Falcon, Oregon seven days per week.
4. Transfer of coho quotas among recreational port areas north of Cape Falcon.
5. Trading portions of chinook and coho quotas between recreational and non-Indian commercial sectors north of Cape Falcon.
6. Routine openings and closings associated with quota management.

Inseason action will generally be accomplished through NMFS-sponsored conference calls attended by representatives of affected state and tribal management agencies, the Council, the Salmon Advisory Subpanel (SAS), and the STT.

It is anticipated the Oregon Department of Fish and Wildlife (ODFW) will permit late-season, chinook-only fisheries in certain areas within state waters in addition to the seasons shown in Tables 1 and 2. Potential seasons include commercial and recreational fisheries at the mouths of the Chetco and Elk Rivers and at the mouth of Tillamook Bay. The State of Washington may also establish limited recreational fisheries in state waters if additional impacts on critical coho and/or chinook stocks can be accommodated within management constraints.

Council intent generally advocates that state-water fisheries have the same basic regulations as adjacent Federal waters, particularly if open simultaneously; however, the Oregon State-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.

NEW MANAGEMENT MEASURES

South of Cape Falcon

Commercial Measures

The commercial fishery measures for this area are substantially more restrictive than in 2004. Changes in the measures include the following:

- In the area from Cape Falcon to Florence South Jetty, there are fewer open days in March, April, and May; and July and August are closed.

- In the area from Florence South Jetty to Humbug Mountain, there are fewer open days in March and April; and June, July, and August are closed.
- In both of the above areas, all vessels fishing in either area must land their fish in the State of Oregon.
- In the Oregon portion of the Klamath Management Zone (KMZ), there are fewer open days in March and April; and May, June, July, and August are closed.
- For the coast of Oregon south of Cape Falcon, the minimum size limits are 27 inches total length through April 15, and 28 inches thereafter.
- In the Horse Mountain to Point Arena area, July and August are closed and only September is open. In 2006 the area will open April 1.
- In the Point Arena to Pigeon Point area, May and June are closed.
- In the Pigeon Point to Point Sur area, June is closed.
- In all areas south of Horse Mountain, the minimum size limit is 28 inches total length in July and August and 27 inches otherwise, except for the late fall target fishery in October, which has a 26 inch size limit.

Recreational Measures

The recreational fishery measures for this area are somewhat more restrictive than in 2004. Changes in the measures include the following:

- For the Cape Falcon to the Oregon/California border area, the coho selective fishery opens June 18 and closes July 31 or when the overall quota of 40,000 marked coho is reached.
- In the KMZ, the fishery is open May 21 through July 4 and August 14 through September 11 with a 24 inch total length minimum size limit. This is the first time since 1983 the minimum size limit is larger than 20 inches.
- In the Horse Mountain to Point Arena area, the fishery is open February 12 through July 10; July 16 through 17; and July 23 through November 13.
- For the Point Arena to Pigeon Point area, the season opening was advanced two weeks to April 2 and now coincides with the opening date for the fishery south of Pigeon Point.
- South of Horse Mountain, the minimum size limit is now 20 inches for the entire season.

North of Cape Falcon

Commercial Measures

To limit impacts on Snake River fall chinook, the treaty-Indian chinook quota was distributed with 25,000 chinook to be taken during the May/June chinook-directed fishery and 23,000 during the July 7 through September 15 all-salmon fishery. The non-Indian commercial chinook quota was distributed with 29,000 chinook to be taken during May and June and 14,250 during July 7 through September 15.

The lower coho quotas in both treaty-Indian and non-Indian troll fisheries are intended to limit impacts on Interior Fraser coho. The ocean exploitation rate is 4.3% on Interior Fraser coho; this compares to 5.3% in 2004. The total Interior Fraser coho exploitation rate is 9.8% in 2005 under proposed regulations.

The non-Indian troll fishery is permitted to retain only coho with a healed adipose fin clip, except an inseason conference call may occur to consider allowing retention of all legal sized coho beginning no earlier than September 1 on an impact neutral basis.

To protect threatened Hood Canal summer-run chum, retention of chum is prohibited north of Cape Alava in August and September.

Recreational Measures

To protect threatened Puget Sound chinook stocks, retention of chinook is only allowed in Area 4B east of the Bonilla-Tatoosh line prior to August 1, while the ocean fishery is open in Area 4 (Neah Bay area west of the Bonilla-Tatoosh line and north of Cape Alava). Beginning August 1, the Grays Harbor Control Zone is closed to protect Grays Harbor chinook, which are predicted to return below the escapement goal.

The ocean coho quotas were reduced to 54% of the 2004 season total allowable catch (TAC) to limit impacts on Columbia River late coho and Interior Fraser coho. The recreational fishery is permitted to retain only coho with a healed adipose fin clip, except that there is a provision for inseason action allowing retention of all legal sized coho in the Cape Alava to Queets River subarea beginning September 24.

The chinook minimum size limit is set at 24 inches total length, the season opening dates in 2005 are delayed compared to 2004, and the subareas north the Queets River are starting with only five days per week open to improve the likelihood of extending the length of the season through Labor Day. The bag limit for 2005 is two fish, no more than one of which may be a chinook, with no chum retention in August and September north of Cape Alava.

Tillamook Head to Cape Falcon closes August 1 to reduce impacts on the northern component of Oregon Coastal Natural (OCN) coho.

ESTIMATED SALMON STOCK IMPACTS OF ADOPTED MANAGEMENT MEASURES

Procedures and assumptions employed in the evaluation of regulatory impacts are reviewed and maintained in records by the STT. In modeling non-retention and mark-selective fishery impacts, the Council has adopted hook-and-release mortality (HRM) rates of 26% for the commercial fishery, 14% for recreational fishery north of Point Arena, California, and 23% for the recreational fishery south of Point Arena. The HRM rate of 14% for the recreational fishery north of Point Arena was adopted in 2001 and is the result of a comprehensive review by the STT. The HRM rate of 23% for the recreational fishery south of Point Arena is based on the proportion of mooching and trolling gear used in the fishery during 2004 and the HRMs of 42.2% and 14% for these two respective gear types. In addition, a drop-off mortality impact is applied to all fisheries. Generally, this impact is calculated as 5% of the total encounters by hook-and-line fisheries.

CHINOOK SALMON ASSESSMENT

Ocean chinook harvest quotas are summarized in Table 4. Table 5 lists expected escapements and other key chinook management criteria, including allocation of Klamath River fall chinook and data relevant to consultation standards for ESA-listed stocks. Expected ocean harvest and incidental non-retention mortality

are provided in Table 6. Further details of fishery impacts on stocks listed under the ESA are provided in Appendix A.

South of Cape Falcon

Considerations in shaping the chinook fisheries in this area include the protection of ESA-listed Sacramento River winter and California Coastal chinook (Appendix A), and achievement of fall chinook spawning escapement goals for the Klamath, Sacramento, and Oregon coastal rivers. In 2005, chinook fisheries in this area are constrained primarily to meet the Klamath River fall chinook escapement goal, and harvest allocation objectives, and to satisfy NMFS ESA consultation standards for Sacramento River winter chinook (Table 5).

U.S./Mexico Border to Horse Mountain

Central Valley (primarily Sacramento River) fall chinook is the Council's primary management unit in this area. Under the adopted management measures, the projected spawning escapement for Sacramento River fall chinook is 983,600 adult fish. This is far above the spawner escapement goal range of 122,000 to 180,000 hatchery and natural fall chinook adults combined. Ocean commercial fisheries in this area are expected to land 366,400 chinook; a 22% decrease from the observed 2004 landings (Table 6). Ocean recreational fisheries in this area are expected to land 242,000 chinook; a 23% increase over the observed 2004 landings (Table 6).

Horse Mountain to Humbug Mountain

This area is designated as the KMZ because the primary stock of concern is Klamath River fall chinook. Ocean escapement of Klamath River fall chinook to the Klamath River in 2005 is projected to be 74,200 adults. After river tribal and recreational fishery impacts, the total number of spawners is expected to be 63,900 adults, of which 35,000 are expected to spawn in natural areas.

Management constraints for Klamath River fall chinook usually affect the shaping of many ocean fisheries from central Oregon to central California, as well as Klamath River tribal and recreational fisheries. Therefore the Council, with assistance from the Klamath Fishery Management Council (KFMC), identifies several specific adult harvest allocation objectives for this stock (Table 5). The Council's adopted regulations are expected to result in:

- 50% (8,300 fish) of the available harvest to the Indian tribes of the Klamath-Trinity River Basin with Federally-recognized fishing rights (Yurok and Hoopa Valley tribes);
- 15% (1,200 fish) of the non-Indian harvest to the Klamath River recreational fishery;
- 85% (7,100 fish) of the non-Indian harvest to the ocean fisheries;
- 17.1% (1,200 fish) of the ocean harvest to the KMZ recreational fishery; and
- 50% each (2,200 fish) of the ocean commercial harvest of Klamath River fall chinook in all areas to the States of California and Oregon.

Ocean commercial fisheries in the KMZ area are expected to land 9,700 chinook (all stocks); a 34% decrease in the number of chinook caught and landed (14,700) in this area in 2004. Total landings for the area in 2004 (Table 6) included an additional 25,300 chinook caught north of the KMZ and landed in California, which will not occur under the 2005 regulations. Ocean recreational fisheries in the KMZ area are expected to land 21,000 chinook (all stocks); a 29% decrease from the 2004 recreational landings (Table 6).

Humbug Mountain to Cape Falcon

The primary chinook stocks of concern in this area originate in California and Oregon coastal river systems. Klamath and Sacramento River fall chinook also contribute significantly to the harvest. The ocean escapement of these stocks in 2005 is expected to be sufficient to provide for estuary and freshwater fisheries and meet spawner escapement goals.

Chinook impacts in this area are primarily associated with the commercial fisheries, as recreational fishing effort is generally focused on coho. Recreational coho fishing was closed from 1994 to 1998 and reopened to limited mark-selective harvest of coho with a healed adipose fin clip in 1999. For 2005, the commercial chinook fishery opened March 15 with closed days in each month through May and an increase to the minimum size limit after the April fishery. The fishery has the full month of June open in the northern portion of this area with the entire area closed in July and August. The closures were necessary to meet the Klamath River fall chinook spawner escapement and the KFMC-recommended sharing of Klamath River fall chinook ocean commercial harvest between the States of Oregon and California. The fishery reopens September 1 through 23 and for the full month of October. After August, most mature fall chinook in this area are no longer available to ocean fisheries, and impacts at that time primarily affect ocean escapement in the following year. Ocean harvests after September 1 are counted against the allowable harvest for the following year. The increased size limits during September and October should reduce the Klamath River fall chinook harvest counted toward the 2006 allowable harvest and allocation of these fish. As in recent years, commercial troll gear restrictions have also been recommended to reduce coho impacts (Table 1).

The 2005 commercial fishery catch projection is 144,500 chinook for this area, a 40% decrease from the 2004 catch of 240,000 chinook (Table 6).

North of Cape Falcon

Management objectives for chinook fisheries in this area are to comply with NMFS ESA consultation standards, meet treaty Indian sharing obligations, and to the extent possible, provide for viable ocean and inriver fisheries while meeting natural stock escapement objectives and hatchery fall chinook brood stock needs. Lower Columbia River and Bonneville Pool hatchery fall chinook have historically been the major contributors to ocean fishery catches in the Council area north of Cape Falcon. This year, impact limits on ESA-listed Snake River wild fall chinook constrained ocean fisheries in this area. All NMFS consultation standards for ESA-listed stocks are expected to be met (Table 5).

The June 1999 PST Agreement for chinook requires that impacts of Individual Stock Based Management (ISBM) fisheries be reduced relative to the 1979-1982 base period for select depressed naturally spawning stocks of interest to the Pacific Salmon Commission (PSC). For PST purposes, all southern U.S. fisheries, including Council area fisheries, are ISBM fisheries. These reductions are to be measured using the Non-Ceiling Fishery Index (ISBM index) recommended by the PSC's Chinook Technical Committee (CTC) in 1991 (Appendix B). This index measures a reduction in the adult equivalent total mortality rate, relative to the 1979 through 1982 base period. The PST specifies that for stocks not meeting their escapement objectives, the general obligation is to achieve an ISBM index not to exceed 60%. Table 5 shows the predicted ISBM index for select naturally spawning stocks. The ISBM index for two stocks of interest to the PSC, Nooksack spring and Lake Washington fall, cannot be predicted accurately with currently available models and are not reported. Of those stock-specific indices reported, all stocks are either projected to meet their escapement goal or their predicted ISBM index is below the PST constraint.

The 2005 non-Indian chinook quotas in this area provide for landings of 43,250 chinook in the commercial troll and 43,250 chinook in the recreational fisheries (Table 4). The 2004 actual non-Indian chinook landings were 40,400 in the commercial troll and 26,600 in the recreational fishery (Table 6).

The treaty-Indian commercial troll fishery is constrained by a quota of 48,000 chinook in ocean management areas, including Area 4B (Table 3). The fishery consists of a chinook-directed fishery in May and June with a quota of 25,000 chinook and an all-salmon season beginning in July with a 23,000 chinook quota. There is no roll-over of any chinook that are not harvested during the May/June chinook-directed fishery. The observed chinook harvest in 2004 was 49,200 (Table 6).

COHO SALMON ASSESSMENT

Ocean coho harvest quotas are summarized in Table 4. Table 5 lists expected escapements and other key coho management criteria, including data relevant to meeting consultation standards for ESA-listed stocks and those proposed for listing. Expected coho harvest and incidental non-retention mortality are shown in Table 6. Table 7 provides a detailed accounting of impacts on OCN and Rogue/Klamath (RK) hatchery coho by fishery. Further details of the fishery impacts on stocks listed under the ESA can be found in Appendix A. Table 8 provides estimates of the percentage of marked coho expected to be encountered in mark-selective fisheries.

South of Cape Falcon

All natural coho stocks originating south of Cape Falcon have been listed under the Federal ESA, although there is no Federal protection under the ESA for Oregon Coastal coho at this time as a result of the February 24, 2004 decision by the Ninth Circuit Court of Appeals. NMFS guidance is that the three northern OCN coho stock components be managed in accordance with the Salmon FMP and the OCN Coho Work Group 2000 report (adopted by the Council as “expert biological advice to help guide Council management of OCN coho”). For 2005, the Work Group report recommends the exploitation rate in marine and freshwater fisheries combined be no more than 15.0%, while the Salmon FMP allows up to a 20.0% exploitation rate. For Southern Oregon/Northern California Coastal (SONCC) coho, the NMFS ESA consultation standard requires that the ocean exploitation rate on RK hatchery stocks be no more than 13.0%. For the Central California Coastal (CCC) coho, the NMFS ESA consultation standard prohibits retention of coho in California ocean fisheries.

Lower Columbia River (LCR) coho were proposed for listing as threatened under the ESA in June 2004. LCR coho are listed as endangered under the Oregon State ESA. Oregon has developed a management matrix for LCR coho that is conceptually equivalent to those used for OCN coho. With respect to the ocean salmon fisheries, NMFS recommended using Oregon's management matrix as guidance for the 2005 season. For 2005, both spawner abundance and marine survival are in the “low” category resulting in a marine fishery exploitation rate limit of no more than 15.0%.

Under the adopted management measures, the combined marine and freshwater OCN coho exploitation rate is projected to be 11.1% (Table 7). The number of OCN coho spawners in 2005 is projected to be 135,700 adults. This compares with 175,100 adults observed in 2004. The marine exploitation rate for RK hatchery coho is projected to be 5.5%. At present, there are no pre-season spawner projections for either SONCC or CCC coho. The marine exploitation rate for LCR coho is projected to be 10.0%. Ocean escapement of the early and late hatchery stocks of Columbia River coho are expected to be sufficient to meet hatchery egg-take goals (Table 5), although individual hatcheries may not meet late coho egg-take goals under the proposed combination of ocean and inside fisheries.

Coho retention is prohibited in commercial and recreational fisheries south of Cape Falcon, except for a mark-selective recreational fishery of 40,000 coho with healed adipose fin clips between Cape Falcon and the Oregon/California border, opening June 18 and closing no later than July 31, except the area south of Humbug Mt. will close July 5 through 31. In 2004, the mark-selective fishery was limited to 75,000 marked coho between Cape Falcon and the Oregon/California border.

In addition to the recreational quota of 40,000 marked coho, the estimated non-retention (drop-off, plus hook-and-release) mortality for non-Indian ocean commercial and recreational fisheries in the area south of Cape Falcon is 4,300 and 17,300 coho, respectively (Table 6).

North of Cape Falcon

Coho fisheries north of Cape Falcon are constrained by management objectives and treaty-Indian obligations for individual stock management units. For 2005, the exploitation rate on OCN coho in marine and freshwater fisheries combined is limited to 15.0% or less, and the exploitation rate on LCR coho in marine fisheries is limited to 15.0% or less. Additionally, ocean and Puget Sound fisheries were structured to constrain total exploitation rates on Interior Fraser coho to 10.0% or less in accordance with the provisions of the southern coho management plan adopted by the PSC in February 2002. Ocean escapements for the pertinent coho stocks under the proposed regulations are presented in Table 5. Ocean escapement levels for all natural coho stocks north of the Columbia River are expected to meet or exceed their long-term spawner escapement goals and comply with the management objectives adopted by state and tribal co-managers. The actual spawner escapements will be determined by the combined impact of ocean and inside fisheries. Management objectives in 2005 for these stocks have been agreed to by state and tribal co-managers under the terms of U.S. District Court orders. Although the overall egg-take goals for early and late Columbia River hatchery stocks are projected to be met, individual hatcheries may not meet late coho egg-take goals under the proposed combination of ocean and inside fisheries. Ocean escapements are projected to be sufficient to meet treaty Indian obligations and to allow some harvest opportunity for Columbia River non-Indian fisheries.

For 2005, retained coho in all non-Indian troll and recreational ocean fisheries north of Cape Falcon must be marked with a healed adipose fin clip, except inseason conference calls may occur to consider allowing retention of all legal sized coho beginning no earlier than September 1 in the non-Indian commercial fishery and beginning September 24 in the La Push subarea recreational fishery. Non-Indian commercial and recreational fisheries in this area will be constrained by coho quotas of 23,200 and 121,800 fish with healed adipose fin clips, respectively. The total allowable harvest by the non-Indian commercial and recreational fisheries for coho in 2005 is 145,000, compared to 270,000 in 2004. The 2004 non-Indian commercial and recreational catches of coho were 22,100 and 135,100, respectively (Table 6).

The coho quota for the treaty-Indian troll fishery in ocean management areas, including Washington State statistical area 4B for the May to September period, is 50,000 coho, a decrease from the 2004 quota of 75,000 fish. Actual coho catch by the treaty Indian troll fishery in 2004 was estimated at 61,700 fish.

SOCIOECONOMIC IMPACTS OF PROPOSED REGULATIONS

This section provides economic impact estimates for expected non-Indian fishing activities under the Council's proposed ocean commercial and recreational fishery regulations. Economic costs and benefits associated with changes in levels of ocean escapement (costs and benefits of spawner escapement and inside harvest) are not included. No attempt is made to estimate the economic value of the treaty-Indian commercial catch, although these landings do generate personal income for the local and state economies. The procedures and methods used to analyze the economic impacts follow those documented in previous preseason reports and the annual reviews of ocean salmon fisheries.

The economic effects of the proposed options for non-Indian fisheries are shown in Tables 9 and 10. Table 9 shows troll related effects expressed in terms of estimates of potential exvessel value, and Table 10 shows recreational related effects in terms of trips generated and coastal community personal income expected to

be 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 3 and 4 show estimated coastal community income impacts for both the troll and recreational options compared to historic impacts in real (inflation adjusted) dollars.

TABLE 1. **Non-Indian commercial troll** management measures adopted by the Council for ocean salmon fisheries, 2005. (Page 1 of 4)

A. SEASON DESCRIPTION

North of Cape Falcon

Supplementary Management Information:

1. Overall non-Indian TAC: 86,500 chinook and 145,000 marked coho.
Trade: None.
2. Non-Indian commercial troll TAC: 43,250 chinook and 23,200 marked coho.
3. Treaty Indian commercial ocean troll quotas of: 48,000 chinook (25,000 in May and June; 23,000 for all-salmon season July through Sept. 15 with no rollover allowed from chinook season); and 50,000 coho.

U.S./Canada Border to Cape Falcon

- May 1 through earlier of June 30 or 29,000 chinook quota.
Open May 1-3 with a 75 chinook per vessel landing and possession limit for the three-day open period; open May 6-9 with a 100 chinook per vessel landing and possession limit for the four-day open period; beginning May 13, open Friday through Monday with a 125 chinook possession and landing limit for each of the subsequent 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 26-30 open period with a per vessel landing and possession limit to be determined inseason. All salmon except coho (C.7). Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3). Vessels must land 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 their fish within the area north of Leadbetter Point. Vessels fishing south of Leadbetter Point must land their fish within the area 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 must 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).

U.S./Canada Border to Cape Falcon

- July 7 through earlier of Sept. 15 or 14,250 preseason chinook guideline (C.8) or a 23,200 marked coho quota.
Open Thursday through Monday prior to August 3, and Wednesday through Sunday thereafter. Landing and possession limit of 75 chinook per vessel for the July 7-11 and July 14-18 open periods, and 100 chinook landing and possession limit for subsequent five-day open periods. Landing and possession limit of 75 coho per five-day open period beginning August 10 in the area between Cape Falcon and Leadbetter Point. All salmon except no chum retention north of Cape Alava, Washington in August and September (C.7). All retained coho must have a healed adipose fin clip, **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). Gear restricted to plugs 6 inches (15.2 cm) or longer (C.2, C.3), except no special gear restrictions beginning August 10 in the area between Cape Falcon and Leadbetter Point. Cape Flattery and Columbia Control Zones closed (C.5). Vessels must land 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 their fish within the area north of Leadbetter Point. Vessels fishing south of Leadbetter Point must land their fish within the area 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, must 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).

South of Cape Falcon

Supplemental Management Information:

1. Klamath River recreational fishery allocation: 15%.

Cape Falcon to Florence South Jetty (Newport)

- March 15-25; April 1-15; May 1-3, 8-10, 15-17, 22-24, 29-30; June 1-30; September 1-23; October 1-31 (C.9).
All salmon except coho (C.7). Chinook 27 inch total length minimum size limit through April 15, and 28 inches total length thereafter (B). All vessels fishing in the area must land their fish in the State of Oregon. 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.

In 2006, the season will open March 15 for all salmon except coho, with a 27 inch total length chinook minimum size limit.

TABLE 1. **Non-Indian commercial troll** management measures adopted by the Council for ocean salmon fisheries, 2005. (Page 2 of 4)

A. SEASON DESCRIPTION (Continued)

Florence South Jetty to Humbug Mt. (Coos Bay)

- March 15-25; April 1-15; May 1-30; September 1-23; October 1-31 (C.9).
- All salmon except coho (C.7). Chinook 27 inch total length minimum size limit through April 15, and 28 inches total length thereafter (B). All vessels fishing in the area must land their fish in the State of Oregon.

In 2006, the season will open March 15 for all salmon except coho, with a 27 inch chinook minimum size limit.

Humbug Mt. to OR/CA Border (Oregon KMZ)

- March 15-25; April 1-15
 - September 3 through earlier of September 30, or a 3,000 chinook quota (C.9)
- All salmon except coho. Chinook 27 inch total length minimum size limit through April 15, and 28 inches total length September 1 through 30. 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.

In 2006, the season will open March 15 for all salmon except coho, with a 27 inch chinook minimum size limit.

OR/CA Border to Humboldt South Jetty (California KMZ)

- September 3 through earlier of September 30, or 6,000 chinook quota.
- 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.

Horse Mt. to Point Arena (Fort Bragg)

- September 1-30.
- All salmon except coho. Chinook minimum size limit 27 inches total length. See gear restrictions and definitions (C.2, C.3).

In 2006, 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 2006 meeting.

Pt. Arena to Pigeon Pt. (San Francisco)

- July 4 through August 29; September 1-30.
- All salmon except coho. Chinook minimum size limit 27 inches total length in September; 28 inches in July and August. See gear restrictions and definitions (C.2, C.3).

Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)

- October 3-14.
- 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).

Pigeon Point to Pt. Sur (Monterey)

- May 1-31; July 4 through August 29; September 1-30.
- All salmon except coho. Chinook minimum size limit 27 inches total length in May and September; 28 inches total length in July and August. See gear restrictions and definitions (C.2, C.3).

Pt. Sur to U.S./Mexico Border (Monterey)

- May 1 through September 30.
- 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).

TABLE 1. **Non-Indian commercial troll** management measures adopted by the Council for ocean salmon fisheries, 2005. (Page 3 of 4)

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

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					
Prior to April 16, 2005 and beginning March 15, 2006	27.0	20.5	-	-	None
May 1 to October 31	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:

- a. *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.
- b. *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.
- c. *Spread defined:* A single leader connected to an individual lure or bait.
- d. *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.

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.

TABLE 1. **Non-Indian commercial troll** management measures adopted by the Council for ocean salmon fisheries, 2005. (Page 4 of 4)

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

- 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.
- 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).
- 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.
- 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 2006 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2005).
 - 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. Consistent with Council management objectives, the State of Oregon may establish additional late-season, chinook-only fisheries in state waters. Check state regulations for details.
- C.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.

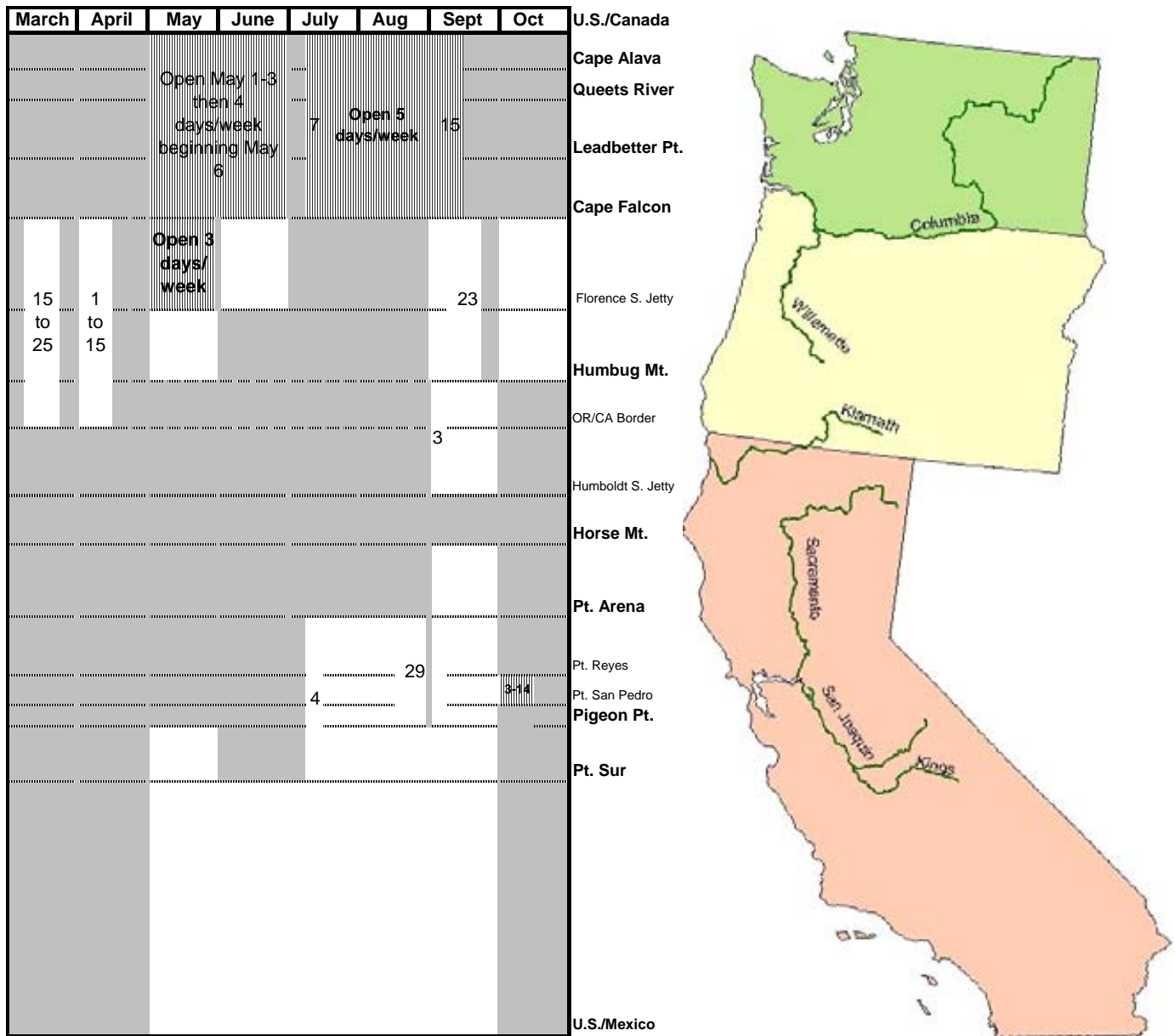


FIGURE 1. Council-adopted non-Indian commercial salmon seasons, 2005. Dates are first or last days of the month unless otherwise specified.

A. SEASON DESCRIPTION

North of Cape Falcon

Supplementary Management Information:

1. Overall non-Indian TAC: 86,500 chinook and 145,000 marked coho.
Trade: None.
2. Recreational TAC: 43,250 chinook and 121,800 marked coho.
3. No Area 4B add-on fishery.
4. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 9,600 marked coho in August and 2,400 marked coho in September.

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U.S./Canada Border to Cape Alava (Neah Bay Subarea)

C July 1 through earlier of September 18 or 12,667 marked coho subarea quota with a subarea guideline of 4,300 chinook. Tuesday through Saturday, except there may be a conference call no later than July 27 to consider opening seven days per week. All salmon, except no chum retention August 1 through Sept. 18, two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. 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).

Cape Alava to Queets River (La Push Subarea)

- C July 1 through earlier of September 18 or 3,067 marked coho subarea quota with a subarea guideline of 1,900 chinook. Tuesday through Saturday, except there may be a conference call no later than July 27 to consider opening seven days per week.
- C September 24 through October 9 or 100 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.

All salmon, two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin, **except inseason action may occur to consider allowing retention of all legal sized coho beginning September 24** (C.5.d). 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).

Queets River to Leadbetter Point (Westport Subarea)

- June 26 through earlier of September 18 or 45,066 marked coho subarea quota with a subarea guideline of 28,750 chinook. Sunday through Thursday, except there may be a conference call no later than July 27 to consider opening seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. 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).

Leadbetter Point to Cape Falcon (Columbia River Subarea)

C July 3 through earlier of September 30 or 60,900 marked coho subarea quota with a subarea guideline of 8,200 chinook. Sunday through Thursday, except there may be a conference call no later than July 27 to consider opening seven days per week. All salmon, two fish per day, no more than one of which may be a chinook (chinook 24-inch total length minimum size limit) (B). All retained coho must have a healed adipose fin clip. 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).

TABLE 2. **Recreational** management measures adopted by the Council for ocean salmon fisheries, 2005. (Page 2 of 4)

A. SEASON DESCRIPTION (Continued)

South of Cape Falcon

Supplemental Management Information:

1. Klamath River recreational fishery allocation: 15%.

Cape Falcon to Humbug Mt.

C 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).

Selective fishery: Cape Falcon to OR/CA Border

- C June 18 through earlier of July 31 or a landed catch of 40,000 marked coho, except that the area south of Humbug Mt. will close July 5-31, concurrent with the KMZ season listed below.

Open seven days per week, all salmon, two fish per day (C.1). All retained coho must have a healed adipose fin clip. 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 August 1 or attainment of the coho quota.

In 2006, 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 2005 (C.2, C.3).

Humbug Mt. to Horse Mt. (Klamath Management Zone)

C Except as provided above during the selective fishery, the season will be May 21 through July 4; and August 14 through September 11 (C.6). 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.

Horse Mt. to Point Arena (Fort Bragg)

C February 12 through July 10; July 16-17; July 23 through November 13. 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).

In 2006, season opens February 18 (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 2005 (C.2, C.3).

Point Arena to Pigeon Point (San Francisco)

C April 2 through November 13. 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).

In 2006, the season will open April 1 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 2005 (C.2, C.3).

Pigeon Point to U.S./Mexico Border (Monterey)

C April 2 through September 25. 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).

In 2006, the season will open April 1 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 2005 (C.2, C.3).

B. MINIMUM SIZE (Total Length in 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.

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.

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

- 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:

- Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
- 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.
- 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.
- 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 and Oregon may establish limited seasons in state waters. Oregon State-water fisheries are limited to chinook salmon. Check state regulations for details.

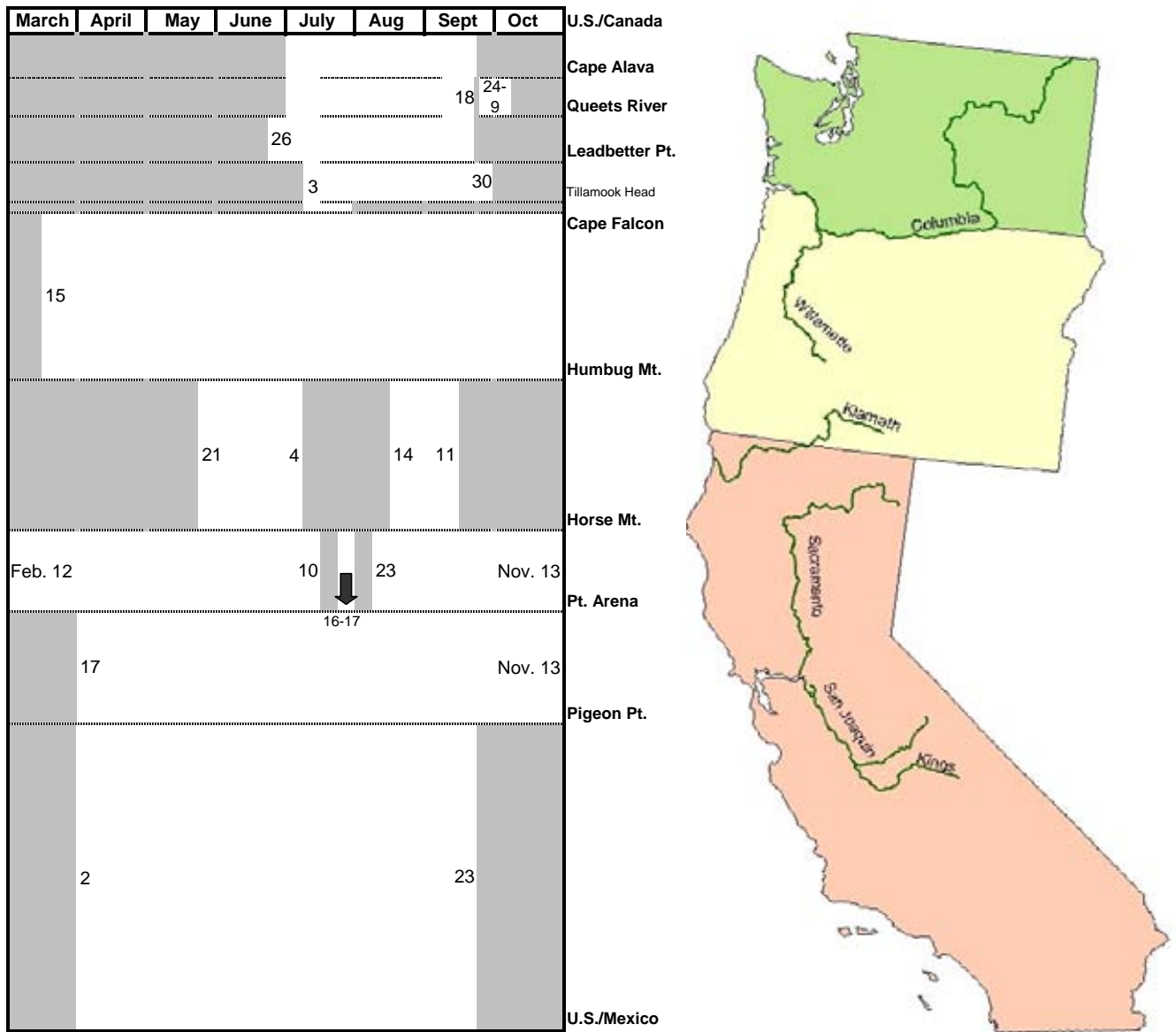


FIGURE 2. Council-adopted recreational salmon seasons, 2005. Dates are first or last days of the month unless otherwise specified.

TABLE 3. Treaty Indian ocean troll salmon fishery management measures adopted by the Council, 2005. (Page 1 of 1)

A. SEASON OPTION DESCRIPTIONS

Treaty Indian Troll TAC: 48,000 chinook and 50,000 coho.

U.S./Canada Border to Cape Falcon

- May 1 through the earlier of June 30 or 25,000 chinook quota.
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).
- July 1 through the earlier of September 15, or 23,000 preseason chinook quota, or 50,000 coho quota.
All salmon. If the treaty Indian troll catch taken from Areas 4-4B is projected inseason to exceed 47,286 coho, the total treaty Indian troll quota will be adjusted to ensure that the exploitation rate impact of the treaty Indian troll fishery on Interior Fraser coho does not exceed the level anticipated under the assumptions employed for impact assessment. See size limit (B) and other restrictions (C).

B. MINIMUM SIZE (Inches)

Area (when open) and Fishery		Chinook		Coho		Pink
		Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	Commercial	24.0	18.0	16.0	12.0	None
	Ceremonial and Subsistence	None	None	None	None	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.

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 2005 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 Council-adopted ocean salmon fishery management measures, 2005. (Page 1 of 1)

Fishery or Quota Designation	Chinook	Coho
NORTH OF CAPE FALCON		
TREATY INDIAN COMMERCIAL TROLL ^{a/}	48,000	50,000 ^{b/}
NON-INDIAN COMMERCIAL TROLL		
U.S./Canada Border to Cape Falcon (All Except Coho)	29,000	-
U.S./Canada Border to Cape Falcon (All Species) ^{c/}	14,250	23,200
Subtotal Non-Indian Commercial Troll	43,250	23,200
RECREATIONAL ^{c/}		
U.S./Canada Border to Cape Alava ^{c/}	4,300*	12,667
Cape Alava to Queets River ^{c/}	2,000*	3,167
Queets River to Leadbetter Point ^{c/}	28,750*	45,066
Leadbetter Point to Cape Falcon ^{c/}	8,200*	60,900
Subtotal Recreational ^{d/}	43,250	121,800
TOTAL NORTH OF CAPE FALCON	134,500	195,000
SOUTH OF CAPE FALCON		
COMMERCIAL TROLL (all except coho)		
Humbug Mt. to OR/CA border (June through September)	3,000	-
OR/CA Border to Humboldt S. Jetty (September)	6,000	-
Subtotal Troll	9,000	-
RECREATIONAL		
Cape Falcon to OR/CA Border ^{c/}	-	40,000
TOTAL SOUTH OF CAPE FALCON	9,000	40,000

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

b/ If the treaty Indian troll catch taken from areas 4/4B is projected inseason to exceed 47,286 coho, the total treaty Indian troll quota will be adjusted to ensure the exploitation rate impact of the treaty Indian troll fishery on Interior Fraser coho does not exceed the level anticipated under the assumptions employed for impact assessment.

c/ The coho quota is a landed catch of coho with a healed adipose fin clip, except that in the north of Cape Falcon commercial fishery and the Cape Alava to Queets River recreational fishery, there are provisions for a potential non-selective coho fishery in September. See Tables 1 and 2 for details.

d/ Does not include Buoy 10 fishery (9,600 coho in August; 2,400 coho in September).

TABLE 5. Projected **key stock escapements** (thousands of fish) or management criteria for Council-adopted ocean salmon fishery management measures, 2005.^{a/} (Page 1 of 4)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
CHINOOK		
PUGET SOUND:		
Elwha Summer/Fall	4.3%	#10% Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard).
Dungeness Spring	4.7%	#10% Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	12.0%	#12% Preterminal Southern U.S. CERC (NMFS ESA consultation standard).
Skokomish Summer/Fall	12.1% 1.204	#15% Preterminal Southern U.S. Rebuilding Exploitation Rate and 1.200 Natural spawning escapement (NMFS ESA consultation standard).
Nooksack Spring	5.8% NA	#7% Southern U.S. CERC, not to exceed in four out of five years (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Skagit Summer/Fall	39.6% 24.8%	#50% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Skagit Spring	29.1% 31.2%	#38% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Stillaguamish Summer/Fall	12.1% 29.9%	#15% Southern U.S. CERC (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Snohomish Summer/Fall	14.4% 26.0%	#15% Southern U.S. CERC (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Lake Washington Summer/Fall	9.8% NA	#15% Preterminal Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Green River Summer/Fall	9.8% 7.006 34.7%	#15% Preterminal Southern U.S. Rebuilding Exploitation Rate and 5.800 Natural spawning escapement (NMFS ESA consultation standard) #60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
White River Spring	19.9%	#20% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	49.4%	#50% Total Rebuilding Exploitation Rate (NMFS ESA consultation standard).
Nisqually River Summer/Fall	1.173	\$1.100 Spawning escapement goal (NMFS ESA consultation standard).
WASHINGTON COAST:		
Hoko Fall	92.7%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Quillayute Fall	123.1%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Hoh Fall	159.9%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Queets Fall	109.6%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Grays Harbor Fall	28.7%	#60.0% ISBM Index (PSC general obligation) for stocks not meeting escapement objective.

TABLE 5. Projected **key stock escapements** (thousands of fish) or management criteria for Council-adopted ocean salmon fishery management measures, 2005.^{a/} (Page 2 of 4)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
CHINOOK (continued)		
COLUMBIA RIVER:		
Columbia Upriver Summers	74.3%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Columbia Upriver Brights	399.5	57.3 Minimum ocean escapement to attain 46.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
	81.0%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Deschutes River Falls	55.8%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Mid-Columbia Brights	101.4	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 Lower River Hatchery Tules	78.4	31.1 Minimum ocean escapement to attain 14.1 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.
Columbia Lower River Natural Tules (threatened)	44.1%	#49.0% ESA guidance met by a total adult equivalent fishery exploitation rate on Coweeman tules (NMFS ESA consultation standard).
Columbia Lower River Wild (threatened)	21.4 ^{c/} 124.0%	5.7 MSY spawner goal for North Lewis River fall chinook (NMFS ESA consultation standard). #60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Spring Creek Hatchery Tules	115.8	11.1 Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	69.8%	#70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
OREGON COAST:		
Nehalem Fall	226.6%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Siletz Fall	127.9%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
Siuslaw Fall	274.7%	#60.0% ISBM Index (PSC general obligation) not applicable for 2005 because escapement objective met.
CALIFORNIA COAST:		
Klamath River Fall	35.0	35.0 Minimum number of adult spawners to natural spawning areas.
Federally recognized tribal harvest	50%	50.0% Equals 8.3 (thousand) adult fish for Yurok and Hoopa tribal fisheries.
Age 4 ocean harvest rate	7.7%	#16.0% NMFS ESA consultation standard for threatened California coastal chinook.
KMZ sport fishery share	17.1%	17.0% 2005 KFMC recommendation.
CA:OR troll fishery share	50:50	50:50 2005 Council guidance.
River recreational fishery allocation	15.0%	15.0% 2005 California Fish and Game Commission specification. Equals 1.2 (thousand) adult fish for recreational inriver fisheries.

TABLE 5. Projected **key stock escapements** (thousands of fish) or management criteria for Council-adopted ocean salmon fishery management measures, 2005.^{d/} (Page 3 of 4)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
CHINOOK (continued)		
SACRAMENTO VALLEY:		
Sacramento River Winter (endangered)	yes	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 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. (NMFS ESA consultation standard).
Sacramento River Fall	983.6	122.0- 180.0 Sacramento River fall natural and hatchery adult spawners.
COHO		
PUGET SOUND:		
Interior Fraser (Thompson River, Canada)	9.8%(4.3%)	#10.0% Total exploitation rate for all U.S. fisheries south of the U.S./Canada border based on 2002 PSC coho agreement.
Skagit	35%(3.8%) 48.4	#35% 2005 total exploitation rate ceiling based on 2002 PSC coho agreement ^{d/} 30.0 MSP level of adult spawners Identified in the Salmon FMP.
Stillaguamish	43%(5.3%) 41.8	#50% 2005 total exploitation rate ceiling based on 2002 PSC coho agreement ^{d/} 17.0 MSP level of adult spawners Identified in the Salmon FMP.
Snohomish	40%(5.3%) 178.3	#60% 2005 total exploitation rate ceiling based on 2002 PSC coho agreement ^{d/} 70.0 MSP level of adult spawners Identified in the Salmon FMP.
Hood Canal	35%(4.0%) 79.6	#65% 2005 total exploitation rate ceiling based on 2002 PSC coho agreement ^{d/} 21.5 MSP level of adult spawners Identified in the Salmon FMP.
Strait of Juan de Fuca	12%(4.0%) 18.6	#40% 2005 total exploitation rate ceiling based on 2002 PSC coho agreement ^{d/} 12.8 MSP level of adult spawners Identified in the Salmon FMP.
COASTAL:		
Quillayute Fall	16.1	6.3-15.8 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Hoh	6.4	2.0-5.0 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Queets Wild	14.1	5.8-14.5 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Queets Supplemental	1.5	-
Grays Harbor	78.5	35.4 MSP level of adult spawners. Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.

TABLE 5. Projected **key stock escapements** (thousands of fish) or management criteria for Council-adopted ocean salmon fishery management measures, 2005.^{a/} (Page 4 of 4)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
COHO (continued)		
Oregon Coastal Natural (threatened)	11.1%	# 15.0% Marine and freshwater fishery exploitation rate.
Northern California (threatened)	5.5%	# 13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).
COLUMBIA RIVER:		
Lower Columbia River Natural (Proposed threatened; Oregon state endangered)	10.0%	# 15.0% Marine fishery exploitation rate (NMFS guidance).
Upper Columbia	68%	50% Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	166.7	38.7 Minimum ocean escapement to attain hatchery egg-take goal of 16.0 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	26.7	15.2 Minimum ocean escapement to attain hatchery egg-take goal of 9.7 late adult coho, with average conversion and no mainstem or tributary fisheries.

- a/ Projections in the table assume a WCVI mortality for coho of the 2004 observed level; southeast Alaska 2005 ceiling of 416,400 PST treaty chinook; north coast BC 2005 ceiling of 246,600 chinook; WCVI troll ceiling of 188,200 chinook (includes chinook caught in the fall of 2004); the WCVI outside sport 2004 observed level.
- 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/ Includes minor contributions from the East Fork Lewis River and the Sandy River.
- d/ Annual management objectives may be different than Salmon FMP goals and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. Total exploitation rate includes Alaskan, Canadian, Council area, Puget Sound, and freshwater fisheries and is calculated as total fishing mortality divided by total fishing mortality plus spawning escapement.

TABLE 6. Projections of chinook and coho **harvest impacts** for Council-adopted ocean salmon fishery management measures, 2005.
(Page 1 of 1)

Area and Fishery	2005 Catch Projection	2005 Bycatch Mortality ^{a/} Projection	2005 Bycatch Projection ^{b/}	Observed in 2004	
				Catch	Bycatch Mortality
OCEAN FISHERIES:^{c/}					
CHINOOK (thousands of fish)					
NORTH OF CAPE FALCON					
Treaty Indian Commercial Troll	48.0	7.6	17.0	49.2	8.1
Non-Indian Commercial Troll	43.3	13.1	35.9	40.4	11.3
Recreational	43.3	5.6	18.2	26.6	5.3
CAPE FALCON TO HUMBUG MT.					
Commercial Troll	144.5	15.9	36.6	240.0	26.4
Recreational	17.1	1.5	4.6	47.4	4.3
HUMBUG MT. TO HORSE MT.					
Commercial Troll	9.7	1.5	3.8	39.9 ^{d/}	6.0 ^{e/}
Recreational	21.0	2.9	11.5	29.6	4.1 ^{e/}
SOUTH OF HORSE MT.					
Commercial	366.4	55.0	142.4	469.3	70.4 ^{e/}
Recreational	242.0	33.9	100.2	197.4	27.6 ^{e/}
TOTAL OCEAN FISHERIES					
Commercial Troll	611.9	93.1	235.7	838.8	122.2
Recreational	323.4	43.9	134.5	301.0	41.3
INSIDE FISHERIES:					
Buoy 10	NA	NA	NA	16.2	NA
COHO (thousands of fish)					
NORTH OF CAPE FALCON					
Treaty Indian Commercial Troll	50.0	4.1	13.1	61.7	4.2
Non-Indian Commercial Troll	23.2	14.2	45.9	22.1	9.4
Recreational	121.8	29.3	154.3	135.1	28.7
SOUTH OF CAPE FALCON					
Commercial Troll	-	4.3	13.7	-	13.9
Recreational	40.0	17.3	91.0	50.7	16.7
TOTAL OCEAN FISHERIES					
Commercial Troll	73.2	22.6	72.7	83.9	27.5
Recreational	161.8	46.6	245.3	185.9	45.4
INSIDE FISHERIES:					
Area 4B	-	-	-	-	-
Buoy 10	12.0	2.8	14.6	15.3	3.4

a/ The bycatch mortality reported in this table consists of drop-off mortality (includes predation on hooked fish) plus hook-and-release mortality (HRM) 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 HRM rates used for both chinook and coho are:

Commercial: 26%.
 Recreational, north of Point Arena: 14%.
 Recreational, south of Point 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/ Includes 25,300 chinook caught north of Humbug Mt., Oregon, but landed in Crescent City, California.

e/ Based on observed sublegal encounter rates.

TABLE 7. Expected coastwide OCN and RK coho **exploitation** rates for Council-adopted ocean salmon fisheries management measures, 2005. (Page 1 of 1)

FISHERY	Exploitation Rate (Percent)	
	OCN	RK
SOUTHEAST ALASKA	0.0	0.0
BRITISH COLUMBIA	0.2	0.1
PUGET SOUND/STRAITS	0.1	0.0
NORTH OF CAPE FALCON		
Treaty Indian Troll	0.7	0.0
Recreational	2.0	0.0
Non-Indian Troll	0.6	0.0
SOUTH OF CAPE FALCON		
Recreational:		
Cape Falcon to Humbug Mt.	3.2	0.1
Humbug Mt. OR/CA border (KMZ)	0.3	0.5
OR/CA border to Horse Mt. (KMZ)	0.5	1.2
Fort Bragg	0.6	1.3
South of Point Arena	0.6	1.0
Troll:		
Cape Falcon to Humbug Mt.	0.4	0.0
Humbug Mt. OR/CA border (KMZ)	0.0	0.0
OR/CA border to Horse Mt. (KMZ)	0.0	0.2
Fort Bragg	0.0	0.0
South of Point Arena	0.5	0.6
BUOY 10	0.3	0.0
ESTUARY/FRESHWATER	1.1	0.2
TOTAL	11.1	5.5

TABLE 8. Projected **coho mark rates** for 2005 fisheries under base period fishing patterns (% marked). (Page 1 of 1)

Area	Fishery	June	July	August	Sept.	2004 Observed
<u>Canada</u>						
Johnstone Strait	Recreational	-	10%	10%	-	NA
West Coast Vancouver Island	Recreational	32%	22%	20%	15%	NA
North Georgia Strait	Recreational	18%	18%	18%	15%	NA
South Georgia Strait	Recreational	22%	21%	15%	14%	NA
Juan de Fuca Strait	Recreational	29%	27%	30%	31%	NA
Johnstone Strait	Troll	28%	17%	11%	14%	NA
NW Vancouver Island	Troll	25%	22%	25%	25%	NA
SW Vancouver Island	Troll	33%	32%	34%	35%	NA
Georgia Strait	Troll	29%	29%	30%	22%	NA
<u>Puget Sound</u>						
Strait of Juan de Fuca (Area 5)	Recreational	36%	33%	34%	33%	Strait of Juan de Fuca 42%
Strait of Juan de Fuca (Area 6)	Recreational	34%	31%	35%	31%	
Strait of Juan de Fuca (Area 7)	Recreational	27%	33%	33%	25%	
North Puget Sound (Areas 6 & 7A)	Net	-	23%	25%	32%	
<u>Council Area</u>						
Neah Bay (Area 4/4B)	Recreational	39%	36%	39%	41%	Cape Falcon to OR/CA Border 48%
LaPush (Area 3)	Recreational	41%	38%	47%	26%	
Westport (Area 2)	Recreational	51%	50%	54%	57%	
Columbia River (Area 1)	Recreational	70%	66%	65%	69%	
Tillamook	Recreational	58%	53%	49%	39%	
Newport	Recreational	54%	53%	48%	37%	
Coos Bay	Recreational	47%	47%	37%	22%	
Brookings	Recreational	45%	34%	31%	15%	
Neah Bay (Area 4/4B)	Troll	28%	39%	36%	43%	
LaPush (Area 3)	Troll	37%	43%	42%	39%	
Westport (Area 2)	Troll	34%	43%	52%	43%	
Columbia River (Area 1)	Troll	50%	53%	57%	62%	
Tillamook	Troll	52%	50%	53%	49%	
Newport	Troll	51%	52%	48%	48%	
Coos Bay	Troll	46%	46%	38%	31%	
Brookings	Troll	38%	40%	42%	29%	
<u>Columbia River</u>						
Buoy 10	Recreational	-	-	-	67%	66%

TABLE 9. Estimates of **exvessel value** for Council-adopted 2005 non-Indian **commercial troll** management measures. (Page 1 of 1)

Management Area	Exvessel Value (thousands of dollars) ^{a/}				
	Projection for 2005 ^{b/}	Estimate for 2004	Percent Change from Estimated 2004 Values	1976-1990 Average ^{c/}	Percent Change from 1976-1990 Average
North of Cape Falcon	1,676	1,798	-7%	5,677	-70%
Cape Falcon to Humbug Mt.	5,464	9,013	-39%	15,612	-65%
Humbug Mt to Horse Mt.	336	1,386	-76%	7,851	-96%
Horse Mt. to Point Arena	796	3,529	-77%	7,283	-89%
South of Point Arena	12,461	13,236	-6%	14,844	-16%
TOTAL SOUTH OF CAPE FALCON	19,057	27,163	-30%	45,590	-58%
WEST COAST TOTAL	20,733	28,961	-28%	51,268	-60%

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 management area and 2004 exvessel prices and average weights per fish.

c/ All dollar values are adjusted to 2004 real values.

TABLE 10. Estimates of **angler trips** and coastal community **income** generated for the Council-adopted 2005 **recreational** ocean salmon fishery management measures. (Page 1 of 1)

Management Area	Angler Trips (thousands)			Coastal Community Income Impacts (thousands of dollars) ^{a/}			Projected Percent Change in Income Impacts	
	Projection for 2005 ^{b/}	Estimate for 2004	1976-1990 Average	Projection for 2005	Estimate for 2004	1976-1990 Average	Compared to 2004 Estimate	Compared to 1976-1990 Average
North of Cape Falcon	117	128	271	6,981	7,625	15,977	-8%	-56%
Cape Falcon to Humbug Mt.	64	109	184	3,440	5,803	10,401	-41%	-67%
Humbug Mt. to Horse Mt.	26	44	117	1,301	2,202	6,019	-41%	-78%
Horse Mt. to Point Arena	27	31	12	1,978	2,255	802	-12%	147%
South of Point Arena	160	160	116	15,830	15,830	12,799	0%	24%
TOTAL S. OF CAPE FALCON	277	343	429	22,549	26,090	30,022	-14%	-25%
WEST COAST TOTAL	394	471	701	29,530	33,715	45,999	-12%	-36%

a/ Income impacts are totals for individual communities. Impacts between communities in the management area have not been counted. Income impacts are not comparable to the exvessel values shown in Table 9. All dollar values are adjusted to 2004 real values.

b/ The estimates for the number of trips south of Cape Falcon are based on comparison of the seasons proposed for 2005 to those in place in 2004 and the associated effort levels and the 2005 quotas and 2004 success rates for the coho selective fishery south of Cape Falcon. The estimates for trips north of Cape Falcon are based on 2004 season retained coho per angler during the summer season.

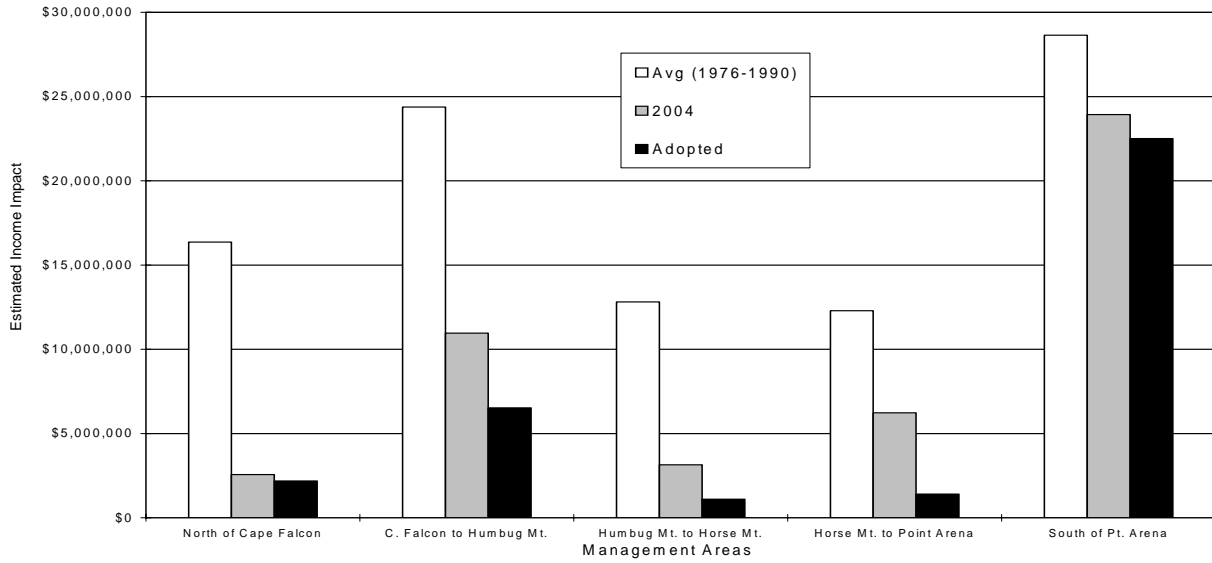


FIGURE 3. Projected coastal community income impacts associated with the 2005 commercial troll fishery under Council-adopted management measures compared to 2004 and the 1976-1990 average in real (inflation adjusted) dollars.

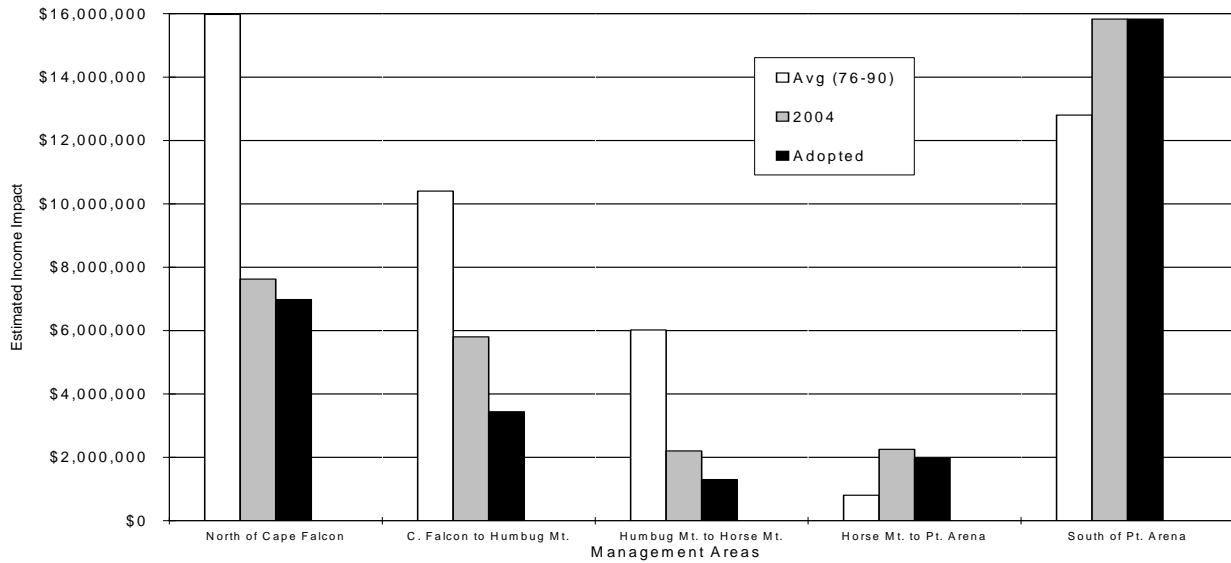


FIGURE 4. Projected coastal community income impacts associated with the 2005 recreational fishery under Council-adopted management measures compared to 2004 and the 1976-1990 average in real (inflation adjusted) dollars.

APPENDIX A

BIOLOGICAL EVALUATION OF 2005 COUNCIL-ADOPTED OCEAN SALMON FISHERY IMPACTS ON FISH SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT

INTRODUCTION

Since 1989, NMFS has listed 16 Evolutionarily Significant Units (ESUs) of salmon under the ESA (Table A-1). As the listings have occurred, NMFS has initiated formal section 7 consultations and issued biological opinions (Table A-2) that consider the impacts resulting from implementation of the Salmon FMP, or from annual management measures, to listed salmonid species. NMFS has also reinitiated consultation on certain ESUs when new information has become available on the status of the stocks or on the impacts of the Salmon FMP on the stocks. Some opinions have concluded that implementation of the Salmon FMP is not likely to jeopardize the continued existence of certain listed ESUs. Other opinions have found the Salmon FMP is likely to jeopardize certain listed ESUs and have identified reasonable and prudent alternatives that would avoid the likelihood of jeopardizing the continued existence of the ESU under consideration. The consultation standards referred to in this document include (1) reasonable and prudent alternatives, (2) conservation objectives for which NMFS conducted section 7 consultations and arrived at a no-jeopardy conclusion, and (3) NMFS requirements under section 4(d) determinations.

Amendment 12 to the Salmon FMP added to the list of stocks in the salmon management unit the generic category “species listed under the ESA” and the respective escapement goal to “manage consistent with NMFS consultation standards or recovery plans to meet immediate conservation needs and long-term recovery of the species.” Amendment 14 to the Salmon FMP specified those listed ESUs and clarified which stocks in the Salmon FMP management unit were representative of the ESUs.

TABLE A-1. Salmon ESUs listed under the ESA.

Species	ESU	Status	Federal Register Notice
Chinook Salmon (<i>O. tshawytscha</i>)	Sacramento River Winter	Endangered	54 FR 32085 8/1/89
	Snake River Fall	Threatened	57 FR 14653 4/22/92
	Snake River Spring/Summer	Threatened	57 FR 14653 4/22/92
	Puget Sound	Threatened	64 FR 14308 3/24/99
	Lower Columbia River	Threatened	64 FR 14308 3/24/99
	Upper Willamette River	Threatened	64 FR 14308 3/24/99
	Upper Columbia River Spring	Endangered	64 FR 14308 3/24/99
	Central Valley Spring	Threatened	64 FR 50394 9/16/99
	California Coastal	Threatened	64 FR 50394 9/16/99
Chum Salmon (<i>O. keta</i>)	Hood Canal Summer-Run	Threatened	64 FR 14508 3/25/99
	Columbia River	Threatened	64 FR 14508 3/25/99
Coho Salmon (<i>O. kisutch</i>)	Central California Coastal	Threatened	61 FR 56138 10/31/96
	S. Oregon/N. California Coastal	Threatened	62 FR 24588 5/6/97
	Oregon Coastal	Threatened ^{a/}	63 FR 42587 8/10/98
	Lower Columbia River	Proposed Threatened	69 FR 33102 6/14/04
Sockeye Salmon (<i>O. nerka</i>)	Snake River	Endangered	56 FR 58619 11/20/91
	Ozette Lake	Threatened	64 FR 14528 3/25/99

a/ On February 24, 2004, the Ninth Circuit Court of Appeals dismissed the appeals in the *Alesea Valley Alliance* case and sent the case back to Judge Hogan. The practical effect of the decision is there is no Federal protection under the ESA for Oregon Coastal coho at this time.

TABLE A-2. NMFS' Endangered Species Act consultations and Section 4(d) determinations on ocean fisheries implemented under the Salmon FMP and their duration.

Date	Evolutionarily Significant Unit Covered and Effective Period
March 8, 1996	Snake River chinook and sockeye (until reinitiated)
April 28, 1999	Oregon coastal coho, Southern Oregon/Northern California coastal coho, Central California coastal coho (until reinitiated) ^{a/}
April 28, 2000	Central Valley spring chinook and California coastal chinook (until reinitiated)
April 27, 2001	Hood Canal summer chum 4(d) limit and associated biological opinion (until reinitiated)
April 30, 2001	Upper Willamette chinook, Upper Columbia spring chinook, Lake Ozette sockeye, ten steelhead ESUs and Columbia River chum (until reinitiated)
April 27, 2004	Sacramento River winter chinook (until April 30, 2010)
April 29, 2004	Puget Sound and Lower Columbia River chinook (until reinitiated)

a/ On Feb 4, 2004, the ninth Circuit Court of Appeals dismissed appeals in the *Alesea Valley Alliance* case. Consequently, there are currently no ESA protections in place for OCN coho.

NMFS, in a March 4, 2005 letter to the Council, provided guidance on protective measures for listed species for the 2005 fishing season. The letter summarized the requirements of NMFS' biological opinions and 4(d) rules which are to be applied to the 2005 management season. The ESA consultation standards and the exploitation rates (or other criteria) projected for the 2005 management measures are presented in Table A-3. Some listed stocks are either rarely caught in Council-area fisheries (e.g., spring chinook from the upper Columbia and Willamette rivers) or already receive sufficient protection from Salmon FMP and ESA consultation standards for other listed ESUs (e.g., Central Valley spring chinook). NMFS has determined that management actions designed to limit catch from these ESUs, beyond what will be provided by harvest constraints for other stocks, are not necessary.

Additional listed salmonid ESUs found within the Council area, but which are 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)
- Central Valley, California (threatened)
- South-Central California Coast (threatened)
- Central California Coast (threatened)
- Upper Columbia River (endangered)
- Upper Willamette River (threatened)
- Middle Columbia River (threatened)
- Lower Columbia River (threatened)
- Snake River Basin (threatened)
- Northern California (threatened)

TABLE A-3. Impacts of Council-adopted 2005 management measures on ESA listed ESUs. (Page 1 of 2)

ESU	Stock Representation in Salmon FMP	ESA Consultation Standard	2005 Management Measures
Central Valley spring chinook - threatened	Sacramento River spring	No guidance in addition to the ESA consultation standard for Sacramento winter chinook.	The recreational fishery between Point Arena and Pigeon Point is open between April 2 and November 13. The recreational fishery between Pigeon Point and the U.S./Mexico border is open between April 2 and September 25. The commercial fishery south of Point Arena is open between May 1 and September 30, and between Point Reyes and Point San Pedro between October 3 and 14.
Sacramento River winter chinook - endangered	Sacramento River winter	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 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.	Consultation standard for Sacramento River winter chinook is met.
California Coastal chinook - threatened	Eel, Mattole, and Mad Rivers	#16% age-4 ocean harvest rate on Klamath River fall chinook.	7.7% age-4 ocean harvest rate.
Lower Columbia River chinook - threatened	<ul style="list-style-type: none"> ○Cowlitz, Kalama, Lewis spring ○Lower River Hatchery fall ○North Fork Lewis River fall 	<ul style="list-style-type: none"> ○No specific requirements. ○Brood year adult equivalent exploitation rate on Coweeman tule fall chinook #49%. ○5,700 MSY level adult spawning escapement. 	Meet hatchery escapement goals. 44.1% total ocean and freshwater adult equivalent (AEQ) exploitation rate. 21,400 adults to the Columbia River mouth.
Upper Willamette chinook - threatened	Upper Willamette River spring	No specific requirements. Rare occurrence in Council fisheries.	North of Falcon troll fisheries do not begin prior to June 26
Upper Columbia River spring chinook - endangered	Upper Columbia River spring	No specific requirements. Rare occurrence in Council fisheries.	North of Falcon troll fisheries do not begin prior to June 26.
Snake River fall chinook - threatened	Snake River fall	\$30% reduction from the 1988-1993 average adult equivalent age-3/age-4 exploitation rate for all ocean fisheries.	30.2% reduction from 1988-1993 average age 3/4 AEQ ocean exploitation rate.
Snake River spring/summer chinook - threatened	Snake River spring/summer	No specific requirements. Rare occurrence in Council fisheries.	North of Falcon troll fisheries do not begin prior to June 26.

TABLE A-3. Impacts of Council-adopted 2005 management measures on ESA listed ESUs. (Page 2 of 2)

ESU	Stock Representation in Salmon FMP	ESA Consultation Standard	2005 Management Measures	
			Exploitation Rate	Spawner Escapement
Puget Sound chinook - threatened	C Elwha summer/fall C Dungeness spring C Mid-Hood Canal summer/fall C Skokomish summer/fall C Nooksack spring C Skagit summer/fall C Skagit spring C Stillaguamish summer/fall C Snohomish summer/fall C Lake Washington summer/fall C Green River summer/fall C White River spring C Puyallup summer/fall C Nisqually River summer/fall	Exploitation Rate/Spawner Escapement C #10% southern U.S. RER C #10% southern U.S. RER C #12% pre-term southern U.S. CERC C #15% pre-term southern U.S. RER and \$1,200 natural spawners C #7% southern U.S. CERC C #50% Total RER C #38% Total RER C #15% Southern US CERC C #15% Southern US CERC C #15% pre-term southern U.S. RER C #15% pre-term southern U.S. RER and \$5,800 natural spawners C #20% Total RER C #50% Total RER C \$1,100 spawners	4.3%	1,204
			4.7%	
			12.0%	
			12.1%	
			5.8%	
			39.6%	
			29.1%	
			12.1%	
			14.9%	
			9.8%	
			9.8%	
			19.9%	
			49.4%	
			1,173	
Central California Coast coho - threatened	Not yet represented	No retention of coho in commercial and recreational fisheries off California.	No retention of coho in California fisheries.	
Southern Oregon/Northern California Coastal coho - threatened	C South Oregon coast natural C Northern California	#13% marine exploitation rate on Rogue/Klamath hatchery coho.	5.5% marine exploitation rate.	
Oregon Coast coho - threatened	C South Central Oregon coast C North Central Oregon coast C North Oregon coast natural	No ESA consultation standard in effect. Salmon FMP limit of 13%-35% (15% in 2005) combined marine/freshwater exploitation rate, depending on parental escapement and marine survival index.	11.1% Marine and freshwater exploitation rate.	
Lower Columbia River coho-Proposed threatened	Lower Columbia River natural	No ESA consultation standard in effect. Guidance for 2005 season is # 15% marine exploitation rate.	10.0% Marine exploitation rate.	

APPENDIX B CALCULATION OF INDIVIDUAL STOCK BASED MANAGEMENT (ISBM) INDICES FOR PACIFIC SALMON COMMISSION OBLIGATIONS

The Non-Ceiling Fishery Index, or ISBM Index, is defined as:

$$ISBMFI_{s,y} = \frac{\sum_f \sum_{age} (TM_{s,y,f,a} * AEQ_{s,y,a})}{\sum_f \sum_{age} (BPER_{s,f,a} * Cohort_{s,a,y})}$$

Where

$$TM_{s,y,f,a} = Catch_{s,y,f,a} + Shakers_{s,y,f,a} + CNRLegal_{s,y,f,a} + CNRSubLegal_{s,y,f,a}$$

and

$$BPER_{s,f,a} = \frac{\sum_{bp=79}^{82} TM_{s,bp,f,a} * AEQ_{s,y,a}}{4}$$

and

s = stock,

y = year,

f = fishery,

a = age,

bp = base period,

TM = total mortality,

$BPER$ = base-period exploitation rate,

CNR = mortality in Chinook non-retention fisheries,

$Cohort$ = abundance of age a fish of stock s at the beginning of year y and $Cohort$ is the total cohort size for Preterminal fisheries and terminal run size for Terminal fisheries.

