

REVIEW OF 2016 OCEAN SALMON FISHERIES

Stock Assessment and Fishery Evaluation Document
for the Pacific Coast Salmon Fishery Management Plan



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LIST OF ACRONYMS AND ABBREVIATIONS

AABM	aggregate abundance-based management
ADFG	Alaska Department of Fish and Game
AEQ	adult equivalents
CCC	central California coast (coho)
CDFW	California Department of Fish and Wildlife
Council	Pacific Fishery Management Council
CVI	Central Valley Index
CWT	coded-wire tag
EEZ	exclusive economic zone (from 3-200 miles from shore)
EMAP	Environmental Monitoring and Assessment Program
ESA	Endangered Species Act
ESU	evolutionarily significant unit
FEAM	Fishery Economic Assessment Model
FMP	fishery management plan
F _{MSY}	maximum sustainable yield exploitation rate
FRAM	Fisheries Regulatory Assessment Model
ISBM	individual stock-based management
KMZ	Klamath management zone (ocean zone between Humbug Mountain and Horse Mountain where management emphasis is on KRFC)
KRFC	Klamath River Fall Chinook
LCN	Lower Columbia Natural (coho)
LCR	Lower Columbia River (natural tule Chinook)
LRH	Lower Columbia River hatchery (tule fall Chinook returning to hatcheries below Bonneville Dam)
LRW	Lower Columbia River wild (bright fall Chinook spawning naturally in tributaries below Bonneville Dam)
MCB	mid-Columbia River brights (bright hatchery fall Chinook released below McNary Dam)
MFMT	maximum fishery mortality threshold
MOC	mid-Oregon coast
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NA	not available
NMFS	National Marine Fisheries Service
NOC	north Oregon coast
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
OPI	Oregon Production Index (coho salmon stock index south of Leadbetter Point)
PacFIN	Pacific Coast Fisheries Information Network
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RER	rebuilding exploitation rate
RK	Rogue/Klamath (coho)
S _{ACL}	annual catch limit spawner abundance
SAFE	stock assessment and fishery evaluation (document)
SCH	Spring Creek Hatchery (tule fall Chinook returning to Spring Creek Hatchery)
SDC	status determination criteria
SEAK	Southeast Alaska
S _{MSY}	MSY spawning escapement
SONCC	southern Oregon/northern California coastal (coho)
SRFC	Sacramento River fall Chinook
SRFI	Snake River Fall Index
SRS	Stratified Random Sampling
SRW	Snake River Wild
SRWC	Sacramento River winter Chinook

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

STEP	Salmon Trout Enhancement Program
STT	Salmon Technical Team (formerly the Salmon Plan Development Team)
SUS	Southern United States
TAC	total allowable catch
URB	upper river brights (naturally spawning fall Chinook primarily migrating past McNary Dam)
USFWS	U.S. Fish and Wildlife Service
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife

INTRODUCTION

The Salmon Technical Team (STT) and staff of the Pacific Fishery Management Council (Council) have prepared this stock assessment and fishery evaluation (SAFE) document as a postseason review of the 2016 ocean salmon fisheries off the coasts of Washington, Oregon, and California to help assess Council salmon fishery management performance, the status of Council-area salmon stocks, and the socioeconomic impacts of salmon fisheries. This postseason report will also provide a detailed description of the salmon fishery portions of the affected environment to be incorporated by reference into an Environmental Assessment (EA) to comply with National Environmental Policy Act (NEPA) requirements for the 2017 ocean salmon management measures. The STT and Council staff will provide three additional reports prior to the beginning of the ocean salmon season to help guide the Council's selection of annual fishery management measures: Preseason Report I, Preseason Report II, and Preseason Report III. These reports will provide forecasts of stock abundance, determine annual catch limits, and will analyze the biological and economic impacts of the Council's proposed alternatives and adopted fishery management recommendations. Preseason Report I will also constitute the first part of the EA for 2017 ocean salmon fishery management measures, and include a statement of the purpose and need, a description of the affected environment, and a description and analysis of the status quo (no action) alternative. Preseason Report II will constitute the second and final part of the EA, and will include a description and analysis of the alternative management measures considered for 2017 ocean salmon fisheries. The alternatives analyzed in Preseason Report II will provide a reasonable range of environmental effects, which will bound those of the final fishery management measures included in Preseason Report III. Together, these two parts of the EA will provide the necessary components to determine if a finding of no significant impact (FONSI) is warranted.

West Coast fisheries in Council-managed waters (ocean fisheries between the U.S./Canada border and the U.S./Mexico border from 3 to 200 nautical miles offshore) are directed toward and harvest primarily Chinook or king salmon, *Oncorhynchus tshawytscha*, and coho or silver salmon, *Oncorhynchus kisutch*. Small numbers of pink salmon, *Oncorhynchus gorbuscha*, also are harvested, especially in odd numbered years. There are no directed fisheries for other Pacific salmon species, which are rarely caught in Council-managed fisheries.

The Council's annual review of ocean salmon fisheries provides a summary of important biological and socioeconomic data from which to assess the status of managed stocks, impacts of past management actions, to determine how well management objectives are being met, and to improve regulations for the future. The Council will formally review this SAFE document at its March meeting prior to the development of management alternatives for the approaching fishing season.

Chapter I summarizes ocean salmon fishery regulations and landings within the Council management area and management actions and landings under the jurisdiction of the Pacific Salmon Commission (PSC). Appendix A tables detail historical effort and harvest data by state and by management area. Appendix C summarizes historical ocean fishery regulations.

For Chinook and coho salmon, respectively, Chapters II and III assess, where possible, the achievement of pertinent management objectives by salmon stock (including those listed under the Endangered Species Act [ESA]), outline regulations used to achieve the objectives, and summarize inside fisheries catch and spawner escapement data. Appendix B tables detail historical spawning escapement and inside fisheries catch information. Detailed information for other salmon species is not included since Council fisheries have minor impacts on pink salmon escapements and no measurable impacts on sockeye or chum salmon or steelhead trout; however, catch and escapement data and objectives for Puget Sound pink salmon are summarized in Appendix B, Table B-43.

In 2011 the Council also adopted status determination criteria (SDC) for overfishing, approaching an overfished condition, overfished, not overfished/rebuilding, and rebuilt under Salmon Fishery Management Plan (FMP) Amendment 16. These criteria, approved and implemented in December 2011, were:

- Overfishing occurs when a single year exploitation rate exceeds the maximum fishing mortality threshold (MFMT), which is based on the maximum sustainable yield exploitation rate (F_{MSY});
- Approaching an overfished condition occurs when the geometric mean of the two most recent postseason estimates of spawning escapement, and the current preseason forecast of spawning escapement, is less than the minimum stock size threshold (MSST);
- Overfished status occurs when the most recent 3-year geometric mean spawning escapement is less than the MSST;
- Not overfished/rebuilding status occurs when a stock has been classified as overfished and has not yet been rebuilt, and the most recent 3-year geometric mean spawning escapement is greater than the MSST but less than maximum sustainable yield (MSY) spawning escapement (S_{MSY});
- A stock is rebuilt when the most recent 3-year geometric mean spawning escapement exceeds S_{MSY} .

All SDC rely on the most recent estimates available, which in some cases may be a year or more in the past because of incomplete broods or data availability. The above criteria for rebuilt status are the default criteria provided in the FMP; however, alternative criteria may be developed through a rebuilding plan if warranted by stock specific circumstances. Relevant stocks were evaluated relative to these new SDC as required by the FMP. In addition, new conservation objectives were adopted for some stocks based on revised estimates of S_{MSY} and F_{MSY} , which are the reference points used to establish stock-specific SDC. Stock specific reference points and recent year estimates for relevant stocks are presented in Tables II-6 and III-6.

Status determinations for overfishing, overfished, not overfished/rebuilding, and rebuilt are reported in this SAFE document; however, because approaching an overfished condition relies on a preseason forecast, that status determination is reported in Preseason Report I. In addition, some status determinations may be updated in Preseason Report I if more recent spawning escapement or exploitation rate estimates become available between the time this SAFE document and Preseason Report I are published.

Socioeconomic impacts of the fisheries are discussed in Chapter IV. Appendix D provides historical fishery-related socioeconomic data.

The annual review of ocean salmon fisheries is drafted as early as analyses of landings and escapement data are available. The most recent entries are noted as preliminary and later updated when the data become final. If updated information or error corrections that could substantially affect the development of management measures for the upcoming season are available, an errata sheet will be included as an appendix in one of the subsequent STT preseason planning documents.

COMMON TABLE CONVENTIONS

All 2016 data provided in this report are preliminary. The following conventions apply to all tables in this report:

1. Due to rounding, the total values may not equal the sum of individual values.
2. A single dash indicates there are no data appropriate for a particular table cell, or in the case of fishing effort or landings, that the season was closed.
3. A double dash indicates no records are available, for example, a fishery may not have been sampled due to low and sporadic effort.
4. "NA" indicates data are not available at the time of publication, but are likely to be available at a future date.

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CHAPTER I

COASTWIDE OCEAN FISHING SUMMARY

Chapter I contains or references tables summarizing the current and historical ocean salmon fishing regulations and harvest data. In addition, this chapter provides a brief summary of the Pacific Fishery Management Council's (Council) regulatory objectives, by management area, for the most recent fishing year, reports on the results of the Council's selective fisheries for marked hatchery Chinook and coho, and bycatch mortality of Chinook and coho salmon. The final section in the chapter provides a brief summary of management information and harvests under the authority of the Pacific Salmon Commission (PSC).

COUNCIL-AREA REGULATIONS AND LANDINGS

Summaries of the 2016 regulations for non-Indian commercial troll, treaty Indian commercial troll, and recreational ocean salmon fishing in both the exclusive economic zone (EEZ) (3 to 200 nautical miles from shore) and state territorial waters (0 to 3 nautical miles from shore) are provided in Tables I-1, I-2, and I-3, respectively. Historical summaries of regulations for each of the three West Coast states and for treaty Indian troll fisheries are provided in Appendix C, Tables C-1 through C-7. Table C-9 provides a summary of inseason regulatory actions and events during the 2016 season.

Catch, quota, and fishing effort statistics are presented in the following series of tables:

Table I-4: Council-area commercial and recreational ocean salmon fishing effort and landings of Chinook, coho, and pink salmon by state of landing.

Table I-5: Council-area commercial and recreational ocean salmon fishing effort and landings of Chinook, coho, and pink salmon by management area.

Table I-6: The coho and Chinook quotas for each fishery compared with actual harvests.

Appendix A, Tables A-1 through A-19: Historical monthly ocean salmon harvest data by state and port area.

Tables A-20 through A-28: Historical monthly ocean salmon harvest data by management area.

Appendix B, Tables B-1 through B-46: Historical inside harvest and escapement data.

Appendix C, Table C-8: Historical record of annual preseason catch quotas for the area north of Cape Falcon, as well as the stocks that were critical for ocean salmon management actions.

REGULATORY OBJECTIVES BY MANAGEMENT AREA

The following sections provide a brief outline of the regulatory objectives that shaped the 2016 ocean salmon fisheries by management area and species. Further details of the conservation and allocation objectives by salmon stock and an assessment of performance are provided in Chapters II and III for Chinook and coho, respectively.

Horse Mountain to U.S./Mexico Border

Chinook Fisheries

Chinook fisheries management in this area is guided by Fishery Management Plan (FMP) - defined control rules for Sacramento River fall Chinook (SRFC), Klamath River fall Chinook (KRFC), and by National Marine Fisheries Service (NMFS) Endangered Species Act (ESA) consultation standards for Sacramento River winter Chinook (SRWC), California Coastal Chinook, Oregon Coast Natural (OCN) coho, and Southern Oregon/Northern California Coast (SONCC) coho. The Council structured 2016 Chinook salmon fisheries south of Horse Mountain (near Shelter Cove, California) to meet the following objectives (in order of most to least constraining):

1. A Klamath basin natural area spawning escapement of no less than 30,909 fall Chinook adults which is produced, in expectation, by a spawner reduction rate of 25.0 percent, along with the allocation objective of 50 percent of the allowable adult harvest for federally-recognized tribal subsistence and commercial fisheries.
2. The SRWC ESA consultation standard requiring:
 - a. A maximum forecast age-3 impact rate for the area south of Point Arena of 19.9 percent.
 - b. 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 a permissible 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.
 - c. 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.
3. A SRFC spawner escapement of no less than 122,000 hatchery and natural area adults, which is produced, in expectation, by a total exploitation rate of 59.3 percent.
4. The California Coastal Chinook ESA consultation standard requiring a forecast KRFC age-4 ocean harvest rate of no greater than 16.0 percent.
5. The OCN coho allowable exploitation rate (marine and freshwater combined) of no greater than 20.0 percent as required by the exploitation rate matrix recommended by the OCN Coho Work Group that was adopted by the Council as expert biological advice in November 2000.
6. The SONCC coho ESA consultation standard requirement of no greater than a 13.0 percent marine exploitation rate on Rogue/Klamath (RK) hatchery coho.

Objectives 1 and 2 were the constraining factors for 2016 Chinook fisheries management in this area. Additional SRWC focused management measures recommended by California Department of Fish and Wildlife (CDFW) further constrained fisheries south of Point Arena. The adopted regulations (Table I-1 and I-3) resulted in the following projections: a KRFC spawning escapement of 30,909 natural area adults, a SRWC age-3 impact rate of 12.8 percent for the area south of Point Arena, a SRFC spawner escapement of 151,128 hatchery and natural area adults, and a coastwide ocean fishery harvest rate of 8.4 percent on age-4 KRFC.

Coho Fisheries

Coho fishery management for 2016 in this area was guided by the ESA consultation standard for Central California Coast (CCC) coho, which prohibits retention of coho in this area. No projection of non-retention fishery impacts on CCC coho was available; projected non-retention exploitation rates on Lower Columbia Natural (LCN), OCN and RK coho were 0.1, 1.5, and 3.3 percent, respectively, in this area. Retention of coho has been prohibited south of the Oregon/California border since 1996. Coho are managed as a unit south of Cape Falcon, and details of the Council's management objectives shaping the 2016 fisheries are presented more fully in the Cape Falcon to Humbug Mountain section.

Humbug Mountain to Horse Mountain

Chinook Fisheries

The area between Humbug Mountain (near Port Orford, Oregon) and Horse Mountain (near Shelter Cove, California) is referred to as the Klamath Management Zone (KMZ). Chinook fisheries management in this area is guided by FMP-defined control rules for KRFC, SRFC, and by NMFS ESA consultation standards for California Coastal Chinook, LCN coho, OCN coho, and SONCC coho. The Council structured 2016 Chinook salmon fisheries in the KMZ to meet the following objectives (in order of most to least constraining):

1. A Klamath basin natural area spawning escapement of no less than 30,909 fall Chinook adults, which is produced, in expectation, by a spawner reduction rate of 25.0 percent, along with the allocation objective of 50 percent of the allowable adult harvest for federally-recognized tribal subsistence and commercial fisheries.
2. A SRFC spawner escapement of no less than 122,000 hatchery and natural area adults which is produced, in expectation, by a total exploitation rate of 59.3 percent.
3. The California Coastal Chinook ESA consultation standard requiring a forecast KRFC age-4 ocean harvest rate of no greater than 16.0 percent.
4. The LCN coho ESA consultation standard requirement of no greater than an 18.0 percent exploitation rate (marine and mainstem Columbia River combined).
5. The OCN coho allowable exploitation rate (marine and freshwater combined) of no greater than 20.0 percent as required by the exploitation rate matrix recommended by the OCN Coho Work Group that was adopted by the Council as expert biological advice in November 2000.
6. The SONCC coho ESA consultation standard requirement of no greater than a 13.0 percent marine exploitation rate on RK hatchery coho.

Objective 1 was the constraining factor for 2016 Chinook fisheries management in the KMZ. The adopted regulations (Table I-1 and I-3) resulted in the following projections: a KRFC spawning escapement of 30,909 natural area adults, a SRFC spawner escapement of 151,128 hatchery and natural area adults, and a coastwide ocean fishery harvest rate of 8.4 percent on age-4 KRFC

Coho Fisheries

Coho fisheries management in this area is guided by the ESA consultation standards for LCN, OCN, SONCC, and CCC coho, which prohibits retention of coho south of the Oregon/California border. No projection of non-retention fishery impacts on CCC coho was available; projected exploitation rates on LCN, OCN, and RK coho in this area were 0.1, 0.9, and 2.9 percent, respectively. Coho are managed as a

unit south of Cape Falcon, and details of the Council's management objectives shaping the 2016 fisheries are presented more fully in the Cape Falcon to Humbug Mountain section.

Cape Falcon to Humbug Mountain

Chinook Fisheries

Chinook fisheries management in this area is guided by FMP-defined control rules for SRFC, KRFC, and by NMFS ESA consultation standards for California Coastal Chinook, Lower Columbia River (LCR) natural tule Chinook, Snake River wild (SRW) Chinook, LCN coho, OCN coho, and SONCC coho. The Council structured 2016 Chinook salmon fisheries in this area to meet the following objectives (in order of most to least constraining):

1. A Klamath basin natural area spawning escapement of no less than 30,909 fall Chinook adults, which is produced, in expectation, by a spawner reduction rate of 25.0 percent, along with the allocation objective of 50 percent of the allowable adult harvest for federally-recognized tribal subsistence and commercial fisheries.
2. A SRFC spawner escapement of no less than 122,000 hatchery and natural area adults which is produced, in expectation, by a total exploitation rate of 59.3 percent.
3. The California Coastal Chinook ESA consultation standard requiring a forecast KRFC age-4 ocean harvest rate of no greater than 16.0 percent.
4. NMFS consultation standards and annual guidance for ESA-listed LCR natural tule Chinook, which required a total exploitation rate not to exceed 41.0 percent in marine and freshwater fisheries combined.
5. The LCN coho ESA consultation standard requirement of no greater than an 18.0 percent exploitation rate (marine and mainstem Columbia River combined).
6. The OCN coho allowable exploitation rate (marine and freshwater combined) of no greater than 20.0 percent as required by the exploitation rate matrix recommended by the OCN Coho Work Group that was adopted by the Council as expert biological advice in November 2000.
7. The SONCC coho ESA consultation standard requirement of no greater than a 13.0 percent marine exploitation rate on RK hatchery coho.

Objective 1 was the constraining factor for 2016 Chinook fisheries management in this management area. The adopted regulations (Table I-1 and I-3) resulted in the following projections: a KRFC spawning escapement of 30,909 natural area adults, a SRFC spawner escapement of 151,128 hatchery and natural area adults, and a coastwide ocean fishery harvest rate of 8.4 percent on age-4 KRFC.

Coho Fisheries

Coho fisheries management in this area is guided by NMFS ESA consultation standards for LCN coho, OCN coho, and SONCC coho. The Council structured 2016 coho salmon fisheries in this area to meet the following objectives:

1. The LCN coho ESA consultation standard requirement of no greater than an 18.0 percent exploitation rate (marine and mainstem Columbia River combined).

2. The OCN coho allowable exploitation rate (marine and freshwater combined) of no greater than 20.0 percent as required by the exploitation rate matrix recommended by the OCN coho work group which was accepted by the Council as expert biological advice in November 2000.
3. The SONCC coho ESA consultation standard requirement of no greater than 13.0 percent marine exploitation rate on RK hatchery coho.

Objective 1 above was the most constraining factor on 2016 coho fisheries management in this area. The Council adopted seasons in this area with projected impacts of 3.1, 6.9, and 0.6 percent on LCN natural coho, OCN coho, and RK coho, respectively. In all relevant fisheries, projected exploitation rates were 13.0, 13.1, and 7.3 percent, respectively.

U.S./Canada Border to Cape Falcon

Chinook Fisheries

Management objectives for Chinook fisheries in this area were to comply with NMFS ESA consultation standards for LCR natural tule, Lower Columbia River Wild (LRW) fall Chinook, Snake River Wild (SRW) fall Chinook and Puget Sound Chinook; meet treaty Indian sharing obligations, the allocation provisions in the Salmon FMP, and provisions of the Pacific Salmon Treaty (PST); and to the extent possible, provide for viable ocean and in-river fisheries while meeting natural stock escapement objectives and hatchery fall Chinook brood stock needs. Columbia lower river hatchery (LRH) and Spring Creek Hatchery (SCH) fall Chinook have historically been the major contributors to ocean fishery catches in the Council-area north of Cape Falcon.

The Council structured Chinook salmon fisheries between Cape Falcon, Oregon and the U.S./Canada border to meet the following objectives:

1. The LCR natural tule Chinook ESA consultation standard requirement for a combined marine and freshwater exploitation rate of no greater than 41.0 percent.
2. The Snake River fall Chinook ESA consultation standard of at least a 30.0 percent reduction in the total ocean age-3 and age-4 adult-equivalent (AEQ) exploitation rate from the 1988-1993 average.
3. For select Chinook stocks of concern to the PSC, keep the Individual Stock-Based Management (ISBM) index at or below 60.0 percent of the 1979-1982 base period average.

Objective 1 above was the primary constraint for 2016 ocean fisheries in this area. Under the adopted regulations (Tables I-1, I-2, and I-3), fisheries were projected to have a 38.2 percent total AEQ exploitation rate on LCR natural tules (12.6 percent in Council-area fisheries), and a 40.9 percent reduction of the 1988 to 1993 base period AEQ exploitation rate for SRW.

Coho Fisheries

The Council structured coho salmon fisheries to meet the following objectives:

1. The LCN coho ESA consultation standard requirement for a combined marine and mainstem Columbia River exploitation rate of no greater than 18.0 percent.
2. An exploitation rate on Interior Fraser coho of no more than 10.0 percent in southern U.S. (SUS) fisheries in accordance with the provisions of the southern coho management plan adopted by the PSC in February 2002.

3. The OCN coho ESA consultation standard requirement for a combined marine and freshwater exploitation rate of no greater than 20.0 percent.
4. Meet FMP conservation objectives and obligations under the PST Southern Coho Management plan for stocks originating on the Washington coast, Puget Sound, and British Columbia, and inside/outside and treaty Indian/non-Indian allocation objectives with special attention to low run size predictions for Grays Harbor, Queets, Hoh, and Quillayute Fall Natural Coho.
5. Meet FMP objectives for allocation of impacts between commercial and recreational ocean fisheries, and among port areas for the recreational fishery.

Objective 4 above was the primary constraint for 2016 ocean fisheries in this area. The adopted regulations (Tables I-1, I-2, and I-3) were projected to have a 13.0 percent total exploitation rate on LCN coho (7.2 percent in Council-area fisheries), an exploitation rate in SUS fisheries of less than 10.0 percent on Interior Fraser (Thompson River) coho (0.8 percent in Council-area fisheries), and a total exploitation rate of 13.1 percent on OCN coho (10.4 percent in Council-area fisheries). Per the PST Southern Coho Management Plan, Tribal and Washington Department of Fish and Wildlife (WDFW) co-managers agreed to 2016 escapement objectives of 31,000 Grays Harbor wild coho, 2,900 Queets wild coho, 1,800 Hoh wild coho, and 4,000 Quillayute wild coho; the adopted regulations were projected to meet these escapement objectives.

SELECTIVE FISHERIES AND SALMON BYCATCH

Estimated incidental Chinook and coho mortalities are reported in Tables I-7, I-8, and I-9. Unless otherwise noted, Chinook mortality estimates south of Humbug Mountain, Oregon were based on expansion of dockside sampling data.

The Council assumed a hook-and-release mortality rate of 26 percent in commercial troll fisheries coastwide and 14 percent in recreational fisheries north of Point Arena. In recreational fisheries south of Point Arena, the Council assumed 15 percent based on the proportion of fish caught using mooching versus trolling gear, and the estimated rates of 42.2 and 14 percent for these gear types, respectively. In addition, the Council assumes drop-off mortality for both Chinook and coho equal to 5 percent of total encounters.

Selective Chinook Fisheries

No recreational fisheries selective for marked Chinook were planned for the four ocean subareas between Cape Falcon, Oregon, and the U.S./Canada border in 2016. Recreational fisheries in the Strait of Juan de Fuca operated under mark-selective retention restrictions for Chinook in Area 5 and the portion of Area 6 west of Port Angeles, from July 1 through August 15, 2016 (Figure I-1). The Area 5 mark-selective fishery was managed to a threshold of total legal-sized encounters for the fishery (13,363) and the Area 6 mark-selective fishery was managed as a season. After August 15, the fisheries in Areas 5 and 6 closed to salmon retention. Catch and release estimates, derived from creel census programs conducted during the mark-selective fishery for Chinook in Area 5 from July 1 through August 15 are presented in Table I-8. No inseason estimate was made for Area 6, which was open from July 1 through August 15 for mark-selective Chinook fishing. The observed Chinook mark rates were higher than predicted preseason. Observed non-retention mortality was lower than anticipated, and the catch was less than expected for Chinook (Table I-8).

Mark-selective Chinook fisheries were also held in Puget Sound Area 7 from July 1 through 31 and October 1 through October 31, in Area 9 from July 16 through August 4, in Area 10 from July 16 through August 15, in Area 11 June 24 through August 14, and in Area 12 July 1 through September 30 (Figure I-1). Winter mark-selective fisheries were held in Area 6 from December 1, 2016 through April 10, 2017 and Area 7

from December 1, 2016 through April 30, 2017. Winter mark-selective Chinook fisheries were held in Areas 8-1 and 8-2 November 1, 2016 through April 30, 2017. Area 9 had mark-selective Chinook opportunity November 1-30, 2016 and January 16 through April 15, 2017. Area 10 had mark-selective Chinook fisheries from November 1, 2016 through January 31, 2017. Area 11 had mark-selective Chinook opportunity from February 1 through April 30, 2017, and Area 12 had mark-selective Chinook opportunity from October 1, 2016 through April 30, 2017.

Selective Coho Fisheries

Recreational fisheries selective for marked coho were planned for the area between Cape Falcon and the OR/CA border, the Columbia River ocean subarea north of Cape Falcon, and the inside fishery at Buoy 10 (Figure I-1). Other inside and freshwater recreational fisheries in Washington and Oregon had mark-selective restrictions for coho. Preseason and postseason assessments of mark rates, catch, number of coho released, and incidental (bycatch) mortality for Council-area and some mixed stock inside fisheries are summarized in Table I-9. Fisheries were sampled by a combination of on-water observers, voluntary trip reports, and dockside interviews. The observed mark rates in the ocean fisheries both north and south of Cape Falcon were lower than what was predicted preseason. Observed non-retention mortality was lower than expected south of Cape Falcon and slightly higher than expected north of Cape Falcon.

PACIFIC SALMON COMMISSION

The PSC was established to implement the 1985 Pacific Salmon Treaty (PST) between the U.S. and Canada. Because many of the stocks under the jurisdiction of the Council are significantly affected by management actions taken in Canadian and Alaskan waters, considerable interaction between the Council and the PSC occurs at both the policy and technical levels. Actual catches for PSC fisheries of the most relevance to the Council are summarized in Tables I-10 and I-11. Note that these catches result from inseason management of fisheries for compliance with aggregate abundance-based management (AABM; see below) under the PST. They do include incidental mortality associated with regulation of these fisheries, except as noted.

Chinook Fisheries

Northern British Columbia (B.C.) and Southeast Alaska (SEAK) fisheries affect far-north migrating Chinook stocks from Washington, Oregon, and Idaho. These include Washington coastal stocks, Columbia and Snake River bright fall and summer stocks, and far-north migrating Oregon coastal Chinook stocks. The West Coast Vancouver Island (WCVI) troll and Georgia Strait troll and recreational fisheries affect far-north migrating stocks (including LRW) to a lesser degree, but have a major impact on more southerly-distributed Columbia River tule and Puget Sound stocks.

In June 1999, the U.S. and Canada reached agreement on a framework for Chinook fishing regimes for 1999 through 2008. Under this agreement, SEAK (all gear), Northern B.C. (troll and recreational), and WCVI (troll and outside recreational) fisheries were regulated under aggregate AABM regimes. These fishery regimes had catch ceilings derived from indices for total aggregate abundance of stocks contributing to specific components of the fisheries and target fishery harvest rates. For example, the allowable catches for WCVI troll and outside recreational fisheries were determined by the abundance index estimated for the WCVI troll fishery. The allowable catch for the WCVI AABM fisheries was designed to reduce harvest rates for the combined troll and outside recreational fisheries by approximately 35 percent from levels observed during 1985 through 1996. Provisions of a new ten-year agreement took effect January 1, 2009. The 2009 agreement reduced catch ceilings in SEAK and WCVI AABM fisheries by 15 percent and 30 percent respectively, from those in the 1999 agreement.

For fisheries not driven by AABM regimes, including Council-area fisheries, the 1999 agreement established conservation obligations to reduce harvest rates on depressed Chinook stocks (those not meeting escapement goals) by 36.5 percent for Canadian fisheries and 40 percent for U.S. fisheries, relative to levels

observed during 1979 through 1982. This individual stock-based management (ISBM) obligation was taken into account during Council and inside fisheries preseason management planning processes. However, relative to meeting the provisions of the PST, the ISBM indices are evaluated on a post-season basis only.

As in previous years, AABM fisheries were conducted in accordance with the obligations set forth in the 2009 PST agreement. Unlike in 2015, the PSC reached agreement in 2016 on calibration of the PST Chinook Model that produces the Abundance Index (AI) for the three AABM fisheries. The AI corresponds to a total allowable catch of “Treaty” Chinook per provisions in the PST. Treaty Chinook are those fish that are counted against the AABM catch ceiling; they represent total landed catch minus terminal exclusions (fish taken in terminal net fisheries where escapement goals are achieved) and hatchery add-ons (fish attributed to production from Alaskan hatchery facilities in excess of levels observed prior to the 1985 PST). The 2016 AI for the SEAK fisheries was 2.06, which corresponds to a total allowable catch of 355,600 Chinook. The AIs for Northern B.C. and WCVI were 1.70 and 0.89 respectively, corresponding to total allowable catches of 248,000 and 133,300 Chinook. The preliminary estimate of 2016 total catch of Chinook by SEAK fisheries was 388,700 while the catch of Treaty Chinook was 353,300 (Table I-10). These catches are similar to the total catch of 405,300 Chinook and 337,800 Treaty fish in 2015. The catch in the Northern B.C. AABM fisheries (Northern B.C. troll plus Haida Gwaii (Queen Charlotte Islands) recreational) in 2016 was 190,200 Chinook (147,400 troll; 42,800 recreational) and an increase from the total catch of 158,900 in 2015. The Northern B.C. troll fishery in 2016 was conducted under a system of individual transferable quotas that was fully implemented beginning in 2008.

In addition to the overall catch ceiling determined by the PST, Canada's principal management objectives for the 2016 WCVI Chinook fisheries were to meet domestic allocation objectives as well as address concerns for Lower Strait of Georgia Chinook, WCVI Chinook stocks, spring run upper Fraser River Chinook, and Interior Fraser (Upper Fraser and Thompson) coho. The catch in 2016 was 93,300 Chinook (55,500 troll, and 37,800 recreational; Table I-11), a decrease from the 102,500 Chinook caught in 2015.

Since 1999, the WCVI troll fishery has been managed to distribute the catch throughout the year with fisheries in the summer shaped to reduce impacts on coho and WCVI, Lower Strait of Georgia, and early-run Fraser River Chinook stocks. During accounting year 2016 (October 2015 through September 2016) troll fisheries were open for retention of Chinook in October through May, August, and September (Table I-12). To protect Interior Fraser coho, only marked coho could be retained and revival tanks were required for released coho.

The WCVI outside recreational fishery (the area where non-local stocks predominate) operated under a 45 cm (17.7 inches) total length minimum size limit, but with the additional restriction that Chinook over 77 cm (30.3 inches) could not be retained in the surf zone corridor (within 1 mile of shore) to protect local-origin stocks. The fishery harvested 37,800 fish, significantly less than the 48,800 caught in 2015.

Catch estimates for all Canadian ISBM fisheries in Northern B.C. were incomplete; the reported Chinook catch in 2016 was approximately 2,500 by commercial gillnets. Approximately 5,600 Chinook were caught by anglers from lodges in Rivers Inlet, Hakai Pass, and Bella Bella and by private anglers on the mainland coast. Tidal area recreational catch estimates near the mainland coast of Northern B.C. in 2016 were not available except for creel estimates for Area 3 and 4 where the catch was estimated to be about 10,000 Chinook. Catches by First Nations were approximately 9,100 Chinook for the North Coast. Catches by First Nations were not available for Haida Gwaii and Central Coast.

Southern B.C. ISBM fisheries in 2016 harvested 171,100 Chinook (15,700 commercial, 61,200 First Nations, and 94,200 recreational).

No direct management measures for Chinook salmon within the Council management area were specified under the 2009 PST agreement, except for the ISBM commitment. The Council's ocean fisheries and inside fisheries conducted by the state and tribal managers were designed to minimize impacts on spawning escapements of depressed stocks, and preseason estimates of impacts were in compliance with terms of the PST agreement. Information necessary to evaluate the postseason impacts of Council-area fisheries was not available.

Coho Fisheries

In 2002, the PSC adopted a management plan for coho salmon originating in Washington and Southern B.C. river systems. The plan is directed at the conservation of key management units, four from Southern B.C. (Interior Fraser, Lower Fraser, Strait of Georgia Mainland, and Strait of Georgia Vancouver Island) and nine from Washington (Skagit, Stillaguamish, Snohomish, Hood Canal, Strait of Juan de Fuca, Quillayute, Hoh, Queets, and Grays Harbor). Under the plan, the U.S. and Canada were required to constrain total fishery exploitation rates to levels associated with the categorical status (low, moderate, and abundant) and target exploitation rates of the key management units as determined by domestic managers. Ceilings on exploitation rates by intercepting fisheries were established through formulas specified in the plan.

The forecast of 2016 abundance indicated that the status of interior Fraser River coho remained depressed, but there are indications in recent years that their condition might be improving. In 2016, Canadian fisheries were managed for an exploitation rate of 3 to 5 percent on interior Fraser River coho, less than the 10 percent ceiling allowed under the PSC coho management plan and less than the rates used for management in 2014 (16 percent ceiling) and 2015 (8.5 percent). The lower Fraser, Georgia Basin, and the Johnstone Strait coho management units were all forecast to be at low or moderate status. The PSC coho status categories of low, moderate, and abundant are analogous to the FMP categories of critical, low, and normal.

In 2016, approximately 256,800 coho were retained in troll and net fisheries in Northern and Central B.C. Catches in Southern B.C. commercial fisheries were minor, limited by the status of Interior Fraser coho. Coho kept and released by marine commercial fisheries are summarized in Table I-13.

For recreational fisheries, mark-selective coho retention was permitted in mixed stock areas, and barbless hooks were required. Mark-selective fisheries were implemented in most of Southern B.C. (Johnstone Strait, Strait of Georgia, Juan de Fuca Strait, and WCVI). The estimated total retained catch of coho in Southern B.C. marine recreational fisheries in 2016 was 37,325. Coho kept and released by marine recreational fisheries in Southern B.C. are summarized in Table I-14. First Nations fisheries in Southern B.C. harvested 11,600 coho.

TABLE I-1. Summary of actual ocean non-Indian commercial troll salmon fishing regulations for 2016. (Page 1 of 3)

Area and Season	Salmon Species	Actual Quota		Special Restrictions ^{a/}
		Chinook	Coho	
U.S./Canada border to Cape Falcon, OR				
May 1-3, May 6-31, June 3-5, June 10-16, June 24-30 EXCEPT closed effective June 10 in area from Cape Alava south to Queets R (MA-3).	All except coho	14,000 with sub-allocation by area	^{b/} -	Five days per week May 6-31. Chinook minimum size limit of 28 inches total length. Landing limits were adjusted throughout the season, see Tables C.3 and C.5 for details. Mandatory Yellow eye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones closed. Vessels must land and deliver their fish within 24 hours of any closure of this fishery and landings were generally restricted to area of catch. Refer to complete 2016 ocean salmon regulations for detailed landing and notification requirements.
July 8-14, July 22-28, Aug. 1-7, Aug. 15-23	All except coho. No chum retention north of Cape Alava in Aug. and Sept.	21,000 with sub-allocation by area.	^{c/} -	Chinook minimum size limit of 28 inches total length. Landing limits were adjusted throughout the season, see Tables C.3 and C.5 for details. Mandatory Yellow eye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones, and beginning August 8, Grays Harbor Control Zone Closed. Vessels must land and deliver their fish within 24 hours of any closure of this fishery and landings were generally restricted to area of catch. Refer to complete 2016 ocean salmon regulations for detailed landing and notification requirements.
Cape Falcon to Humbug Mt., OR				
Apr. 8- Aug. 24	All except coho	None	-	Open for a total of 100 days during this 139-day period. see Table C.3 for details. Chinook minimum size limit of 28 inches total length. All vessels fishing in the area must land their fish in the State of Oregon. Shoreward of the 15 fathom curve off Tillamook Bay between Twin Rocks and Pyramid Rock, only fin-clipped Chinook may be retained or on board while fishing prior to Aug. 1.
Sept. 1-7, 15-30	All except coho	None	-	Landing and possession limit of 45 Chinook per vessel per landing week (Thurs.-Wed.).
Oct. 1-31	All except coho	None	-	Open shoreward of the 40-fathom regulatory line. Chinook minimum size limit of 28 inches total length. Landing and possession limit of 45 Chinook per vessel per landing week (Thurs.-Wed.).
Elk River Ocean Terminal Area				
Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. Nov. 1-30	Chinook only	None	-	Chinook minimum size limit of 26 inches total length. Landing and possession limit of 20 Chinook per vessel day. Landings restricted to Port Orford.
Humbug Mt. to OR/CA border				
Apr. 8-May 31	All except coho	None	-	Chinook minimum size limit of 28 inches total length. Prior to June 1, all fish caught in this area must be landed and delivered in the State of Oregon. After May 31 a daily landing and possession limit of 15 Chinook is in place and all vessels fishing in this area must land and deliver all fish to Gold Beach, Port Orford or Brookings within 24 hours of any closure of this fishery, and prior to fishing outside of this area. State regulations require fishers landing from any quota managed season in this area to notify ODFW within one hour of delivery or prior to transporting their catch to other locations.
June 5-10, 15-30	All except coho	720	-	
July 8-31	All except coho	594	^{d/} -	

TABLE I-1. Summary of actual ocean non-Indian commercial troll salmon fishing regulations for 2016. (Page 2 of 3)

Area and Season	Salmon Species	Actual Quota		Special Restrictions ^{a/}
		Chinook	Coho	
Chetco River Terminal Area Tw in Rocks to OR/CA border inside 3 nm Oct. 10-31	Chinook only	300	-	Chinook minimum size limit of 28 inches total length. Landing and possession limit of 5 Chinook per vessel through Oct. 25 then 10 per vessel thereafter. Landings restricted to Brookings.
OR/CA border to Humboldt South Jetty Sept. 9-27	All except coho	1,000	-	Five days per week Friday through Tuesday. Chinook minimum size limit of 28 inches total length. Landing and possession limit of 20 Chinook per vessel per day. All fish caught in this area must be landed within the area and within 24 hours of any closure of the fishery and prior to fishing outside the area. Klamath Control Zone closed. 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 Mountain 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.
Humboldt South Jetty to Horse Mt.	Closed	-	-	
Horse Mt. to Pt. Arena June 13-30, Aug. 3-27, Sept. 1-30	All except coho	None	-	Seven days per week. Chinook minimum size limit of 27 inches total length. All fish must be landed in California. All salmon caught prior to September 1 must be landed and offloaded no later than 11:59 p.m., August 30. When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mt. During September, all fish must be landed north of Pt. Arena.
Pt. Arena to Pigeon Pt. May 6-31, June 13-30, Aug. 3-28, Sept. 1-30	All except coho	None	-	Seven days per week. Chinook minimum size limit of 27 inches total length prior to September 1, 26 inches thereafter. All fish must be landed in California. All salmon caught prior to September 1 must be landed and offloaded no later than 11:59 p.m., August 30. During September, all fish must be landed south of Point Arena.
Fall Area Target Zone Pt. Reyes to Pt. San Pedro Oct. 3-7, 10-14	All except coho	None	-	Chinook minimum size limit of 26 inches total length. All vessels fishing in this area must land and deliver all fish between Point Arena and Pigeon Point.
Pigeon Pt. to Pt. Sur May 1-31, June 1-30	All except coho	None	-	Seven days per week. Chinook minimum size limit of 27 inches total length. All fish must be landed in California. All salmon caught prior to September 1 must be landed and offloaded no later than 11:59 p.m., August 30.
Pt. Sur to U.S./Mexico Border May 1-31, June 1-30	All except coho	None	-	Seven days per week. Chinook minimum size limit of 27 inches total length. All fish must be landed in California. All salmon caught prior to September 1 must be landed and offloaded no later than 11:59 p.m., August 30.

TABLE I-1. Summary of actual ocean non-Indian commercial troll salmon fishing regulations for 2016. (Page 3 of 3)

a/ Single-point, single-shank barbless hooks required in all open areas coastwide. Limited to no more than 4 spreads per wire for all seasons between Cape Falcon and the OR/CA border and no more than 6 spreads per wire from the OR/CA border south to the U.S./Mexico border. Unless otherwise noted, min. size limits (total length) for Chinook is 28 inches. May 1, 2016 through Dec. 31, 2016 and Apr. 1-30, 2017, license holders may land or possess no more than one Pacific halibut per each three Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio, and no more than 20 halibut may be possessed or landed per trip, unless modified by inseason action (regulation reviewed on June 22 and remained unchanged for remainder of season).

b/ No more than 4,600 from U.S./Canada border to Queets R. and 4,600 between Leadbetter Pt. and Cape Falcon. In-season actions included changes to weekly landing limits.

c/ No more than 8,300 of which may be caught in the area between the U.S./ Canada border and the Queets River. In-season actions included changes to weekly landing limits.

d/ Increased from 200 by an impact-neutral transfer of remaining June quota.

TABLE I-2. Summary of actual treaty Indian commercial ocean and Area 4B troll salmon seasons for 2016.

Tribe and Area	Salmon Species	Seasons ^{a/}		Minimum Size Limit (Inches)		Special Restrictions
		Dates	Days	Chinook	Coho	
Quinault						
Areas 2-3	All except coho	May 1-June 30	61	24	-	No Coho retention
	All	July 1- Aug. 31	62	24	16	
Hoh						
Areas 2-3	All except coho	May 1-June 30	61	24	-	No Coho retention
	All	July 1- Aug. 31	62	24	16	
Quileute						
Area 3	All except coho	May 1-June 30	61	24	-	No Coho retention
	All	July 1- Aug. 31	62	24	16	
	All	Sept. 16-Oct. 15	30	24	16	
Makah						
Areas 3N, 4, and 4A	All except coho	May 1-June 4	35	24	-	Area Closure: Swiftsure
	All except coho	June 5-30	26	24	-	All areas open
	All	July 1-Aug. 6	37	24	16	No Coho retention; Gear restriction plugs only
	All	Aug. 7-31	25	24	16	No Coho retention; No gear restrictions
Area 4B	All except coho	May 1-June 30	61	24	-	No Coho retention; Gear restriction plugs only
	All ^{b/}	Jan. 1-Apr. 15; Nov. 1-Dec. 31	166	22 ^{c/}	16	
	All ^{b/}	July 1-Aug. 6	37	24	16	
	All ^{b/}	Aug. 7-31	25	24	16	
S'Klallam						
Area 4B	All except coho	May 1-June 30	61	24	-	No Coho retention
	All ^{b/}	Jan. 1-Apr. 15; Nov. 1-Dec. 31	166	22 ^{c/}	16	
	All ^{b/}	July 1- Aug. 31	62	24	16	

a/ The overall quotas for these fisheries was 40,000 Chinook. These quotas included troll catch by the S'Klallam and Makah tribes in Washington State Statistical Area 4B. The overall Chinook quota was divided pre-season to provide 20,000 Chinook for the May 1-June 30 season and 20,000 Chinook for the July 1-Aug. 31 season, including Sept.-Oct. catch from the Quileute tribe's ceremonial and subsistence fishery. Single point, single shank barbless hooks were required in all ocean fisheries.

b/ Retention of steelhead prohibited; retention of chum prohibited prior to Sept. 30.

c/ Minimum size limit 24 inches after May 1.

TABLE I-3. Summary of actual ocean recreational salmon fishing regulations for 2016. (Page 1 of 2)

Area and Season	Salmon Species	Actual Quota		Daily Limit and Special Restrictions ^{b/}
		Chinook	Coho ^{a/}	
U.S./Canada Border to Cape Falcon, OR				
U.S./Canada Border to Cape Alava, WA (Neah Bay subarea) July 1-Aug. 21	All except coho	6,200 ^{c/}	-	Two salmon daily. No chum retention beginning Aug. 1. Chinook non-retention east of the Bonilla-Tatoosh line during Council managed ocean fishery beginning Aug. 1.
Cape Alava to Queets R., WA (La Push subarea) July 1-Aug. 21	All except coho	2,000 ^{c/}	-	Two salmon daily.
Queets R. to Leadbetter Pt., WA (Westport subarea) July 1-Aug. 21	All except coho	16,000 ^{c/}	-	One salmon daily through Jul. 22, then two fish per day thereafter. Grays Harbor Control Zone closed beginning Aug. 8
Leadbetter Pt., WA to Cape Falcon, OR (Columbia River subarea) July 1- Aug. 27	All salmon	10,200 ^{c/}	18,900	Two salmon daily; daily limit includes no more than one Chinook through Aug. 15, then two Chinook allowed thereafter. Columbia River Control Zone closed.
Cape Falcon to Humbug Mt.				
Mar. 15-June 24, Aug. 8-Sept. 2	All except coho	-	-	Two salmon daily. Shoreward of the 15 fathom curve off Tillamook Bay between Twin Rocks and Pyramid Rock, only fin-clipped
Sept. 3-30	All salmon	-	7,500	Chinook may be retained or on board while fishing prior to Aug. 1. Fishing in the Stonewall Bank groundfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open.
Oct. 1-31	All except coho	-	-	
Elk River Ocean Terminal Area				
Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. Nov. 1-30	Chinook only	-	-	Two Chinook daily, one of which can be unmarked; no more than 10 unmarked per season in aggregate with Elk R., Sixes R., Floras Ck., and New R.
Cape Falcon to OR/CA border				
June 25-Aug. 7	All salmon	-	26,000	Two salmon daily. All coho must be marked. Shoreward of the 15 fathom curve off Tillamook Bay between Twin Rocks and Pyramid Rock, only fin-clipped Chinook may be retained or on board while fishing prior to Aug. 1. Fishing in the Stonewall Bank groundfish conservation area restricted to trolling only on days the all-depth recreational halibut fishery is open.
Humbug Mt. to OR/CA border (Oregon KMZ)				
May 28-June 24	All except coho	-	-	Two salmon daily.
Sept. 3-5	All except coho	-	-	Two salmon daily.
Chetco River Terminal Area				
Twin Rocks to OR/CA border inside 3 nm Oct. 1-3, 8-9	Chinook only	-	-	Two Chinook daily, one of which can be unmarked.

TABLE I-3. Summary of actual ocean recreational salmon fishing regulations for 2016. (Page 2 of 2)

Area and Season	Salmon Species	Actual Quota		Daily Limit and Special Restrictions ^{b/}
		Chinook	Coho ^{a/}	
OR/CA border to Horse Mt. (California KMZ) May 16-31, June 16-30, July 16-Aug.16, Sept.1-5	All except coho	None	-	Two salmon daily. Chinook minimum size limit of 20 inches total length. Klamath Control Zone closed in August. Additional closures adjacent to Smith, Eel, and Klamath Rivers. See California regulations for details.
Horse Mt. to Pt. Arena (Fort Bragg) Apr. 2-Nov. 13	All except coho	None	-	Two salmon daily. Chinook minimum size limit of 20 inches total length.
Pt. Arena to Pigeon Pt. (San Francisco) Apr. 2-Oct. 31	All except coho	None	-	Two salmon daily. Chinook minimum size limit of 24 inches total length through April 30, 20 inches thereafter.
Pigeon Pt. to Pt. Sur (Monterey North) Apr. 2-July 15	All except coho	None	-	Two salmon daily.
Pt. Sur to U.S./Mexico Border (Monterey South) Apr. 2-May 31	All except coho	None	-	Two salmon daily.

a/ All coho fisheries and quotas are mark-selective for fish with a healed adipose fin clip unless otherwise noted.

b/ Unless otherwise noted, minimum size limits are 24 inches for Chinook and 16 inches for coho. Seasons open 7 days per week. For a complete description of gear restrictions, see the annual ocean salmon regulations or the annual Preseason Report III, Table 2.

c/ Total Chinook quota for the North of Falcon area is 35,000 fish.

TABLE I-4. Council area commercial and recreational ocean salmon fishing effort and landings by state. Data are provisional, pending further review of data compilation methods. A double dash ("--") indicates no records are available. Fewer than 500 pounds may be shown as zero. (Page 1 of 4)

Year or Average	COMMERCIAL TROLL							RECREATIONAL					
	Effort (boat days fished)	Catch						Effort (salmon angler trips)	Catch (numbers of fish)				Salmon Per Angler Trip
		Numbers of Fish			Thousands of Pounds (Dressed Weight)				Chinook	Coho	Pink	Total	
		Chinook	Coho	Pink	Chinook	Coho	Pink						
WASHINGTON^{a/}													
1966-70	--	172,500	717,200	96,200	1,810	4,557	432	401,900	152,600	427,700	14,600	594,900	1.5
1971-75	56,200	275,400	870,300	31,600	2,926	4,801	147	482,900	210,400	567,400	6,100	783,900	1.6
1976-80	43,787	188,610	717,302	412,880	2,364	3,675	789	429,809	114,092	511,827	23,544	649,463	1.5
1981-85 ^{b/}	12,782	71,326	217,754	149,974	944	1,039	358	163,344	54,662	172,399	5,915	232,976	1.4
1986-90	6,078	71,534	137,942	33,565	847	633	117	119,412	26,075	165,058	1,919	193,051	1.6
1991-95	4,156	42,477	76,334	32,072	453	335	112	104,949	11,156	131,364	2,484	145,003	1.4
1996-2000	660	25,267	28,492	1,682	286	125	9	38,459	4,940	41,445	2,140	48,524	1.3
2001-2005	1,721	79,452	41,007	1,544	1,123	260	4	109,947	35,251	109,200	6,862	151,312	1.4
2006	2,243	47,314	33,203	0	634	255	0	65,263	10,667	36,087	0	46,754	0.7
2007	1,864	37,211	45,924	731	526	257	5	72,683	8,944	83,788	4,670	97,402	1.3
2008	1,803	29,543	15,970	0	352	134	0	37,610	14,635	18,870	0	33,505	0.9
2009	2,818	24,542	80,718	935	316	548	9	101,560	12,351	138,493	7,627	158,471	1.6
2010	3,293	77,475	13,565	0	928	96	0	80,955	36,874	36,278	0	73,152	0.9
2011	2,664	58,726	16,617	1,289	740	93	2	73,596	29,203	39,582	10,828	79,613	1.1
2012	3,020	91,644	40,798	0	1,100	220	2	77,659	33,729	31,434	0	65,163	0.8
2013	3,335	89,971	53,383	209	1,035	275	2	80,014	28,918	46,140	7,668	82,726	1.0
2014	3,010	100,254	71,361	0	1,243	405	4	119,617	40,025	123,057	0	163,082	1.4
2015	3,757	113,805	6,854	190	1,323	37	1	97,114	39,431	74,737	0	114,168	1.2
2016 ^{c/}	2,223	40,176	11	0	470	0	0	51,437	16,907	16,059	0	32,966	0.6

TABLE I-4. Council area commercial and recreational ocean salmon fishing effort and landings by state. Data are provisional, pending further review of data compilation methods. A double dash (" - ") indicates no records are available. Fewer than 500 pounds may be shown as zero. (Page 2 of 4)

Year or Average	COMMERCIAL TROLL							RECREATIONAL					
	Effort (boat days fished)	Catch						Effort (salmon angler trips)	Catch (numbers of fish)				Salmon Per Angler Trip
		Numbers of Fish			Thousands of Pounds (Dressed Weight)				Chinook	Coho	Pink	Total	
		Chinook	Coho	Pink	Chinook	Coho	Pink						
OREGON^{d/}													
1966-70	--	122,000	804,500	--	1,159	5,358	--	--	--	--	--	--	--
1971-75	47,400	208,500	979,000	--	2,128	6,015	--	--	--	--	--	--	--
1976-80	55,885	232,632	741,694	--	2,427	4,252	139	387,743	39,974	289,189	--	329,163	0.8
1981-85	25,496	145,503	301,499	2,100	1,432	1,537	117	233,544	33,085	165,393	2,700	201,178	0.9
1986-90	38,154	394,927	397,243	4,300	3,731	1,957	21	241,161	35,713	218,637	500	254,849	1.1
1991-95	9,016	100,945	119,367	380	940	325	2	99,547	9,234	103,001	60	112,296	1.1
1996-2000	7,187	129,523	6,133	380	1,414	14	2	45,609	11,231	12,459	60	23,750	0.5
2001-2005	12,019	282,567	5,749	124	3,109	39	0	118,845	39,942	66,017	0	105,959	0.9
2006	4,502	34,857	1,414	0	486	13	0	62,321	11,588	15,577	0	27,165	0.4
2007	5,217	35,487	17,109	80	464	101	0	88,264	6,941	60,653	0	67,594	0.8
2008	803	5,954	434	0	66	4	0	30,418	1,578	12,085	2	13,665	0.4
2009	1,234	1,149	21,962	18	15	131	0	84,518	1,585	89,606	0	91,191	1.1
2010	4,296	39,433	1,040	0	506	7	0	53,319	4,967	18,295	0	23,262	0.4
2011	3,752	32,081	464	49	402	3	0	48,756	5,164	18,832	0	23,996	0.5
2012	6,256	73,101	624	0	741	4	0	67,308	18,794	16,079	0	34,873	0.5
2013	8,986	112,757	452	0	1,291	2	0	85,535	30,234	14,536	0	44,770	0.5
2014	10,703	208,096	10,998	0	2,571	67	0	121,506	18,480	99,507	0	117,987	1.0
2015	8,729	104,259	2,213	0	1,189	11	0	66,039	9,442	28,282	0	37,724	0.6
2016 ^{e/}	4,398	42,276	-	0	519	0	0	38,864	4,095	8,410	0	12,505	0.3

TABLE I-4. Council area commercial and recreational ocean salmon fishing effort and landings by state. Data are provisional, pending further review of data compilation methods. A double dash (“- -”) indicates no records are available. Fewer than 500 pounds may be shown as zero. (Page 3 of 4)

Year or Average	COMMERCIAL TROLL							RECREATIONAL					
	Effort (boat days fished)	Catch						Effort (salmon angler trips)	Catch (numbers of fish)				Salmon Per Angler Trip
		Numbers of Fish			Thousands of Pounds (Dressed Weight)				Chinook	Coho	Pink	Total	
		Chinook	Coho	Pink	Chinook	Coho	Pink						
CALIFORNIA^{6/}													
1966-70	- -	486,300	319,700	7,400	4,925	2,352	37	189,800	120,800	33,200	0	154,000	0.8
1971-75	45,200	562,700	361,800	4,700	5,743	5,743	22	247,400	169,600	48,300	0	217,900	0.9
1976-80	95,003	618,637	210,303	500	5,867	1,184	3	163,469	92,422	31,158	0	123,580	0.8
1981-85	59,765	462,652	58,726	2,400	4,454	345	14	146,950	109,097	19,866	0	128,963	0.9
1986-90	58,511	794,703	46,780	300	8,097	262	2	240,667	166,395	40,388	0	206,783	0.9
1991-95	25,700	341,928	42,475	-	3,429	94	0	215,996	170,296	22,399	0	192,695	0.9
1996-2000	18,299	368,001	-	0	4,037	0	0	194,586	157,742	452	0	158,194	0.8
2001-2005	17,187	383,921	-	0	4,877	0	0	180,127	147,974	979	0	148,953	0.8
2006	8,259	69,728	-	0	1,043	0	0	126,506	96,292	1,626	0	97,918	0.8
2007	10,671	114,141	-	0	1,525	0	0	105,889	47,704	746	0	48,450	0.5
2008	-	-	-	-	-	-	-	391	6	-	0	6	0.0
2009	-	-	-	-	-	-	-	5,359	672	8	0	680	0.1
2010	1,975	15,088	-	0	228	-	0	48,667	14,809	175	0	14,984	0.3
2011	6,973	70,028	-	0	992	-	0	91,676	49,822	316	0	50,138	0.5
2012	14,522	215,585	-	0	2,530	-	0	148,007	123,926	101	0	124,027	0.8
2013	17,293	297,627	-	0	3,793	-	0	147,296	116,074	361	0	116,435	0.8
2014	14,394	168,283	-	0	2,253	-	0	120,307	74,840	479	0	75,319	0.6
2015	13,011	110,507	-	0	1,188	-	0	81,778	37,480	41	0	37,521	0.5
2016 ^{6/}	7,160	55,051	-	0	614	-	0	69,687	37,680	70	0	37,750	0.5

TABLE I-4. Council area commercial and recreational ocean salmon fishing effort and landings by state. Data are provisional, pending further review of data compilation methods. A double dash (“-”) indicates no records are available. Fewer than 500 pounds may be shown as zero. (Page 4 of 4)

Year or Average	COMMERCIAL TROLL							RECREATIONAL					
	Effort (boat days fished)	Catch						Effort (salmon angler trips)	Catch (numbers of fish)				Salmon Per Angler Trip
		Numbers of Fish			Thousands of Pounds (Dressed Weight)				Chinook	Coho	Pink	Total	
		Chinook	Coho	Pink	Chinook	Coho	Pink						
COUNCIL AREA^{a/d/e/}													
1966-70	--	780,800	1,841,400	103,600	7,893	12,267	468	591,700	273,400	460,900	14,600	748,900	1.3
1971-75	148,800	1,046,600	2,211,100	36,300	10,796	16,559	170	730,300	380,000	615,700	6,100	1,001,800	1.4
1976-80	194,675	1,039,879	1,669,299	413,380	10,658	9,111	930	981,020	246,488	832,173	23,544	1,102,206	1.1
1981-85 ^{b/}	98,043	679,481	577,980	154,474	6,830	2,921	489	543,838	196,845	357,658	8,615	563,117	1.0
1986-90	102,743	1,261,163	581,965	38,165	12,675	2,852	140	601,240	228,183	424,082	2,419	654,684	1.1
1991-95	38,873	485,349	238,176	32,452	4,821	754	114	420,491	190,686	256,764	2,544	449,993	1.1
1996-2000	26,146	522,792	34,625	2,062	5,736	139	11	278,654	173,912	54,356	2,200	230,468	0.8
2001-2005	30,927	745,940	46,757	1,668	9,109	299	4	408,920	223,168	176,195	6,862	406,224	1.0
2006	15,004	151,899	34,617	0	2,163	268	0	254,090	118,547	53,290	0	171,837	0.7
2007	17,752	186,839	63,033	811	2,516	358	6	266,836	63,589	145,187	4,670	213,446	0.8
2008	2,606	35,497	16,404	0	419	138	0	68,419	16,219	30,955	2	47,176	0.7
2009	4,052	25,691	102,680	953	331	678	9	191,437	14,608	228,107	7,627	250,342	1.3
2010	9,564	131,996	14,605	0	1,662	103	0	182,941	56,650	54,748	0	111,398	0.6
2011	13,389	160,835	17,081	1,338	2,133	96	2	214,028	84,189	58,730	10,828	153,747	0.7
2012	23,798	380,330	41,422	0	4,371	224	2	292,974	176,449	47,614	0	224,063	0.8
2013	29,614	500,355	53,835	209	6,120	277	2	312,845	175,226	61,037	7,668	243,931	0.8
2014	28,107	476,633	82,359	0	6,067	473	4	361,430	133,345	223,043	0	356,388	1.0
2015	25,497	328,571	9,067	190	3,700	48	1	244,931	86,353	103,060	0	189,413	0.8
2016 ^{c/}	13,781	137,503	11	0	1,603	0	0	159,988	58,682	24,539	0	83,221	0.5

a/ For Washington, commercial effort and landings include: (1) treaty Indian fisheries (ocean and Area 4B only from May 1-Sept. 30) beginning in 1972; (2) prior to 1978, catch off British Columbia landed in Washington; (3) catch off Alaska landed in Washington; and (4) catch off Oregon and California beginning in 1976. Treaty Indian effort is in deliveries. Beginning in 1989, recreational angler trips and catch include state-managed, late-season Area 4B fishery when open (see Table IV-15).

b/ Recreational effort and catch includes WA-based effort and catch from OR state waters (July 26-Aug. 1) and Strait of Juan de Fuca after WDFW and NMFS ocean closures in 1982.

c/ Preliminary.

d/ OR commercial troll landings include small numbers of salmon caught in Alaska (prior to 1990), WA, and CA. Oregon recreational effort data are total angler trips prior to 1979 and salmon trips beginning in 1979. Significantly reduced salmon per angler trip in 1994-1998 reflects regulations requiring nonretention of coho in the recreational fishery south of Cape Falcon.

e/ California commercial effort and landings include salmon caught off Oregon and landed in California prior to 2005, which were relatively minor in all years except 2004 when 25,655 Chinook were landed and 227 days fished in Oregon waters.

TABLE I-5. Council area commercial and recreational ocean salmon fishing effort and landings by management area.

Year	COMMERCIAL TROLL				RECREATIONAL					
	Effort ^{a/} (days fished)	Catch (numbers of fish)			Effort (salmon angler trips)	Catch (numbers of fish)			Total	Salmon Per Angler Trip
		Chinook	Coho	Pink		Chinook	Coho	Pink		
----- U.S./CANADA BORDER TO CAPE FALCON -----										
Treaty Indian (U.S./Canada Border to Leadbetter Point)^{b/}:										
2010	857	32,376	11,461	0	-	-	-	-	-	-
2011	600	31,824	13,564	1,074	-	-	-	-	-	-
2012	960	54,789	37,530	0	-	-	-	-	-	-
2013	1,027	49,881	47,342	209	-	-	-	-	-	-
2014	988	61,547	55,954	0	-	-	-	-	-	-
2015	1,112	58,492	3,982	122	-	-	-	-	-	-
2016 ^{c/}	595	22,832	11	0	-	-	-	-	-	-
Non-Indian:										
2010	3,068	56,219	3,144	0	91,209	38,686	42,386	0	81,072	0.9
2011	2,353	29,738	3,517	264	80,979	30,822	45,628	10,828	87,278	1.1
2012	2,476	45,299	3,892	0	82,497	35,433	33,106	0	68,539	0.8
2013	2,595	42,035	6,493	141	86,150	30,836	50,153	7,668	88,657	1.0
2014	2,838	54,889	23,109	0	131,872	42,331	139,797	0	182,128	1.4
2015	3,463	66,195	5,059	141	105,743	42,188	83,577	0	125,765	1.2
2016 ^{c/}	1,853	19,402	2,877	0	55,769	17,947	18,713	0	36,660	0.7
----- CAPE FALCON TO HUMBURG MOUNTAIN -----										
2010	3,483	27,444	-	0	37,115	2,331	12,127	0	14,458	0.4
2011	3,174	27,919	-	0	35,113	2,609	12,758	0	15,367	0.4
2012	5,458	59,213	-	0	43,649	7,767	14,198	0	21,965	0.5
2013	7,992	103,996	-	0	59,291	17,867	10,084	0	27,951	0.5
2014	9,117	175,768	3,296	0	92,183	9,355	82,200	0	91,555	1.0
2015	7,391	89,154	-	0	48,455	5,501	19,304	0	24,805	0.5
2016 ^{c/}	4,046	39,820	-	0	30,344	2,552	5,704	0	8,256	0.3
----- HUMBURG MOUNTAIN TO HORSE MOUNTAIN (KMZ) -----										
2010	181	869	-	0	10,179	1,544	110	0	1,654	0.2
2011	490	3,717	-	0	21,209	10,923	126	0	11,049	0.5
2012	687	10,675	-	0	50,203	48,767	276	0	49,043	1.0
2013	1,368	16,994	-	0	49,936	44,430	676	0	45,106	0.9
2014	869	16,766	-	0	37,702	22,646	849	0	23,495	0.6
2015	552	4,269	-	0	17,894	4,874	150	0	5,024	0.3
2016 ^{c/}	186	594	-	0	13,141	5,503	79	0	5,582	0.4
----- HORSE MOUNTAIN TO U.S./MEXICO BORDER -----										
2010	1,975	15,088	-	0	44,438	14,089	125	0	14,214	0.3
2011	6,772	67,637	-	0	76,727	39,835	218	0	40,053	0.5
2012	14,217	210,354	-	0	116,625	84,482	34	0	84,516	0.7
2013	16,632	287,449	-	0	117,468	82,093	124	0	82,217	0.7
2014	14,295	167,663	-	0	99,673	59,013	197	0	59,210	0.6
2015	12,979	110,461	-	0	72,839	33,790	29	0	33,819	0.5
2016 ^{c/}	7,101	54,855	-	0	60,734	32,680	43	0	32,723	0.5

a/ Treaty Indian troll effort in number of deliveries.

b/ May through September only.

c/ Preliminary.

TABLE I-6. Coho and Chinook harvest quotas and guidelines (*) for 2016 Council managed fisheries compared with actual harvest by management area and fishery.

Fishery Governed by Quota or Guideline	Chinook			Coho		
	Quota or Guideline ^{a/}	Catch	Catch/Quota	Quota	Catch	Catch/Quota
NORTH OF CAPE FALCON						
TREATY INDIAN COMMERCIAL TROLL						
May-June, All salmon except coho	20,000	16,544	0.83	-	-	-
July-September, All salmon except coho	20,000 ^{b/}	6,288	0.31	-	-	-
Subtotal Treaty Indian Commercial Troll	40,000	22,832	0.57	-	-	-
NON-INDIAN COMMERCIAL TROLL						
May-June, All salmon except coho	14,000 *	12,662	0.90	-	-	-
July-August, All salmon except coho	21,000 *	6,740	0.32	-	-	-
Subtotal Non-Indian Commercial Troll	35,000	19,402	0.55	-	-	-
RECREATIONAL						
U.S./Canada Border to Cape Alava						
July 1-August 21, All salmon except coho	6,200 *	3,266	0.53	-	53	-
Cape Alava to Queets River						
July 1-August 21, All salmon except coho	2,000 *	255	0.13	-	5	-
Queets River to Leadbetter Pt.						
July 1-August 21, All salmon except coho	16,600 *	8,430	0.51	-	43	-
Leadbetter Pt. to Cape Falcon						
July 1-August 27, All salmon, coho non-mark-selective	10,200 *	5,997	0.59	18,900	18,612	0.98
Subtotal Recreational	35,000	17,948	0.51	18,900	18,713	0.99
TOTAL NORTH OF CAPE FALCON	110,000	60,182	0.55	18,900	18,713	0.99
SOUTH OF CAPE FALCON						
COMMERCIAL TROLL (all except coho)						
Humbug Mt. to OR/CA Border (June)	720	179	0.25	-	-	-
Humbug Mt. to OR/CA Border (July)	594 ^{b/}	21	0.04	-	-	-
OR/CA Border to Humboldt South Jetty (Sept.)	1,000	196	0.20	-	-	-
Subtotal Troll	2,314 ^{b/}	396	0.17	-	-	-
RECREATIONAL						
Cape Falcon to OR/CA Border coho mark-selective June 25-August 2	-	-	-	26,000	1,547	0.06
Cape Falcon to Humbug Mt. coho non-mark-selective September 3-30	-	-	-	7,500 ^{b/}	4,170	0.56
TOTAL SOUTH OF CAPE FALCON	2,314 ^{b/}	396	0.17	33,500 ^{b/}	5,717	0.17
GRAND TOTAL COUNCIL AREA	112,314 ^{b/}	60,578	0.54	52,400 ^{b/}	24,430	0.47

a/ Guidelines for Chinook fisheries are marked with an asterisk (*).

b/ Quotas do not match preseason quota/guidelines because inseason actions (i.e., trades, transferring quotas on an impact neutral basis, and converting to non-mark-selective fishery equivalence) resulted in increases or decreases to the overall quota. See Tables I-1, I-2, I-3, or Appendix Table C-9 for specifics of inseason adjustments.

TABLE I-7. Estimated incidental mortality of Chinook and coho in 2016 ocean salmon fisheries. Observed incidental mortality was calculated by scaling pre-season projections of incidental mortality by the ratio of observed to projected catch.

Area and Fishery	2016	2016 Bycatch	2016	Observed in 2016	
	Catch Projection	Mortality ^{a/} Projection	Bycatch Projection ^{b/}	Catch	Bycatch Mortality ^{a/}
CHINOOK (thousands of fish)					
<u>OCEAN FISHERIES:</u>					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	40.0	4.1	10.3	22.8	2.3
Non-Indian Commercial Troll	35.0	16.8	60.9	19.4	9.3
Recreational	35.0	6.5	35.9	17.9	3.4
CAPE FALCON TO HUMBUG MT. ^{c/}					
Commercial Troll	44.7	6.8	17.8	39.8	5.9 ^{d/}
Recreational	5.8	0.5	1.6	2.6	0.3
HUMBUG MT. TO HORSE MT. ^{c/}					
Commercial Troll	2.8	0.4	1.1	0.6	0.7 ^{d/}
Recreational	6.4	0.6	1.7	5.5	0.4 ^{d/}
SOUTH OF HORSE MT.					
Commercial Troll	81.1	12.4	32.3	54.9	10.0 ^{d/}
Recreational	43.8	3.9	10.7	32.7	2.0 ^{d/}
TOTAL OCEAN FISHERIES					
Commercial Troll	203.6	40.6	122.5	137.5	28.2
Recreational	91.0	11.6	49.9	58.7	6.1
<u>INSIDE FISHERIES:</u>					
Area 4B	-	-	-	-	-
Buoy 10	45.9	2.6	13.7	17.8	1.5 ^{d/}
COHO (thousands of fish)					
<u>OCEAN FISHERIES:</u>					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	-	0.4	1.6	0.0	0.4
Non-Indian Commercial Troll	-	3.8	14.6	0.0	3.8
Recreational	18.9	11.4	72.8	18.7	11.6
SOUTH OF CAPE FALCON ^{c/}					
Commercial Troll	-	5.3	20.6	-	2.8
Recreational	33.5	13.7	67.5	5.7	2.3
TOTAL OCEAN FISHERIES					
Commercial Troll	0.0	9.6	36.8	0.0	7.0
Recreational	52.4	25.1	140.3	24.4	14.0
<u>INSIDE FISHERIES:</u>					
Area 4B	-	-	-	-	-
Buoy 10	20.0	3.8	14.8	9.2	1.3 ^{d/}

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

Commercial: 26%.

Recreational, north of Pt. Arena: 14%.

Recreational, south of Pt. Arena: 15% (based on the proportion of fish caught using mooching versus trolling gear, and the HRM rates of 42.2% and 14% for these gear types, respectively).

b/ Bycatch calculated as drop-off mortality plus fish released.

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

d/ Based on reported released Chinook or coho. Reported releases in California fisheries are used as a surrogate in Oregon fisheries.

TABLE I-8. Summary of 2016 recreational fisheries selective for marked hatchery Chinook (preliminary data).

Area	Anticipated Mark Rate	Observed Mark Rate	Preseason Quota	Anticipated Nonretention Mortality ^{a/}	Landed Chinook Catch			Legal sized Chinook Released ^{b/}	Sub-legal Sized Chinook Released ^{b/}	Estimated Nonretention Mortality ^{a/}	Effort ^{c/}
					Total	Marked	Unmarked				
Recreational											
Ocean Fisheries (no mark-selective fisheries in 2016)											
Neah Bay/La Push	-	-	-	-	-	-	-	-	-	-	-
Westport	-	-	-	-	-	-	-	-	-	-	-
Columbia River	-	-	-	-	-	-	-	-	-	-	-
North of Cape Falcon Total	-	-	-	-	-	-	-	-	-	-	-
Inside Fisheries											
Strait of Juan de Fuca ^{d/}	51%	70%	6,166 ^{e/}	4,259	3,395	3,393	2	1,919	19,505	4,189	14,669
Grand Total	-	-	6,166	4,259	3,395	3,393	2	1,919	19,505	4,189	14,669

a/ Hook-and-release plus drop-off mortality of marked plus unmarked fish; computation of estimated nonretention mortality differs from 2010 and prior years.

b/ Calculated from dockside sampling.

c/ Recreational effort measured in angler trips.

d/ Includes Area 5 (July 1 - Aug. 15, 2016) selective fishery only. Data are preliminary.

e/ Expected catch; not a quota.

TABLE I-9. Summary of 2016 recreational and commercial fisheries selective for marked hatchery coho (preliminary data).

Area	Anticipated Mark Rate	Observed Mark Rate	Preseason Quota	Anticipated Nonretention Mortality ^{a/}	Landed Coho Catch			Unmarked Coho Released ^{b/}	Estimated Nonretention Mortality ^{a/}	Effort ^{c/}
					Total	Marked	Unmarked			
Recreational										
Ocean Fisheries										
Neah Bay	-	-	-	-	-	-	-	-	-	-
La Push	-	-	-	-	-	-	-	-	-	-
Westport	-	-	-	-	-	-	-	-	-	-
Columbia River	69%	63%	18,900	2,860	18,612	18,580	32	9,937	3,024	28,574
North of Cape Falcon Total	-	-	18,900	2,860	18,612	18,580	32	9,937	3,024	28,574
Cape Falcon to OR/CA Border	42%	39%	26,000	8,603	1,547	1,537	10	2,381	530	10,625
Ocean Fisheries Total	-	-	44,900	11,463	20,159	20,117	42	8,886	2,770	39,199
Inside Fisheries										
4B Add-on	-	-	-	-	-	-	-	-	-	-
Strait of Juan de Fuca ^{d/}	-	-	-	-	-	-	-	-	-	-
Buoy 10	61%	66%	20,000 ^{e/}	3,834	9,182	9,139	43	4,679	1,348	94,950
Inside Fisheries Total	-	-	20,000	3,834	9,182	9,139	43	4,679	1,348	94,950
Commercial										
Neah Bay	-	-	-	-	-	-	-	-	-	-
La Push	-	-	-	-	-	-	-	-	-	-
Westport	-	-	-	-	-	-	-	-	-	-
Columbia River	-	-	-	-	-	-	-	-	-	-
Commercial Total	-	-	0	0	0	0	0	0	0	0
Grand Total	-	-	64,900	15,297	29,341	29,256	85	13,565	4,118	-

a/ Hook-and-release plus drop-off mortality of marked plus unmarked fish; computation of estimated nonretention mortality differs from 2010 and prior years; computation of North of Falcon recreational fisheries estimated nonretention mortality differs from 2011 and prior years.

b/ Calculated from observed mark rates w here available; w here unavailable, anticipated mark rates are used. Cape Falcon-OR/CA border and Buoy 10 recreational fishery observed mark rates based on dockside sampling.

c/ Recreational effort measured in angler trips, commercial effort measured in days fished; includes effort from coho mark-selective fisheries only.

d/ Includes Area 5 selective fishery only. No coho MSF occurred in 2016.

e/ Expected catch; not a quota.

TABLE I-10. Chinook catch by Southeast Alaska marine fisheries in thousands of fish.

Year	Total Catches			Treaty Chinook			Additional Catch	
	Troll	Net	Sport	Troll	Net	Sport	Terminal Exclusion ^{a/}	Hatchery Add-On ^{b/}
1985	215.8	33.9	24.9	211.9	33.3	23.0	0.0	6.2
1986	237.7	22.1	22.6	231.6	20.6	19.0	0.0	11.1
1987	242.6	15.5	24.3	231.1	14.0	20.3	0.0	17.1
1988	231.4	21.8	26.2	217.1	17.4	22.3	0.0	22.5
1989	235.7	24.2	31.1	224.2	18.5	26.8	0.0	21.5
1990	287.9	27.7	51.2	263.5	16.1	41.4	0.0	45.9
1991	264.1	34.9	60.5	231.8	21.0	45.1	0.0	61.5
1992	183.8	32.1	42.9	162.6	24.0	35.3	0.0	36.8
1993	226.9	28.0	49.2	212.3	16.2	42.7	0.0	32.9
1994	186.3	35.7	42.4	177.1	22.6	35.5	0.0	29.2
1995	138.1	48.0	49.7	115.1	26.4	35.5	0.0	58.8
1996	141.5	37.3	57.5	107.6	8.4	39.0	8.7	72.6
1997	246.4	25.1	71.5	221.9	11.4	53.3	9.8	46.5
1998	192.1	23.5	55.0	183.5	13.4	46.3	2.4	25.0
1999	146.2	32.7	72.1	132.7	12.9	53.2	4.5	47.7
2000	158.7	41.4	63.2	134.0	11.1	41.4	2.5	74.3
2001	153.3	40.2	72.3	128.7	13.5	44.7	1.5	77.3
2002	325.3	31.7	69.5	298.1	13.5	45.5	1.2	68.2
2003	330.7	39.4	69.4	307.4	23.5	49.2	2.1	57.2
2004	354.7	64.0	80.6	321.9	39.7	55.4	6.3	76.0
2005	338.5	68.1	86.6	304.9	20.4	63.3	40.2	64.3
2006	282.3	67.4	85.8	264.0	26.7	69.4	27.0	48.4
2007	268.1	53.6	82.8	240.5	25.4	62.3	8.1	68.4
2008	151.9	43.0	49.3	126.4	13.8	32.6	5.3	66.1
2009	175.6	48.5	69.6	159.2	20.7	48.1	3.7	61.9
2010	195.6	30.6	58.5	178.0	8.4	44.3	0.5	53.4
2011	242.2	48.2	66.6	220.4	16.3	54.0	0.7	65.6
2012	209.0	39.5	46.5	191.5	13.3	37.7	1.1	51.4
2013	149.5	51.3	56.4	134.6	13.5	43.3	0.3	65.6
2014	355.6	50.0	86.9	340.0	21.2	74.0	0.7	56.6
2015	269.8	53.7	81.8	251.1	18.8	67.9	0.2	67.3
2016 ^{c/}	276.4	42.3	70.0	265.7	25.9	61.7	0.4	35.1

a/ Catch in terminal net fisheries. These catches are not subject to PST limitations.

b/ Catch of increased production of Alaska hatchery fish. These catches are not subject to PST limitations.

c/ Preliminary.

TABLE I-11. Chinook and coho catches by Canadian marine fisheries in thousands of fish.

Year or Avg.	Northern B.C.		Central B.C.		North-Central B.C. Sport	WCVI			Strait of Georgia			Juan de Fuca				
	Troll	Net	Troll	Net		NW Troll	SW Troll	Net	Outside Sport	Troll	Net ^{a/}	North ^{b/}	South	Troll	Net	Sport
CHINOOK																
1986-1990	168.9	28.1	41.6	14.1	17.8	110.3	215.9	17.8	28.6	39.1	35.8	68.1	34.7	0.1	11.5	30.6
1991-1995	143.9	30.1	25.2	14.0	30.9	111.8	98.5	20.4	45.7	25.3	22.2	62.5	17.7	0.0	6.2	16.6
1996-2000	51.5	17.8	3.3	4.7	35.6	16.6	19.8	0.6	18.9	0.8	11.2	28.9	8.8	0.2	0.2	14.3
2001	13.1	25.4	0.0	6.5	49.1	23.9	53.6	0.0	40.2	0.5	4.5	25.6	9.6	0.0	0.0	23.5
2002	103.0	14.9	0.5	4.7	62.4	43.0	90.8	0.5	32.1	0.6	9.6	47.4	9.1	0.0	0.0	24.1
2003	137.4	14.7	0.0	2.8	70.6	58.0	93.8	9.1	24.0	0.7	12.6	23.9	6.4	0.0	0.3	26.6
2004	167.5	16.2	0.0	6.3	92.7	85.4	88.7	12.5	42.5	0.6	12.5	26.3	3.8	0.0	0.0	40.9
2005	174.8	8.2	0.0	6.3	85.8	110.0	38.8	23.6	53.9	0.0	5.6	26.4	1.9	0.0	0.2	30.5
2006	151.5	13.7	0.0	5.2	81.9	53.9	55.3	20.3	37.9	0.0	3.6	20.3	2.4	0.0	0.2	26.4
2007	83.2	11.4	0.0	5.5	75.1	28.4	58.8	26.9	46.2	0.0	2.7	22.3	2.1	0.0	0.1	26.5
2008	52.1	7.4	0.0	1.1	58.4	15.3	74.4	8.3	50.6	0.0	4.2	10.9	2.5	0.0	0.2	22.3
2009	75.5	4.3	0.0	3.1	46.4	17.2	31.8	9.8	68.9	0.0	4.8	23.9	5.5	0.0	0.4	25.6
2010	90.2	3.1	-	1.5	58.0	34.7	44.5	1.7	54.9	0.0	9.6	21.5	4.0	-	0.2	15.6
2011	74.7	4.6	-	4.8	70.1	70.0	54.0	21.8	78.4	0.0	0.5	27.4	6.1	-	0.0	13.6
2012	80.2	1.4	0.0	3.6	52.9	32.3	23.2	10.2	65.4	0.0	1.9	26.9	3.4	0.0	0.3	22.1
2013	69.3	2.7	0.0	5.3	61.4	8.2	26.9	8.7	60.6	0.0	0.4	28.2	4.1	0.0	0.0	34.2
2014	172.0	2.6	0.0	2.3	69.6	90.8	19.0	19.0	48.3	0.0	0.0	42.4	3.8	0.0	0.0	21.1
2015	106.7	3.2	0.0	5.3	75.6	40.0	14.3	10.0	48.2	0.0	0.0	47.0	4.5	0.0	0.0	41.3
2016 ^{c/}	147.4	1.7	0.0	3.2	58.4	51.0	4.5	5.1	37.8	0.0	0.0	35.8	-	0.0	0.0	22.9
COHO																
1986-1990	716.3	139.9	275.2	132.2	28.0	600.0	1,277.9	14.2	19.1	178.4	109.2	512.9	106.0	0.7	194.4	66.2
1991-1995	574.2	147.7	98.5	55.0	42.2	501.3	921.2	4.9	31.7	95.1	56.2	221.0	67.6	0.0	92.1	105.9
1996-2000	116.7	30.5	4.1	8.5	24.1	47.2	110.5	0.2	11.1	0.0	2.3	6.2	2.9	0.1	0.9	38.9
2001	1.1	9.9	0.0	2.7	NA	0.0	0.0	0.0	6.1	0.0	0.0	9.3	1.7	0.0	0.0	0.2
2002	118.9	1.2	8.5	0.0	49.3	0.0	0.0	1.0	4.9	0.0	0.0	3.1	1.5	0.0	0.0	3.8
2003	195.0	6.9	18.9	3.5	NA	0.0	0.1	5.4	13.4	0.0	0.0	1.1	7.5	0.0	0.0	11.8
2004	225.5	24.2	31.7	47.3	27.0	0.1	0.0	2.9	20.3	0.0	0.2	1.4	1.6	0.0	0.0	11.1
2005	260.3	48.5	49.5	52.5	NA	0.6	1.4	4.0	12.4	0.0	0.0	0.7	0.7	0.0	0.0	8.8
2006	125.7	1.1	12.7	5.0	62.0	1.2	1.2	2.2	33.7	0.0	0.0	2.7	0.9	0.0	0.0	2.9
2007	153.1	61.7	28.9	18.9	53.2	1.4	0.0	4.8	25.3	0.0	0.0	6.5	2.0	0.0	0.0	6.7
2008	62.8	0.0	13.9	0.0	NA	0.0	0.3	5.0	27.7	0.0	0.0	1.2	0.3	0.0	0.0	1.2
2009	61.0	0.1	0.0	15.9	48.0	0.0	0.0	0.9	50.0	0.0	0.0	2.6	0.6	0.0	0.0	9.5
2010	138.3	0.1	-	0.4	78.7 ^{d/}	0.1	0.4	0.8	15.1	0.2	0.6	1.2	1.1	-	0.0	0.7
2011	280.7	11.2	15.9	0.0	97.5 ^{e/}	0.0	0.0	1.0	54.0	0.0	0.3	0.6	0.6	0.0	15.6	10.2
2012	215.5	0.0	0.0	0.5	6.0 ^{d/}	0.4	1.7	0.3	46.2	0.0	0.0	1.2	2.5	0.0	0.0	16.6
2013	378.2	21.0	21.1	24.5	NA	5.3	0.8	1.1	72.3	0.0	2.6	19.7 ^{f/}	4.6	0.0	0.0	19.7
2014	177.5	26.7	0.0	11.6	NA	2.2	32.8	0.6	23.4	0.0	1.9	13.0 ^{f/}	1.2	0.0	0.0	21.1
2015	255.7	20.2	0.0	1.0	96.7	3.1	3.1	0.3	29.3	0.0	0	0.8	1.9	0.0	0.0	10.7
2016 ^{c/}	214.6	37.7	4.3	0.2	82.7	0.1	0.1	0.8	21.8	0.0	0	4.4	8.1	0.0	0.0	7.6

a/ Includes Johnstone Strait nets, net fisheries in Strait of Georgia, and Fraser seine.

b/ Includes Johnstone Strait sport (Chinook). North catch in 2016 includes south catch.

c/ Preliminary.

d/ Does not include catch from Areas 5, 6, and 10.

e/ Does not include catch from Area 6.

f/ Does not include areas 15 (North) and 16 (South).

TABLE I-12. West Coast Vancouver Island aggregate abundance based management troll Chinook salmon catch by month.

Season	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug. ^{a/}	Sept.	Total
2005-2006	12,198	2,156	1,689	1,468	5,154	7,883	20,561	7,078	20,807	-	886	24,098	103,978
2006-2007	16,000	1,200	800	5,500	2,600	2,300	5,200	23,500	25,000	-	-	6,000	88,100
2007-2008	3,137	-	-	1,634	1,911	-	1,717	11,105	15,944	-	9,099	45,157	89,704
2008-2009	1,882	1,209	1,107	3,394	1,540	586	3,616	18,062	12,165	-	9,630	-	53,191
2009-2010	-	-	-	-	-	-	8,553	31,296	23,652	-	11,642	3,980	79,123
2010-2011	-	-	-	-	1,849	875	8,670	41,239	34,394	15,619	21,284	-	123,930
2011-2012	-	-	245	129	542	243	10,493	22,334	-	-	4,280	17,264	55,530
2012-2013	3,344	230	312	1,018	358	501	1,374	25,737	-	-	-	2,519	35,393
2013-2014	2,358	28	25	49	586	1,422	13,345	40,336	-	26,494	10,002	15,360	110,005
2014-2015	213	56	-	186	612	731	3,841	27,405	-	-	13,953	7,341	54,338
2015-2016 ^{b/,c/}	178	13	1	51	342	315	6,456	31,799	-	-	7,574	2,390	49,119

a/ Fishery restricted to plugs only.

b/ Does not included 353 test fish in July and August or Taaq-wiihak catch of 6,049.

TABLE I-13. Summary of 2016 coho catch and release in British Columbia commercial fisheries.

Gear/Area	Coho Kept	Coho Released
Northern Troll	214,610	16,483
Northern Net	37,739	414
North Central Troll	4,343	7
South Central Troll	-	-
Central Net	231	10,417
Johnstone Strait Troll	0	89
Johnstone Strait Net	176	831
Strait of Georgia Net	0	285
Strait of Georgia Troll	0	0
Fraser Gill Net	181	930
Northw est Vancouver Island Troll	123	2,368
Southw est Vancouver Island Troll	130	875
Northw est Vancouver Island Net	0	60
Southw est Vancouver Island Net	808	486

TABLE I-14. Summary of 2016 coho catch and release in British Columbia recreational fisheries.

Area	Kept	Released
Juan de Fuca Strait	6,664	14,439
Strait of Georgia	4,399	15,475
Johnstone Strait	4,449	4,461
WCVI ^{a/}	21,813	17,018
Total	37,325	51,393

a/ Includes impacts of mark-selective fisheries and inside fisheries.

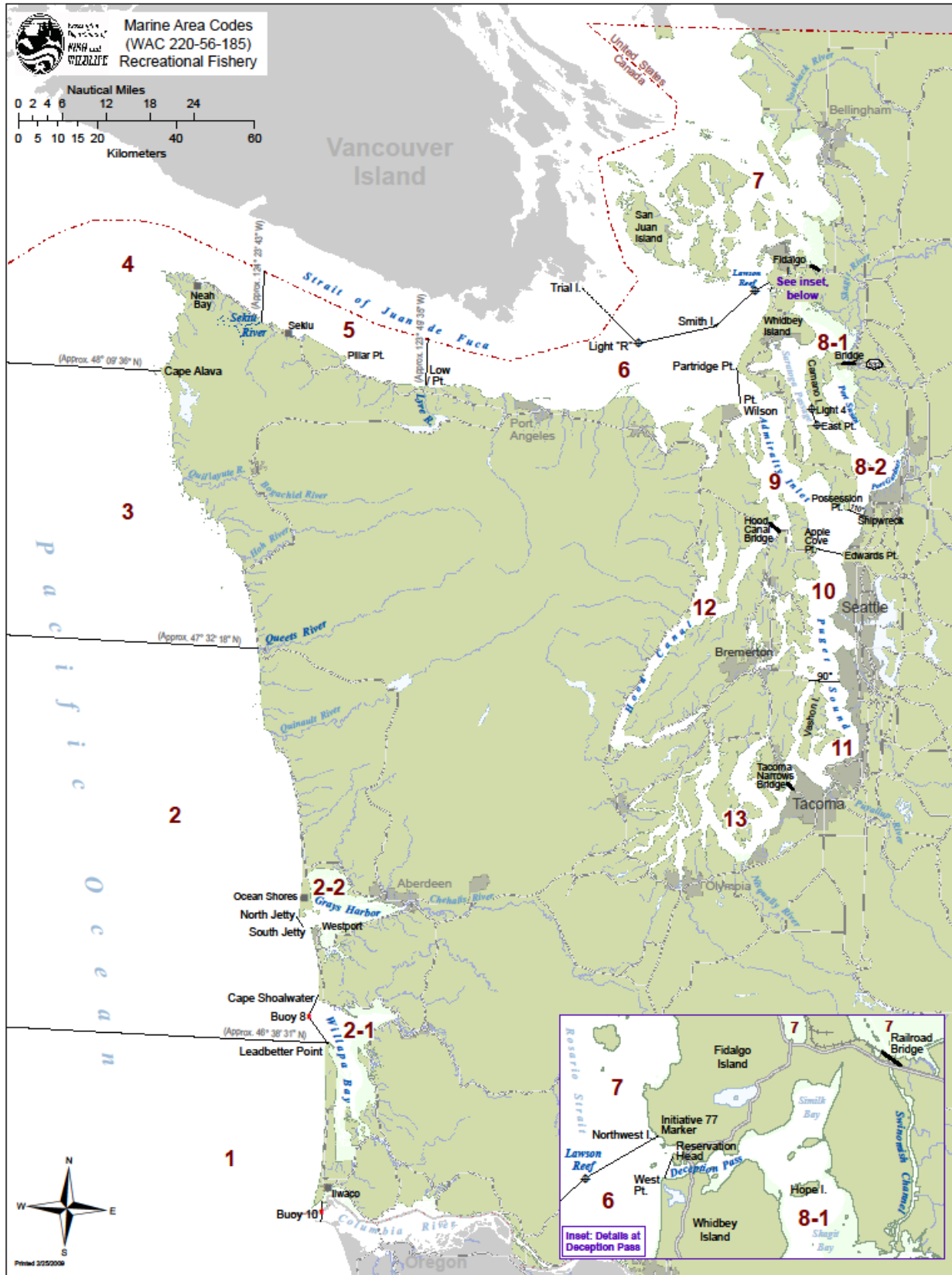


Figure I-1. Washington marine area code numbers and locations.

CHAPTER II

CHINOOK SALMON MANAGEMENT

CENTRAL VALLEY CHINOOK STOCKS

Central Valley Chinook stocks include fall, late-fall, winter, and spring stocks of the Sacramento and San Joaquin rivers and their tributaries. Two of these stocks are listed under the ESA: (1) Sacramento River winter Chinook, listed as endangered in January 1994; and (2) Central Valley spring Chinook, listed as threatened in September 1999.

Management Objectives

The following objectives guided Council management of Central Valley Chinook salmon stocks in the 2016 fisheries: (1) for SRWC, the ESA consultation standard specifying a maximum allowable age-3 impact rate of 19.9 percent and restrictions concerning the duration, timing, and minimum size limits for commercial and recreational ocean salmon fisheries south of Point Arena; and (2) for SRFC, an escapement of at least 122,000 hatchery and natural area adults. Harvest impacts on Central Valley Chinook were a primary management concern in fisheries south of Point Arena.

Regulations to Achieve Objectives

In 2016, fishing opportunity south of Cape Falcon was primarily constrained by the control rule-defined maximum exploitation rate of 25 percent on KRFC. Fisheries south of Point Arena were also constrained by the SRWC consultation standard and adopted management measures intended to further reduce impacts on SRWC. Season and size limit details are presented in Tables I-1 and I-3.

Commercial

Fishery impacts on SRWC were a primary management concern south of Point Arena while no specific restrictions were required for ocean salmon fisheries to meet the escapement goal for SRFC. SRFC were projected to have a 2016 hatchery and natural area adult escapement of 151,128, which exceeded the minimum allowable escapement, defined by the control rule, of 122,000 adults.

The fishery south of Pigeon Point was open for the months of May and June. The area between Point Arena and Pigeon Point was open for portions of May, June, and August, and for the entire month of September. An October 3-14 fishery was open Monday through Friday between Point Reyes and Point San Pedro. Commercial fisheries south of Point Arena had a 27-inch minimum size limit through August, which reduced to 26 inches for September and October. The more restrictive regulations for southerly areas were driven by SRWC conservation concerns.

The Fort Bragg area was open for portions of June and August, and the entire month of September, with a 27-inch minimum size limit. The California KMZ was restricted to a small September quota fishery. The Oregon KMZ had monthly quota fisheries in June and July, and was open without quotas for a portion of April and the entire month of May. Oregon fisheries between Cape Falcon and Humbug Mountain were open for portions of April through October with closures of various durations in all months except May and October. These regulations were adopted primarily to meet KRFC management objectives.

Recreational

Recreational fisheries south of Point Arena were structured primarily to limit impacts on SRWC while no specific restrictions were implemented to meet the SRFC escapement goal.

Recreational fisheries south of Horse Mountain opened on April 2. The seasons closed earlier in more southern areas; closing dates ranged from November 13 in the Fort Bragg area to May 31 in the area south of Point Sur. The minimum size limit for recreational fisheries in the Fort Bragg area was 20 inches. From Point Arena to Pigeon Point the minimum size limit was 24 inches in April, and 20 inches thereafter. South of Pigeon Point the minimum size limit was 24 inches for the entire season. The California KMZ was open for portions of May through August and the first five days of September with a 20 inch minimum size limit. The Oregon KMZ opened May 28 and remained opened through August 7. The fishery reopened for the Labor Day weekend, September 3-5. The Chinook fishery between Cape Falcon and Humbug Mountain was open from March 15 through October 31. The minimum size limit in Oregon fisheries was 24 inches.

Inside Harvest

Recreational angling for salmon in Sacramento River and its tributaries was expected to result in a catch of 24,600 adult SRFC. Harvest of SRFC during 2016 fisheries in the Sacramento River and its tributaries was not available in time for this report.

Since 1990, regulations have closed the mainstem Sacramento River to retention of salmon from January 15 through July 15, a period when SRWC adults are thought to be most abundant. Beginning in 2004, the retention closure was enacted earlier, on January 1 from the Carquinez Bridge to Red Bluff, in response to the recovery of SRWC coded-wire tags (CWTs) in the sport fishery. To further protect SRWC spawners, an additional closure was implemented in 2015 from approximately May 1 through July 31. This closure prohibited all fishing in the uppermost six miles of the Sacramento River from the Highway 44 Bridge to Keswick Dam. Owing to low Chinook escapement to the Stanislaus, Tuolumne, and Merced rivers, the majority of the San Joaquin River has been closed to recreational salmon fishing. However, beginning in 2012, recreational angling opportunity was reintroduced on the Mokelumne River, the first such opportunity since 2007. Harvest in the Mokelumne River in 2016 was not available in time for this report.

Escapement and Management Performance

Total Chinook catch in commercial and recreational fisheries south of Cape Falcon was below preseason expectations. Overall, commercial Chinook fisheries caught approximately 74 percent of preseason expectations and recreational Chinook fisheries caught approximately 73 percent of preseason expectations (Table I-7).

Sacramento River Fall Chinook

Under the 2016 regulations, the projected spawning escapement in the Sacramento River Basin was 151,100 hatchery and natural area fall Chinook adults. A total of 89,173 hatchery and natural area adult spawners were estimated to have returned to the Sacramento River basin in 2016 (Table II-1, Figure II-1).

Fall Chinook returns to Sacramento River hatcheries in 2016 totaled 34,547 adults, and escapement to natural areas was 54,626 adults. Table II-1 and Figure II-1 display historical natural area and hatchery fall spawner escapement estimates. For a more detailed breakdown of the historical escapement see Appendix B, Table B-1. It is important to note that available data indicate that hatchery origin fish generally constitute a large portion of the Sacramento River naturally spawning fall Chinook population.

Under the terms of Amendment 16 to the salmon FMP, SRFC are considered to be overfished when the 3-year geometric mean spawning escapement falls below the minimum stock size threshold (MSST) of 91,500 hatchery and natural area adult spawners. The geometric mean of adult spawning escapement for years 2014-2016 is 128,865 and therefore SRFC are not overfished.

SRFC are considered to have been subject to overfishing if the estimated exploitation rate exceeds their maximum fishing mortality threshold (MFMT) of 0.78. An estimate of the 2016 SRFC exploitation rate is not yet available. However, fisheries in 2015 resulted in an exploitation rate of 0.56, which is below the MFMT. Therefore, overfishing did not occur in 2015 (Table II-6).

Sacramento River Winter and Spring Chinook

Spawner escapement of endangered SRWC in 2016 was estimated to be 924 adults and 622 jacks. This estimate was derived from a carcass survey conducted on the upper Sacramento River and includes SRWC captured in the Keswick trap, which provides brood stock to Livingston Stone National Fish Hatchery.

SRWC spawner escapement estimates derived from Red Bluff Diversion Dam counts began in 1967, and from 1987 to 2008 the estimates were derived by expanding counts made during the period of dam operation (which overlaps with approximately 15 percent of the SRWC migration period). Escapement estimates from the carcass survey are considered a better representation of SRWC spawner escapement due to the small proportion of the SRWC migration sampled during the Red Bluff Diversion Dam operation period. Red Bluff Diversion Dam gates were permanently removed in 2012, and escapement estimates based on dam passage are no longer available.

Escapement of spring Chinook to the Sacramento River system in 2016 totaled 7,743 fish (jacks and adults), most of which (an estimated 6,093 fish) returned to upper Sacramento River tributaries; the remaining 1,650 fish returned to the Feather River Hatchery. Estimates of spring Chinook escapement to the upper mainstem Sacramento River are no longer made owing to the permanent removal of the Red Bluff Diversion Dam gates in 2012. The method used to estimate the spring Chinook return to the Feather River Hatchery was modified in 2005. In previous years, the estimate was equal to the number of Chinook that entered the hatchery during the early period of Chinook spawning. Since 2005, prior to the spring run spawning period, fish that entered the hatchery were tagged and returned to the river; the number of tagged fish that re-entered the hatchery during the spring run spawning period was used as the estimate of spring Chinook escapement in the Feather River. The fish that were tagged at the hatchery and returned to the river but did not re-enter the hatchery during the spawning period were counted in the natural fall run survey and reported as Feather River fall Chinook. The natural area spawner surveys in the Feather River are not currently capable of separating the spring and fall runs.

Historical spawner escapements for SRWC and spring Chinook salmon are presented in Appendix B, Table B-3.

Sacramento River Late-Fall Chinook

Late-fall Chinook spawning escapement in 2016 was estimated to be 4,637 adults and 973 jacks. These Chinook returned primarily to the Coleman National Fish Hatchery and the upper Sacramento River. These numbers also include late-fall Chinook that returned to upper Sacramento River tributaries and those captured in the Keswick trap for use as broodstock at Coleman National Fish Hatchery (Appendix B, Table B-3 provides historical spawner escapement)

San Joaquin River Fall Chinook

San Joaquin River spawning areas are used primarily by fall Chinook. The estimated San Joaquin River fall Chinook spawning escapement in 2016 totaled 16,454 jacks and adults in natural areas and 9,877 jacks and adults to hatcheries (Appendix B, Table B-2 provides historical spawner escapements). Salmon production in the San Joaquin River is determined largely by spring outflows three years earlier. In most years since 1986, spawner returns to the San Joaquin River have constituted less than 10 percent of the total Central Valley escapement for fall run Chinook. However, in 2016, returns to the San Joaquin River made up 20 percent of the total fall run escapement to the Central Valley.

NORTHERN CALIFORNIA COAST CHINOOK STOCKS

Northern California stocks include fall and spring stocks north of the entrance to San Francisco Bay. Primary river systems in this area are (from north to south) the Smith, Klamath, Mad, Eel, Mattole, and Russian rivers. Coastal Chinook stocks south of the Klamath River were listed as threatened under the ESA in September 1999.

Management Objectives

KRFC were managed in accordance with their control rule, which in 2016 specified a maximum exploitation rate of 25.0 percent, resulting in an expected spawner escapement of 30,909 adults in natural areas. The available harvest of KRFC was shared equally between non-tribal and Klamath River tribal fisheries (tribes with federally-recognized fishing rights). The NMFS ESA consultation standard for California Coastal Chinook limited the ocean harvest rate on age-4 KRFC to a maximum of 16 percent.

Regulations to Achieve Objectives

To achieve the management objectives for KRFC and California Coastal Chinook, the adopted regulations were designed to result in: (1) a Klamath River run of 52,100 fall Chinook adults, resulting in a spawner escapement of 30,900 adults to natural areas, taking into account projected river fishery impacts of 9,200 adults and returns to basin hatcheries; (2) 50 percent (7,400) of the allowable adult harvest for tribal subsistence and commercial fisheries; (3) 15 percent (1,100) of the non-tribal harvest to the Klamath River recreational fishery; and (4) 10.2 percent (approximately 600 fish) of the ocean harvest to the KMZ recreational fishery. The age-4 ocean harvest rate resulting from the above configuration was forecast to be 8.4 percent. Season and size limit details are presented in Tables I-1 and I-3.

Commercial

The primary constraint to commercial fisheries south of Cape Falcon in 2016 was the control rule-defined maximum exploitation rate for KRFC. The Oregon KMZ had monthly quota fisheries in June and July, and was open without quotas in April and May. The California KMZ was closed except for a small September quota fishery. Commercial fishing opportunity north and south of the KMZ was more constrained relative to recent years (Table I-1).

Recreational

Recreational fisheries were open in the KMZ from May through September, but seasons varied between the California and Oregon portions. In the California portion of the KMZ, the fishery was open during the latter halves of May, June, and July, the first half of August, and the first five days of September. In the Oregon portion, the fishery was open May 28 through August 7, and then reopened for the Labor Day weekend (September 3-5). Fisheries both north and south of the KMZ began earlier in the spring; March 15 for the area between Cape Falcon and Humbug Mountain and April 2 for the area south of Horse Mountain. Oregon and northern California fisheries straddling the KMZ extended later into the fall than in the KMZ, while fisheries south of Pigeon Point ended substantially earlier than the KMZ (Table I-3).

Inside Harvest

Yurok and Hoopa tribes shared a federally-reserved right of 50 percent (7,404) of the available harvest surplus of adult Klamath fall Chinook. Tribal adult harvest was 5,159, which was 70 percent of the quota (Appendix B, Tables B-4 and B-5). The State of California managed the river recreational fishery under a 1,111 adult fall Chinook quota. The estimated recreational fishery harvest was 1,310 adult fish, which was 118 percent of the quota (Table B-4). Harvest estimates for streams outside the Klamath River Basin were not available.

Escapement and Management Performance

In the Oregon portion of the KMZ, the June quota was not met and the unused portion was transferred to the July quota on an impact-neutral basis. The commercial catch in September for the California KMZ was well below the quota (Table I-6).

Threatened California Coastal Chinook

Historical indices of spawner abundance, or actual spawning escapement estimates, for Chinook salmon in California coastal streams outside of the Klamath River Basin are limited. cursory, nonsystematic surveys are conducted on one tributary of the Mad River and two tributaries of the Eel River. Video counts of Chinook passage at Mirabel Dam on the Russian River began in 2000, but in 2014 and 2015 these counts were derived using alternative sources because a new counting facility was under construction. Though construction of the new Mirabel counting facility was completed for the 2016 season, there was a period of refinement associated with the video sampling techniques that led to uncertainty regarding the total number of salmon observed during operation. Additionally, only one camera on the west side of the Russian River was utilized, whereas in previous years of Mirabel Dam operation both east and west side cameras were used simultaneously. Other environmental challenges associated with early rain storms truncated the operation period of the dam, further limiting the ability to provide a reliable escapement estimate. Because of these issues, a minimum passage number was determined using only the video count from the west side camera at Mirabel Dam. This number is reported in Appendix B, Table B-7, though it is not comparable to Mirabel Dam counts from previous years and should be considered a minimum value as opposed to a true escapement estimate.

Klamath River Fall Chinook

The 2016 preliminary postseason river run size estimate for KRFC was 24,567 adults compared to the preseason-predicted ocean escapement (river run size) of 52,138. The escapement to natural spawning areas was 13,924 adults, which was 45 percent of the preseason prediction of 30,909 adults. The estimated hatchery return was 3,578 adults. Jack returns to the Klamath Basin totaled 2,786 including 1,894 that escaped to natural spawning areas. Table II-2, Figure II-2, and Appendix B, Table B-4 present historical harvest and escapement estimates for KRFC.

Spawning escapement to the upper Klamath River tributaries (Salmon, Scott, and Shasta Rivers), where spawning was only minimally affected by hatchery strays, totaled 5,162 adults. The Shasta River has historically been the most important Chinook salmon spawning stream in the upper Klamath River, supporting a spawning escapement of 27,600 adults as recently as 2012 and 63,700 in 1935. The escapement in 2016 to the Shasta River was 2,754 adults. Escapement to the Salmon and Scott Rivers was 1,032 and 1,376 adults, respectively (Appendix B, Table B-6).

Under the terms of Amendment 16 to the salmon FMP, KRFC are considered to be overfished when the 3-year geometric mean spawning escapement falls below the minimum stock size threshold (MSST) of 30,525 natural area adult spawners. The geometric mean of adult spawning escapement in natural areas for years 2014-2016 is 33,390 and therefore KRFC are not overfished (Table II-6).

KRFC are considered to have been subject to overfishing if the estimated exploitation rate exceeds their maximum fishing mortality threshold (MFMT) of 0.71. An estimate of the 2016 KRFC exploitation rate is not yet available. However, fisheries in 2015 resulted in an exploitation rate of 0.59, which is lower than the MFMT. Therefore, overfishing did not occur in 2015 (Table II-6).

OREGON COAST CHINOOK STOCKS

Oregon Coast Chinook stocks include all fall and spring stocks from Oregon streams south of the Columbia River. These stocks are categorized into two major subgroups based on ocean migration patterns. Although ocean harvest distributions overlap somewhat, they are categorized as either north or south/local migrating. North migrating Chinook stocks include stocks from the Elk River north, with the exception of Umpqua River spring Chinook. South/local migrating Chinook stocks include Rogue River spring and fall Chinook, Umpqua River spring Chinook, and fall Chinook from smaller rivers south of the Elk River.

Based on CWT analysis, the populations from 10 major north Oregon Coast (NOC) river systems from the Nehalem through the Siuslaw Rivers are harvested primarily in PSC ocean fisheries off B.C., SEAK and Oregon terminal area fisheries. NOC stocks are harvested to a much lesser degree in Council-area fisheries off Washington and Oregon. Analysis of CWTs indicates the populations from five major mid-Oregon Coast (MOC) systems between the Coos and the Elk rivers are harvested primarily in ocean fisheries off B.C., Washington, Oregon, and in terminal area fisheries. Minor catches occur in California fisheries and variable catches in SEAK troll fisheries. South/local stocks are important contributors to ocean fisheries off Oregon and northern California. Another central Oregon stock, Umpqua River spring Chinook, contributes primarily to ocean fisheries off Oregon and California, and to a lesser degree, off Washington, B.C., and SEAK.

Management Objectives

The conservation objective for the northern and central Oregon Coast Chinook stock complexes was an aggregate of 150,000 to 200,000 natural adult spawners, as indicated by peak spawner counts of 60 to 90 fish per mile in standard index surveys. These stocks have been abundant historically; therefore, preseason abundance estimates were not developed and it has not been of critical management concern. Council-area Chinook fisheries have minor impacts on most of the stocks originating from these areas, which have a northerly marine distribution pattern. For the southern Oregon Coast Chinook stock complex, the conservation objective is assessed using the escapement estimate at Huntley Park on the Rogue River. ESA consultation standards for OCN coho, LCN coho, and California Coastal Chinook, and KRFC management objectives generally result in reduced Council-area ocean fishery impacts on Oregon south/local migrating Chinook stocks.

Regulations to Achieve Objectives

The areas of primary management concern for ocean fisheries impacting Oregon Coast Chinook vary between the north and south/local migrating stocks, although there is some overlap. Preseason abundance estimates were not available for Oregon Coast Chinook; however, based on postseason abundance indicators, impacts on these stocks from Council-area fisheries have not significantly affected achievement of management objectives in recent years.

Oregon State waters terminal area fisheries in 2016 were adopted to provide additional harvest on robust hatchery or naturally produced fall Chinook. Special regulations for each of these seasons were implemented to maintain fishery impacts within conservation objectives. These regulations included season quotas, daily and weekly landing limits in commercial fisheries, and reduced daily and season bag limits and partial mark-selective restrictions in some recreational fisheries. Season and size limit details are presented in Tables I-1 and I-3.

Inside Harvest

Inside recreational harvest of fall and spring Chinook occurred in most Oregon coastal estuaries and rivers. For the 2016 fisheries, regulations were adopted with the intention of reducing impacts on some of these stocks. Complete estimates of the 2016 recreational Chinook harvest in freshwater areas were not available.

Historical estimates of the recreational harvest of fall and spring Chinook, derived from Oregon Department of Fish and Wildlife (ODFW) salmon and steelhead angler catch record cards, are reported in Table II-3.

Escapement and Management Performance

The 2016 catch estimate for the two fall terminal area commercial fisheries was 334 Chinook.

Under the 2016 regulations, the Salmon Technical Team (STT) expected the aggregate conservation objectives for these stocks would be met with the constraints required for California Coastal Chinook, KRFC, and LCN coho. Actual escapement was not estimated for the northern and central Oregon Coast Chinook stock aggregate; achievement of the aggregate 150,000 to 200,000 naturally spawning adults was assessed through peak spawner index counts of 60 to 90 adults per mile in nine index streams and included both spring and fall Chinook. Peak spawner index counts were based on traditional non-random surveys (e.g., stream surveys, dam counts, etc.). The aggregate northern and central Oregon Coast goal was likely met in 2016. ODFW is developing alternate methodologies for establishing escapement goals for these Oregon coastal Chinook stocks, including fall Chinook PSC indicator stocks. The aggregate southern Oregon Coast Chinook goal of at least 41,000 naturally produced fall Chinook adults passing Huntley Park in the Rogue River was not met in 2016.

North Migrating Chinook

Index counts of adult spawners (peak count per index mile) were conducted for seven of the nine standard streams and used to measure natural spawner escapement trends for north-migrating fall Chinook in 2016. Data have been collected since about 1950 for most systems. Overall peak Chinook adult index spawner counts in 2016 were preliminarily estimated at 118 adults per mile, higher than the maximum sustainable yield (MSY) spawner escapement level of 60 adults per mile.

The geometric mean of north-migrating Oregon Coast Chinook adult escapement in 2014, 2015, and 2016 was 166 fish per mile, which exceeded both the MSST (30) and the MSY spawner escapement level. Estimates of exploitation rates were not available for 2015 or 2016, but earlier fisheries resulted in exploitation rates that were lower than the MFMT (0.78). Therefore, north-migrating Oregon Coast Chinook should not be considered overfished or subject to overfishing (Table II-6).

South/Local Migrating Chinook

Standard fall Chinook spawning index escapement data for the smaller southern Oregon coastal rivers (south of the Elk River) were available for the Winchuck, Chetco, and Pistol rivers (Appendix B, Table B-8). The 2016 preliminary estimate was reported at 34 adults per mile. The escapement goal prior to 2015 was assessed using this methodology.

Two trend indicators of escapement for naturally produced spring Chinook are utilized: (1) Rogue River counts at Gold Ray Dam, and (2) Umpqua River counts at Winchester Dam (Table II-4). Gold Ray Dam was removed in October 2010. For recent years, an estimate of natural spring Chinook escapement above the Gold Ray Dam site was made using the relationship of 2004-10 spawning ground surveys to the Gold Ray Dam passage (Figures II-3 and II-4).

Rogue River carcass counts were used as an indicator of trends in escapement for naturally produced fall Chinook, but these surveys have not been conducted since 2004 (Table II-4). Passage estimates of naturally produced fall Chinook at Huntley Park in the lower Rogue River are presented in Table B-10.

The geometric mean of south/local migrating Oregon Coast Chinook adult escapement in 2014, 2015, and 2016 was 35,435, which exceeded the MSST (20,500); therefore, south/local-migrating Oregon Coast Chinook should not be considered overfished. Estimates of exploitation rates were not available, so an

assessment of overfishing status was not possible, but based on exploitation rates for KRFC, it is unlikely that south/local-migrating Oregon Coast Chinook were subject to overfishing (Table II-6).

COLUMBIA RIVER BASIN CHINOOK STOCKS

Columbia River Basin Chinook salmon stocks include fall, summer, and spring stocks. NMFS has listed five Chinook evolutionarily significant units (ESUs) within the Columbia Basin under the ESA: (1) SRW fall Chinook listed as threatened in April 1992; (2) Snake River spring/summer listed as threatened in April 1992; (3) upper Columbia River spring listed as endangered in March 1999; (4) LCR Chinook listed as threatened in March 1999; and (5) upper Willamette River spring listed as threatened in March 1999.

The assessment below focuses on the five major stock groups of Columbia Basin fall Chinook: lower river hatchery (LRH) tule stock and lower river wild (LRW) bright stock, both of which are part of the ESA-listed LCR Chinook ESU; Spring Creek Hatchery (SCH) tule stock; upriver bright (URB) stock, which includes the ESA-listed SRW Chinook ESU; and mid-Columbia bright (MCB) hatchery stock. A brief assessment of Columbia River upper river summer Chinook is also included. Management details for Columbia River spring Chinook stocks are not discussed. Council-managed ocean salmon fisheries have very limited impacts on these stocks (less than a 2 percent exploitation rate in base-period fisheries); as a result, mid-Columbia spring stocks were removed from the FMP under Amendment 16 in December 2011. Appendix B, Tables B-12 through B-19, contain historical harvest and escapement data for fall, summer, and spring stocks. Appendix B, Table B-20 summarizes catch information for all three Chinook runs in the Columbia Basin. Additional information on these stocks and inriver fisheries can be found in the *Joint Staff Report: stock status and fisheries for spring Chinook, summer Chinook, sockeye, steelhead, and other species and miscellaneous regulations* and the *Joint Staff Report concerning the fall in-river commercial harvest of Columbia River fall Chinook, summer steelhead, coho salmon, chum salmon, and sturgeon* published annually by the joint staffs of ODFW and WDFW.

Management Objectives

Council-area fisheries north of Cape Falcon in 2016 were managed to access SCH and LRH stocks while meeting the NMFS ESA consultation standards for the ESA-listed LCR Chinook ESU (both LCR natural tules and LRW) and SRW fall Chinook ESU. The standard for ESA-listed LCR natural tules was a total (ocean plus inriver) AEQ exploitation rate of no more than 41.0 percent. For preseason modeling, the estimated total exploitation rate on a composite of Washougal, Kalama, Cowlitz, and Big Creek hatchery tules was used as a surrogate for LCR natural tules. The NMFS ESA consultation standard for LRW was a North Lewis River fall Chinook spawning escapement of 5,700 (equivalent to 6,900 ocean escapement); the preseason forecast was for an ocean escapement of 22,200. The standard for the SRW ESU was no less than a 30.0 percent reduction in the Snake River Fall Index (SRFI) from the 1988 through 1993 base period AEQ exploitation rate for all ocean fisheries combined.

The NMFS ESA consultation standard for the threatened LCR natural tule Chinook was the primary constraint on Council-area Chinook fisheries north of Cape Falcon, and to a lesser extent, south of Cape Falcon. Also, although the impacts on Puget Sound Chinook in Council-area fisheries are minor, these impacts are part of the annual ESA assessment for ocean and inside fisheries for this ESU

Regulations to Achieve Objective

Fisheries north of Cape Falcon are managed with quotas to help ensure impacts to stocks do not exceed allowable limits and to ensure allocation objectives are met. The 2016 forecast for the combined abundance of Chinook stocks contributing to AABM fisheries was lower than in 2015 but slightly higher than the most recent ten year average. Forecasts for Columbia River summer and bright and tule fall Chinook were again favorable in 2016. The impact of northern fisheries on Columbia River stocks are included in the modeling of Council-area fisheries.

The 2016 overall non-Indian Chinook total allowable catch (TAC) for North of Cape Falcon was 70,000. These compare to a 2015 non-Indian TAC of 131,000, including a coastwide 10,000 mark-selective Chinook quota for a portion of the recreational fishery; the equivalent non-mark-selective TAC was 125,000. The 2016 overall TAC was divided into 35,000 commercial and 35,000 recreational. The treaty Indian ocean troll TAC was 40,000 Chinook, and is applicable to the May-September period. This compares to a 2015 treaty Indian TAC of 60,000. Season and size limit details are presented in Tables I-1, I-2, and I-3.

Commercial

Non-Indian commercial fisheries north of Cape Falcon included a Chinook-directed fishery in May and June with a landing and possession limit of 40 Chinook per vessel per trip. Inseason action was taken to limit the days per week and institute landing and possession limits, with a limit of 14,000 Chinook, no more than 4,600 of which may be caught in the area between the U.S./Canada border and the Queets River and no more than 4,600 of which may be caught in the area between Leadbetter Pt. and Cape Falcon.

The July and August non-Indian commercial all-salmon fishery had a preseason quota of 21,000 Chinook with a landing and possession limit of 50 Chinook per vessel per open period. The fishery was open Friday through Thursday for the first two open periods and no more than 8,300 Chinook could be caught in the area between the U.S./Canada border and the Queets River.

Recreational

In the area between the U.S./Canada Border and Cape Falcon, the coastwide quota was 35,000 Chinook. Starting and ending dates were similar among subareas, opening on July 1 and closing August 21 in all areas except the Columbia River subarea which closed August 27.

Treaty Indian Ocean Harvest

The adopted management measures were generally similar in structure to recent years. The Tribal troll ocean fishery (also known as the Treaty troll fishery) quotas were defined by conservation concerns for ESA listed Chinook and coho stocks. For Chinook salmon quotas Lower Columbia River tule Chinook salmon, Mid-Hood Canal Chinook salmon and South Puget Sound Chinook salmon were the stocks that established the Chinook quota at 40,000. The Tribal troll fishery takes place in Washington ocean areas 2, 3, 4 and 4B. The Treaty Indian troll fishery opened on May 1 with a Chinook only fishery and continued through June 30 with a 20,000 sub-quota. The all-salmon fishery was open July 1 through August 31 with a sub-quota of 20,000 Chinook.

Inside Harvest

Since the Columbia River Fishery Management Plan expired on December 31, 1998, fall Chinook in Columbia River fisheries were managed through 2007 under the guidance of annual management agreements among the *U.S. v. Oregon* parties. In 2008, a new 10-year management agreement was negotiated through the *U.S. v. Oregon* process, which included revisions to some inriver objectives. In particular, the "*2008-2017 U.S. v Oregon Management Agreement*" (2008-2017 MA) specified that with run sizes of at least 200,000 URB, including at least 8,000 SRW fall Chinook, the allowable URB impact rate would be 45.0 percent. NMFS used the URB impact rate as a proxy in the SRW consultation standard.

In 2016, the fall fisheries were managed to achieve the NMFS ESA consultation standards for threatened LCR natural tule and SRW Chinook, and the 2016 URB and SRW preseason forecast run sizes were both large enough to allow a 45.0 percent harvest rate in inriver fisheries.

Within the ESA limitations there were harvestable numbers of salmon available for all major stocks in 2016. The postseason fall Chinook run reconstruction, however, was not completed in time for this report.

The preliminary catch estimates (adults) for the non-Indian commercial net fisheries were 14,650 spring, 3,050 summer, and 70,400 fall Chinook, which included 10,496 spring, 60 summer, and 13,430 fall Chinook in Select Area (terminal) fisheries. The preliminary catch estimates (adults) for the treaty Indian fisheries were 17,066 spring, 20,515 summer, and 144,399 fall Chinook. The preliminary catch estimate (adults) for the recreational fisheries included 15,820 fall Chinook in the Buoy 10 fishery, and 12,767 spring, 3,706 summer, and 25,210 fall Chinook in mainstem fisheries below Bonneville Dam, 2,480 spring Chinook in mainstem fisheries above Bonneville Dam, and 22,430 fall Chinook above Bonneville Dam which include the Hanford Reach fishery above McNary Dam (Appendix B, Table B-20).

Escapement and Management Performance

All Columbia River summer and fall stocks met their escapement objectives (Table II-5). Preliminary estimates of river mouth returns were; 91,048 summer, 142,540 LRH; 22,420 LRW; 47,744 SCH; 419,472 URB; and 60,700 MCB. The total ocean escapement of the five fall stocks was 708,676 fall Chinook (Figure II-5). The estimated escapement (Rock Island Dam count) for summer Chinook in 2016 was 79,253, exceeding the MSY spawner escapement objective of 12,143 adults established under FMP Amendment 16. The preliminary estimated natural area escapement (Hanford Reach, Yakima River, and above Priest Rapids Dam) for URB Chinook in 2016 was 181,713 exceeding the MSY spawner escapement level of 39,625 adults established under FMP Amendment 16.

The preliminary 2016 URB inriver harvest rate estimate was 52 percent. The total adult SRW, hatchery, and supplementation fall Chinook count at Lower Granite Dam in 2016 was 34,714, about half the count of 59,299 in 2015. Estimates of SRW and supplementation fall Chinook spawning escapement in 2016 were not available.

Postseason estimates of exploitation rate on LCR natural tulle or SRW for ocean fisheries were unavailable.

The overall ocean TACs for treaty Indian and non-Indian Chinook fisheries were not exceeded. All Council-area fisheries north of Cape Falcon were closed before exceeding their final quotas.

The geometric mean of Columbia upper river summer Chinook adult escapement in 2014, 2015 and 2016 was 81,840, which exceeded the MSST threshold (6,072); therefore, Columbia upper river summer Chinook should not be considered overfished (Table II-6). Estimates of combined ocean and inriver exploitation rates were not available for 2015 or 2016, but the 2014 exploitation rate of 0.74 was lower than the MFMT (0.75); therefore, Columbia upper river summer Chinook did not experience overfishing in 2014 (Table II-6).

The geometric mean of Columbia URB fall Chinook adult escapement in 2014, 2015, and 2016 was 222,350, which exceeded the MSST threshold (19,182); therefore, Columbia URB fall Chinook should not be considered overfished (Table II-6). Estimates of combined ocean and inriver exploitation rates were not available for 2015 or 2016, but the previous three years' exploitation rates were less than the MFMT (0.86); therefore, Columbia URB fall Chinook should not be considered subject to overfishing (Table II-6).

WASHINGTON COASTAL CHINOOK STOCKS

Washington coastal Chinook stocks include all fall, summer, and spring stocks from coastal streams north of the Columbia River through the western Strait of Juan de Fuca (west of the Elwha River, inclusive). This complex consists of several natural stocks, generally of small to medium-sized populations, and some hatchery production (primarily Willapa Bay and Quinault River). Coastal stocks are not impacted significantly by Council-area ocean fisheries.

Management Objectives

Willapa Bay natural fall Chinook did not have a defined conservation objective in the Salmon FMP during the preseason process, although WDFW has a spawning escapement objective of 4,350 natural Chinook, which is based on peak density estimates and watershed area. Amendment 16 to the Salmon FMP, adopted in December 2011, included a MSY spawning escapement objective of 3,393, which was based on the WDFW objective.

Spawning escapement goals for natural stocks managed within this complex north of Willapa Bay, established in U.S. District Court by WDFW and the treaty Indian tribes, were recognized in the Council's FMP conservation objectives. Objectives for Grays Harbor and the North Coast river systems were established pursuant to the U.S. District Court order in *Hoh v. Baldrige*. However, annual natural spawning escapement targets may vary from the FMP conservation objectives if agreed to by WDFW and the treaty Indian tribes under the provisions of *Hoh v. Baldrige* and subsequent U.S. District Court orders. After agreement is reached on the annual targets, ocean fishery escapement objectives are established for each river, or region of origin, which include provisions for treaty Indian allocation and inside non-Indian fishery needs. As provided for in Amendment 14, and pursuant to rules and procedures established under *U.S. v. Washington*, WDFW and the Quinault Indian Nation (QIN) presented new management objectives for Grays Harbor fall Chinook salmon. These objectives were reviewed by the Chinook Technical Committee of the Pacific Salmon Commission in February, 2014 and adopted in November, 2014. The new objectives are based on spawner-recruit relationships using estimates of production resulting from naturally spawning fish in the Chehalis and Humptulips river basins from brood years 1986 through 2005. It is the intent of WDFW and QIN to use for management purposes an aggregate natural spawning escapement goal of 13,500 for Grays Harbor fall Chinook salmon. No agreements on annual spawning targets for Washington coastal Chinook other than those in the FMP were made in 2016.

Regulations to Achieve Objectives

Preseason abundance forecasts for some Washington coastal Chinook stocks were available for the first time in 2008 for the Council preseason management process. Because Council area fishery impacts to Washington coastal Chinook stocks are negligible, ocean regulations are not generally used to manage these stocks. Season and size limit details are presented in Tables I-1, I-2, and I-3.

Willapa Bay Chinook

Inside Harvest

Run size, harvest, and escapement data for Willapa Bay fall Chinook are presented in Appendix B, Table B-23.

No Chinook directed non-Indian gillnet fishery was conducted during July and August 2016. Beginning in 2015, the Willapa Bay Salmon Management Policy (C-3622) prohibits Chinook directed non-Indian gillnet fisheries until after Labor Day.

The 2016 preseason forecast of Chinook returning to Willapa Bay was 39,447 fish (3,261 natural and 36,186 hatchery). There were 31 12-hour Chinook and coho directed non-Indian gillnet fishery openings September 6 through October 14. Retention of unmarked Chinook was prohibited. Total Chinook harvest in the non-Indian gillnet fisheries during 2016 was 3,502 fish, based on preliminary data. Non-directed openings were scheduled November 1 through November 25. An in-season chum conservation concern predicated an adjustment to the commercial fishing schedule resulting in the closure of eight 12-hour fishing openers. The fishery was re-opened in late November for the remainder of the scheduled fishing season.

Recreational fisheries in the marine waters of Willapa Bay were open from July 1 through July 31, 2016 concurrent with the Ocean Marine Area 2 (ocean rules applied). From August 1, 2016 through January 31, 2017 Willapa Bay was open to recreational fishing with a daily-bag-limit of 6 salmon, no more than 4 adults allowed to be harvested daily. Unmarked Chinook retention was prohibited. Barbless hooks were required when fishing for salmon. Anglers were allowed to fish with two poles if they had a Two-Pole Endorsement.

Recreational salmon fisheries in tributaries to Willapa Bay varied in duration but were generally open as early as August 1, 2016 through January 31, 2017. Retention of unmarked Chinook was prohibited. Single-point, barbless hooks were required in all areas except Naselle, South Fork Willapa, and Bear rivers where only barbless hooks were required. Recreational harvest estimates for 2016 were not available.

Escapement and Management Performance

During 2015, hatchery origin Chinook returning to the Willapa Bay watershed totaled 26,584 fish. Based on current hatchery production, this return was sufficient to achieve the goal of 9,800 total Chinook escapement to Willapa Bay hatchery facilities. An escapement estimate was unavailable for 2016.

An estimate of the 2016 natural spawning escapement was not available; the 2015 natural escapement was 2,824 Chinook, below the FMP objective of 3,393.

The geometric mean of Willapa fall Chinook adult escapement in 2013, 2014 and 2015 was 2,235, which exceeded the MSST (1,696); therefore, Willapa Bay fall Chinook should not be considered overfished (Table II-6). Exploitation rate estimates were not available for 2015 and 2016. Estimates of exploitation rates for all Washington Coast fall Chinook are based on Queets River fall Chinook CWT analyses, and while ocean impacts for these fall stocks may be assumed to be similar, inside impacts may vary substantially. The MFMT for Willapa Bay fall Chinook is 0.78. In 2012, 2013, and 2014 the Willapa Bay fall Chinook exploitation rates, using Queets stock as a surrogate, were 0.86, 0.74, and 0.47 respectively; therefore, in 2012 Willapa Bay fall Chinook were subject to overfishing (Table II-6). The MFMT for Willapa Bay fall Chinook is also based on a proxy derived from an average value of other Chinook stocks; therefore, overfishing status based on total exploitation rates for Willapa Bay fall Chinook are less certain than for some other Washington Coast Chinook stocks.

Grays Harbor Chinook

Inside Harvest

Run size, harvest, and escapement data for Grays Harbor Chinook are presented in Appendix B, Table B-25.

The Quinault Indian Nation conducted a spring/summer commercial gillnet fishery on the Chehalis River and in Grays Harbor commercial fishing Areas 2A, 2A-1, C, and D in 2016. Seven spring Chinook were reported in the harvest during these fisheries.

The non-Indian recreational season allowed a modified spring Chinook fishery in the Chehalis River during the spring Chinook management period. The non-Indian recreational season was open for the retention of one Chinook per day from May 1 through June 30 in the mainstem Chehalis River. Preliminary catch data are not available for the 2016 fishery, however, preliminary data indicate that 36 Chinook were harvested during this fishery scheduled in 2015. The 2016 report on harvest of spring Chinook by the Chehalis Tribe fishery was 104 fish. No summer non-Indian gillnet fishery directed at non-local Chinook stocks occurred in 2015.

The Quinault Indian Nation conducted a 2016 fall gillnet fishery harvesting a total of 2,061 fall Chinook in two separately scheduled areas: the first in the lower Humptulips River and adjacent Area 2C of Grays Harbor and the second in the lower Chehalis River and adjacent areas of Grays Harbor, Areas 2D, 2A, and 2A-1. Fishing was restricted to east of Stearns Bluff and excluding the area known as the “South Channel” in the Chehalis River, and Areas 2D, 2A, and 2A-1 to limit catch of Chinook, which tend to concentrate in deep areas off the mouths of the Johns and Elk rivers. The 2016 fishery was scheduled on the Chehalis side to run from week 36 to week 40, beginning the week of August 23 to the week beginning September 25 at weekly schedules of 2, 5, 2, 2, 2 days per week respectively, with a large mesh restriction of a minimum 8 ½ inches set, then finishing during week 45, the week beginning on October 30. Regulations during week 45 were set to operate without a mesh size restriction in order to allow increased harvest of Chum. The Chehalis side fall fishery then remained closed until steelhead season. The Chehalis area treaty Indian fishery caught 1,153 Chinook, which was about 16 percent of what was expected. The Humptulips area treaty Indian fishery schedule was also set with a large mesh restriction through the main fall period, except for the final week 47 when the mesh restriction was lifted. The schedule ran from weeks 36 to week 41, at weekly schedules of 2, 2, 4, 4, 2, 2 respectively then again in week 44 for 2 days and in week 47 for 5 days. The Humptulips reported harvest was 908 Chinook only about 48 percent of what was expected. The combined Grays Harbor treaty Indian Chinook catch was 22 percent of what was expected.

The non-Indian gillnet fishery in Humptulips commercial Area 2-C was scheduled for four 12-hour days in late October. Retention of all fall Chinook, coho, and chum was allowed. Total catch of Chinook in Area 2C was 18 fish, about 4 percent of predicted. The non-Indian gillnet fishery in the Chehalis River commercial Areas 2A and 2D was scheduled for three 12-hour days late October. During these fisheries, all areas of 2D were open. During all fisheries live boxes were required, and wild Chinook could not be retained. A total of 8 hatchery-origin Chinook were harvested during this fishery, 3 fish more than expected. There were 8 wild Chinook mortalities associated with release requirements during the non-Indian gillnet fishery.

A recreational fishery in the northern portion of Marine Area 2-2, Commercial Area 2C, was open from August 1 through September 24th. During this time, 2 adult salmon could be retained; wild coho must be released. The portion of Marine Area 2-2 east of a line from the mouth of Johns River to Brackenridge Bluff Tripod was scheduled from October 1 through November 30 for the retention of one adult salmon per day. During this time wild Chinook were required to be released.

The spring/summer recreational fishery in the Chehalis River was open to the retention of one Chinook per day from May 1 to the end of June. This fishery was allowed only in the mainstem Chehalis River from the mouth up to the Hwy 6 Bridge near the town of Adna.

Recreational mark-selective Chinook fisheries were scheduled on the mainstem Chehalis River from September 16 through the end of January 2017 and Satsop River from September 16 through the end of December. The Chehalis River fishery was limited to the mainstem upstream to the Weyerhaeuser 1000 line and allowed one salmon per day with wild Chinook release required. The Satsop River fishery was limited to the Satsop mainstem from the mouth upstream of the bridge at Schafer Park and allowed one adult salmon per day with wild Chinook release required. The fall recreational Humptulips River fishery from the mouth to confluence of the East and West forks was open from September 1 through November 15 with a daily limit of 2 adults, of which only one could be a wild Chinook. The 2016 recreational harvest estimates were not available at time of print.

Escapement and Management Performance

Chehalis River spring Chinook are of natural origin and managed for an escapement goal of 1,400 adults. The 2016 terminal run forecast for spring Chinook was 2,700 adult fish. The escapement estimate for 2015 spring Chinook is 1,841 and the preliminary estimate for 2016 is 1,367.

Grays Harbor fall Chinook were managed for a natural spawning escapement goal of 13,500 adults. The 2015 Gray Harbor fall Chinook run size forecast was for 26,511 natural and 8,649 hatchery adults. The total 2015 Gray Harbor fall Chinook natural run size was 30,570, with a hatchery run size of 8,526.

The 2016 Grays Harbor fall Chinook run size forecast was 27,800 natural and 7,430 hatchery adults. The return of hatchery-origin fall Chinook to Grays Harbor hatchery programs were sufficient to provide for 2016 fall Chinook production goals. The preliminary natural spawning escapement estimate for 2016 was not available at time of print. The final 2016 spawning ground escapement estimate for the Grays Harbor is in development by QIN and WDFW.

Quinault River Chinook

Inside Harvest

Historical terminal gillnet harvest data for Quinault River Chinook stocks are presented in Appendix B, Table B-27.

A run of natural spawning spring/summer Chinook enters the river from April through July. The spring/summer Chinook run is typically small and any harvest is taken incidentally during fisheries directed at sockeye and steelhead. The tribal fishery harvested 41 spring/summer Chinook in 2016 primarily during its sockeye directed fishery.

The treaty Indian gillnet fishery harvested 5,137 fall Chinook. The commercial schedule in 2016 was similar to the 2015 schedule, providing harvest opportunity in the months of August through November. The Quinault River Fall gillnet fishery is designed to maximize harvest opportunity during hatchery coho and Chinook entry while reducing the schedule fishing days later in the season during primarily wild Chinook and wild coho entry.

Escapement and Management Performance

Quinault fall Chinook were managed for hatchery production. The 2016 fall Chinook spawning escapement estimate was not available. Hatchery fall Chinook egg-take goals for the Quinault River were attained at the Lake Quinault tribal hatchery.

Queets River Chinook

Inside Harvest

Historical terminal run size, catch, and escapement data for Queets River spring/summer and fall Chinook are presented in Appendix B, Tables B-29 and B-30, respectively.

The 2016 treaty Indian gillnet harvest of spring/summer Chinook remained closed through the summer months until mid-August, when the treaty commercial fishery was opened to target early entering hatchery coho. There were 72 Chinook and 2,350 coho taken in the Queets treaty commercial August opening during 3 day openings in weeks 34 and 35. The non-Indian in-river recreational fishery was closed to all salmon through August 31, and the Clearwater River remained closed to salmon fishing through the rest of the fall season. The Queets River below Hartzell's and the Salmon River outside the Quinault reservation were open September 1-30 for salmon, closed the rest of the season. Anglers in the Queets were required to

release wild Chinook and coho. In the Salmon River wild coho had to be released, and the daily bag of 2 salmon could only include one Chinook.

Fall Chinook were harvested in the treaty gillnet fishery from Week 36 beginning August 28 through week 40, the week of September 25, set at, 5, 5, 5, 2, and 2 days per week respectively, with 6 ½ inch maximum mesh size. The week of September 25 an 8 ½ minimum mesh was required to reduce wild coho catch. The fishery closed during weeks 41 and 42, then re-opened to finish the season with weeks 43 through 45 at 2 days per week with 8 ½ mesh in order to take remaining available Chinook while avoiding wild coho. The treaty Indian gillnet fishery harvested 804 fall Chinook during this schedule compared to a preseason expected catch of 1,880. The actual Chinook catch fell short of the projected Chinook catch primarily during weeks 40, 43, 44 and 45. Catch estimates for 2016 recreational salmon fisheries are not yet available.

Escapement and Management Performance

The 2015 spawning escapement estimate for Queets River spring/summer Chinook was 532 adults, which is 24 percent below the MSY spawner escapement goal of 700.

The geometric mean of Queets River spring/summer Chinook adult spawning escapement in 2013, 2014, and 2015 was 471, which is above the MSST (350); therefore, Queets River spring/summer Chinook should not be considered overfished (Table II-6).

The 2016 Queets River fall Chinook spawner survey estimate is not available. The indicator Chinook originate from wild brood stock taken each year in the river. The 2015 spawning escapement estimate for Queets River fall Chinook was 5,313 with an additional 164 wild and 6 Indicator Chinook taken for broodstock.

The geometric mean of Queets River fall Chinook adult spawning escapement in 2013, 2014, and 2015 was 3,740, which exceeded the MSST (1,250); therefore, Queets River fall Chinook should not be considered overfished (Table II-6).

Hoh River Chinook

Inside Harvest

Historical terminal run size, catch, and escapement data for Hoh River spring/summer and fall Chinook are presented in Appendix B, Tables B-32 and B-33, respectively.

The 2016 Hoh River spring/summer Chinook terminal abundance forecast was 944 fish. The treaty Indian gillnet fishery was closed May 2 through August 28 as a response to chronic low-abundance as per agreement with WDFW co-managers. Tribal regulation in 2016 required a minimum of an 8-inch stretch mesh April 17 and April 25, the last two days of fishing during the winter steelhead season in order to minimize incidental take of steelhead kelts. There were 4 wild spring/summer Chinook and 2 hatchery spring/summer Chinook harvested in April during the winter steelhead season. An additional 16 hatchery and 10 native wild spring/summer Chinook were harvested by the Hoh Tribe for Ceremonial and Subsistence purposes.

The non-Indian recreational fishery was closed from April 16 to August 31 to protect spring/summer Chinook.

Hoh River fisheries for fall Chinook were based on an expected terminal run size of 2,222 adults, allowing for a terminal harvest rate of 40 percent. The spawning escapement was expected to be 1,873 adults.

The treaty Indian fishery targeted 11.5 percent of the terminal run. The treaty Indian gillnet fishery was scheduled for three days per week during weeks 36, 37, 38, 39, 40, was closed weeks 41, 42, 43, 44, 45, 46, and 47 and was open one day during week 48. The Hoh treaty commercial fishery caught approximately 131 wild Chinook, with a pre-season expected catch of 255, an estimated 3 Chinook were harvested for ceremonial and subsistence purposes. Results of mark sampling indicated that 6 hatchery Chinook were also harvested by the Hoh treaty commercial fishery.

The non-Indian recreational fishery extended from September 1 through October 10, with the river below Willoughby Creek open and a daily-bag-limit of 6 salmon, only one of which could be an adult (release wild coho). The Hoh River was then closed to non-Indian recreational fishing until November 21, to protect an expected poor return of wild coho. The sport fishery harvest of wild Chinook was not available.

Escapement and Management Performance

The 2016 preliminary spawning escapement for Hoh River spring/summer Chinook is 1,144. The geometric mean of Hoh River spring/summer Chinook spawner escapement in 2014, 2015, and 2016 was 969, which exceeded the MSST (450); therefore, Hoh River summer Chinook should not be considered overfished (Table II-6). Estimates of exploitation rates were not available for Washington coastal spring/summer Chinook stocks, but based on the limited in river harvest rate and lack of ocean harvest data, it is difficult to assess the extent to which Hoh River spring/summer Chinook were subject to overfishing in SUS fisheries in recent years (Table II-6).

The preliminary 2016 spawning escapement estimate for Hoh River fall Chinook is 2,333. The geometric mean of Hoh River fall Chinook adult spawning escapement in 2014, 2015, and 2016 was 1,929, which exceeded the MSST (600); therefore, Hoh River fall Chinook should not be considered overfished (Table II-6). Estimates of exploitation rates were not available for Hoh River fall Chinook, but Queets River Fall Chinook can be used as a proxy. Exploitation rate estimates were not available for 2016 but earlier estimates were below the MFMT (0.90); given these assumptions, Hoh River fall Chinook should not be considered subject to overfishing (Table II-6).

Quillayute River Chinook

Inside Harvest

Historical terminal run size, catch, and escapement data for Quillayute River spring, summer, and fall Chinook are presented in Appendix B, Tables B-35 and B-36 respectively. Spring and summer Chinook are currently managed separately, but data for both are combined in Table B-35. All hatchery-origin fish are considered to be spring Chinook, and all natural spawners and tribal brood stock collections are considered to be summer Chinook. The management of these stocks is currently under review by the WDFW and Quileute Tribal co-managers.

The recreational and tribal fisheries for spring and summer Chinook were established by a preseason management agreement between WDFW and the Quileute Tribe. The total tribal catch for 2016 was 1,073 spring and 262 summer Chinook. Catch for ceremonial and subsistence use is included in the Indian gillnet harvest numbers. WDFW required release of unmarked Chinook during July and August to reduce impacts of the recreational fishery on the natural summer Chinook stock. An estimate of 2016 recreational spring Chinook harvest was 599.

The total 2016 Quileute Tribal harvest of fall natural Chinook was 1,467. Fall hatchery Chinook catch was 6. Catch for ceremonial and subsistence use is included in the Indian gillnet harvest numbers. An estimate of the 2016 recreational catch was 73 fish (natural).

The fall recreational fishery in the Quillayute system was greatly reduced to protect wild, fall coho. The season ran from September 1-30 and November 16 to December 15 in the Quillayute and Sol Duc rivers and November 16-30 in the Dickie, Calawah and Bogachiel rivers. An estimate of the 2016 recreational fall Chinook catch was 73. The Quileute Tribe closed their fall fishery from October 3 through November 21 for stock conservation reasons.

Escapement and Management Performance

The 2016 management agreement called for an escapement goal of 200 hatchery spring Chinook. The actual rack return was 745 plus 59 jacks, which exceeded hatchery requirements.

The summer Chinook run was managed to achieve an MSY spawner escapement of 1,200 adults, jacks, and brood stock collection combined. The preliminary estimated natural spawning summer Chinook escapement of 893 was under the escapement goal.

The geometric mean of Quillayute River summer Chinook spawner escapement in 2014, 2015, and 2016 was 765, which exceeded the MSST threshold (600); therefore, Quillayute River summer Chinook should not be considered overfished (Table II-6). Estimates of exploitation rates were not available for Washington coastal spring/summer Chinook stocks, but based on the limited in-river harvest rate and ocean harvest rates of Queets fall Chinook, it is unlikely that Quillayute River summer Chinook were subject to overfishing in recent years (Table II-6).

Terminal area fisheries on fall Chinook were managed for a target 40 percent harvest rate, and an MSY spawner escapement goal of 3,000 adults. The preliminary 2016 escapement estimate of 3,508 fall Chinook was over the escapement goal.

The geometric mean of Quillayute River fall Chinook adult spawning escapement in 2014, 2015, and 2016 was 3,115, which exceeded the MSST threshold (1,500); therefore, Quillayute River fall Chinook should not be considered overfished (Table II-6). Estimates of exploitation rates were not available for Quillayute fall Chinook, but Queets River fall Chinook was used as a proxy. Exploitation rate estimates were not available for 2016, but earlier estimates were below the MFMT (0.87); therefore, Quillayute River fall Chinook should not be considered subject to overfishing (Table II-6).

Hoko River Chinook

Inside Harvest

Hoko River Chinook are primarily harvested in fisheries in southeast Alaska and northern British Columbia with minimal harvest in Council area and inside waters. There have been no tribal or recreational fisheries in the Hoko River for Chinook salmon since the early 1980's, although some catch is occasionally reported by anglers on WDFW Catch Record Cards.

Escapement and Management Performance

The preliminary 2016 escapement estimate were not available for Chinook, but are predicted to be well above the MSY spawner escapement goal of 850. (Appendix B, Table B-38).

The geometric mean of Hoko River summer/fall Chinook spawner escapement from 2013 through 2015 was 1,924, which exceeds the MSST threshold (425); therefore, Hoko River summer/fall Chinook should not be considered overfished (Table II-6). Estimates of exploitation rates were not available for 2016, but earlier estimates were well below the MFMT (0.78); therefore, Hoko River summer/fall Chinook should not be considered subject to overfishing (Table II-6).

PUGET SOUND CHINOOK STOCKS

Puget Sound Chinook stocks include all fall, summer, and spring stocks originating from U.S. tributaries in Puget Sound and the eastern Strait of Juan de Fuca (east of Salt Creek, inclusive). This stock complex consists of numerous natural Chinook stocks of small to medium-sized populations and significant hatchery production. The Puget Sound ESU was listed under the ESA as threatened in March 1999.

Management Objectives

Puget Sound Chinook stocks are listed under the ESA and were managed pursuant to the provisions of a WDFW/Tribal management plan approved under an ESA Section 4(d) rule promulgated by NMFS. This plan contains exploitation rate ceilings for ESA-listed Puget Sound stocks expressed in terms of constraints on total fishery rebuilding exploitation rates (RER) or of exploitation rates on fisheries south of the Canadian border for those stocks without RERs. The Council's annual management objectives for ESA-listed stocks are to meet the ESA consultation standards set forth by NMFS.

Regulations to Achieve Objectives

Puget Sound stocks contribute to fisheries off B.C., are present to a lesser degree off SEAK, and are impacted to a minor degree by Council-area ocean fisheries. Because Council-area fishery impacts to Puget Sound Chinook stocks are negligible, ocean regulations are not generally used to manage these stocks. The only Council-area regulations affecting any of these stocks was closing the Cape Flattery Control Zone for the non-Indian commercial troll fishery and holding the non-Indian commercial troll fishery to impacts in Area 3 and Area 4 not to exceed those modeled pre-season. Season and size limit details are presented in Tables I-1, I-2, and I-3.

Inside Harvest

Commercial inside fishery harvest of Puget Sound Chinook was managed on the basis of 6 regional stock management units or, in some cases, component stocks within management units: Strait of Juan de Fuca, Nooksack-Samish, Skagit, Stillaguamish-Snohomish, South Puget Sound, and Hood Canal. Harvest was regulated according to the natural spawning escapement goal or hatchery program escapement goal for that unit. Commercial net and troll harvest (treaty Indian and non-Indian) is presented in Appendix B, Table B-39. These catches included some fish of non-Puget Sound origin. The total commercial harvest in Puget Sound in 2016 was 55,288 Chinook, compared to 44,616 Chinook caught in 2015. The 2016 non-Indian net catch was 6,604 Chinook, compared to 3,367 Chinook caught in 2015. The 2016 treaty Indian net and troll harvest was 48,684 Chinook, compared to 41,249 Chinook caught in 2015.

Chinook catches in the Puget Sound recreational fishery for years beginning in 1971 are presented in Appendix B, Table B-40. Catch estimates for the 2016 Puget Sound recreational fishery were unavailable.

Escapement and Management Performance

Puget Sound Chinook management goals for fishery planning processes in 2016 were compared to predicted exploitation rates to assess compliance with ESA consultation standards (Table II-5). Information to evaluate performance against these constraints was unavailable.

Historical hatchery and natural run component escapements and net catches for summer/fall Chinook for each Puget Sound region of origin are presented in Appendix B, Table B-40. Historical spring Chinook escapement data are presented in Appendix B, Table B-43.

Preliminary data suggest most Puget Sound hatcheries met their summer/fall Chinook goals.

Naturally spawning Puget Sound spring and summer/fall Chinook remained depressed in 2016. Preliminary data suggest no Puget Sound spring Chinook natural stocks met their escapement goals. Preliminary information on 2016 natural spawning escapements for summer/fall Chinook stocks indicate escapement goals were met in some areas, but not in many others. Escapement estimates for 2016 were not available for most runs. In many natural spawning areas, hatchery-origin Chinook comprise a large component of the natural spawning population

COASTWIDE GOAL ASSESSMENT SUMMARY

In 2016, abundance for many stocks was down from 2015 levels. Spawning escapements were below FMP objectives in 2016 for Sacramento River fall Chinook, Klamath River fall Chinook, and Southern Oregon Chinook. Information to assess compliance with FMP conservation objectives and ESA consultation standards in 2016 was unavailable for LCR natural tule Chinook, SRW fall Chinook, several Washington coast Chinook stocks, and all Puget Sound natural Chinook stocks.

Stock Status Determinations

In 2011 the Council adopted SDC for overfishing, overfished, not overfished/rebuilding, and rebuilt under FMP Amendment 16. These criteria, approved and implemented in December 2011, are:

- Overfishing occurs when a single year exploitation rate exceeds the MFMT (F_{MSY});
- Overfished status occurs when a 3-year geometric mean spawning escapement is less than the MSST;
- Not overfished/rebuilding status occurs when the most recent a 3-year geometric mean spawning escapement is greater than the MSST but less than S_{MSY} ;
- A stock is rebuilt when the most recent a 3-year geometric mean spawning escapement exceeds S_{MSY} .

All criteria rely on the most recent estimates available, which in some cases may be a year or more in the past because of incomplete broods or data availability. The above criteria for rebuilt status are the default criteria provided in the FMP; however, alternative criteria may be developed through a rebuilding plan if warranted by stock specific circumstances. Stock specific reference points and recent year estimates for relevant stocks are presented in Table II-6.

Based on the most recent available data on exploitation rates and spawning escapements, none of the relevant Chinook stocks were overfished, and no stocks were subject to overfishing in the most recent year with data available.

TABLE II-1. Sacramento River natural area and hatchery adult fall Chinook escapement in numbers of fish.

Year	Upper River ^{a/}			Lower River			Total		Grand Total
	Hatchery	Natural ^{b/}	Subtotal	Hatchery	Natural ^{b/}	Subtotal	Hatchery	Natural ^{b/}	
1980	8,800	45,504	54,304	14,725	71,609	86,334	23,525	117,113	140,638
1981	4,438	51,831	56,269	25,115	92,129	117,244	29,553	143,960	173,513
1982	16,225	39,694	55,919	15,229	92,600	107,829	31,455	132,294	163,749
1983	5,367	42,570	47,937	12,735	48,831	61,566	18,102	91,401	109,503
1984	18,668	51,772	70,440	19,873	67,733	87,606	38,541	119,505	158,046
1985	13,089	103,698	116,787	13,987	105,753	119,740	27,076	209,451	236,527
1986	11,283	113,875	125,158	12,511	102,435	114,946	23,793	216,310	240,103
1987	9,981	76,861	86,842	10,291	97,931	108,222	20,273	174,792	195,065
1988	12,594	128,725	141,319	16,921	69,227	86,148	29,515	197,952	227,467
1989	10,212	67,296	77,508	15,668	59,386	75,054	25,880	126,682	152,562
1990	13,464	50,225	63,689	8,428	32,973	41,401	21,892	83,198	105,090
1991	10,031	35,259	45,290	17,435	56,144	73,579	27,466	91,403	118,869
1992	6,257	31,734	37,991	15,831	27,723	43,554	22,088	59,457	81,545
1993	7,056	55,144	62,200	19,778	55,412	75,190	26,834	110,556	137,390
1994	11,585	66,383	77,968	20,972	66,648	87,620	32,556	133,031	165,587
1995	24,810	112,235	137,045	17,017	141,251	158,268	41,827	253,486	295,313
1996	18,848	131,268	150,116	15,712	135,804	151,516	34,561	267,072	301,633
1997	44,590	167,353	211,943	20,651	112,247	132,898	65,241	279,600	344,841
1998	42,400	60,713	103,113	35,364	107,431	142,795	77,763	168,144	245,907
1999	23,194	256,629	279,823	22,917	97,089	120,006	46,112	353,718	399,830
2000	20,793	152,923	173,716	27,530	216,291	243,821	48,323	369,214	417,537
2001	23,710	179,198	202,908	35,650	358,217	393,867	59,360	537,415	596,775
2002	61,895	474,812 ^{c/}	536,707	25,278	207,883	233,161	87,173	682,695	769,868
2003	82,882	164,802	247,684	26,696	248,636	275,332	109,578	413,438	523,016
2004	52,145	70,548	122,693	31,262	132,930	164,192	83,407	203,478	286,885
2005	139,979	96,716	236,695	45,320	113,990	159,310	185,299	210,706	396,005
2006	56,819	89,933	146,752	23,087	105,191	128,278	79,906	195,124	275,030
2007	11,543	36,079	47,622	9,833	33,919	43,752	21,376	69,998	91,374
2008	10,181	36,274	46,455	8,331	10,578	18,909	18,512	46,852	65,364
2009	5,433	12,277	17,710	12,103	11,060	23,163	17,536	23,337	40,873
2010	8,666	25,682	34,348	31,036	58,886	89,922	39,702	84,568	124,270
2011	19,312	20,466	39,778	23,559	56,005	79,564	42,871	76,471	119,342
2012	77,318	67,190	144,508	44,946	95,975	140,921	122,264	163,165	285,429
2013	67,822	89,409	157,231	36,858	212,111	248,969	104,680	301,520	406,200
2014	18,280	80,056	98,336	26,469	87,663	114,132	44,749	167,719	212,468
2015	13,819	40,687	54,506	25,931	32,510	58,441	39,750	73,197	112,947
2016 ^{d/}	8,247	9,618	17,865	26,300	45,008	71,308	34,547	54,626	89,173
Goal									122,000-180,000

a/ Above the Feather River; 1971-1985 estimates include Tehama-Colusa Spawning Channel.

b/ Fish spawning in natural areas are the result of hatchery and natural production; estimates generally based on carcass surveys.

c/ Estimation methodology was changed due to an extremely high Battle Creek escapement in 2002.

d/ Preliminary.

TABLE II-2. Klamath River adult inriver fall Chinook run size, spawning escapement, recreational catch, Indian gillnet harvest, and non-landed fishing mortalities in numbers of fish and percent of the total inriver run size.

Year	Spawning Escapement				Inriver Recreational Catch		Indian Net Catch		Non-landed Fishing Mortality		Inriver Run Size
	Hatchery	Natural	Total	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers
1990	8,067	15,596	23,663	66%	3,553	10%	7,906	22%	760	2%	35,882
1991	6,484	11,649	18,133	56%	3,383	10%	10,198	31%	956	3%	32,670
1992	7,360	12,028	19,388	73%	1,002	4%	5,785	22%	523	2%	26,698
1993	21,643	21,858	43,501	76%	3,172	6%	9,636	17%	903	2%	57,212
1994	17,072	32,333	49,405	77%	1,832	3%	11,692	18%	1,054	2%	63,983
1995	37,859	161,794	199,653	90%	6,081	3%	15,557	7%	1,477	1%	222,768
1996	20,033	81,326	101,359	58%	12,766	7%	56,476	32%	5,172	3%	175,773
1997	18,662	46,144	64,806	77%	5,676	7%	12,087	14%	1,167	1%	83,736
1998	29,219	42,488	71,707	79%	7,710	9%	10,187	11%	1,043	1%	90,647
1999	14,327	18,457	32,784	64%	2,282	4%	14,660	29%	1,322	3%	51,048
2000	97,611	82,728	180,339	83%	5,650	3%	29,415	13%	2,673	1%	218,077
2001	55,112	77,834	132,946	71%	12,134	6%	38,645	21%	3,608	2%	187,333
2002	27,183	65,635	92,818	58%	10,495	7%	24,574	15%	2,351	1%	160,788 ^{a/}
2003	61,782	87,642	149,424	78%	9,680	5%	30,034	16%	2,810	1%	191,948
2004	22,982	23,831	46,813	59%	4,003	5%	25,803	33%	2,325	3%	78,944
2005	27,699	26,789	54,488	84%	1,985	3%	8,016	12%	738	1%	65,227
2006	19,522	30,163	49,685	81%	62	0%	10,283	17%	1,344	2%	61,374
2007	35,050	60,670	95,720	72%	6,312	5%	27,573	21%	2,526	2%	132,131
2008	13,552	30,850	44,402	63%	1,919	3%	22,259	32%	1,974	3%	70,554
2009	19,614	44,409	64,023	64%	5,651	6%	28,387	28%	2,583	3%	100,644
2010	18,052	37,225	55,277	61%	3,035	3%	29,887	33%	2,661	3%	90,860
2011	22,337	46,763	69,100	68%	4,147	4%	26,353	26%	2,377	2%	101,977
2012	55,939	121,543	177,482	60%	13,876	5%	95,386	32%	8,578	3%	295,322
2013	17,148	59,156	76,304	46%	19,800	12%	63,036	38%	5,885	4%	165,025
2014	31,276	95,104	126,380	79%	5,386	3%	25,967	16%	2,392	1%	160,396 ^{b/}
2015	11,085	28,112	39,197	50%	7,842	10%	28,048	36%	2,611	3%	77,821 ^{b/}
2016 ^{c/}	3,578	13,924	17,502	71%	1,310	5%	5,159	21%	485	2%	24,567 ^{b/}
Goal	≥40,700 ^{d/e/}										

a/ Inriver run size includes a USFWS estimate of 30,550 fish (19% of the run) that died prior to spawning in September 2002.

b/ Total inriver run includes fish collected from the Klamath and Trinity rivers by the Yurok and Hoopa Valley tribes, respectively, to test for the presence of the parasite *Ichthyophthirius multifiliis* during the following years: 2014 - 282 fish; 2015 - 124 fish; 2016 - 113 fish.

c/ Preliminary.

d/ In December 2011, Amendment 16 to the Salmon Fishery Management Plan was approved, which replaced the 35,000 spawning escapement floor with an S_{MSY} management objective of 40,700 natural area adult spawners. The 35,000 spawner floor was in effect from 1989-2007 and in 2011. In 2008-2010, fisheries were managed for a natural area spawning escapement of 40,700 adults under requirements of a rebuilding plan.

e/ Annual escapement goals may be more or less than S_{MSY} in some years due to meeting S_{ACL} requirements and de minimis fishing provisions.

TABLE II-3. Oregon coastal spring and fall Chinook hatchery return and harvest in estuary and freshwater fisheries.

Year	Return to Facilities			Estuary and Freshwater Harvest ^{b/}	
	Public Hatchery ^{a/}		Private	Spring	Fall
	Spring	Fall	All		
THOUSANDS OF CHINOOK					
1976	2.9	0.5	-	13.5	24.3
1977	2.4	4.2	-	13.8	35.6
1978	4.4	1.6	-	13.1	42.7
1979	7.0	2.0	0.4	16.4	30.8
1980	7.9	1.8	3.4	11.9	22.1
1981	2.5	1.8	5.1	11.2	29.6
1982	4.1	2.3	12.1	11.6	24.7
1983	3.9	4.0	6.1	4.9	21.1
1984	5.6	3.3	6.3	4.1	29.0
1985	8.7	3.5	34.6	9.0	29.5
1986	30.6	5.8	70.8	17.3	36.5
1987	22.8	7.1	38.7	20.2	54.8
1988	22.0	6.4	25.0	28.9	61.4
1989	32.7	4.3	14.7	23.7	53.9
1990	6.3	3.4	7.8	15.5	39.9
1991	5.4	3.1	4.1	11.1	47.7
1992	2.7	4.4	-	8.0	44.7
1993	10.6	2.8	-	16.4	54.7
1994	4.8	3.0	-	9.2	46.7
1995	55.0	3.3	-	31.1	54.3
1996	26.7	3.6	-	25.6	51.0
1997	29.1	2.0	-	14.7	37.0
1998	11.0	2.6	-	8.2	31.5
1999	18.1	3.3	-	8.2	29.3
2000	24.5	3.1	-	11.4	37.4
2001	26.8	5.7	-	18.6	53.3
2002	24.7	2.9	-	30.9	58.8
2003	17.2	3.9	-	33.1	72.3
2004	20.1	2.9	-	19.4	78.4
2005	11.7	2.6	-	14.6	51.6
2006	7.5	2.7	-	7.1	47.7
2007	6.3	2.1	-	5.7	29.0
2008	6.1	2.7	-	5.8	18.3
2009	7.2	4.2	-	9.2	26.1
2010	10.9	5.0	-	15.6	44.1
2011	7.8	4.0	-	16.1	63.0
2012	13.5	6.0	-	18.7	51.4
2013	13.1	7.2	-	16.3	83.3
2014	11.5	7.9	-	16.1	75.1
2015	10.7	9.6	-	NA	NA
2016 ^{c/}	4.2	5.8	-	NA	NA

a/ Adults only.

b/ Freshwater harvests are derived from ODFW salmon/steelhead angler catch record card information and represent fish larger than 24 inches (i.e., adults). Includes both hatchery and natural fish.

c/ Preliminary.

TABLE II-4. Spawner indices for naturally produced Oregon coastal fall Chinook and south migrating/localized spring Chinook.^{a/}

Year	Fall Chinook Spawner Indices		South/local Migrating Spring Chinook Spawner Indices	
	North Migrating Peak Count Adults Per Mile	Rogue River	Rogue River	
		(South/local migrating) Adult Carcass Counts	Gold Ray Dam Counts ^{b/}	Umpqua River Winchester Dam Counts
1976	45	-	20	6
1977	71	1,356	15	7
1978	73	9,174	40	5
1979	81	8,272	29	6
1980	89	2,221	24	6
1981	82	5,228	13	5
1982	90	2,812	23	7
1983	42	2,737	10	3
1984	98	3,267	8	5
1985	132	5,486	28	8
1986	109	17,177	40	8
1987	121	25,918	37	8
1988	214	31,613	39	8
1989	138	7,408	8	8
1990	121	1,868	18	6
1991	150	2,799	9	2
1992	138	2,366	2	3
1993	63	5,447	13	4
1994	125	7,366	4	3
1995	103	3,958	21	6
1996	147	2,448	10	4
1997	105	1,643	10	3
1998	99	3,601	4	4
1999	124	2,493	6	3
2000	85	3,366	3	3
2001	203	6,380	9	6
2002	269	11,836	7	7
2003	279	14,620	19	8
2004	198	5,326 ^{c/}	13	5
2005	118	d/	6	4
2006	76	d/	5	3
2007	42	d/	3	2
2008	40	d/	4	3
2009	61	d/	5	5
2010	87	d/	10	6
2011	109	d/	10	9
2012	146	d/	14	8
2013	189	d/	12	7
2014	157	d/	6	6
2015	247	d/	15	5
2016 ^{e/}	118	d/	10	4
Goal	60-90			

a/ North migrating peak counts are taken on nine miles of standard index surveys over nine river systems (see Appendix B, Table B-11 for individual system counts). Complete carcass counts are listed in Appendix B, Table B-10. Complete counts for Gold Ray and Winchester dams are listed in Appendix B, Table B-9.

b/ Gold Ray Dam removed October, 2010. Natural estimates after 2010 derived using relationship of 2004-2010 spawning ground surveys to Gold Ray Dam passage. Estimate includes an unknown number of jacks.

c/ In 2004 one of the standard survey sections was not sampled. In the previous two years this section accounted for 33% of the total adult carcass counts.

d/ Surveys were not conducted.

e/ Preliminary.

TABLE II-5. Performance of Chinook salmon stocks in relation to 2016 preseason conservation objectives (preliminary data).
(Page 1 of 2)

System and Stock	2016 Conservation/Management Objective(s)	Achievement
Sacramento River Chinook		
Fall	Minimum escapement of 122,000 natural area and hatchery adults.	Preliminary estimate of 89,173 natural and hatchery adult fall Chinook is below 2016 management objective.
Winter (Endangered)	Age-3 impact rate for the area south of Point Arena, CA no greater than 19.9% (NMFS ESA consultation standard).	Preseason projection of 12.8%; no postseason estimate was available at time of printing.
Spring (Threatened)	Same objective as for winter Chinook.	See winter Chinook achievement.
California North Coast Chinook		
Klamath River Fall	Minimum escapement of 30,909 natural area adult spaw ners.	Preliminary estimate of 13,924 is below the 2016 management objective.
California Coastal (Threatened)	No greater than 16.0% ocean harvest rate on age-4 Klamath River fall Chinook.	Preseason projection of 8.4%; no postseason estimate was available at time of printing.
Oregon Coast Chinook		
North Migrating Stocks	150,000-200,000 natural adult spaw ners (equivalent to peak spaw ner index counts of 60-90 adults per mile).	118 natural adult spaw ners per mile, above the upper bound of the aggregate stock index range.
South/Local Migrating Stocks	34,992 natural adult passage estimate at Huntley Park in the low er Rogue River.	27,278 natural adult passage estimate at Huntley Park, below the conservation objective.
Columbia River Basin Fall Chinook		
LRW (Component of threatened low er Columbia River Chinook ESU)	MSY objective of 5,700 natural North Lew is River adult spaw ners.	Preliminary estimate of 17,070, w ell above the conservation objective.
LCR natural tules (Component of threatened low er Columbia River Chinook ESU)	Total (ocean plus inriver) AEQ exploitation rate on ESA-listed natural tules of no more than 41.0%.	Preseason projection of 38.2%. No postseason estimate was available.
LRH	12,600 adult hatchery spaw ners.	62,530 adult hatchery spaw ners, w ell above the goal.
SCH	7,000 adult hatchery spaw ners.	8,860 adult hatchery spaw ners, above the goal.
MCB	No FMP objective; target of 7,750 hatchery adults.	7,440 adult hatchery spaw ners, slightly below the target.
URB	40-45,000 natural and hatchery adults above McNary Dam, plus meet treaty Indian obligations. <i>U.S. v. Oregon</i> parties agreed to 60,000 in 2011.	250,000 natural and hatchery adults over McNary Dam, w ell over the MSY target in FMP.

TABLE II-5. Performance of Chinook salmon stocks in relation to 2016 preseason conservation objectives (preliminary data).
(Page 2 of 2)

System and Stock	2016 Conservation/Management Objective(s)	Achievement
Columbia River Basin Fall Chinook (continued)		
Snake River Fall Chinook (Threatened; component of URB)	SRFI \leq 0.700 for all ocean fisheries combined (i.e., no less than a 30.0% reduction from the 1988-1993 base period exploitation rate).	Preseason SRFI projection of 0.409. Postseason estimate was not available.
Washington Coastal Chinook		
Fall	Natural spawner escapement objectives as provided in state-tribal agreements; meet hatchery egg-take goals and meet treaty Indian obligations.	Based on preliminary estimates where available, goals were met.
Spring/Summer	Natural spawner escapement objectives as provided in state-tribal agreements; meet hatchery egg-take goals and meet treaty Indian obligations.	Preliminary estimate for Quillayute was below the objective. Estimates for other spring stocks were not available.
Puget Sound Chinook		
(Threatened)	Minor part of Washington ocean harvest; Council ocean management not directed at these stocks. Adult equivalent exploitation rate standard developed for some stocks:	Postseason estimates were not available. Preseason predictions of adult equivalent exploitation rates, in Council fisheries only, and spawner objectives were:
	<u>Exploitation Rate</u> <u>Spawner Esc.</u> <u>ISBM</u>	<u>Exploitation Rate</u> <u>Spawner Esc.</u> <u>ISBM</u>
· Nooksack spring	7% SUS - \leq 60%	0.7% - NA
· Skagit summer/fall	50% Total - \leq 60%	0.3% - NA
· Skagit spring	38% Total - \leq 60%	1.2% - NA
· Stillaguamish summer/fall	15% Total - \leq 60%	1.1% - NA
· Snohomish summer/fall	15% Total - \leq 60%	2.0% - NA
· Lake Wash. summer/fall	20% SUS - \leq 60%	2.8% - NA
· White River spring	20% total - -	0.5% - -
· Green River summer/fall	12% pre-term SUS 1,800 \leq 60%	2.8% NA NA
· Puyallup summer/fall	50% Total - -	2.8% - -
· Nisqually summer/fall	50% Total - -	4.0% - -
· Skokomish summer/fall	50% total - -	2.7% - -
· Mid-Hood Canal fall	12% pre-term SUS - -	2.7% - -
· Dungeness spring	6% SUS - -	0.1% - -
· Elwha summer/fall	10% SUS - -	0.1% - -

TABLE II-6. Chinook stock status relative to overfished and overfishing criteria. A stock is overfished if the 3-year geometric mean spawning escapement is less than the minimum stock size threshold (MSST); a stock experiences overfishing if the total annual exploitation rate exceeds the maximum fishing mortality threshold (MFMT).

Chinook Stock	Spawning Escapement									3-yr Geo						
	2011	2012	2013	2014	2015	2016	Mean	MSST	S _{MSY}	2011	2012	2013	2014	2015	2016	MFMT
Sacramento Fall	119,342	285,429	406,200	212,468	112,947	89,173	128,865	91,500	122,000	0.42	0.54	0.53	0.62	0.56	NA	0.78
Klamath River Fall	46,763	121,543	59,156	95,104	28,112	13,924	33,390	30,525	40,700	0.38	0.45	0.64	0.36	0.59	NA	0.71
Klamath River Spring	NA	NA	NA	NA	NA	NA	NA	Undef	Undef	NA	NA	NA	NA	NA	NA	Undef
Smith River Fall	NA	NA	NA	NA	NA	NA	NA	Undef	Undef	NA	NA	NA	NA	NA	NA	Undef
Southern Oregon	67,750	69,060	81,655	53,546	30,462	27,278	35,435	20,500	34,992	NA	NA	NA	NA	NA	NA	0.78
Central and Northern OR ^{a/}	109	146	189	157	247	118	166	30 fish/mile	150k-200k	0.58	0.64	0.46	0.43	NA	NA	0.78
Upper River Bright - Fall ^{a/}	93,510	94,925	305,445	233,934	323,276	145,361	222,350	19,182	39,625	0.59	0.49	0.52	0.53	NA	NA	0.86
Upper River - Summer ^{a/}	44,432	52,184	68,380	77,982	88,691	79,253	81,840	6,072	12,143	0.64	0.83	0.62	0.74	NA	NA	0.75
Willapa Bay - Fall ^{b/}	3,811	2,677	1,904	2,075	2,824	NA	2,235	1,696	3,393	0.60	0.86	0.76	0.47	NA	NA	0.78
Grays Harbor Fall ^{b/}	22,870	14,032	12,582	11,400	22,200	NA	14,712	5,694	11,388	0.60	0.86	0.76	0.47	NA	NA	0.78
Grays Harbor Spring	2,563	878	2,459	1,583	1,841	1,367	1,585	546	1,092	NA	NA	NA	NA	NA	NA	0.78
Queets - Fall ^{a/}	3,857	3,707	2,582	3,820	5,313	NA	3,742	1,250	2,500	0.60	0.86	0.76	0.47	NA	NA	0.87
Queets - Sp/Su	373	760	520	377	532	NA	471	350	700	NA	NA	NA	NA	NA	NA	0.78
Hoh - Fall ^{b/}	1,293	1,937	1,269	1,933	1,592	2,333	1,929	600	1,200	0.60	0.86	0.76	0.47	NA	NA	0.90
Hoh Sp/Su	827	915	750	744	1,070	1,144	969	450	900	NA	NA	NA	NA	NA	NA	0.78
Quillayute - Fall ^{b/}	3,963	3,518	4,017	2,782	3,098	3,508	3,115	1,500	3,000	0.60	0.86	0.76	0.47	NA	NA	0.87
Quillayute - Sp/Su	569	729	957	608	824	893	765	600	1,200	NA	NA	NA	NA	NA	NA	0.78
Hoko -Su/Fa ^{a/}	1,504	663	1,406	1,760	2,877	NA	1,924	425	850	0.20	0.33	0.25	0.42	NA	NA	0.78

a/ CWT based exploitation rates from PSC-CTC 2013 Exploitation Rate Analysis and Model Calibration.

b/ Queets River fall Chinook coded-wire-tag (CWT) exploitation rates used as a proxy. Exploitation rates in the terminal fisheries will differ from those calculated for Queets fall CWTs.

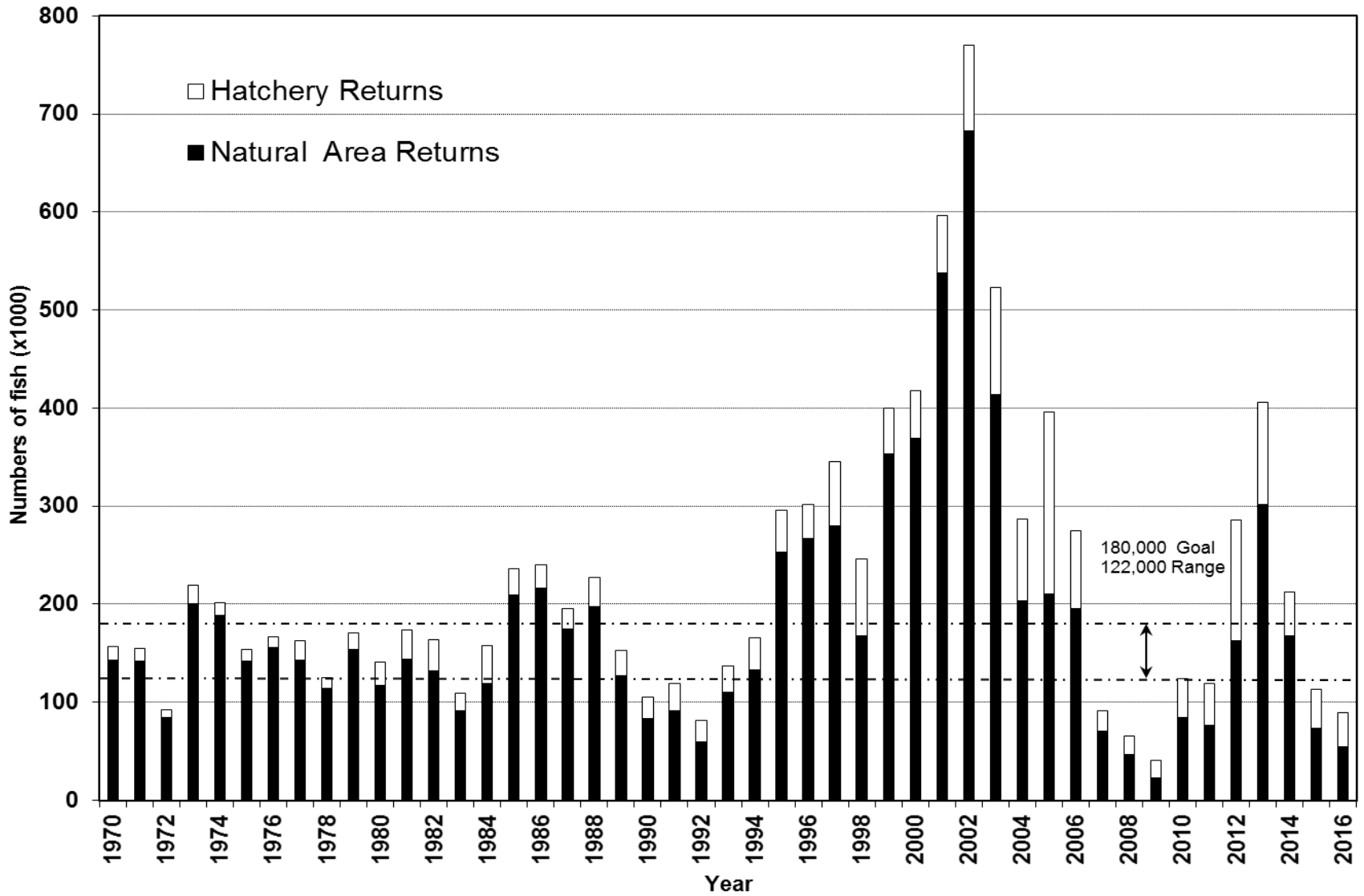


Figure II-1. Sacramento River adult fall Chinook spawning escapement, 1970-2016.

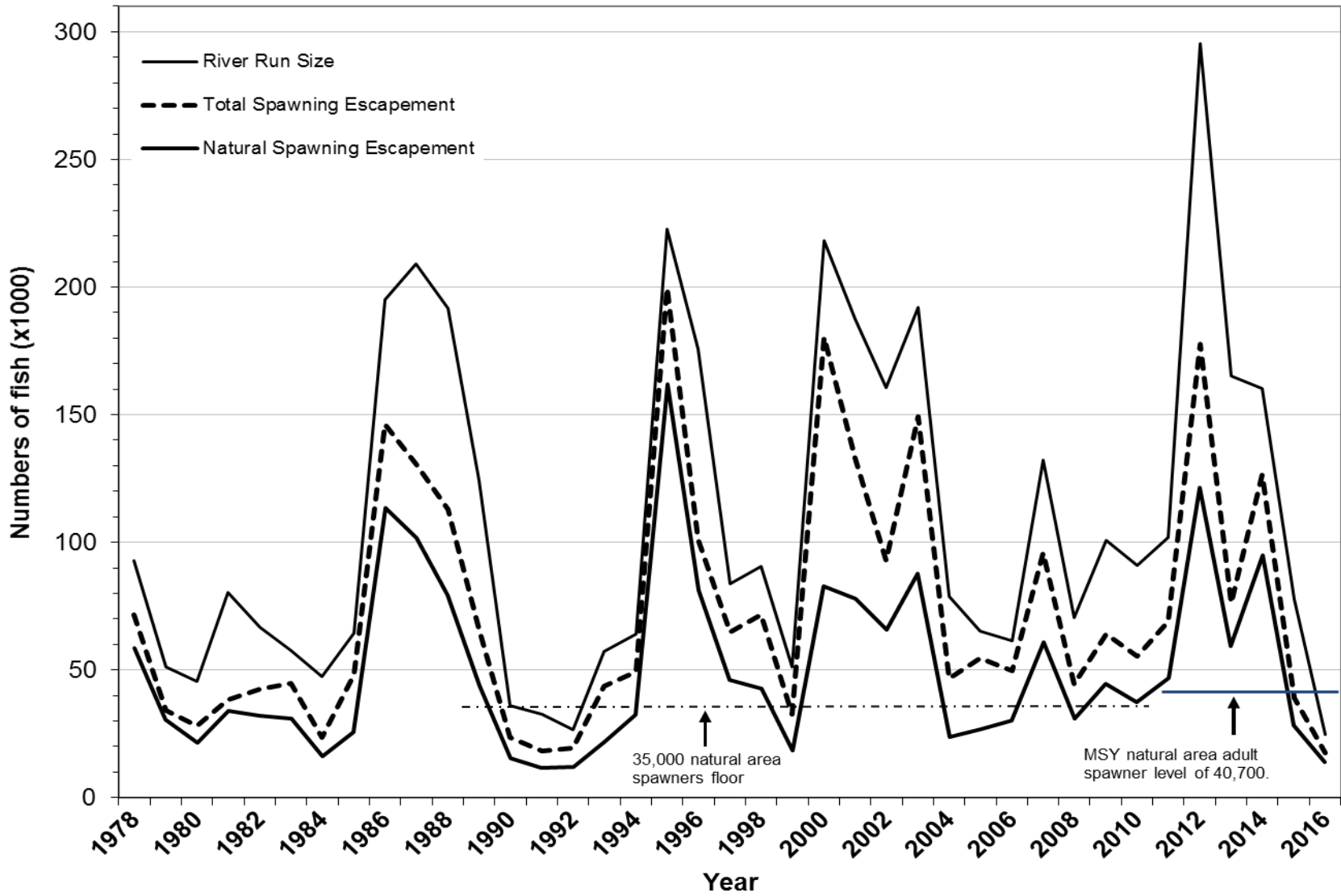


Figure II-2. Klamath River adult fall Chinook returns and spawning escapement, 1978-2016.

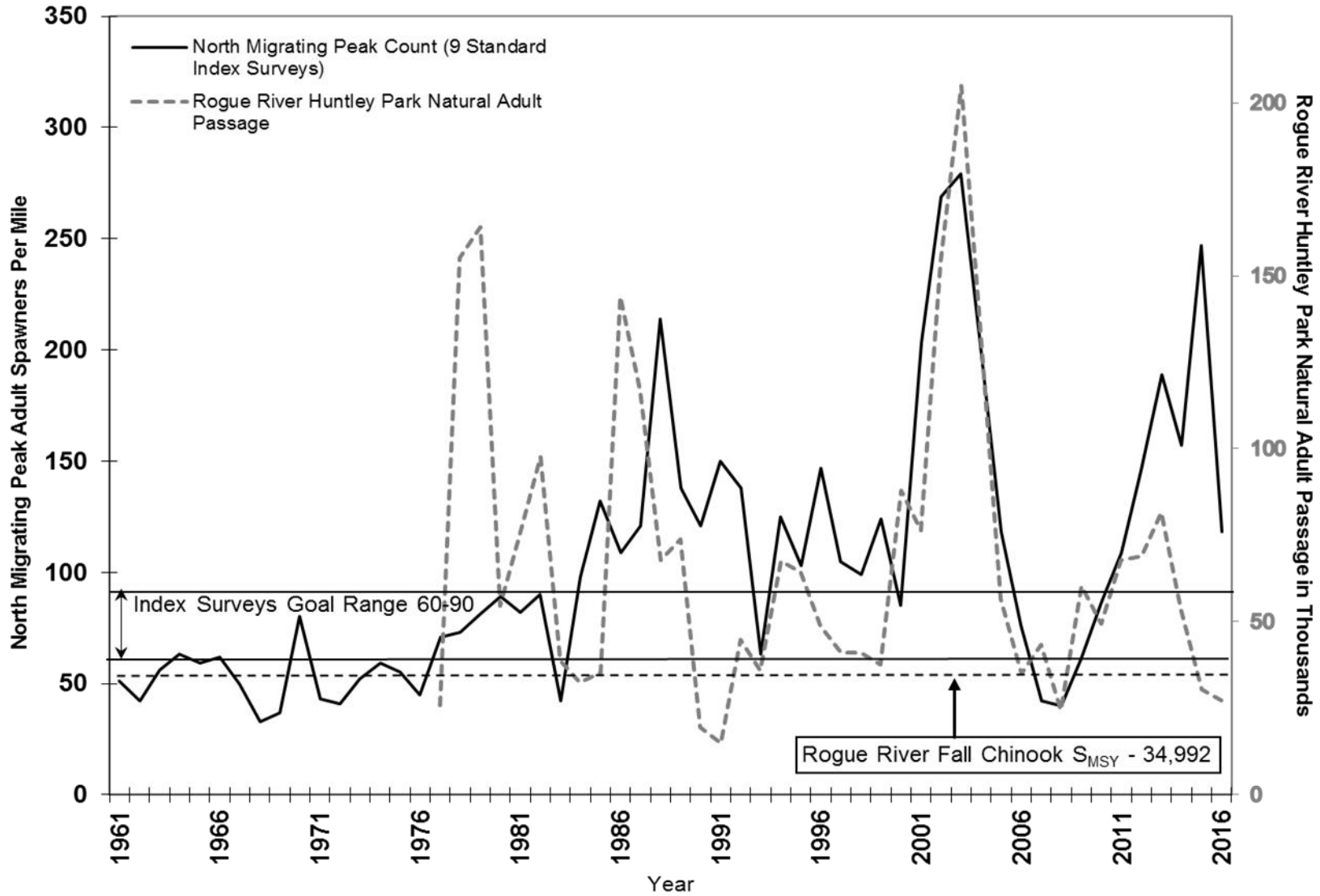


Figure II-3. Spawner indices for naturally produced Oregon coastal fall Chinook, 1961-2016.

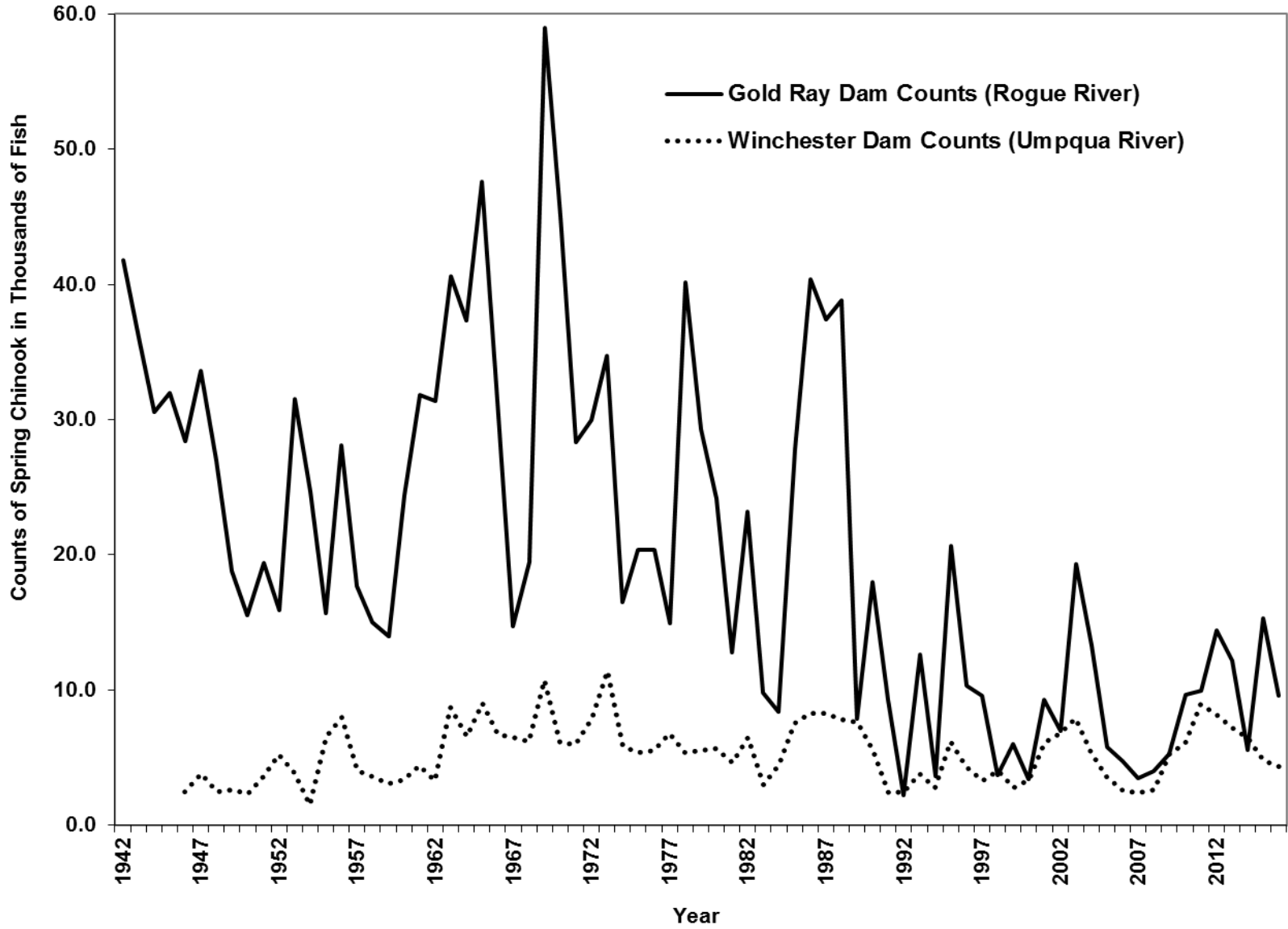


Figure II-4. Escapement indices for naturally produced Oregon coastal south/local migrating spring Chinook, 1942-2016.

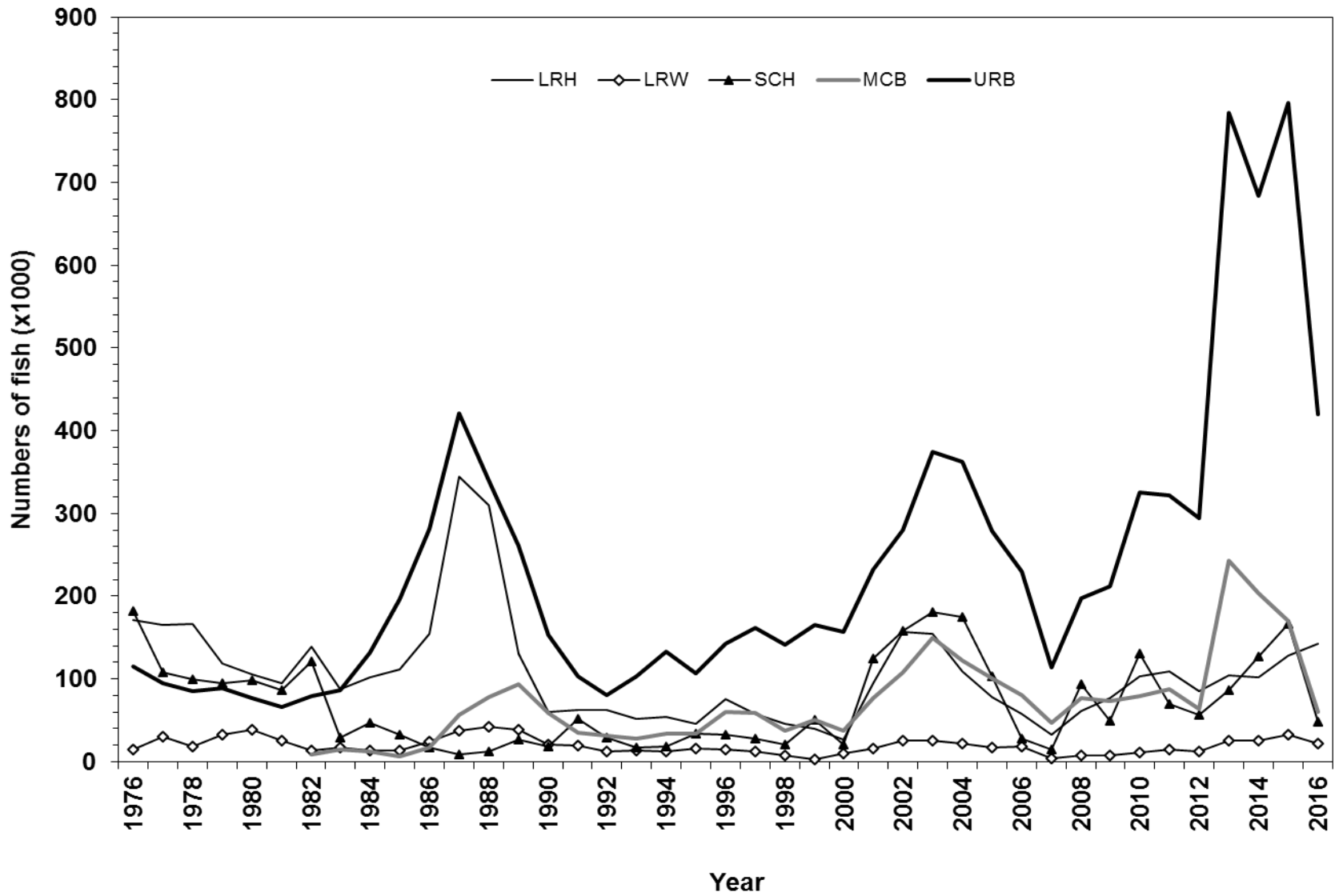


Figure II-5. Columbia River mouth adult returns of the five major fall Chinook stock groups, 1976-2016.

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CHAPTER III

COHO SALMON MANAGEMENT

OREGON PRODUCTION INDEX AREA COHO STOCKS

Oregon Production Index (OPI) area coho stocks include all Washington, Oregon, and California natural and hatchery stocks from streams south of Leadbetter Point, Washington, although stocks produced north of Leadbetter Point are also intercepted in the OPI area. The largest naturally produced coho stock is OCN coho, which includes coho produced from Oregon river and lake systems south of the Columbia River. OCN coho are managed as a stock aggregate with four identified components. Prior to 2000, NMFS listed three coho ESUs within the OPI area as threatened: CCC coho listed October 1996, SONCC coho listed May 1997, and OCN coho listed August 1998. In 2002, NMFS began an update of all its listing determinations and in January of 2006 concluded that the OCN ESU did not warrant listing under the ESA. That determination was overruled by a U.S. Court decision in 2007, and subsequently relisted by NMFS as threatened in February 2008. Lower Columbia River natural (LCN) coho were listed as endangered under the Oregon State ESA in 2002, and as threatened under the Federal ESA on June 28, 2005. The primary OPI hatchery stocks include a south migrating Columbia River (early) stock, a north migrating Columbia River (late) stock, public hatchery coho from the Oregon and northern California Coast, and formerly a small cooperative program along the southern Oregon Coast known as the Salmon Trout Enhancement Program (STEP), which was discontinued after the 2004 brood releases.

Management Objectives

In establishing ocean salmon fisheries that impact OPI area coho stocks, the Council was guided by the reasonable and prudent alternatives of NMFS 1999 Supplemental Biological Opinion and Incidental Take Statement for CCC and SONCC coho and the March 2016 NMFS ESA guidance letter for LCN and OCN coho, which required:

1. No directed coho fisheries or retention of coho in all commercial and recreational fisheries off California to protect endangered CCC coho.
2. Marine fishery impacts on endangered CCC and threatened SONCC coho must be no more than 13.0 percent as indicated by projected impacts on RK hatchery coho.
3. Fishery impacts on threatened LCN coho must not exceed a coastwide marine and mainstem Columbia River exploitation rate of 18.0 percent.
4. Fishery impacts on threatened OCN coho must not exceed a coastwide marine and freshwater exploitation rate of 20.0 percent.

Based on parent escapement levels and the marine survival, the total allowable OCN coho exploitation rate for 2016 fisheries was no greater than 20.0 percent under the Salmon FMP (Amendment 13) and no greater than 20.0 percent under the matrix developed by the OCN Coho Work Group during their review of Amendment 13. The work group recommendation was accepted by the Council as expert biological advice in November 2000. A modification to the marine survival index in the matrix was adopted by the Council in 2013.

The Council was also guided by a treaty Indian/non-Indian sharing agreement for Columbia upriver coho stocks, which required passage of 50 percent of the run destined for areas above Bonneville Dam.

Regulations to Achieve Objectives

Historically, OPI area coho stocks contributed primarily to ocean fisheries off Oregon and northern California and, to a lesser degree, Washington and B.C. The Council has prohibited retention of coho in all fisheries south of the Oregon/California border since 1996. For the adopted seasons the STT projected exploitation rates of 7.0 percent for RK coho in marine fisheries, 13.1 percent for OCN coho in marine and freshwater fisheries combined, and 7.2 percent for LCN coho in marine fisheries.

Total allowable harvest set preseason for the north of Cape Falcon recreational fisheries for coho in 2016 was 18,900, a substantial decrease from the 150,800 quota in 2015. For the non-Indian commercial and treaty Indian fisheries there was no coho retention allowed in 2016 compared to the 19,200 and 42,500 coho quotas, respectively, in 2015. Season and size limit details are presented in Tables I-1, I-2, and I-3.

Commercial Troll

Commercial troll fisheries have been closed to coho retention south of Cape Falcon since 1993 with the exception of limited fisheries in 2007, 2009 and 2014.

In the non-Indian commercial troll fisheries from Cape Falcon to the U.S./Canada border there was no coho retention allowed in 2016 (Table I-1).

Recreational

From 1994 through 1998, coho retention was prohibited in Oregon recreational fisheries south of Cape Falcon. Retention of coho has been prohibited off California since 1996 to protect ESA-listed CCC coho. Mark-selective coho directed ocean recreational fisheries have been implemented in the OPI area since 1998. Limited non-mark-selective recreational ocean coho fisheries have occurred in recent years; 2004 between Leadbetter Point and the Queets River and since 2011 between Cape Falcon and Humbug Mountain. In 2012, 2013 and 2015 non-mark-selective fisheries occurred between the Queets River and Cape Falcon, and in 2014, non-mark-selective fisheries occurred in all areas from the U.S.-Canada border to Humbug Mountain. Adequate abundance of marked coho in the OPI area has resulted in allowable harvests of marked coho in Oregon and Washington within constraints for OCN and LCN coho.

In 2016 the recreational coho fisheries north of Cape Falcon operated with a quota of 18,900 in the Columbia River subarea. There were no coho retention fisheries north of the Columbia River subarea (Table I-3). The recreational fishery between Cape Falcon and the Oregon/California border operated with a mark-selective quota of 26,000. A non-mark-selective fishery with a quota of 7,500 occurred in September between Cape Falcon and Humbug Mountain (Table I-3).

Inside Harvest

Coho retention in all California fisheries was prohibited.

The 2016 inside recreational harvest of coho in Oregon coastal basins, as in recent years, was very restricted and generally limited to areas where abundant naturally-produced or hatchery coho returns were expected. Estimates of the 2016 inriver recreational coho harvest for most areas were not available. Historical estimates of the recreational harvest of adult coho in Oregon coastal estuaries and rivers, derived from ODFW salmon and steelhead angler catch record cards, are reported in Table III-1.

Limited recreational fisheries for naturally-produced coho (non-mark-selective) were approved in two lake systems in 2016. The total catch estimate for these fisheries was 121 in Siltcoos Lake and 41 in Tahkenitch Lake.

The 2016 Columbia River non-Indian commercial net fishery harvested 31,400 adult coho. Select Area fisheries in both Oregon and Washington accounted for 30,300 of the total 2016 Columbia River commercial coho catch. The Columbia River treaty Indian mainstem commercial gillnet coho catch was approximately 5,000 fish, compared to the 2015 catch of 2,300 coho. In 2016, no non-treaty coho-directed fisheries were conducted due to the low coho return and other constraints. Columbia River commercial coho fisheries were both selective and non-mark-selective in 2016 dependent on gear type. Coho harvest information for Columbia River commercial and recreational fisheries are presented in Appendix B, Table B-21.

The Buoy 10 and mainstem recreational fisheries below Bonneville Dam harvested 9,200 adult coho compared to 36,900 adult coho in 2015. All Columbia River recreational fisheries in 2016 were mark-selective for coho. In 2016 Columbia River managers opened the Buoy 10 fishery August 1 through October 21 for marked coho, with a daily-bag-limit of two adult salmon, only one of which may be a Chinook. Only adipose and/or left ventral fin-clipped Chinook were allowed August 1, 7, 8, 14, 15, 21, 22, 28, 29 and September 15-30. All salmon angling closed October 22 through November 4. Barbless hooks were required in these fisheries. The upriver boundary for the fishery was at the Tongue Point, Oregon to Rocky Point, Washington line. The 2016 Buoy 10 effort totaled 94,950 angler trips (Table III-2). Historical Buoy 10 catch and effort data are provided in Appendix B, Table B-22. Recreational coho harvest estimates for Columbia River tributaries downstream of Bonneville Dam are included with mainstem harvest in Appendix B, Table B-21.

Escapement and Management Performance

The overall abundance estimate for OPI area stocks in 2016 was 326,700 compared to 336,300 in 2015 and to the recent ten-year average of 796,800 (Table III-3; Figure III-1). All Council area coho fisheries complied with quota limits. (Table I-6).

Central California Coast and Northern California Coho

For CCC coho, redd counts have been made for the Lagunitas Creek basin since 1995. In 2016, 126 redds were counted and are reported in Table B-7. However, the spawning season for this watershed may not be complete and the final redd count may change. Estimates were available for escapement to Klamath River Basin hatcheries, but not for coho spawning in natural areas. In 2016, a total of 480 adult coho returned to Trinity River Hatchery and 59 adult coho returned to Iron Gate Hatchery. These values compare to a combined goal of 2,000 adults.

Oregon Coast Natural Coho

The preliminary estimate of natural spawner escapement in 2016 to Oregon coastal river and lake systems from the Sixes River north (Oregon Coast ESU) was 75,900 adult coho. This compares to 57,100 adults in 2015. Historical spawner escapement estimates of naturally produced coho are reported in Table III-1.

Preliminary information indicates the total natural spawning population on the Oregon Coast was the third lowest since 2001. The total estimate of the natural spawning population in 2016 was 82,200, including estimates from the Rogue River, which is part of the SONCC ESU (Table III-4, Figure III-2).

Preliminary postseason estimates of combined marine and freshwater exploitation on OCN coho is 8.7 percent, which is lower than the preseason projection of 13.1 percent, and below the 20.0 percent maximum allowed under the OCN work group matrix.

Preliminary postseason estimates of marine exploitation on RK coho is 6.7 percent, which is lower than the preseason projection of 7.0 percent, and below the 13.0 percent maximum ESA consultation standard.

Oregon Coastal Hatchery Coho

The preliminary estimate of total coho returns to Oregon coastal public hatcheries was 8,800 adults (Table III-1).

Columbia River Coho

The 2016 ocean escapement of adult early and late Columbia River coho stocks was 196,300 fish, compared to 174,700 adults in 2015 (Appendix B, Table B-21).

Preliminary postseason estimates of marine exploitation on LCN coho was 7.6 percent, which is slightly higher than the preseason projected 7.2 percent but well within the 18 percent allowed.

WASHINGTON COASTAL COHO STOCKS

Washington coastal coho stocks include all natural and hatchery stocks originating in Washington coastal streams north of the Columbia River to the western Strait of Juan de Fuca (west of the Sekiu River). The stocks in this group most pertinent to ocean salmon fishery management were Willapa Bay (hatchery), Grays Harbor, Quinault (hatchery), Queets, Hoh, and Quillayute coho. Those stocks contribute primarily to ocean fisheries off Washington and B.C

Management Objectives

Preseason Management goals in 2016 for Grays Harbor and Olympic Peninsula coho stocks included achieving natural spawning escapement objectives and treaty Indian allocation requirements. The Council's preseason conservation objectives for stocks managed for natural production were based on maximum sustainable yield (MSY) spawner escapements established pursuant to the U.S. District Court order in *Hoh v. Baldrige*. The conservation objectives for the Queets, Hoh, and Quillayute rivers were developed as ranges intended to bracket estimates of MSY escapement. The range reflected the inherent uncertainty by using the high estimate of recruits-per-spawner and the low estimate of carrying capacity for the lower bound, and the low estimate of recruits-per-spawner and the high estimate of smolt carrying capacity for the upper end of the range. The ranges were further adjusted upward by 26 to 184 percent for risk aversion and habitat considerations. Annual targets for natural spawning escapement and total escapement were established by WDFW and treaty Indian tribes under the provisions of *U.S. v. Washington* and subsequent U.S. District Court orders. After an annual agreement was reached, ocean fishery escapement objectives were established for each river or region of origin. Agreements included provisions for treaty Indian allocation requirements and inside non-Indian fishery needs. No agreements on annual spawning targets for Washington coastal coho other than those in the FMP in place during the preseason process were made in 2016.

In December 2011, Amendment 16 to the FMP was approved, which established new conservation objectives and SDC for Washington coastal coho based on either S_{MSY} estimates derived from FRAM run reconstruction programs or existing conservation objectives.

Regulations to Achieve Objectives

Washington coastal coho stocks played a primary role in 2016 Council-area ocean fishery management, particularly north of Cape Falcon, due to extremely low run size predictions. Overall harvest quotas were limited to levels well below those of the late 1980s and early 1990s. All non-Indian ocean fisheries north of Cape Falcon prohibited retention of coho with the exception of the area between Leadbetter Point, WA and Cape Falcon, OR which included mark-selective coho retention. All ocean coho fisheries south of Cape Falcon were mark-selective except for a September recreational coho fishery. Treaty Indian ocean fisheries prohibited retention of coho in 2016. Season and size limit details are presented in Tables I-1, I-2, and I-3.

Willapa Bay Coho

Inside Harvest

Historical terminal run size, harvest, and escapement data for Willapa Bay coho are presented in Appendix B, Table B-24. The 2016 gillnet coho harvest in Willapa Bay totaled 19,304 fish. Based on the pre-season forecast for a terminal run of 60,879 fish, the scheduled commercial fisheries were expected to harvest approximately 12,512 total coho. There were 31 12-hour Chinook and coho directed non-Indian gillnet fishery openings September 6 through October 14. Retention of both marked and unmarked coho was allowed. Unmarked Chinook retention was prohibited. Non-directed openings were scheduled November 1 through November 25. An in-season chum conservation concern predicated an adjustment to the commercial fishing schedule on November 4, 2016. As a result, the commercial season closed for eight, 12-hour fishing openers then was re-opened for the remainder of their scheduled fishing season in November.

From July 1, 2016 through July 31, 2016, Willapa Bay (Marine Area 2-1) was open for recreational fishing concurrent with the Ocean Marine Area 2 (ocean rules prohibiting coho retention applied). From August 1, 2016 through January 31, 2017, Willapa Bay was open to recreational fishing with a daily-bag-limit of 6 salmon, no more than four adults. Unmarked Chinook retention was prohibited. Barbless hooks were required when fishing for salmon. Anglers were allowed to fish with two poles if they had a Two-Pole Endorsement. Expected harvest in all recreational fisheries based on pre-season forecast abundance was 6,820 hatchery and wild coho. Marine and freshwater recreational harvest estimates were unavailable for 2016, but for 2015, Marine Area 2-1 and freshwater recreational harvest estimates totaled 11,105 fish.

Freshwater recreational fisheries in the Willapa Bay watersheds varied in duration, but were generally open for salmon fishing as early as August 1, 2016 through January 31, 2017 with a daily-bag-limit of 6 salmon and no more than four adults. Unmarked Chinook retention was prohibited. Single-point barbless hooks were required in all areas except Naselle, South Fork Willapa, and Bear rivers, where only barbless hooks were required.

Escapement and Management Performance

Willapa Bay coho were managed primarily for natural production. Estimates of natural spawning escapement for 2016 were unavailable. The most recent but still preliminary natural escapement estimate available was 17,086 in 2015, which did not meet the FMP escapement objective of 17,200 natural spawners. Escapement to Willapa Bay hatcheries in 2015 was estimated at 21,386 coho, which met the WDFW escapement objective of 6,100 spawners.

The geometric mean of Willapa Bay coho natural spawning escapements in 2013, 2014, and 2015 is 29,915 which was above the MSST of 8,600; therefore, Willapa Bay coho should not be considered overfished. Estimates of Willapa Bay coho exploitation rates were not available for 2015 or 2016; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.74); therefore, Willapa Bay coho should not be considered subject to overfishing (Table III-7).

Grays Harbor Coho

Inside Harvest

Historical terminal run size, harvest, and escapement data for Grays Harbor coho are presented in Appendix B, Table B-26. The 2015 terminal run size estimate for Grays Harbor coho, after execution of the ocean fishery, was 53,729 fish (28,719 natural and 25,010 hatchery). Treaty Indian gillnet and non-Treaty fisheries reported a harvest of 22,891 coho (natural, hatchery, and net-pen origin) during 2015. The Chehalis Tribe reported its gillnet fishery harvest to be 610 coho in 2015. 2016 pre-terminal and Grays

Harbor terminal fisheries were conducted with regulations designed to restrict coho harvest impacts. Treaty Indian and non-Indian gillnet coho harvest for 2015 was reported as 14,694 compared to 2016 harvest of 3,186 under increased terminal fishery restrictions in 2016. Recreational harvest estimates for 2016 are not available at this time.

The Quinault Indian Nation operated two separately scheduled gillnet fisheries for Chinook, coho, and chum in the area of the Lower Humptulips and in the area of the Lower Chehalis, as described in Chapter II under the section labeled Grays Harbor Chinook. The pre-season expected coho fishery impacts were limited by the expected abundance and harvest of coho in the Lower Chehalis side of the fishery. The Chehalis area Treaty fishery harvested 1,276 coho, while the Humptulips area Treaty fishery catch was 787 coho. The combined Grays Harbor Treaty coho harvest was 2,063 approximately 57 percent of the expected harvest after accounting for the in-season net restrictions changes during later chum salmon entry and the pre-season terminal prediction.

The non-Indian gillnet fishery in Humptulips commercial Area 2C was scheduled to open for four 12-days in mid- to late October. Retention of all fall Chinook, coho, and chum was allowed. Total catch of coho in Area 2C was 28 fish, 28 percent of the expected harvest. The non-Indian gillnet fishery in the Chehalis River commercial Areas 2A and 2D was scheduled to open for three 12-hour days in late October. During these fisheries, all areas of 2D were open. During all fisheries live boxes were required, and wild Chinook could not be retained. Total catch for areas 2A and 2D is 204 coho, about 35 percent of the predicted harvest estimate.

Chehalis Tribe Chehalis River upper mainstem fisheries occurred in the fall of 2016 and harvested 891 coho.

Estimates of catch in recreational fisheries for 2016 were unavailable; however, fisheries were conducted in three general areas: Marine Area 2.2, the Chehalis River and its tributaries, and the Humptulips River.

A recreational fishery in the northern portion of Marine Area 2-2, Commercial Area 2C, was open from August 1 through September 24. During this time 2 adult salmon could be retained, wild coho must be released. From October 1 through November 30, the portion of Marine Area 2-2 east of a line from the mouth of Johns River to Brackenridge Bluff Tripod was open for the retention of 1 adult salmon per day. During this time wild Chinook must be released.

The Chehalis River and its tributaries were scheduled to open for coho fishing on the following dates and areas:

- Downstream of the high bridge on Weyerhaeuser 1000 line approximately 400 yards downstream from Roger Creek: September 16 through January 31, 2017 with a daily limit of 6 salmon, one adult may be retained, release wild Chinook and coho is required.

The Humptulips River recreational fishery was scheduled to open for coho fishing on the following dates and areas, with a bag limit of two adult salmon daily.

- From the mouth to the confluence of the East and West forks: September 1 through November 15: a daily limit of 6 salmon, up to 2 adults may be retained; release wild coho. From November 16, 2016 through January 31, 2017: a daily limit of 6 salmon, up to 2 adults may be retained, release Chinook and wild coho.

Escapement and Management Performance

Grays Harbor coho are managed for natural production with a spawning escapement goal of 35,400. The 2015 terminal run forecast for natural spawning coho was 127,595 adult fish and 37,663 hatchery-origin coho. A preliminary escapement estimate for 2015 is 21,278 natural spawning coho. An estimate for 2016 Grays Harbor coho was not available. The returns of hatchery-origin coho to Grays Harbor hatchery programs were sufficient to provide for 2016 coho production goals. For the last three returns, natural origin escapement (natural spawning or taken for broodstock or killed when sampled) was 44,694, 84,139, and 16,346 during 2013, 2014, and 2015 respectively. For 2016 escapement has not been determined, but 207 natural origin fish were taken for hatchery broodstock.

The geometric mean of Grays Harbor coho natural origin escapements in 2013, 2014, and 2015 which were respectively of 56,785, 104,836, and 21,278 is 50,222 which is above the MSST of 18,320; therefore, Grays Harbor coho should not be considered overfished. Estimates of Grays Harbor coho exploitation rates were not available for 2016; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.65); therefore, Grays Harbor coho should not be considered subject to overfishing (Table III-7).

Quinault River Coho

Inside Harvest

Historical terminal run size, harvest, and escapement for Quinault River coho are presented in Appendix B, Table B-28. The treaty Indian gillnet fishery targeted hatchery Chinook and coho from early September through mid-November. A total of 37,187 coho were harvested by the gillnet fishery during the 2016 season.

Escapement and Management Performance

Quinault River coho were managed for hatchery production. Escapement estimates for Quinault River coho in 2016 were unavailable. The Quinault National Fish Hatchery egg take objectives for 2016 were achieved.

Queets River Coho

Inside Harvest

Historical terminal run size, harvest, and escapement for Queets River coho are presented in Appendix B, Table B-31. Queets River fisheries were managed according to pre-season abundance estimates and planned Council ocean fisheries. The 2016 fishery was structured to target returning hatchery coho while limiting incidental impacts on natural coho and limiting total freshwater Chinook harvest to a maximum rate of 40 percent. The schedule and mesh size restrictions fished in 2016 are depicted in the discussion of the Chinook directed fishery. The total harvest of coho in the Treaty Indian gillnet fishery was 6,745 commercially-landed fish, which was more than the pre-season modeled catch of 1,621. The gillnet harvest was comprised of a mix of early-timed hatchery fish and normal/late-timed natural fish and the harvest of both was substantially more than anticipated. A final estimate of the hatchery/natural mix in the catch is currently unavailable.

The recreational fishery within the Quinault Reservation was conducted with a restriction on the harvest of unmarked coho. Only coho with an adipose clip were permitted to be retained in the Queets and Salmon River fisheries on the Reservation.

Recreational fisheries outside of reservation lands were further restricted. The Clearwater River was closed to salmon fishing throughout the fall season. The Queets and Salmon Rivers outside the Quinault reservation were open only in September for salmon fishing to allow some harvest of early timed hatchery

coho. Anglers were required to release wild coho, and wild Chinook as well in waters within Olympic National Park.

Escapement and Management Performance

The 2015 natural escapement estimate was 2,028. The expected natural coho escapement for 2015 based on preseason modeling was 5,308, with a preseason escapement objective range of 5,800 to 14,500 natural coho. The pre-season expected natural coho escapement in 2016 was 2,977. Actual escapement is anticipated to be above the preseason expectation. The Quinault Indian Nation closed their fisheries as planned during weeks 41 and 42 as well as weeks 46 and 47 of the 2016 fishery and established large mesh restriction during weeks 40, 43, 44 and 45 due to the lower than expected return of wild coho. Off reservation non-treaty sport fisheries proceeded as planned pre-season, and described above.

The geometric mean of Queets River coho escapement in 2013, 2014, and 2015 was 4,357, which was above the MSST of 4,350; therefore, Queets River coho should not be considered overfished

Hoh River Coho

Inside Harvest

Historical terminal run size, catch, and escapement data for Hoh River coho are presented in Appendix B, Table B-34. The 2016 terminal run size of Hoh River natural coho was projected to be 1,924. The tribal fishery targeted 6.4 percent of the terminal run. The treaty Indian gillnet fishery occurred from the week of September 1 to the week of December 31 (which included Stat Weeks 49-52 of steelhead management), as described in Chapter II under the section labeled Hoh River Chinook. The treaty Indian gillnet fishery was closed during weeks 41 through 47 as a response to the low forecasted abundance. The preliminary tribal commercial fishery harvested total was 271 wild coho and 24 hatchery-origin coho, with 2 coho retained for ceremonial and subsistence purposes. The non-Indian recreational fishery was open September 1 October 9 with a daily-bag-limit of 6 salmon, only one of which could be an adult with no retention of coho. The non-Indian recreational fishery was closed October 10 through November 20 as a response to the low forecasted abundance. The non-Indian recreational fishery was opened November 21 through November 30 however, there was no legal retention of coho. A catch estimate for the 2016 recreational fishery of wild coho was not available.

Escapement and Management Performance

The preliminary 2016 spawning escapement estimate for coho in the Hoh River is 4,110. The escapement goal range established for this stock is 2,000 to 5,000. The geometric mean of Hoh River coho escapement in 2014, 2015, and 2016 was 3,229; therefore, Hoh River coho should not be considered overfished. Estimates of Hoh River coho exploitation rates were not available for 2015. The MFMT for Hoh River coho is 0.65. In 2012, 2013 and 2014, the Hoh River coho exploitation rates were 0.46, 0.70 and 0.43, respectively; therefore, in 2014 Hoh River coho was not subject to overfishing (Table III-7).

Quillayute River Coho

Inside Harvest

Historical terminal run size, catch, and escapement data for Quillayute River summer and fall coho are presented in Appendix B, Table B-37. The recreational and tribal fisheries for coho were established by preseason agreement between WDFW and the Quileute Tribe. A total of 2,450 summer coho were harvested in the Quileute Tribe's commercial, ceremonial, and subsistence fisheries (hatchery = 1,557, wild = 893). An estimate of the 2016 recreational, summer coho catch was 382 (169 natural).

Tribal harvest of fall coho in 2016 was 5,596 (hatchery = 3,651, wild = 1,945). Fall coho taken in the ceremonial and subsistence fishery is included in IGN catch. The fall recreational fishery in the Quillayute system was greatly reduced to protect wild, fall coho. The season ran from September 1-30 and November 16 to December 15 in the Quillayute and Sol Duc rivers and November 16-30 in the Dickie, Calawah and Bogachiel rivers. Wild coho retention was prohibited with a daily limit 1 hatchery coho. An estimate of the 2016 recreational fall coho catch was 180 (est. 16 natural from non-harvest mortality). The Quileute Tribe closed their fall fishery from October 3 through November 21 for stock conservation reasons.

Escapement and Management Performance

The summer coho run in the Quillayute is managed primarily for its hatchery component, which returns in August and September. The summer coho hatchery rack return was 2,116, well above the goal of 300. The 2016 wild summer coho escapement estimate was 663.

The preliminary 2016 escapement estimate for natural fall coho was 9,025. This was above the MSY spawner escapement objective of 6,300 for this stock. Sol Duc Hatchery rack return for fall coho was 16,332.

Estimates of Quillayute River coho exploitation rates were not available for 2015. The MFMT for Quillayute River Coho is 0.59. In 2012, 2013 and 2014, the Quillayute River coho exploitation rates were 0.53, 0.55 and 0.50, respectively; therefore, in 2014 Quillayute River coho was not subject to overfishing (Table III-7).

PUGET SOUND COHO STOCKS

Puget Sound coho salmon stocks include natural and hatchery stocks originating from U.S. tributaries in Puget Sound and the Strait of Juan de Fuca. The primary stocks in this group that are most pertinent to ocean salmon fishery management were Strait of Juan de Fuca, Hood Canal, Skagit, Stillaguamish, Snohomish, and South Puget Sound (hatchery) coho. Those stocks contribute primarily to ocean fisheries off Washington and B.C.

Management Objectives

The Council's previous conservation objectives were based on the Puget Sound Salmon Management Plan, which defined management objectives and long-term goals for these stocks as developed by representatives from Federal, state, and tribal agencies. Conservation objectives for specific stocks were based on either maximum sustainable production for stocks managed primarily for natural production or on hatchery escapement needs for stocks managed for artificial production. The original conservation objectives were developed by a State/Tribal Management Plan Development Team following the Boldt Decision with the goal for natural spawning stocks defined as "the adult spawning population that will, on the average, maximize biomass of juvenile outmigrants subsequent to incubation and freshwater rearing under average environmental conditions." The methodology used to develop the objectives was based on assessment of the quantity and quality of rearing habitat and the number of adult spawners required to fully seed the habitat. Some objectives were subsequently modified by the U.S. District Court Fisheries Advisory Board and later determinations of the WDFW/Tribal Technical Committee. However, annual natural management objectives may vary from the FMP conservation objectives if agreed to by WDFW and the treaty Indian tribes under the provisions of *U.S. v. Washington* and subsequent U.S. District Court orders. (see "Memorandum Adopting Salmon Management Plan"; *U.S. v. Washington*, 626 F. Supp. 1405 [1985]).

The PSC adopted a management plan for coho salmon originating in Washington and southern B.C. river systems in 2002. The plan was directed at the conservation of key management units, four from Southern B.C. (Interior Fraser, Lower Fraser, Strait of Georgia Mainland, Strait of Georgia Vancouver Island) and nine from Washington (Skagit, Stillaguamish, Snohomish, Hood Canal, Strait of Juan de Fuca, Quillayute,

Hoh, Queets, and Grays Harbor). Under the plan, the U.S. and Canada were required to constrain total fishery exploitation rates to levels associated with the categorical status and target exploitation rates of the key management units as determined by domestic managers. Ceilings on exploitation rates by intercepting fisheries were established through formulas specified in the plan. Categorical status was employed by the PST under the 2002 coho Agreement to indicate general ranges of allowable total exploitation rates for U.S. and Canadian coho management units in 2016. Three categories were employed: low (total exploitation rate <20 percent), moderate (total exploitation rate 20-40 percent), and abundant (total exploitation rate >40 percent).

In 2014, the Council adopted management objectives for Puget Sound coho as recommended by WDFW and tribal co-managers under provisions of *U.S. v. Washington*. The annual objectives were based on the Comprehensive coho Agreement categorical status and associated maximum exploitation rate limits. The Council formally adopted exploitation rate management objectives for Puget Sound coho in November 2009, which were generally consistent with PSC objectives, and replaced the longstanding FMP spawning escapement objectives in 2010. For 2016, the objectives were as follows:

- Strait of Juan de Fuca (East and West): Critical status 20 percent maximum exploitation rate
- Hood Canal: Low status 45 percent maximum exploitation rate
- Skagit: Critical status 20 percent maximum exploitation rate
- Stillaguamish: Critical status 20 percent maximum exploitation rate
- Snohomish: Critical status 20 percent maximum exploitation rate

Regulations to Achieve Objectives

Puget Sound coho stocks did not play a primary role in 2016 ocean fishery management considerations, since management of impacts to Washington coastal natural coho, and LCN coho were more constraining. Inside fisheries, primarily in Puget Sound, were constrained to meet objectives for Puget Sound coho. The mark-selective regulations in ocean and Puget Sound recreational fisheries served to increase harvest of marked hatchery fish while minimizing impacts on natural Washington Coast coho, Puget Sound coho, LCN coho, OCN coho, and Interior Fraser coho. Season and size limit details are presented in Tables I-1, I-2, and I-3.

Inside Harvest

Inside harvest of Puget Sound coho was managed on the basis of the six regional management units. Harvest of coho for each management unit is regulated according to the natural spawning escapement or hatchery program escapement goal for that unit. Commercial net and troll harvest (treaty Indian and non-Indian) for all coho stocks combined is presented in Appendix B, Table B-39. The 2016 total Puget Sound commercial catch of coho was 216,074 fish, compared to a catch of 34,227 coho in 2015. Non-Indian harvest was 14,486 coho, compared to 4,777 coho in 2015. Treaty Indian net and troll fisheries harvested 201,588 coho, compared to 29,450 coho in 2015.

Historical coho catches in the Puget Sound recreational fishery beginning in 1971 are listed in Appendix B, Table B-40. Catch estimates for the 2016 Puget Sound recreational fishery were unavailable.

Escapement and Management Performance

Puget Sound FMP conservation objectives were updated to reflect exploitation rate management objectives adopted by the Council in 2009. No 2016 postseason estimates were available for SUS harvest impacts on Puget Sound coho stocks; therefore, the 2016 preseason exploitation rate objectives could not be evaluated, although none of the Puget Sound coho management units have exceeded their annual exploitation rate limits in recent years. Preliminary 2016 escapement information was not available for natural Puget Sound coho.

The geometric mean of Strait of Juan de Fuca coho escapement (combined Western and Eastern; the current stock designation) in 2013, 2014, and 2015 was 7,008, which was above the MSST of 7,000 identified in FMP Amendment 16 but below the S_{MSY} estimate of 11,000; therefore, Strait of Juan de Fuca coho should not be considered overfished. Estimates of Strait of Juan de Fuca coho exploitation rates were not available for 2015 or 2016; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.60); therefore, Strait of Juan de Fuca coho should not be considered subject to overfishing (Table III-7).

The geometric mean of Hood Canal coho escapement in the three most recent available years, 2012, 2013, and 2014 was 27,207, which was above the MSST of 10,750; therefore, Hood Canal coho should not be considered overfished. Estimates of Hood Canal coho exploitation rates were not available for 2015 or 2016; however, fisheries in 2010, 2012, and 2014 resulted in exploitation rates above the MFMT (0.65); therefore, Hood Canal coho were subject to overfishing in those years (Table III-7).

The geometric mean of Skagit coho escapement in 2013, 2014, and 2015 was 24,957, which was above the MSST of 14,875; therefore, Skagit coho should not be considered overfished. Estimates of Skagit coho exploitation rates were not available for 2015 or 2016; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.60); therefore, Skagit coho should not be considered subject to overfishing (Table III-7).

The geometric mean of Stillaguamish coho escapement in 2013, 2014, and 2015 was 17,710, which was above the MSST of 6,100; therefore, Stillaguamish coho should not be considered overfished. Estimates of Stillaguamish coho exploitation rates were not available for 2015 or 2016; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.50); therefore, Stillaguamish coho should not be considered subject to overfishing (Table III-7).

The geometric mean of Snohomish coho escapement in 2013, 2014, and 2015 was 42,083, which was above the MSST of 31,000; therefore, Snohomish coho should not be considered overfished. Estimates of Snohomish coho exploitation rates were not available for 2015 or 2016; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.60); therefore, Snohomish coho should not be considered subject to overfishing (Table III-7).

BRITISH COLUMBIA COHO STOCKS

Management Objectives

B.C. coho stocks were managed under the PSC management plan as described in the previous section on Puget Sound coho.

Regulations to Achieve Objectives

In the 2016 management process, Interior Fraser coho were designated to be in the “low” status category, which required the total exploitation rate in SUS fisheries not to exceed 10.0 percent. This requirement was not a constraint for Council area and inside fisheries. The preseason expectation was that the total SUS fishery exploitation rate on Interior Fraser coho would not exceed 10.0 percent (0.8 percent in Council area fisheries). The mark-selective regulations in ocean and Puget Sound recreational fisheries served to increase harvest of marked hatchery fish while minimizing impacts on natural Interior Fraser coho

Inside Harvest

Harvest of coho in inside waters affecting B.C. coho stocks occurred in Puget Sound fisheries, which were described in the previous section of this chapter.

Escapement and Management Performance

Postseason estimates of SUS inside harvest impacts on coho stocks subject to the PSC coho management plan were unavailable.

COASTWIDE GOAL ASSESSMENT SUMMARY

Preliminary assessment indicates that ESA consultation standards and FMP Conservation objectives for Council managed coho stocks in effect during the preseason planning process of 2016 were met for Rogue/Klamath, OCN and LCN coho stocks (Table III-6). Despite preseason forecast abundances below spawning escapement objectives, Quillayute fall coho and Hoh coho met their FMP conservation objectives. Information to assess compliance with FMP conservation objectives and ESA consultation standards in 2016 was unavailable for most other Washington coastal, and Puget Sound coho stocks.

Stock Status Determinations

The Council adopted SDC for overfishing, overfished, not overfished/rebuilding, and rebuilt under FMP Amendment 16. These criteria, approved and implemented in December 2011, were:

- Overfishing occurs when a single year exploitation rate exceeds the MFMT (F_{MSY});
- Overfished status occurs when a 3-year geometric mean spawning escapement is less than the MSST;
- Not overfished/rebuilding status occurs when the most recent a 3-year geometric mean spawning escapement is greater than the MSST but less than S_{MSY} ;
- A stock is rebuilt when the most recent a 3-year geometric mean spawning escapement exceeds S_{MSY} .

All criteria rely on the most recent estimates available, which in some cases may be a year or more in the past because of incomplete broods or data availability. The above criteria for rebuilt status are the default criteria provided in the FMP; however, alternative criteria may be developed through a rebuilding plan if warranted by stock specific circumstances. All relevant stocks were evaluated relative to these new SDC as required by the FMP. Stock specific reference points and recent year estimates for relevant stocks are presented in Table III-7. All relevant coho stocks were not overfished. Exploitation rate estimates for these stocks are not available for 2016. The most recent year where exploitation rates are available is 2014 and no stocks were subject to overfishing.

TABLE III-1. Estimated returns to Oregon coastal streams and lakes in thousands of adult coho.

Year	Returns to Hatcheries			Winchester Dam			Inside Harvest Impacts ^{d/}	Ocean Escapement to Oregon Coast ^{a/}	
	Private	Public	STEP ^{b/}	Count ^{c/} (North Umpqua)	Number of OCN Spaw ners ^{a/}				
					Lakes	Rivers			Total
1970-75	-	22.8	-	0.4	14.9	40.3	55.2	20.5	98.8
1976	-	38.7	-	0.3	1.5	39.2	40.7	19.6	99.3
1977	4.2	6.5	-	0.4	5.8	13.7	19.5	13.5	44.1
1978	12.3	5.6	-	0.5	1.6	18.2	19.8	4.5	42.7
1979	49.2	22.2	-	0.4	6.6	38.4	45.0	1.5	118.3
1980	38.7	21.9	-	0.2	4.7	23.5	28.2	6.3	95.3
1981	117.8	21.2	-	0.1	2.5	25.5	28.0	9.9	177.0
1982	184.7	14.8	-	2.7	7.9	68.0	75.9	14.7	292.8
1983	133.9	9.5	-	1.2	3.4	18.9	22.3	6.8	173.7
1984	115.4	28.6	-	3.2	14.8	52.6	67.4	17.4	232.0
1985	332.0	15.8	-	4.0	7.6	65.3	72.9	15.7	440.3
1986	453.7	35.8	2.5	9.6	11.8	57.2	69.0	30.3	600.8
1987	119.3	12.3	0.2	2.1	4.2	25.3	29.5	7.7	171.1
1988	116.1	33.7	1.2	1.2	5.8	45.7	51.5	13.3	217.0
1989	46.9	37.3	1.2	3.0	4.8	40.6	45.4	15.1	148.9
1990	35.6	15.5	1.6	1.9	4.4	16.8	21.1	9.5	85.2
1991	35.1	39.6	4.9	3.9	7.1	33.8	40.9	31.5	155.8
1992	-	23.3	0.6	4.4	2.0	44.7	46.6	18.7	93.7
1993	-	20.2	2.0	2.3	10.1	49.2	59.2	13.3	97.1
1994	-	23.4	1.8	2.0	5.7	41.7	47.4	2.4	77.0
1995	-	25.2	0.4	2.7	11.1	50.1	61.2	3.6	93.1
1996	-	23.4	1.0	5.1	13.4	69.2	82.7	4.0	116.2
1997	-	17.7	0.2	1.8	8.6	15.2	23.8	4.3	47.8
1998	-	15.3	0.2	4.6	11.1	21.5	32.6	5.2	57.9
1999	-	13.3	0.4	3.3	12.5	34.7	47.2	2.8	67.1
2000	-	15.0	0.5	9.7	12.7	61.0	73.8	4.4	103.3
2001	-	37.4	1.4	16.0	19.6	143.1	162.7	10.1	227.7
2002	-	30.9	2.6	7.4	22.0	236.4	258.4	8.0	307.3
2003	-	15.9	3.6	10.7	16.1	213.3	229.4	6.8	266.4
2004	-	13.2	0.8	7.3	18.6	154.1	172.8	6.2	200.3
2005	-	10.0	0.3	9.0	14.7	139.9	154.6	6.1	180.0
2006	-	9.8	0.1	7.1	24.1	104.7	128.8	2.5	148.4
2007	-	3.6	0.0	2.7	9.0	57.3	66.3	1.3	73.9
2008	-	7.0	0.0	0.2	23.6	156.1	179.7	3.0	189.8
2009	-	6.1	0.0	0.7	17.3	245.4	262.7	7.3	276.8
2010	-	7.9	0.0	1.7	38.7	244.7	283.4	5.6	298.6
2011	-	4.6	0.0	0.3	20.3	336.0	356.2	12.7	373.8
2012	-	2.2	0.0	0.7	18.9	80.2	99.2	8.1	110.1
2013	-	6.5	0.0	0.6	13.7	110.8	124.4	12.0	143.5
2014	-	16.0	0.0	0.4	22.0	337.6	359.6	23.4	399.4
2015	-	4.7	0.0	0.4	4.7	52.4	57.1	4.2	66.4
2016 ^{e/}	-	8.8	0.0	0.3	8.0	67.9	75.9	1.8	86.8

a/ Does not include estimates for the Rogue River (SONCC ESU). Spaw ner escapements to rivers prior to 1990 were estimated by a nonrandom standard index of streams north of the Rogue River. A total coastwide spaw ner escapement methodology based on stratified random sampling (SRS) was initiated in 1990 and used through 1997 and was implemented concurrently with the standard index methodology. The SRS methodology indicated that actual escapements were less than estimated by the standard rivers index. The spaw ner index data for years prior to 1990 have been recalibrated in this table to be comparable with the SRS estimates. Since 1998 a random site selection procedure based on the EPA's Environmental Monitoring and Assessment Program (EMAP) has been used.

b/ Oregon coastal Salmon Trout Enhancement Program (STEP) production from hatchery smolt rearing sites only.

c/ Natural and hatchery fish prior to 1990, marked fish only thereafter.

d/ Freshwater sport catch from ODFW salmon/steelhead angler record card information and represents only those coho greater than 24 inches total length through 1993, and those coho with a total length greater than 20 inches from 1994 on. Includes estimated mortality from hook-and-release..

e/ Preliminary.

TABLE III-2. Estimated weekly effort (in angler trips) and catches of Chinook and coho in the 2016 Buoy 10 recreational fisheries (all data are preliminary).^{a/}

Week Number	Ending Date of Period	Angler Trips	Catch ^{b/}		Catch Per Trip
			Chinook	Coho	
32	Aug.-7	7,481	668	41	0.09
33	Aug.-14	19,378	3,521	212	0.19
34	Aug.-21	24,788	4,073	864	0.20
35	Aug.-28	22,671	7,047	2,673	0.43
36	Sept.-4	11,962	1,683	3,343	0.42
37	Sept.-11	5,951	737	1,577	0.39
38	Sept.-18	1,330	28	219	0.19
39	Sept.-25	752	7	126	0.18
40	Oct.-2	372	0	53	0.14
41-43	Oct.-23	265	16	74	0.34
Total		94,950	17,780	9,182	0.28

a/ Includes boat-based and shore-based fisheries from the upstream boundary at the Tongue Point/Rocky Point line (2000), downstream to the Buoy 10 line including Clatsop Spit, the South Jetty of the Columbia River, and the North Jetty of the Columbia River after the ocean closed. Youngs Bay bubble closure in effect August 1 through September 15. Fishery was open August 1 through October 21 for marked coho, with the daily-bag-limit of two adult salmon, only one of which may be a Chinook. Only adipose and/or left ventral fin-clipped Chinook were allowed August 1, 7, 8, 14, 15, 21, 22, 28, 29 and September 15-30. All salmon angling closed October 22 through November 4.

b/ Includes adults and jacks as determined by CWT analysis.

TABLE III-3. Oregon production index (OPI) area coho harvest impacts, spawning, abundance, and exploitation rate estimates in thousands of fish.^{a/}

Year or Avg.	Oregon and California Coastal Returns							Ocean Exploitation Rate Based on OPI Abundance ^{f/}
	Ocean Fisheries ^{b/}		Hatcheries and Freshwater			Columbia River Returns	Abundance ^{e/}	
	Troll	Sport	Harvest ^{c/}	OCN Spawners ^{d/}	Private Hatcheries			
1970-1975	1,629.6	558.4	45.8	55.2	-	460.4	2,749.3	0.80
1976-1980	1,253.6	555.0	31.2	31.1	26.1	263.3	2,154.2	0.85
1981-1985	451.2	274.0	37.2	56.0	176.8	305.3	1,328.6	0.63
1986	638.9	320.6	79.3	70.0	453.7	1578.1	2,558.9	0.46
1987	468.2	296.2	45.1	30.1	119.3	324.2	915.5	0.96
1988	844.7	297.2	61.1	56.8	116.1	686.1	1,663.7	0.74
1989	645.1	425.5	61.1	46.4	46.9	728.7	2,062.1	0.53
1990	275.9	357.1	28.7	24.2	35.6	208.0	810.9	0.82
1991	448.4	469.9	77.8	41.3	35.1	981.5	1,925.2	0.49
1992	67.4	256.5	51.0	48.9	-	225.4	629.6	0.51
1993	13.1	140.8	38.6	59.6	-	117.9	315.9	0.49
1994	2.7	3.0	28.2	51.8	-	173.4	267.5	0.02
1995	5.4	43.5	37.5	64.6	-	77.4	204.1	0.24
1996	7.0	31.8	45.7	87.5	-	117.1	260.3	0.15
1997	5.5	22.4	26.9	31.6	-	156.4	230.5	0.12
1998	3.5	12.8	29.4	34.9	-	175.9	270.8	0.06
1999	3.6	36.5	22.6	48.6	-	289.1	432.0	0.09
2000	25.2	74.6	33.2	84.8	-	558.3	762.4	0.13
2001	38.1	216.8	75.8	174.7	-	1128.3	1,673.2	0.15
2002	15.0	118.7	54.0	266.9	-	535.8	972.2	0.14
2003	28.8	252.4	45.1	236.2	-	713.2	1,266.9	0.22
2004	26.2	159.3	38.1	197.3	-	463.5	904.5	0.21
2005	10.5	58.2	42.8	164.6	-	354.7	629.9	0.11
2006	4.5	47.5	29.6	132.7	-	409.7	674.1	0.08
2007	26.2	128.5	10.9	71.4	-	349.0	631.3	0.25
2008	0.6	26.4	15.9	180.1	-	520.8	769.8	0.04
2009	27.7	201.2	16.6	265.3	-	760.2	1,341.3	0.17
2010	5.8	48.8	19.5	287.1	-	471.3	848.4	0.06
2011	4.2	54.7	20.0	360.8	-	376.5	836.4	0.07
2012	4.7	45.5	18.5	104.6	-	143.9	311.3	0.16
2013	8.4	48.3	26.5	135.6	-	258.3	494.1	0.11
2014	35.6	197.4	42.2	362.0	-	1029.0	1,724.8	0.14
2015	11.7	84.4	11.9	61.2	-	174.7	336.3	0.29
2016	0.0	31.7	11.4	82.2	-	196.3	326.7	0.10

a/ The OPI area includes ocean and inside harvest impacts and escapement to streams and lakes south of Leadbetter Pt., Washington.

b/ Incl. est. nonretention mort.: troll: release mort.(1982-present) and drop-off mort.(all yrs.); sport --release mort.(1994-present) and drop-off mort.(all yrs.).

c/ Includes STEP smolt releases through the 2007 return year, after which the program was terminated.

d/ Includes Rogue River.

e/ FRAM post season runs used after 1985 and includes OPI origin stock catches in all fisheries.

f/ Private hatchery stocks are excluded in calculating the OPI area stock aggregate ocean exploitation rate index.

g/ Preliminary.

TABLE III-4. Oregon Coast Natural (OCN) adult coho salmon spawner escapement.

Year	Adjusted SRS Adult Coho Spawner Population Estimates in Thousands of Spawners by Stock Component ^{a/}					Adult Coho Spawners Per Spawner Habitat Mile				
	Northern ^{b/}	North Central ^{c/}	South Central ^{d/}	Southern ^{e/}	Coastwide	Northern ^{b/}	North Central ^{c/}	South Central ^{d/}	Southern ^{e/}	Coastwide Average
	1990	2.2	5.6	13.5	1.2	22.5	2	5	8	3
1991	9.3	6.7	21.6	0.5	38.1	10	6	13	1	9
1992	2.4	15.4	24.4	2.0	44.2	3	13	15	5	11
1993	4.5	7.8	43.1	0.8 ^{f/}	55.7	5	7	27	1 ^{g/}	14
1994	3.5	9.8	30.9	4.3	48.5	4	8	19	11	12
1995	3.9	13.6	36.5	3.4	57.3	4	12	22	8	14
1996	3.3	18.1	52.6	5.2	79.3	4	16	32	13	19
1997	2.1	2.8	18.4	8.2	31.6	2	2	11	20	8
1998	2.6	3.3	26.1	2.3	34.3	3	3	16	6	8
1999	8.9	11.8	29.2	1.4	51.2	10	10	18	3	13
2000	17.9	14.3	37.9	11.0	81.1	20	12	23	27	20
2001	33.5	25.2	113.9	12.0	184.6	37	22	70	29	45
2002	52.5	104.0	104.1	8.5	269.0	58	89	64	21	66
2003	59.6	68.9	100.1	6.8	235.4	66	59	62	17	57
2004	28.8	42.1	101.9	24.5	197.3	32	36	63	60	48
2005	16.5	51.4	86.7	10.0	164.6	18	44	53	24	40
2006	24.1	21.2	83.5	3.9	132.7	27	18	51	10	32
2007	17.5	12.3	36.5	5.1	71.4	19	11	22	13	17
2008	25.6	68.1	86.0	0.4	180.1	28	59	53	1	44
2009	48.1	86.4	128.2	2.6	265.3	54	74	79	6	65
2010	55.0	56.5	171.9	3.7	287.1	61	49	106	9	70
2011	45.9	119.1	191.3	4.5	360.8	51	102	118	11	88
2012	7.5	33.8	57.8	5.5	104.6	8	29	36	13	26
2013	11.0	39.7	73.7	11.2	135.6	12	34	45	27	33
2014	67.4	121.9	170.4	2.4	362.0	75	105	105	6	88
2015	6.7	22.7	27.7	4.1	61.2	7	19	17	10	15
2016 ^{g/}	18.3	26.4	31.2	6.3	82.2	20	23	19	15	20

a/ A spawner escapement methodology study based on SRS had been in effect from 1990 to 1997 in which coho salmon population estimates have been made for Oregon coastal river systems from the Sixes River and north. Since 1998 a random site selection procedure based on the EPA's Environmental Monitoring and Assessment Program (EMAP) has been used. Spawner population estimates include an adjustment for observation error.

b/ Estimate based on 899 miles of spawner habitat within Nehalem, Tillamook, and Nestucca Rivers and other direct ocean tributaries from Necanicum River through Neskowin Creek.

c/ Estimate based on 1,163 miles of spawner habitat within Siletz, Yaquina, Alsea, and Siuslaw Rivers and other direct ocean tributaries from the Salmon through Siuslaw Rivers.

d/ Estimate based on 1,622 miles of spawner habitat within Umpqua, Coos, and Coquille Rivers. Also includes spawners using tributaries to Siltcoos, Tahkenitch, and Tenmile Lakes.

e/ Estimate based on a mark-recapture methodology and 410 miles of spawner habitat within the Rogue River.

f/ Unreliable estimate.

g/ Preliminary.

TABLE III-5. Oregon Coastal Natural and Lower Columbia Natural adult coho salmon cons. objective and fishery impacts.

Year	OCN Fishery Impact (Total Marine and Freshwater Exploitation Rate)			LCN Fishery Impact (Total Marine and Freshwater Exploitation Rate)		
	Conservation Objective ^{a/}	Preseason Projection	Postseason Estimate ^{b/}	Conservation Objective ^{c/}	Preseason Projection	Postseason Estimate ^{b/}
1990	-	-	-	-	-	-
1991	-	0.460	0.639	-	-	-
1992	-	0.420	0.626	-	-	-
1993	-	0.260	0.396	-	-	-
1994	≤0.20	0.111	0.064	-	-	-
1995	≤0.20	0.118	0.106	-	-	-
1996	≤0.20	0.125	0.062	-	-	-
1997	≤0.20	0.110	0.091	-	-	-
1998	≤0.13	0.119	0.076	-	-	-
1999	≤0.15	0.087	0.073	-	-	-
2000	≤0.15	0.082	0.042	-	-	-
2001	≤0.08	0.074	0.035	-	-	-
2002	≤0.15	0.123	0.049	-	-	-
2003	≤0.15	0.144	0.080	-	-	-
2004	≤0.15	0.147	0.077	-	-	-
2005	≤0.15	0.111	0.044	≤0.15	0.10 ^{d/}	0.179
2006	≤0.15	0.096	0.076	≤0.15	0.10 ^{d/}	0.146
2007	≤0.20	0.113	0.118	≤0.20	0.13 ^{d/}	0.208
2008	≤0.08	0.069	0.019	≤0.08	0.08	0.073
2009	≤0.15	0.130	0.067	≤0.20	0.20	0.187
2010	≤0.15	0.112	0.045	≤0.15	0.15	0.107
2011	≤0.15	0.132	0.059	≤0.15	0.15	0.111
2012	≤0.15	0.150	0.183	≤0.15	0.15	0.140
2013	≤0.30	0.231	0.149	≤0.15	0.15	0.143
2014	≤0.30	0.253	0.141	≤0.225	0.225	0.164
2015	≤0.15	0.149	0.198	≤0.23	0.23	0.244
2016 ^{e/}	≤0.20	0.131	0.087	≤0.18	0.13	0.094

a/ Prior to 1994, the conservation objective was expressed in terms of the total escapement of OCN spawners in index numbers rather than as an exploitation rate. The index escapement objectives from 1981 through 1993 are provided in Table III-2 of the Review of 1998 Ocean Salmon Fisheries and Table 1 of Amendment 11. From 1994 through 1997, Amendment 11 specified that at low stock sizes, only incidental harvest of OCN coho could occur and that impacts could not exceed 20%. Beginning in 1998, the OCN conservation objective has been as specified in Amendment 13 which is also the basis for the NMFS jeopardy standards under the Endangered Species Act listing.

b/ From the coho FRAM.

c/ In 2005, the NMFS conservation objective was in terms of marine area fisheries. In 2006, the NMFS conservation objective was in terms of Council area and mainstem Columbia River fisheries; thereafter in terms of all marine area and mainstem Columbia.

d/ The preseason projection was in terms of a marine exploitation rate.

e/ Preliminary.

TABLE III-6. Performance of coho salmon stocks in relation to 2016 preseason conservation objectives (preliminary data).
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System and Stock	2016 FMP Conservation/Management Objectives	Achievement
OPI Area Coho		
(Columbia River and coastal stocks south of Leadbetter Point)	Natural spawner escapement objectives as provided below; meet hatchery egg-take goals; meet treaty Indian obligations.	Hatchery egg-take goals achieved at nearly all facilities. No information available on catch allocation.
Northern California (Threatened) and CCC (Endangered)	No directed coho fisheries or retention of coho south of the OR/CA border. Marine exploitation rate $\leq 13.0\%$ as indicated by R/K hatchery stocks.	No coho retention south of the California/Oregon border. Preliminary postseason estimate of 6.2%.
OCN	Combined marine and freshwater exploitation rate $\leq 20.0\%$.	Preliminary postseason estimate of 8.7%.
LCN-Columbia River Natural (Threatened)	Combined marine and mainstem Columbia River exploitation rate $\leq 18.0\%$.	Preliminary postseason estimate of 9.4% exploitation rate in marine and mainstem Columbia River fisheries.
Washington Coast Coho		
	Natural spawner escapement objectives as provided below and in state/tribal agreements; meet hatchery egg-take goals; meet treaty Indian obligations.	Hatchery egg-take goals achieved. No information available on catch allocation.
Willapa	17,200 natural adult spawners.	Escapement estimate was unavailable; preseason projection was 37,400 ocean escapement.
Grays Harbor	31,000 comanager adult spawner agreement.	Escapement estimate was unavailable; preseason projection was 34,500 ocean escapement.
Queets	2,900 comanager adult spawner agreement.	Escapement estimate was unavailable; preseason projection was 3,200 ocean escapement.
Hoh	1,800 comanager adult spawner agreement.	Preliminary postseason escapement estimate was 4,110.
Quillayute Fall	4,000 comanager adult spawner agreement.	Preliminary postseason escapement estimates was 9,025.

TABLE III-6. Performance of coho salmon stocks in relation to 2016 preseason conservation objectives (preliminary data).

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System and Stock	2016 FMP Conservation/Management Objectives	Achievement
Puget Sound Coho	Stepped exploitation rate objectives; meet hatchery egg-take goals; meet treaty Indian obligations and inside non-Indian fishery needs for six management units.	Data not available for 2016 natural spaw ner escapements. Hatchery egg-take goals w ill be met.
Strait of Juan de Fuca	≤20% total exploitation rate.	Preseason expectation of an 0.8% Council area exploitation rate; postseason estimate unavailable.
Hood Canal	≤45% total exploitation rate.	Preseason expectation of a 0.2% Council area exploitation rate; postseason estimate unavailable.
Skagit	≤20% total exploitation rate.	Preseason expectation of a 0.6% Council area exploitation rate; postseason estimate unavailable.
Stillaguamish	≤20% total exploitation rate.	Preseason expectation of a 0.6% Council area exploitation rate; postseason estimate unavailable.
Snohomish	≤20% total exploitation rate.	Preseason expectation of a 0.8% Council area exploitation rate; postseason estimate unavailable.

TABLE III-7. Coho stock status relative to overfished and overfishing criteria. A stock is overfished if the 3-year geometric mean spawning escapement is less than the minimum stock size threshold (MSST); a stock experiences overfishing if the total annual exploitation rate exceeds the maximum fishing mortality threshold (MFMT).

Coho Stock	Spawning Escapement						3-yr Geo			Total Exploitation Rate						
	2011	2012	2013	2014	2015	2016	Mean	MSST	S _{MSY}	2011	2012	2013	2014	2015	2016	MFMT
Willapa Bay	31,737	20,412	26,303	59,569	17,086	NA	29,915	8,600	17,200	0.46	0.50	0.23	0.50	NA	NA	0.74
Grays Harbor	64,403	66,836	56,785	104,836	21,278	NA	50,222	18,320	24,426	0.42	0.44	0.44	0.46	NA	NA	0.65
Queets	8,588	4,285	5,684	7,174	2,028	NA	4,357	4,350	5,800	0.36	0.30	0.39	0.44	NA	NA	0.65
Hoh	8,043	4,072	2,899	4,565	1,794	4,110	3,229	1,890	2,520	0.39	0.46	0.70	0.43	NA	NA	0.65
Quillayute Fall	8,070	5,846	7,063	7,410	3,079	9,025	5,905	4,725	6,300	0.42	0.53	0.55	0.50	NA	NA	0.59
Juan de Fuca	13,288	13,096	8,461	11,002	3,698	NA	7,008	7,000	11,000	0.09	0.12	0.13	0.17	NA	NA	0.60
Hood Canal	25,733	46,802	16,064	26,787	NA	NA	27,207	10,750	14,350	0.52	0.70	0.58	0.66	NA	NA	0.65
Skagit	49,162	109,763	88,246	27,170	6,483	NA	24,957	14,875	25,000	0.37	0.31	0.44	0.50	NA	NA	0.60
Stillaguamish	49,991	45,156	60,387	35,763	2,572	NA	17,710	6,100	10,000	0.21	0.29	0.33	0.40	NA	NA	0.50
Snohomish	111,374	130,637	125,870	46,244	12,804	NA	42,083	31,000	50,000	0.21	0.31	0.39	0.43	NA	NA	0.60

Updated March 3, 2017 (Hoh)

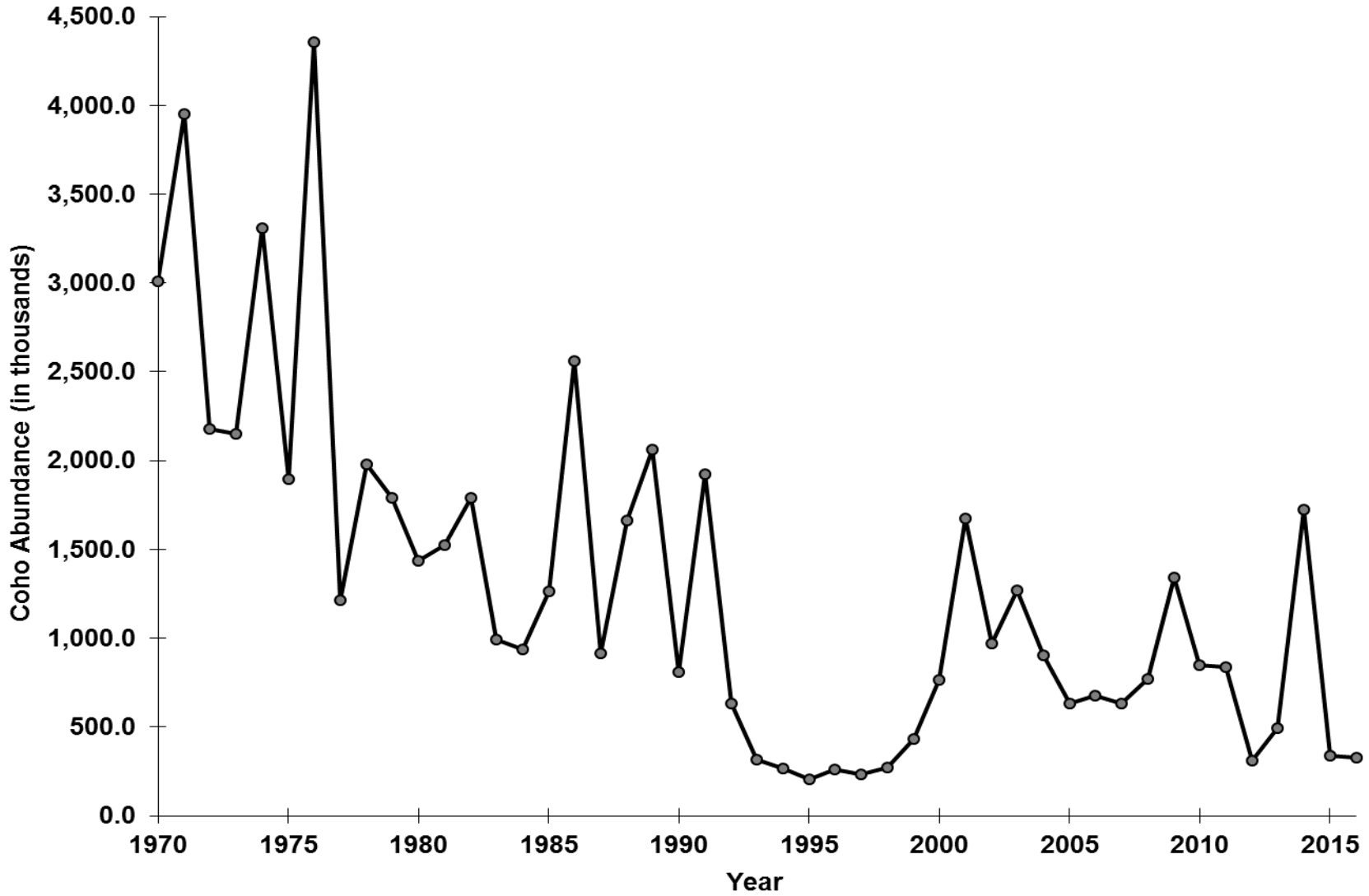


Figure III-1. Oregon Production Index (OPI) area coho abundance estimates by stratified random surveys (SRS) accounting methods, 1970-2016.

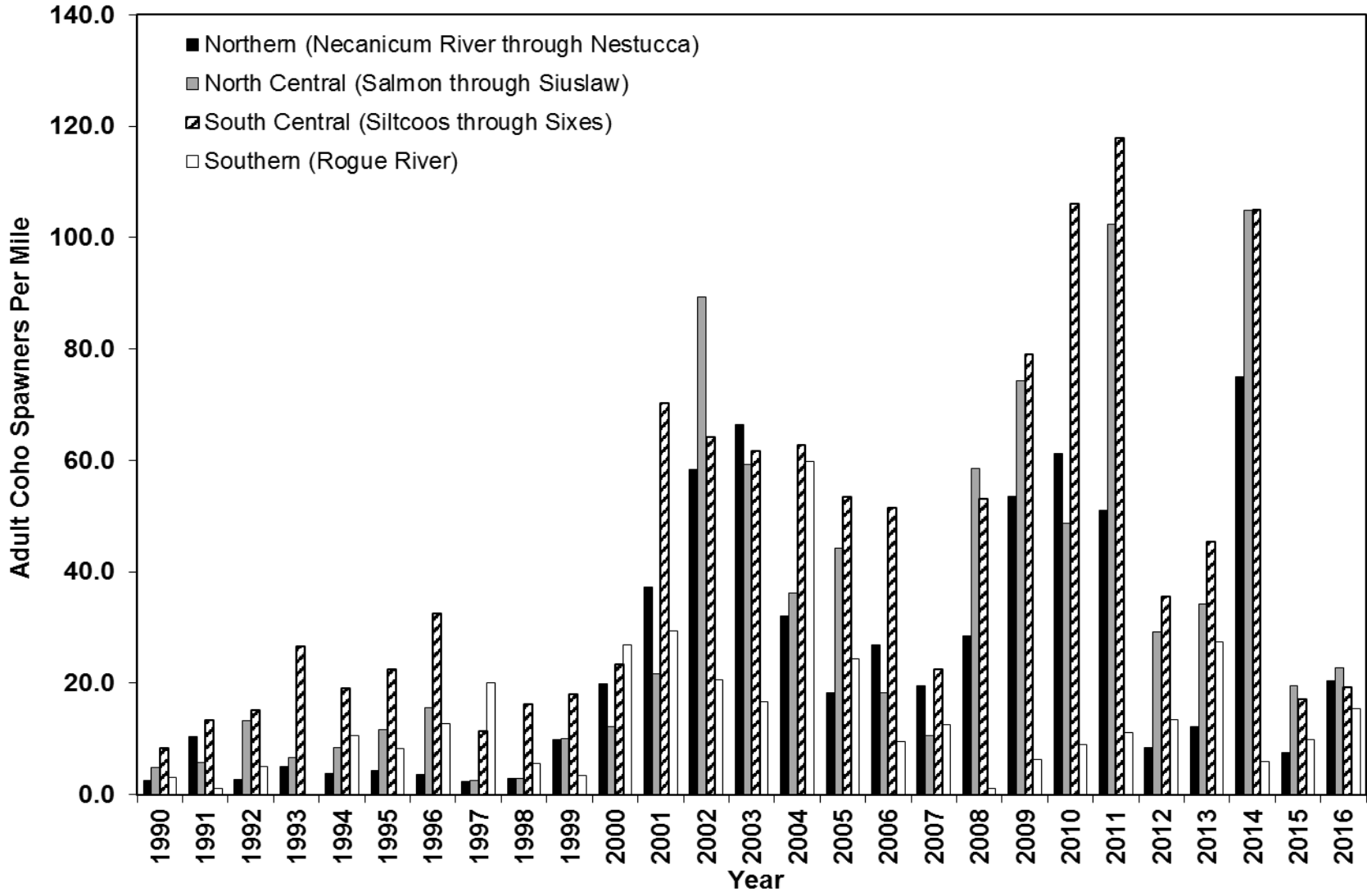


Figure III-2. Oregon coastal natural (OCN) adult coho spawners per habitat mile by coastal region based on SRS accounting methods, 1990-2016.

CHAPTER IV

SOCIOECONOMIC ASSESSMENT OF THE 2016 OCEAN SALMON FISHERIES

SUMMARY: Total 2016 exvessel value of the Council-managed non-Indian troll commercial salmon fishery was \$11.2 million. This was 42 percent below last year's number of \$19.4 million and 64 percent below the inflation-adjusted total of \$30.7 million harvested in 2014. The exvessel value of the coastwide commercial fishery in 2016 was 52 percent below the 2011-2015 inflation-adjusted average of \$23.4 million, and 81 percent below the 1979 through 1990 inflation-adjusted average of \$59.4 million. The coastwide average exvessel price for Chinook in 2016 was \$8.38 per pound, 30 percent above last year's inflation-adjusted average of \$6.44 and the highest coastwide average price on record. For the first time since 1997 and 1998, there were no coho landed in the ocean commercial troll fishery in 2016.

The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2016 was 156,200, a decrease of 35 percent from last year, 56 percent below the number taken in 2014, and 74 percent below the 1979 through 1990 average of 599,700 angler-trips.

Total West Coast income impacts associated with recreational and commercial ocean salmon fisheries for all three states combined in 2016 were estimated at \$48.6 million, 38 percent below last year's inflation-adjusted total of \$78.2 million, 58 percent below the inflation-adjusted total of \$115.0 million in 2014, and the lowest level since 2010.¹

ALLOCATION OF THE SALMON RESOURCE

Salmon management by the Council involves numerous allocation issues including:

- Determining the amount of salmon available for ocean harvest after considering expected abundances, harvests by inside fisheries, and spawning escapement goals.
- Allocating harvest among broad management areas and among port areas within the management areas.
- Allocating harvest between Indian and non-Indian harvesters.
- Allocating the non-Indian portion between commercial and recreational harvesters.

The amount of salmon available for harvest in Council management areas depends, in part, on harvest in Canada and Alaska. Allocation of harvest between the West Coast, Canada, and Alaska is determined within the constraints of the PST.

In general, the recreational fishery has tended to have a somewhat more stable harvest level than the commercial fishery (in both absolute and relative terms) (Figures IV-1 and IV-2). The majority of the annual variation in available ocean harvest is usually taken up in the commercial fishery. However, both commercial and recreational fisheries have suffered substantial declines relative to harvest levels of the 1980s, the effects of which are amplified within specific geographic areas.

Decisions on allowable harvests for a particular stock often have implicit allocation effects on the geographic distribution of salmon harvest. Seasons may be more restrictive along a particular area of the

¹A recent changeover in methodology from FEAM-based to IO-PAC-based income impact multipliers means that comparisons of recent year's income impacts with historical values for years prior to 2010 are not meaningful. Consequently any comparisons of income impacts in this document are confined to describing trends appearing over 2010-current year, during which period the IO-PAC-based models and multipliers were applied. See Appendix E of the *Review of 2014 Ocean Salmon Fisheries* for a more detailed explanation of the change in income impact modeling methodology.

coast to protect a depressed stock that is encountered at a relatively higher rate in that area. The geographic distribution of harvest opportunity along the coast involves balancing the often conflicting objectives of maximizing ocean harvest and distributing the responsibility for resource conservation. A brief outline of the regulatory objectives that shaped the 2016 season is provided in Chapter I, and an assessment of success in meeting the objectives is provided in Chapters II and III.

COMMERCIAL SALMON FISHERIES

West Coast Non-Indian Commercial Ocean Fishery

In-season Price Trends

The coastwide average exvessel price for troll caught Chinook in 2016 was \$8.38. There were no coho landed in the 2016 ocean commercial troll fishery. Monthly average exvessel price data provide information on price trends over the season (Table IV-1). California Chinook prices were at their highest in May and June, averaging \$9.43 and \$9.49 per pound, respectively. Oregon weighted average Chinook prices were highest in April and May at \$10.77 and \$9.45 per pound, respectively. In Washington, weighted average Chinook prices were highest in May at \$9.14 per pound. Average Chinook exvessel prices in California were at their lowest in September, while average Chinook exvessel prices in Oregon and Washington were at their lowest in July. Over the entire season, exvessel Chinook prices in California, Oregon and Washington averaged \$8.63, \$8.23 and \$8.00 per pound, respectively.

Annual Trends (Seasons, Value, Prices, and Pounds)

Average Chinook and coho troll exvessel price and value by state and species, compiled from fish receiving tickets and expressed both in nominal terms and inflation-adjusted 2016 dollars, are presented in Tables IV-2, IV-3, and IV-4. Data on pink salmon are shown in Table IV-5. The gross domestic product implicit price deflator, developed by the Bureau of Economic Analysis, was used to adjust nominal dollar values for inflation (Appendix D, Table D-22). Landing weights by state and port for Chinook and coho are presented in Tables IV-6, IV-7 and IV-8. These tables and the following discussion focus on the non-Indian commercial fishery in Council management areas and associated state territorial ocean-area waters.

Total 2016 coastwide exvessel value of the Council-managed non-Indian, commercial, troll salmon fishery was \$11.2 million, 42 percent below last year's number of \$19.4 million, 64 percent below the inflation-adjusted level in 2014 of \$30.7 million, and 52 percent below the 2011-2015 inflation-adjusted average of \$23.4 million (Figure IV-4). Coastwide exvessel value in 2016 was more than eight times its all-time low level of \$1.4 million recorded in 2008 but the lowest level since 2011 (including pinks, adjusted for inflation). 100 percent of total coastwide exvessel value in 2016 was from Chinook landings. There were no coho landed in the ocean commercial troll fishery for the first time since 1997 and 1998.

In 2016 California achieved \$5.3 million in commercial troll exvessel landings value of Chinook, including Chinook taken as personal use with the average price per pound applied, which was 37 percent below the prior year's level of \$8.5 million, and 59 percent below the level of two years ago (\$12.8 million) (all values adjusted for inflation). The 2016 total landings revenues in California were 83 percent below the 1979-1990 inflation-adjusted average of \$31.3 million (which include coho landings during that period) and the lowest recorded since \$1.4 million in 2010.

The 2016 exvessel value of the Oregon commercial troll harvest of \$4.3 million, 43 percent below year's level of \$7.4 million, 72 percent below the recent high level recorded in 2014 (\$15.1 million), and 43 percent below the 2011-2015 average of \$7.5 million (all values adjusted for inflation). Oregon's 2016 commercial troll harvest value was 77 percent below the 1979-1990 average of \$18.8 million and the lowest recorded since \$2.6 million in 2011.

The 2016 exvessel value of Washington's non-Indian troll harvest of \$1.6 million was 54 percent below last year's inflation-adjusted value of \$3.5 million, and 41 percent below the 2011-2015 five-year average value of \$2.7 million. The 2016 value was 81 percent below the 1979-1990 inflation-adjusted average of \$8.5 million and the lowest recorded since \$1.3 million in 2009.

The 2016 average West Coast ocean harvest Chinook price of \$8.38 per pound was 30 percent above last year's inflation-adjusted value of \$6.44 per pound, and the highest value in inflation-adjusted terms on record since at least 1979. Adjusted for inflation, the coastwide average Chinook price over the last eleven years (2006-2016) was \$6.44 per pound, a period which includes the second-highest inflation-adjusted average price of \$7.82 recorded in 2008. Part of the reason exvessel prices have been relatively high in recent years may be due to relatively restricted fishing opportunities and low harvests (see Chapter I and Appendix C for details).

In terms of numbers of fish, the 2016 coastwide, non-Indian commercial troll harvest of 114,700 Chinook was 58 percent below last year's level of 270,100 (Figure IV-1), the lowest number since 99,620 were harvested in 2010, and 82 percent below the 1976-2015 long-term average of 627,900 fish. The 2016 coastwide average weight per Chinook (11.6 pounds) was five percent above last year's average (11.1 pounds), nine percent below the average in 2014 (12.8 pounds), and four percent below the previous five-year (2011-2015) average of 12.2 pounds per fish (Appendix D Tables D-1, D-2, and D-3).

The coastwide non-Indian commercial fishery landed no coho in 2016 for the first time since 1997 and 1998.

West Coast port areas with the highest commercial Chinook landings shares (by weight) in 2016 were Newport (25 percent), San Francisco (23 percent), Fort Bragg (12 percent), Monterey (10 percent) and Westport and Coos Bay (9 percent each). In 2015 the leading ports were Fort Bragg (21 percent), Newport and Coos Bay (14 percent), Westport (13 percent), and San Francisco (12 percent). In 2014 the leading ports were Fort Bragg (20 percent), Coos Bay (19 percent), and San Francisco and Newport (18 percent each). In 2016, the ports north of Cape Falcon accounted for about 17 percent of aggregate coastwide Chinook harvest by weight. By comparison, ports north of Cape Falcon accounted for 25 percent of Chinook landings in 2015, 12 percent in 2014, 9 percent in 2013, and 14 percent in 2012. Between 2000 and 2007, ports north of Cape Falcon accounted for an average of about 9 percent of coastwide Chinook landings by weight.

Compared with last year, commercial Chinook harvest by weight in 2016 was down by 48 percent in California, 56 percent in Oregon, and 68 percent in Washington. In 2016 there was essentially no ocean commercial troll coho harvest for the first time since 1997 and 1998. Commercial harvest of coho in California has been prohibited since 1992.

Ocean Commercial Salmon Harvesters

Based on Pacific Coast Fisheries Information Network (PacFIN) data, a total of 773 vessels participated in the West Coast commercial salmon fishery in 2016. This is 27 percent fewer than participated in 2015 (1,063), 31 percent fewer than the number participating in 2014 (1,126), and 29 percent fewer vessels than participated in 2013 (1,085). Note that these coastwide vessel counts are less than totals derived by summing values in the three state-level tables (Tables D-4, D-5, and D-6) due to an uncertain degree of completeness at the time data were extracted for this report and because certain vessels may be counted more than once if they landed in more than one state.

In 2016, 437 commercial vessels made salmon landings in California, the fewest since 215 vessels in 2010. No vessels landed salmon in California in 2008 or 2009 (Table D-4). In Oregon, the active fleet decreased to 316 vessels in 2016 from 487 vessels the prior year. This was the fewest recorded since 304 vessels participated in 2011. The number of active vessels in Oregon in 2014 (493) was highest since 565 vessels participated in 2005 (Table D-5). The number of active vessels in Washington decreased by 15 from 122 vessels last year to 107 vessels in 2016 (Table D-6). This was the fewest number of vessels landing salmon in Washington since 105 vessels in 2012. Coastwide the number of state limited entry salmon permits issued in 2016 decreased by 60 from the previous year to 2,195. Landings were made on only 39 percent of all permits in 2016, the lowest ratio since 37 percent in 2011. Note: Years 2008 (9 percent) and 2009 (13 percent) are the two lowest vessel participation years on record (1982-2016). From 1982 to 1993 an average of 5,193 of 7,942 total permits (65 percent) harvested on an annual basis. Harvest opportunity began declining substantially after that time, and some permits were subsequently purchased in a buyback program.

In 2016, coastwide average inflation-adjusted exvessel value of salmon landings per vessel decreased 20 percent compared to 2015, to approximately \$13,000 per vessel. Compared to 2015, average 2016 exvessel revenue per vessel was down 16 percent in California, 12 percent in Oregon, and 48 percent in Washington. Note that some caution needs to be exercised in interpreting average exvessel revenue per vessel. The averages may be influenced as much by disproportionate changes in the number of particularly small or large harvesters participating from one year to the next as by any real change in the average revenues of vessels that have consistently participated in the fishery.

Additional historical information on landings by vessel size, percentages of the fleet responsible for the majority of harvest, and harvest by residence of participants in each state's fisheries is included in Appendix D.

West Coast Treaty Indian Commercial Ocean Fishery

Treaty Indian commercial fisheries off Washington operate under regulations established by the Council. While some of the treaty Indian harvest is for ceremonial and subsistence purposes, the vast majority of the catch is sold commercially. Commercial treaty Indian fisheries provide food to consumers and generate income in local and state economies through expenditures related to harvesting, processing, and marketing of the catch. In 2016 the treaty Indian ocean troll fishery harvested 23,200 Chinook (276,400 pounds) and 12 coho (< 100 pounds), compared with 61,800 Chinook (747,500 pounds) and 4,000 coho (19,800 pounds) in 2015, and 65,100 Chinook (655,200 pounds) and 56,000 coho (313,900 pounds) in 2014. The preliminary exvessel value of Chinook and coho landed in the treaty Indian ocean troll fishery was \$0.9 million in 2016, compared with inflation-adjusted values of \$2.4 million in 2015 and \$3.6 million in 2014 (numbers of fish are from Table A-15; weights and revenue values are based on January 24, 2017 PacFIN data).

Columbia River Commercial Fishery

Harvest in the ocean salmon fisheries impacts the in-river fisheries by affecting the number of fish available for harvest in inside treaty Indian and non-Indian fisheries. Table IV-9 shows the exvessel value of treaty Indian and non-Indian commercial harvest of Chinook, coho and chum salmon in the Columbia River. All prices and values in the table and the following discussion are reported in inflation-adjusted dollars. Exvessel prices for in-river commercial salmon catch vary considerably with species (Chinook, coho or chum), race (e.g., spring versus fall Chinook), and stock (e.g., tules versus brights). Spring Chinook generally bring the highest prices, and tule fall Chinook and chum the lowest prices

Total exvessel value of combined treaty Indian and non-Indian commercial salmon harvested in the Columbia River in 2016 was \$12.7 million. This was 18 percent below the 2015 level of \$15.5 million,

and 17 percent below the 2014 level of \$15.3 million (adjusted for inflation). Of these amounts, the total inflation-adjusted exvessel value of non-Indian commercial salmon harvested in the Columbia River was \$5.4 million in 2016, \$5.2 million in 2015 and \$6.4 million in 2014 (Table IV-9).

Total 2016 exvessel value of treaty Indian salmon harvested in the Columbia River and sold on fish tickets was \$7.3 million. This is 29 percent below the inflation-adjusted level of \$10.3 million in 2015, and 18 percent below the inflation-adjusted level of \$8.9 million in 2014. Note that these values include only sales made to licensed fish buyers. Treaty Indian fishers' direct sales to the public are accounted for in harvest monitoring reports (Table B-20), but estimates of the pounds and value of such sales are not included in Table IV-9.

Puget Sound and Washington Coastal Inside Fisheries

Information on 2016 Puget Sound and Washington coastal inside fisheries below is preliminary. In previous years, substantial revisions to these numbers have occurred after publication of this review. Based on PacFIN data (as of January 24, 2017), the exvessel value of all salmon species taken in the commercial non-Indian fisheries in Puget Sound and Washington coastal inside fisheries (excluding the Columbia River) in 2016 was \$4.4 million. This was 11 percent greater than last year's inflation-adjusted value of \$3.9 million, but 46 percent below the \$8.0 million harvest value in 2014. Of the total Puget Sound and Washington coastal inside fisheries non-Indian commercial landings in 2016, \$0.9 million were Chinook and coho, compared with \$0.3 million in 2015 (the lowest value going back to 1981) and \$1.4 million in 2014. The 1981 through 2015 inflation-adjusted average annual exvessel value from Puget Sound and Washington coastal inside non-Indian commercial fisheries salmon landings was \$16.1 million, of which approximately \$3.9 million on average were landings of Chinook and coho. It is interesting to note that all years with recorded values higher than those averages were prior to 1994.

The preliminary 2016 exvessel value reported to PacFIN (as of January 24, 2017) for all salmon species taken in Puget Sound and Washington coastal inside commercial treaty Indian fisheries (excluding the Columbia River) was \$2.4 million, of which \$1.7 million were Chinook and coho. These are lowest values recorded for these fisheries going back to 1981. The (revised) inflation-adjusted value for the 2015 commercial treaty Indian harvest in Puget Sound and Washington coastal inside fisheries was \$7.6 million for all salmon species, of which \$3.2 million were Chinook and coho. The inflation-adjusted exvessel value of the 2014 commercial treaty Indian harvest in Puget Sound and Washington coastal inside fisheries was \$15.6 million for all salmon species, of which \$5.6 million were Chinook and coho. From 1981 through 2015 the inflation-adjusted average annual exvessel value of commercial treaty Indian fisheries in Puget Sound and Washington coastal inside areas was \$21.0 million, of which on average \$8.0 million were Chinook and coho.

Klamath River Fisheries

Commercial sales in the Yurok and Hoopa Valley Reservation Indian fall gillnet fisheries in the Klamath River occurred in 1987-1989, 1996, 1999-2004, and 2007-2015. Average commercial catch of fall Chinook over those years was approximately 22,200 fish, most of which were taken in the estuary. Commercial sales in the Indian spring Chinook gillnet fisheries occurred in 1989, 1996, 2000-2004, and 2007-2013 resulted in an average of about 1,100 fish sold per year. The 1989 total harvest of 27,700 fall Chinook reportedly had an average weight of 15.4 pounds per fish and sold for \$852,000 (\$1.3 million adjusted to 2015 dollars). In 1996, 3,129 spring Chinook and 40,147 fall Chinook were harvested, with an average weight per fish landed of 13.5 pounds and value at first sale of an estimated \$525,000 (\$694,000 adjusted to 2015 dollars). Records are not available for the weight and value of harvests for years after 1996 as each Indian fisher now markets their fish independently. The fishery has occurred in most recent years with the exception of 2005, 2006 and 2016. In 2015 approximately 17,100 commercial fall Chinook were harvested, 44 percent more than in 2014 but 67 percent below the 52,100 fish harvested in 2013. The 82,900 fall

Chinook harvested in 2012 of was more than double the previously highest total of 40,147 taken in 1996. No spring Chinook commercial harvest occurred in 2014 or 2015. By comparison 971 spring Chinook were harvested in 2013, 856 in 2012, and 33 in 2011 (Appendix B, Table B-5).

CEREMONIAL AND SUBSISTENCE SALMON FISHERIES

In addition to the commercial Indian fisheries discussed above, fish are taken in Indian fisheries each year for ceremonial and subsistence purposes. Estimates of the amount of salmon used for ceremonial and subsistence purposes are documented in Appendix B. Discussion of the importance of ceremonial and subsistence fish to Indian communities is presented in Appendix B to Amendment 14 of the salmon FMP.

RECREATIONAL SALMON FISHERIES

Ocean

The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2016 was 156,200, a decrease of 35 percent over 2015, 56 percent below the 2014 level, and 74 percent below the 1979-1990 annual average of 599,700. Compared with last year, preliminary estimates of the number of trips taken in 2016 decreased by 15 percent in California, by 41 percent in Oregon, and by 48 percent in Washington. (Note that Washington effort estimates shown in Tables IV-10 and IV-13 may differ from those in Tables I-4 and (Appendix A) Table A-17 because the former exclude bank fishers on the Columbia River north jetty.)

Recreational ocean area salmon fishing takes place primarily in two modes: (1) anglers fishing from privately owned pleasure craft, and (2) anglers employing the services of charter vessels. In general, success rates on charter vessels tend to be higher than success rates on private vessels. Small amounts of shore-based effort directed toward ocean area salmon also occur from jetties and piers. The coastwide proportion of angler trips taken on charter vessels in 2016 (30 percent) was 5 percent below last year (32 percent), but 9 percent higher than in 2014 (27 percent). Underlying this coastwide trend were a decrease of 4 percent compared with last year in the proportion of charter trips in California, a decrease of 47 percent in the proportion of charter trips in Oregon, and a decrease of 14 percent in the proportion of charter trips in Washington. Figure IV-5 and Tables IV-10, IV-11, IV-12, and IV-13 display recreational effort and catch statistics by port area and mode for each state.

California

The number of ocean recreational salmon trips in California in 2016 (69,700) continued a downward trend over the prior four years. The 2016 total was 15 percent below 2015 (81,800), 42 percent lower than in 2014 (120,300), and 53 percent lower than in 2013 (147,300) and 2012 (148,000). The number of salmon trips in 2016 was 12 percent lower than the prior year in Crescent City, 1 percent higher in Eureka, 19 percent lower in Fort Bragg, 5 percent lower in San Francisco, and 49 percent lower in Monterey. A total of 37,700 Chinook were caught in California on the total of 69,700 trips, for an average success rate of 0.54 fish per trip. The charter industry's share of California recreational salmon trips in 2016 was 44 percent, 4 percent below last year's share, and the second highest proportion recorded since 45 percent in 2004 (Table IV-10, Table IV-11 and Figure IV-5).

Oregon

The 38,900 ocean recreational salmon trips in Oregon in 2016 were down by 41 percent compared with 66,000 angler trips in 2015, and by 68 percent compared with 121,500 angler trips in 2014 (Tables IV-10 and IV-12). Total trips in 2016 were 50 percent below the most recent five-year average (2011-2015) of 78,000. Compared with last year, effort was lower in all port areas: Astoria was down by 50 percent, Tillamook by 29 percent, Newport by 55 percent, Coos Bay by 24 percent, and Brookings by 53 percent. The charter industry's share of Oregon recreational salmon trips in 2016 was approximately 6 percent, 47

percent lower than in 2015, 42 percent below the recent five-year (2011-2015) average share of 11 percent and the lowest charter trip share since 2008 (Table IV-10, Table IV-12 and Figure IV-5).

From 1984 to 1993, on average coho accounted for 87 percent of the annual Oregon recreational ocean salmon catch. From 1994 through 1998 the lack of opportunity to retain coho south of Cape Falcon generally resulted in much lower angler success rates. With the opportunity to retain coho in mark-selective fisheries south of Cape Falcon beginning in 1999, salmon retention rates increased. From 2002 through 2015, retention rates ranged between 0.44 and 1.08 salmon per angler-day. The 2016 Oregon salmon retention rate of 0.32 fell well below this range, and was 44 percent below last year's value of 0.57. In 2016, coho contributed 67 percent of the total Oregon recreational ocean salmon catch, below the prior two year's shares of 75 percent and 84 percent recorded in 2015 and 2014, respectively.

Washington

In 2016, 47,700 ocean angler trips were taken on vessels on the Washington coast, a decrease of 48 percent from the 91,900 trips taken in 2015, and 44 percent below the recent five-year (2011-2015) average of 85,600. About 29 percent of Washington angler trips in 2016 were taken on charter vessels, down 14 percent from 2015, and 10 percent below the recent five-year average charter trip share of 32 percent (Table IV-10, Table IV-13 and Figure IV-5).

The angler success rate in Washington (in terms of retained fish per angler-trip) was 0.69 in 2016, down 40 percent from last year, and 36 percent below the recent five-year (2011-2015) average success rate of 1.07. Note that these figures do not include angler effort that occurs from the ocean side of the Columbia River jetty, or in the state managed Area 4B add-on fishery (when open).

In order to increase angler participation in non-salmon recreational fishing (e.g., bottomfish) and to extend the length of the salmon season, partial-week closures were instituted in the recreational fishery north of Cape Falcon beginning in 1985. The extent to which partial week closures have been used has varied, starting 1996. Beginning in 1996, Sunday through Thursday salmon openings were generally used in the two southern areas (Westport and Columbia River), and seven-day per week seasons were common in the two northern areas (Neah Bay and La Push). Then starting in 1999, seven-day per week openings began to be used in the later part of the summer in the Columbia River area and, initially to a lesser extent, Westport. In the same year, partial week openings were instituted for much of the season in both northern areas. Seven-day per week openings were increasingly used in the Westport and Columbia River areas; and beginning in 2011, seven-day openings became common for all areas. The most recent season with partial week openings was summer 2013 in the Westport area. In 2016 there were 58,000 bottomfish trips north of Cape Falcon, 25 percent more than in 2015, and continuing an overall upward trend exhibited since the 2009 low point of 37,200 (Table IV-14). Compared with 2015, bottomfish effort increased in all three areas: Columbia River–Buoy 10, Westport, La Push and Neah Bay–Area 4B regions.

Buoy 10 and Area 4B Add-On Fisheries

Salmon anglers fishing from private and charter boats from Oregon and Washington ports made a total of 88,700 trips in the Buoy 10 fishery in 2016. This effort level is approximately 13 percent below the 101,700 trips made in 2015, and 14 percent below the 103,500 trips recorded in 2014, but approximately 17 percent above the recent five-year (2011-2015) average of 76,100 trips. The success/retention rate for anglers fishing from boats in the Buoy 10 fishery was 0.29 in 2016, 58 percent lower than the 0.68 salmon per angler day success rate in 2015 and the lowest average success rate recorded in the Buoy 10 fishery since 2010 (Table IV-15).

There was no Area 4B add-on fishery in 2016. In 2000, approximately 3,400 trips were made in the late-season Area 4B add-on fishery. Since then there have been no late season Area 4B add-on fisheries, with the exception of 2008, when there were an estimated 782 private trips and no charter trips (Table IV-15).

There were numerous other inside recreational salmon fishing opportunities in Puget Sound and coastal streams and estuaries that are not enumerated in this chapter of the Review. See Appendix B for estimates of harvest in some of those other fisheries.

SALMON FISHERY INCOME IMPACTS AND COMMUNITY DEPENDENCE

Coastal community income impacts provide information on the effects of fluctuations in salmon harvest on local economies and small businesses. Income impacts are based on commercial landings and recreational fishing days (angler-trips), and were estimated using the IO-PAC fisheries economic impact model. Prior to the 2014 salmon review document income impacts were estimated using the Fisheries Economic Assessment Model (FEAM). The change in methodology means that recent year income impacts estimated using IO-PAC are not comparable with historical values for years prior to 2010 that were estimated using FEAM. Consequently any comparisons of income impacts in this document are confined to describing trends appearing over 2010-2016, during which period the IO-PAC-based models and multipliers were applied. Appendix E to the *Review of 2014 Ocean Salmon Fisheries* contains a more detailed explanation of the change in income modeling methodology, including comparisons of IO-PAC with FEAM-based estimates for recent years.

Estimated state and local community income impacts of commercial and recreational ocean salmon fisheries and selected state-managed fisheries are shown in Tables IV-16 through IV-20. Income impacts are most relevant to those dependent on an income stream from the fishery, including individuals, businesses, and state and local governments. These impacts represent estimates of total personal income associated with harvesting and processing activities in the commercial salmon fisheries and trip-related expenditures made by recreational salmon anglers, expressed at the local community (county) and state levels.² The impacts included here are personal income earned by those directly participating in the fishery (e.g. vessel owners, crew members, processing workers, and recreational charter operators), income indirectly associated with the fishery that is earned by those providing inputs to harvesting, processing and recreational operations (e.g. fuel, gear, packaging, bait, and ice suppliers), and income earned by those who benefit when direct and indirect income is re-spent in the community (e.g. grocery store owners, car mechanics, and health professionals). This last category is sometimes called induced income

When commercial or recreational production from the fishery is reduced or absent, the net impact on local communities will depend on the economic base of the community and how people respond to the reduced fishery. For example, if a recreational fisher unable to make a coastal salmon trip instead travels inland to fish at a mountain lake, then the impact associated with the lost salmon trip would be a net loss to the members of the coastal community. On the other hand, if the recreational fisher instead took part in another form of recreational activity in the same coastal community, then there may be little or no net loss to the community as a whole, however at least some of those involved in the salmon fishery would experience an income reduction as if the recreational fisher's money had been spent elsewhere (or not at all). Similarly,

² Because *income impact* refers to income “associated with” a given level of economic activity, the term *impact* in this context should not be confused with the term *impact* as frequently employed in policy analyses such as those required by the National Environmental Policy Act. Such policy analyses refer to impact as the effect (the difference) which results from taking an action (as compared to not taking the action). Income impacts are one of a number of different but related measures of total economic activity (e.g. income impacts, gross receipts, total jobs, etc.).

for those involved in the commercial fishery, whether or not a reduction in income impacts associated with reduced salmon harvest represents a net loss to the community depends on to what degree there are opportunities to take up some other economic activity to compensate for the loss of commercial salmon harvesting and processing.

Income impacts are presented at the local and state levels (and could also be provided at the national level). In moving from focus on a local-level economy to a larger state or national economy, an indicated change in income impacts increasingly represents a disruption due to redistribution of activity within the economy, and probably decreasingly represents a net loss to the economy under consideration.

Income impacts are estimated based on several data components, including: reported commercial landings and exvessel prices by port or area, an inventory of local harvesters and processors, estimates of expenditures by harvester and processors, data on the expenditure patterns of recreational anglers, and local and state-level total income impact coefficients generated by IMPLAN[®] models constructed for each port or area. Commercial ocean harvests that are landed outside of coastal areas (e.g., ocean troll caught salmon landed in Puget Sound ports) are not included in these estimates of coastal community impacts, but are included in the overall state-level impacts.

The income impacts presented below are estimates of annual trends and are intended to indicate the possible redirection of economic activity between non-fishing and fishing-dependent sectors. As such they represent likely upper bounds on the local community and state-level income impacts generated by West Coast salmon fisheries. All income impact estimates reported in this Review are in terms of inflation-adjusted 2016 dollars.

West Coast Ocean Fishery Commercial and Recreational Income Impacts

Total state level income impacts associated with recreational and non-Indian commercial ocean salmon fisheries for all three states combined in 2016 were \$48.6 million, 38 percent below last year's inflation-adjusted level of \$78.2 million, and the second lowest estimated over the 2010-2016 period (Tables IV-16, IV-17 and IV-18). West Coast income impacts associated with the 2016 non-Indian commercial ocean fishery were \$17.7 million, 42 percent below the estimate for last year (\$30.5 million), and 64 percent below 2014's inflation-adjusted level of \$49.1 million.³ Income impacts generated by the three states' combined 2016 ocean recreational fisheries were estimated at \$30.8 million, 35 percent below last year's level of \$47.7 million, and 53 percent below 2014's inflation-adjusted level of \$65.9 million. Note that these coastwide values may mask effects in individual communities. Tables IV-16, IV-17 and IV-18 provide greater detail on the income impacts estimated for individual port areas in the three West Coast states.

Selected Inside Fisheries

Columbia River Commercial Fisheries

Historically the non-Indian and treaty Indian Columbia River commercial fisheries have generated a substantial amount of income for Oregon and Washington communities on the Columbia River. In 2016, income impacts associated with the Columbia River commercial catch (combined non-Indian and treaty Indian) were estimated at \$18.4 million, 18 percent below the annual estimates for 2015 and 2014 of \$22.5 million and \$22.4 million, respectively; and 0.4 percent above the recent 5 year average for the 2011-2015 period (Table IV-19).

³ Income impact estimates for the commercial fishery do not include postseason settlement payments fishers may have received from buyers. In certain years postseason settlements have been particularly significant in the California fishery.

Buoy 10 and Area 4B Add-On

Estimated local community income impacts associated with the 2016 Buoy 10 recreational salmon fishery were \$6.8 million, 12 percent below the annual estimates for the 2015 and 2014 fisheries of \$7.7 million, but 19 percent above the recent 5 year average of \$5.7 million for the 2011-2015 period. There was no late-season Area 4B add-on fishery in 2016. The most recent Area 4B add-on fishery, which occurred in 2008, was the first since 2000. Inflation-adjusted local community income impacts associated with the 2008 area 4B add-on fishery were estimated to be \$33,100 (Table IV-20).

TABLE IV-1. Average monthly exvessel troll salmon price in dollars per dressed pound for California, Oregon, and Washington in 2016.

Species/Grade	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
CALIFORNIA											
Chinook ^{a/}	-	-	9.43	9.49	-	8.08	7.70	9.21	-	-	8.63
Coho	-	-	-	-	-	-	-	-	-	-	-
OREGON											
Chinook											
Large (>11 Pounds)	-	10.88	9.48	8.99	6.66	7.52	7.36	8.28	7.98	-	8.16
Medium (7-11 Pounds)	-	10.88	9.07	8.43	6.31	7.05	6.83	8.06	8.00	-	8.20
Small (<7 Pounds)	-	10.75	8.68	8.13	7.03	6.25	6.58	8.50	-	-	8.54
Ungraded Chinook	-	10.66	9.66	9.52	6.65	7.48	7.65	8.29	10.00	-	8.30
Weighted Average	-	10.77	9.45	9.09	6.61	7.44	7.49	8.27	8.74	-	8.23
Mixed Coho	-	-	-	-	-	-	-	-	-	-	-
WASHINGTON^{b/}											
Chinook											
Large (>11 Pounds)	-	-	9.34	8.63	6.08	7.26	-	-	-	-	8.00
Medium (8-11 Pounds)	-	-	8.95	8.19	5.55	7.12	-	-	-	-	7.87
Small (<8 Pounds)	-	-	7.15	7.29	5.47	5.48	-	-	-	-	6.84
Ungraded Chinook	-	-	-	-	-	-	-	-	-	-	-
Weighted Average	-	-	9.14	8.53	6.03	7.21	-	-	-	-	8.00
Mixed Coho	-	-	-	-	-	-	-	-	-	-	-

a/ Chinook salmon typically sold in two size categories. Prices paid in these categories are not extracted from dealer ticket information.

b/ Non-Indian data only.

TABLE IV-2. Troll Chinook and coho landed in California, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (inflation adjusted, 2016) dollars.^{a/}

Year or Avg	Chinook				Coho				Total ^{b/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1979	17,356	44,203	2.53	6.44	2,303	5,865	2.19	5.58	19,659	50,069
1980	12,741	29,738	2.27	5.30	408	952	1.36	3.17	13,149	30,690
1981-1985	10,945	21,618	2.42	4.72	554	1,106	1.94	4.14	11,499	22,725
1986-1990	21,151	35,363	2.56	4.24	490	806	1.36	2.74	21,641	36,169
1991-1995	7,335	10,416	2.28	3.27	143	213	1.25	2.42	7,478	10,629
1996	5,984	8,027	1.44	1.93	-	-	-	-	5,984	8,027
1997	7,288	9,606	1.38	1.82	-	-	-	-	7,288	9,606
1998	3,060	3,988	1.66	2.16	-	-	-	-	3,060	3,988
1999	7,429	9,543	1.93	2.48	-	-	-	-	7,429	9,543
2000	10,304	12,955	2.01	2.53	-	-	-	-	10,304	12,955
2001	4,773	6,352	1.98	2.63	-	-	-	-	4,773	6,352
2002	7,776	10,191	1.55	2.04	-	-	-	-	7,776	10,191
2003	12,181	15,652	1.91	2.45	-	-	-	-	12,181	15,652
2004	17,895	22,379	2.87	3.59	-	-	-	-	17,895	22,379
2005	12,913	15,646	2.97	3.60	-	-	-	-	12,913	15,646
2006	5,350	6,289	5.13	6.03	-	-	-	-	5,350	6,289
2007	7,902	9,048	5.18	5.93	-	-	-	-	7,902	9,048
2008	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-
2010	1,246	1,372	5.47	6.02	-	-	-	-	1,246	1,372
2011	5,133	5,537	5.18	5.59	-	-	-	-	5,133	5,537
2012	13,521	14,323	5.34	5.66	-	-	-	-	13,521	14,323
2013	23,632	24,636	6.23	6.49	-	-	-	-	23,632	24,636
2014	12,521	12,824	5.56	5.69	-	-	-	-	12,521	12,824
2015	8,347	8,457	7.03	7.12	-	-	-	-	8,347	8,457
2016 ^{c/}	5,298	5,298	8.63	8.63	-	-	-	-	5,298	5,298

a/ These exvessel values do not include the postseason settlement payments some fishers may have received from buyers, and therefore may underestimate the true payments received by fishers for their landings. Beginning circa 1999, these postseason settlements are believed to have grown for the California fishery. For 2002, the exvessel value reported here is believed to be under-reported by roughly 5 percent to 10 percent.

b/ Does not include pink salmon landings, if any.

c/ Preliminary.

TABLE IV-3. Troll Chinook and coho landed in Oregon, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (inflation adjusted, 2016) dollars.

Year or Avg.	Chinook				Coho				Total ^{a/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1971-1975	2,036	7,659	0.89	3.41	3,658	14,095	0.64	2.42	5,694	21,754
1976-1980	5,290	14,416	2.17	5.89	6,389	17,944	1.51	4.10	11,679	32,360
1981-1985	3,582	7,038	2.46	4.80	2,248	4,608	1.45	2.84	5,830	11,646
1986-1990	9,381	15,659	2.47	4.09	3,203	5,359	1.54	2.56	12,584	21,018
1991-1995	1,971	2,805	2.24	3.21	326	485	0.64	0.93	2,297	3,289
1996	3,007	4,034	1.56	2.09	-	-	-	-	3,007	4,034
1997	2,469	3,254	1.60	2.11	-	-	-	-	2,469	3,254
1998	2,297	2,994	1.64	2.14	-	-	-	-	2,297	2,994
1999	1,400	1,798	1.94	2.49	1	1	1.03	1.32	1,401	1,800
2000	2,988	3,757	2.02	2.54	75	94	1.06	1.33	3,063	3,851
2001	4,680	6,228	1.61	2.14	41	55	0.79	1.05	4,721	6,283
2002	5,383	7,055	1.54	2.02	8	11	0.75	0.98	5,391	7,066
2003	7,186	9,234	1.97	2.53	36	47	0.85	1.09	7,222	9,280
2004	9,832	12,296	3.45	4.31	86	108	1.24	1.55	9,919	12,405
2005	8,466	10,257	3.17	3.84	37	45	1.87	2.27	8,503	10,302
2006	2,663	3,130	5.48	6.44	38	45	2.90	3.41	2,701	3,175
2007	2,630	3,011	5.66	6.48	193	221	1.90	2.18	2,822	3,231
2008	484	543	7.31	8.21	10	12	2.82	3.17	494	555
2009	77	86	5.06	5.64	267	298	2.04	2.27	345	384
2010	2,775	3,056	5.49	6.04	16	17	2.23	2.46	2,791	3,073
2011	2,396	2,585	5.96	6.43	5	6	2.01	2.17	2,401	2,591
2012	4,263	4,516	5.75	6.09	8	9	2.20	2.33	4,271	4,525
2013	7,604	7,927	5.88	6.13	7	7	2.56	2.67	7,611	7,934
2014	14,692	15,047	5.71	5.85	67	69	2.00	2.05	14,760	15,116
2015	7,313	7,410	6.15	6.23	21	21	1.88	1.90	7,334	7,431
2016 ^{b/}	4,267	4,267	8.23	8.23	-	-	-	-	4,267	4,267

a/ Does not include pink salmon landings.

b/ Preliminary.

TABLE IV-4. Non-Indian troll Chinook and coho landed in Washington, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (inflation adjusted, 2016) dollars.^{a/}

Year or Avg.	Chinook				Coho				Total ^{b/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1971-1975	2,714	10,341	0.89	3.41	3,060	11,687	0.66	2.53	5,775	22,028
1976-1980	5,313	14,785	2.39	6.45	6,086	16,896	1.67	4.52	11,399	31,682
1981-1985	1,954	3,951	2.46	4.80	1,272	2,582	1.32	2.58	3,225	6,534
1986-1990 ^{c/}	1,310	2,181	2.61	4.34	360	590	1.62	2.69	1,670	2,771
1991-1995 ^{d/}	550	802	2.17	3.11	120	175	0.86	1.24	670	977
1996	d/	d/	d/	d/	59	79	0.86	1.15	d/	d/
1997	125	165	1.55	2.04	-	-	-	-	125	165
1998	123	160	1.51	1.97	-	-	-	-	123	160
1999	377	484	1.90	2.44	19	24	0.88	1.13	396	509
2000	224	282	1.71	2.15	34	43	1.09	1.37	258	325
2001	349	464	1.44	1.92	34	45	0.69	0.92	383	510
2002	756	991	1.11	1.45	2	2	1.58	2.07	758	993
2003	951	1,222	1.15	1.48	40	52	0.74	0.95	991	1,274
2004	1,079	1,350	2.14	2.68	106	132	1.16	1.45	1,185	1,482
2005	1,273	1,543	2.70	3.27	16	20	1.65	2.00	1,290	1,562
2006	1,029	1,209	4.64	5.45	16	19	1.69	1.99	1,045	1,228
2007	905	1,036	4.90	5.61	48	55	1.46	1.67	953	1,091
2008	673	756	6.73	7.56	36	40	2.49	2.80	709	796
2009	893	995	5.76	6.42	276	307	2.02	2.25	1,169	1,303
2010	3,083	3,395	5.61	6.18	32	35	2.14	2.36	3,115	3,430
2011	1,652	1,782	5.12	5.52	35	38	2.10	2.27	1,687	1,820
2012	2,323	2,461	5.34	5.66	35	37	1.99	2.11	2,358	2,498
2013	2,771	2,888	6.16	6.42	67	70	2.15	2.24	2,838	2,958
2014	2,549	2,610	5.50	5.63	160	164	1.83	1.87	2,709	2,774
2015	3,423	3,468	5.48	5.55	26	26	1.67	1.69	3,448	3,494
2016	1,606	1,606	8.00	8.00	-	-	-	-	1,606	1,606

a/ All values in this table are based on preliminary information available at the start of each year's salmon review.

b/ Does not include pink salmon landings.

c/ There was no legal coho fishery in 1988. The value used in this average for 1988 is for landings of fish caught south of Cape Falcon and seizures of illegal fish.

d/ In 1994-1996 Chinook were caught off Oregon and landed in Washington. Value information was not provided to preserve confidentiality.

TABLE IV-5. Non-Indian troll pink salmon landed in Oregon and Washington, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (inflation adjusted, 2016) dollars.

Year or Avg. ^{a/}	Oregon				Washington				Total	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1976-1980	167	476	0.75	2.03	1,200	3,225	0.54	1.48	1,367	3,701
1981-1985	129	257	0.74	1.45	287	580	0.41	0.81	416	837
1986-1990	41	70	0.77	1.28	57	92	0.66	1.10	98	162
1991-1995	1	2	0.88	1.25	38	55	0.64	0.91	39	57
1997	b/	b/	0.56	0.74	b/	b/	0.20	0.26	b/	b/
1999	b/	b/	0.67	0.86	b/	b/	0.38	0.49	b/	b/
2001	1	1	0.58	0.77	b/	b/	0.22	0.29	1	1
2003	b/	b/	0.85	1.09	b/	b/	0.30	0.39	b/	b/
2005	b/	b/	1.25	1.51	b/	b/	0.52	0.63	b/	b/
2007	b/	b/	1.11	1.27	b/	b/	0.33	0.38	b/	b/
2009	b/	b/	0.51	0.57	b/	b/	0.33	0.37	b/	b/
2011	b/	b/	1.31	1.41	1	1	0.83	0.90	1	1
2013	b/	b/	1.35	1.41	b/	b/	0.61	0.64	b/	b/
2015	b/	b/	1.60	1.62	b/	b/	0.77	0.78	b/	b/

a/ Odd year averages.

b/ Less than \$500.

TABLE IV-6. Pounds of salmon landed by the commercial troll ocean fishery for major California port areas.^{a/b/}

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	State Total
CHINOOK (thousands of dressed pounds)						
1976-1980	393	1,403	1,449	1,733	889	5,867
1981-1985	350	428	1,128	1,806	742	4,454
1986-1990	155	405	2,299	3,648	1,592	8,097
1991-1995	2	25	183	1,893	1,326	3,429
1996-2000	2	35	146	2,155	1,699	4,037
2001	3	61	192	1,735	418	2,409
2002	54	108	872	3,060	912	5,008
2003	38	7	3,096	2,753	498	6,392
2004	308	65	1,292	3,712	853	6,230
2005	25	77	889	2,258	1,098	4,347
2006	-	-	273	684	87	1,043
2007	34	81	357	888	165	1,525
2008	-	-	-	-	-	-
2009	-	-	-	-	-	-
2010	-	4	186	16	20	228
2011	8	53	622	215	94	992
2012	5	78	611	1,189	648	2,530
2013	24	200	1,427	1,776	367	3,793
2014	27	110	1,038	970	108	2,253
2015	6	48	617	363	154	1,188
2016 ^{c/}	d/	6	165	311	131	614
COHO (thousands of dressed pounds)						
1976-1980	360	391	277	109	48	1,184
1981-1985	89	104	89	54	9	345
1986-1990	22	43	136	53	9	262
1991-1995	d/	4	11	56	23	94
1996-2000	-	-	-	-	-	-
2001	-	-	-	-	-	-
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	-	-	-	-	-	-
2006	-	-	-	-	-	-
2007	-	-	-	-	-	-
2008	-	-	-	-	-	-
2009	-	-	-	-	-	-
2010	-	-	-	-	-	-
2011	-	-	-	-	-	-
2012	-	-	-	-	-	-
2013	-	-	-	-	-	-
2014	-	-	-	-	-	-
2015	-	-	-	-	-	-
2016	-	-	-	-	-	-

a/ The major port areas listed may include smaller ports as follows: Crescent City includes only Crescent City; Eureka includes Trinidad and Humboldt Bay; Fort Bragg includes Shelter Cove, Noyo Harbor, and Mendocino; San Francisco includes Bodega Bay, Sausalito, Berkeley, and Half Moon Bay; Monterey includes Santa Cruz, Moss Landing, Morro Bay, Avila, and all ports south of Pt. Conception.

b/ Prior to 2005 landings were based on catch area, not port of landing.

c/ Preliminary.

d/ Less than 500 pounds.

TABLE IV-7. Pounds of salmon landed by the commercial troll ocean fishery for major Oregon port areas.^{a/}

Year or Avg.	Astoria	Tillamook	New port	Coos Bay	Brookings	State Total
CHINOOK (thousands of dressed pounds)						
1976-1980	171	118	530	908	700	2,427
1981-1985	92	45	271	638	386	1,432
1986-1990	52	264	829	2,118	468	3,731
1991-1995	7	86	580	235	31	940
1996-2000	25	70	790	435	92	1,414
2001	73	223	1,673	776	152	2,897
2002	330	275	1,442	1,223	218	3,488
2003	265	245	1,634	1,353	142	3,639
2004	134	113	1,121	1,214	267	2,850
2005	130	214	1,034	1,054	239	2,671
2006	99	67	218	56	45	486
2007	22	37	76	232	98	464
2008	39	19	-	-	8	66
2009	7	4	-	-	5	15
2010	116	40	185	122	43	506
2011	30	14	68	231	59	402
2012	84	64	275	221	97	741
2013	34	76	232	783	166	1,291
2014	172	149	927	1,025	298	2,571
2015	115	89	429	429	127	1,189
2016 ^{b/}	24	17	338	116	24	519
COHO (thousands of dressed pounds)						
1976-1980	385	660	1,190	1,661	357	4,252
1981-1985	133	293	451	550	111	1,537
1986-1990	73	473	693	648	69	1,957
1991-1995	17	93	110	104	1	325
1996-2000	14	-	-	-	-	14
2001	50	c/	2	-	-	52
2002	6	5	-	-	-	11
2003	32	11	-	-	-	43
2004	47	22	-	-	-	70
2005	9	11	-	-	-	20
2006	8	5	-	-	-	13
2007	37	34	13	14	3	101
2008	3	1	-	-	-	4
2009	48	43	35	5	c/	131
2010	6	1	-	-	-	7
2011	2	1	-	-	-	3
2012	3	1	-	-	-	4
2013	2	-	-	-	-	2
2014	33	18	9	7	1	67
2015	10	1	-	-	-	11
2016	-	-	-	-	-	-

a/ The major port areas listed include smaller ports as follow s: Astoria also includes Gearhart/Seaside and Cannon Beach; Tillamook also includes Garibaldi, Netarts, Pacific City, and Nehalem Bay; New port also includes Depoe Bay, Siletz Bay, Salmon River, and Waldport; Coos Bay also includes Florence, Winchester Bay, Charleston, and Bandon; Brookings also includes Port Orford and Gold Beach.

b/ Preliminary.

c/ Less than 500 pounds.

TABLE IV-8. Pounds of salmon landed by the non-Indian commercial troll ocean fishery for major Washington port areas.^{a/b/}

Year or Avg.	Neah Bay	La Push	Westport	Ilwaco	Coastal Community		State Total ^{c/}
					Total	Puget Sound	
CHINOOK (thousands of dressed pounds)							
1976-1980	288	421	919	261	1,889	426	2,315
1981-1985	88	32	370	74	564	124	689
1986-1990	71	17	234	48	371	122	493
1991-1995 ^{d/}	137	29	123	9	204	30	234
1996-2000 ^{d/}	49	1	37	3	80	22	102
2001	97	-	138	6	241	-	241
2002	262	33	322	61	678	-	678
2003	470	67	243	29	810	12	821
2004	250	74	158	15	497	7	504
2005	170	100	181	20	471	e/	471
2006	86	64	40	26	216	5	222
2007	38	31	105	8	182	2	184
2008	20	17	49	13	99	1	100
2009	31	25	92	3	153	2	155
2010	48	62	402	10	522	-	522
2011	113	44	155	11	322	-	322
2012	172	92	147	23	435	-	435
2013	85	83	275	7	450	e/	450
2014	77	93	182	112	463	e/	463
2015	61	133	383	43	621	4	625
2016	28	32	118	19	197	3	201
COHO (thousands of dressed pounds)							
1976-1980	600	786	1,066	678	3,130	496	3,626
1981-1985	133	63	277	142	616	128	744
1986-1990	70	19	97	53	239	19	259
1991-1995	52	14	49	13	102	12	111
1996-2000	10	e/	8	3	22	2	24
2001	2	-	39	9	49	-	49
2002	-	-	e/	1	1	-	1
2003	11	12	21	8	52	2	54
2004	12	20	53	4	89	1	91
2005	2	1	3	5	10	-	10
2006	3	3	3	1	10	e/	10
2007	3	3	9	17	33	-	33
2008	2	3	8	1	14	e/	14
2009	29	34	54	14	131	5	136
2010	1	2	12	1	15	-	15
2011	6	2	9	e/	17	-	17
2012	7	5	6	1	18	-	18
2013	5	8	18	1	31	e/	31
2014	7	22	47	12	87	-	87
2015	e/	1	10	4	15	e/	15
2016	e/	-	-	-	-	e/	e/

a/ All values in this table are based on preliminary information available at the start of each year's salmon review .

b/ The major port areas listed may include smaller ports as follows: Neah Bay includes only Neah Bay; La Push also includes Kalaloch; Westport also includes Aberdeen, Bay City, Copalis Beach, Hoquiam, Moclips, Taholah, Bay Center, Grayland Beach, Raymond, South Bend, and Tokeland; Ilwaco also includes Long Beach, Nahcotta, Naselle, and all Columbia River Ports; Puget Sound includes all Puget Sound ports east of Neah Bay.

c/ State total includes landings where port of landing is not specified.

d/ There was no ocean commercial fishery for Chinook north of Cape Falcon in 1994-1996; however, Chinook were caught off Oregon and landed in Washington.

e/ Less than 500 pounds.

TABLE IV-9. Landings, exvessel values and average prices (inflation adjusted, 2016 dollars) of inriver commercial harvest of Columbia River salmon.^{a/} (Page 1 of 2)

Year or Avg.	Non-Indian Gillnet ^{b/}						Treaty Indian ^{c/} - All Gears						Columbia River Total By State
	Chinook			Coho	Chum	TOTAL	Chinook			Coho	Chum	TOTAL	
	Spring	Fall					Spring	Fall					
		Brights ^{d/}	Tules	Brights ^{d/}	Tules								
Oregon													
Average Price Per Landed Pound ^{e/} (dollars)													
1987-2003	4.30	1.47	0.40	1.28	0.55		4.47	1.39	0.36	0.97	-		
2004	4.65	1.71	0.28	1.13	0.31		2.31	1.41	0.13	0.74	-		
2005	4.13	1.96	0.32	1.30	0.38		-	1.26	0.21	1.13	-		
2006	5.50	2.52	0.33	1.54	0.31		3.53	1.80	0.31	1.47	-		
2007	6.17	3.24	0.06	1.85	0.86		4.29	2.99	0.03	1.23	-		
2008	6.94	2.81	0.64	1.47	0.73		5.21	2.88	0.51	1.30	1.01		
2009	5.02	2.30	0.60	1.35	0.58		3.80	1.56	0.40	1.03	-		
2010	5.43	2.33	0.66	1.53	0.74		4.64	2.22	0.69	2.08	-		
2011	5.48	2.46	0.63	1.78	0.83		3.85	2.55	0.77	1.65	-		
2012	6.17	2.34	0.57	1.71	0.52		5.85	2.71	0.78	1.96	-		
2013	6.72	2.62	0.59	1.92	0.52		5.41	2.15	0.67	1.40	-		
2014	5.51	1.87	0.58	1.20	0.51		5.15	1.76	0.58	0.93	-		
2015	5.85	2.45	0.51	1.54	0.30		4.24	2.52	0.47	1.48	-		
2016 ^{g/}	7.09	3.21	0.63	1.84	-		6.00	2.90	0.60	1.55	-		
Exvessel Value (thousands of dollars)													
1987-2003	522	1,751	103	1,129	2	3,506	7	717	18	6	-	747	4,253
2004	1,284	701	62	850	f/	2,896	185	673	37	21	-	917	3,813
2005	381	536	41	1,023	f/	1,981	-	252	14	1	-	266	2,248
2006	722	749	21	737	f/	2,229	f/	371	3	17	-	392	2,621
2007	875	404	2	352	f/	1,633	73	414	1	17	-	504	2,137
2008	802	1,158	72	753	f/	2,785	362	1,053	65	57	f/	1,537	4,322
2009	487	1,002	101	1,141	f/	2,731	159	628	40	27	-	853	3,584
2010	2,078	992	169	857	1	4,097	650	504	97	36	-	1,287	5,384
2011	1,259	1,561	147	781	f/	3,747	198	645	33	33	-	908	4,655
2012	1,119	953	116	158	f/	2,346	78	370	5	12	-	466	2,812
2013	965	2,213	110	512	f/	3,800	93	1,080	24	7	-	1,204	5,004
2014	643	1,660	144	1,700	f/	4,147	286	909	14	35	-	1,244	5,391
2015	1,261	1,473	95	262	f/	3,091	432	996	30	2	-	1,461	4,551
2016 ^{g/}	1,248	1,322	60	388	-	3,019	141	844	2	8	-	995	4,013
Pounds (thousands)													
1987-2003	116	749	156	785	2	1,807	3	337	62	5	-	407	2,213
2004	276	409	224	755	f/	1,664	80	476	299	29	-	884	2,548
2005	92	273	132	789	f/	1,286	-	200	67	1	-	267	1,554
2006	131	298	65	478	f/	971	f/	206	11	12	-	229	1,200
2007	142	135	f/	189	f/	466	17	138	25	14	-	194	660
2008	116	413	112	512	f/	1,152	70	366	129	44	f/	609	1,761
2009	97	436	168	846	f/	1,547	42	403	100	26	-	571	2,118
2010	382	426	257	560	1	1,626	140	226	140	17	-	524	2,150
2011	230	635	234	439	f/	1,537	51	253	43	20	-	367	1,905
2012	181	407	204	92	f/	885	13	137	7	6	-	163	1,048
2013	144	846	186	267	f/	1,442	17	503	35	5	-	560	2,002
2014	117	886	247	1,419	f/	2,669	55	516	24	38	-	634	3,302
2015	216	600	186	170	f/	1,171	102	395	64	1	-	563	1,734
2016 ^{g/}	176	412	3	211	f/	803	24	291	64	5	-	383	1,186

TABLE IV-9. Landings, exvessel values and average prices (inflation adjusted, 2016 dollars) of inriver commercial harvest of Columbia River salmon.^{a/} (Page 2 of 2)

Year or Avg.	Non-Indian Gillnet ^{b/}						Treaty Indian ^{c/} - All Gears						Columbia River Total By State
	Chinook			Coho	Chum	TOTAL	Chinook			Coho	Chum	TOTAL	
	Spring	Fall					Spring	Fall					
	Brights ^{d/}	Tules				Brights ^{d/}	Tules						
Washington^{g/h/i/}													
Average Price Per Landed Pound ^{e/} (dollars)													
1987-2003	5.28	1.36		1.28	0.48	-	3.78	0.96		0.90	-		
2004	4.91	1.61		1.18	0.31	-	1.96	0.68		0.28	-		
2005	4.34	1.68		1.25	0.97	-	2.05	0.62		0.36	-		
2006	4.31	2.27		1.56	-	-	2.76	1.65		0.66	0.59		
2007	7.68	2.92		1.44	1.11	-	5.10	1.56		0.92	1.03		
2008	7.54	2.86		1.41	1.09	-	5.00	1.53		0.90	1.01		
2009	5.90	1.98		1.26	0.66	-	3.35	1.04		0.64	-		
2010	5.51	2.15		1.44	0.66	-	4.15	1.26		0.97	-		
2011	4.84	2.06		1.63	0.63	-	3.79	1.96		1.54	3.38		
2012	6.64	2.16		1.73	0.46	-	5.03	1.83		1.33	-		
2013	6.39	2.23		1.91	-	-	4.76	1.97		1.22	-		
2014	5.49	1.66		1.16	0.47	-	4.82	1.48		1.00	1.11		
2015	5.61	2.04		1.65	-	-	4.04	1.88		1.31	-		
2016	7.44	2.90		1.87	-	-	5.38	2.40		1.39	-		
Exvessel Value (thousands of dollars)													
1987-2003	247	677		469	1	1,379	62	1,103		16	-	1,177	2,557
2004	340	546		435	f/	1,320	206	544		12	-	762	2,082
2005	267	396		238	f/	901	137	867		12	-	1,016	1,918
2006	376	494		324	-	1,193	498	1,489		30	f/	2,016	3,210
2007	145	264		286	f/	695	f/	1,420		59	f/	1,480	2,175
2008	353	571		310	f/	1,235	1,089	1,791		165	f/	3,045	4,280
2009	350	599		330	f/	1,280	687	912		28	-	1,627	2,907
2010	597	563		357	2	1,518	2,182	1,910		25	-	4,117	5,635
2011	380	805		257	1	1,443	1,798	3,134		251	1	5,183	6,626
2012	349	770		66	f/	1,185	977	1,805		38	-	2,820	4,005
2013	203	1,409		227	-	1,839	912	4,430		113	-	5,455	7,294
2014	253	1,402		609	f/	2,263	2,027	5,250		370	2	7,650	9,913
2015	511	1,506		81	-	2,098	2,687	6,135		27	-	8,850	10,948
2016	418	1,827		110	-	2,355	1,886	4,325		86	-	6,298	8,653
Pounds (thousands)													
1987-2003	46	333		369	1	747	37	914		18	-	966	1,713
2004	69	338		370	f/	777	105	806		43	-	954	1,731
2005	62	235		191	f/	487	67	1,404		34	-	1,504	1,992
2006	87	218		207	-	512	180	905		45	f/	1,130	1,642
2007	18	91		154	f/	263	f/	638		66	f/	705	968
2008	47	199		219	f/	466	218	1,172		184	f/	1,574	2,040
2009	59	302		262	1	624	205	880		44	-	1,129	1,753
2010	108	262		247	2	620	526	1,521		25	-	2,072	2,693
2011	78	391		158	1	628	475	1,596		163	f/	2,234	2,862
2012	53	355		38	f/	446	194	980		28	-	1,202	1,648
2013	32	630		119	-	781	191	2,244		93	-	2,528	3,309
2014	46	846		524	f/	1,416	421	3,540		369	2	4,332	5,748
2015	91	738		49	-	878	666	3,254		21	-	3,940	4,818
2016	56	629		59	-	744	350	1,803		62	-	2,216	2,960

a/ Excluding pink, sockeye, and steelhead.

b/ Mainstem below Bonneville and select areas (Youngs Bay, Tongue Point, Blind Slough, and Deep River).

c/ Treaty Indian landings and values do not include direct sales to consumers.

d/ For Washington, this column includes fall brights, tules, and jacks. Price changes may reflect a change in the mix of brights, tules, and jacks rather than annual price changes.

e/ Gillnet exvessel salmon prices are recorded in round weight and therefore are not strictly comparable to exvessel troll prices.

f/ Less than \$500 or 500 pounds.

g/ Preliminary. (All Washington values in this table are based on preliminary information available when each year's Salmon Review is drafted.)

h/ Washington prices for years prior to 2000 are based on a combination of Washington and Oregon value information.

i/ Treaty Indian values are primarily mainstem Columbia set gillnet but also include Klickitat dipnet, Drano Lake (Little White Salmon River mouth), and Priest Rapids Pool fisheries.

TABLE IV-10. California, Oregon, and Washington ocean recreational salmon effort in thousands of angler trips and catch in thousands of fish by boat type. (Page 1 of 2)

Year or Avg.	Angler Trips		Chinook Catch ^{a/}		Coho Catch ^{a/}	
	Charter	Private	Charter	Private	Charter	Private
CALIFORNIA						
1981-1985	68.9	78.1	74.6	34.4	1.5	18.3
1986-1990	95.9	144.8	100.1	66.3	5.3	35.1
1991-1995	81.7	131.8	85.9	83.0	3.8	18.7
1996-2000	82.2	112.5	77.5	80.3	b/	0.4
2001	69.9	95.2	43.2	55.6	0.1	1.2
2002	86.6	123.4	85.1	96.9	b/	0.8
2003	59.4	75.3	48.3	46.4	0.1	0.6
2004	97.7	121.0	124.7	96.5	b/	1.4
2005	69.1	103.0	61.3	81.9	b/	0.7
2006	44.9	81.6	35.3	61.0	b/	1.6
2007	31.4	74.5	12.4	35.4	b/	0.7
2008	0.1	0.3	0.0	b/	-	-
2009	0.6	4.7	0.1	0.6	-	b/
2010	13.6	35.0	4.7	10.1	-	0.2
2011	29.5	62.2	18.7	31.1	b/	0.3
2012	52.7	95.3	44.2	79.7	b/	0.1
2013	55.0	92.3	49.2	66.9	b/	0.3
2014	48.3	72.0	33.8	41.1	-	0.5
2015	37.7	44.1	23.4	14.1	b/	b/
2016 ^{c/}	30.8	38.9	22.5	15.1	-	0.1
OREGON^{d/e/}						
1979	73.7	187.7	5.4	13.3	59.8	101.8
1980	79.0	218.9	5.1	11.9	98.3	207.5
1981-1985	45.7	187.9	6.2	26.9	48.0	117.6
1986-1990	56.5	184.6	7.0	28.8	71.6	148.4
1991-1995	18.0	81.8	1.3	8.0	27.1	76.2
1996-2000	5.3	40.3	1.5	9.7	3.4	9.1
2001	18.2	102.3	6.4	20.8	19.3	75.0
2002	15.7	91.9	7.9	39.5	9.0	27.5
2003	23.4	121.1	8.8	31.8	23.7	90.0
2004	21.1	124.6	14.6	41.8	13.1	58.8
2005	9.9	66.1	4.5	23.4	3.1	10.6
2006	8.0	54.4	1.5	10.1	3.6	12.0
2007	11.4	76.9	0.6	6.4	10.6	50.1
2008	1.9	28.5	0.2	1.4	1.0	11.1
2009	12.6	71.9	0.2	1.3	14.2	75.4
2010	5.0	48.3	0.6	4.4	2.8	15.5
2011	5.9	42.8	0.6	4.6	3.5	15.3
2012	6.6	60.7	1.5	17.3	3.0	13.1
2013	7.4	78.9	1.8	28.6	3.5	11.1
2014	14.5	107.0	1.3	17.2	19.0	80.5
2015	7.8	58.2	0.8	8.7	5.3	23.0
2016 ^{c/}	2.4	36.4	0.3	3.8	1.2	7.2

TABLE IV-10. California, Oregon, and Washington ocean recreational salmon effort in thousands of angler trips and catch in thousands of fish by boat type. (Page 2 of 2)

Year or Avg.	Angler Trips		Chinook Catch ^{a/}		Coho Catch ^{a/}	
	Charter	Private	Charter	Private	Charter	Private
WASHINGTON^{d/g/}						
1979	220.8	89.8	61.1	15.7	227.9	62.4
1980	193.9	86.2	41.1	12.5	288.4	73.1
1981-1985	102.0	69.7	42.6	13.8	113.3	69.2
1986-1990	53.5	59.4	16.0	10.0	78.0	77.6
1991-1995	28.0	45.1	4.5	4.2	41.5	54.8
1991-1995	13.6	20.6	2.7	2.2	17.4	20.8
2001	41.2	72.4	11.9	10.8	66.2	98.2
2002	37.0	57.4	30.9	27.0	30.4	43.7
2003	44.5	75.5	16.0	18.1	53.4	84.9
2004	36.5	73.1	10.3	14.6	37.6	75.1
2005	31.7	58.9	15.9	20.4	19.2	32.6
2006	24.5	39.1	4.0	6.7	16.2	19.9
2007	26.7	45.9	3.1	5.9	33.7	50.1
2008	14.2	22.2	6.0	8.6	8.3	10.5
2009	29.4	69.5	3.1	9.2	47.9	90.0
2010	26.5	54.4	15.4	21.5	14.1	22.2
2011	22.2	49.2	9.8	19.3	15.1	24.4
2012	24.5	50.5	11.8	21.8	11.8	19.3
2013	24.7	52.3	9.2	19.6	17.9	27.9
2014	34.6	78.1	12.1	27.7	46.0	73.3
2015	30.6	61.3	12.0	26.9	27.6	39.5
2016 ^{c/}	13.7	34.0	4.5	12.3	5.8	10.1

a/ Catch numbers may include some illegal harvest.

b/ Fewer than 50 fish.

c/ Preliminary.

d/ Salmon data from surveyed ports only. These generally include Astoria, Garibaldi, Depoe Bay, Newport, Winchester Bay, Coos Bay, and Brookings. Since 1981, Pacific City and Florence have also been included. Gold Beach data are included from 1981-1987. Astoria was not included in 1994.

e/ Numbers do not include angling from the Columbia River jetty.

f/ Numbers do not include angling from the Columbia River jetty or from the late-season state waters Area 4B fishery.

g/ Values for 1982-1985 include some inriver Columbia River fishing after closure of the ocean fishery.

TABLE IV-11. Estimates of California recreational ocean salmon angler trips (thousands) by port area and boat type.

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	State Total
CHARTER TRIPS						
1976-1980	1.5	1.2	2.4	63.5	4.0	72.7
1981-1985	0.7	1.3	1.8	62.1	3.0	68.9
1986-1990	1.0	3.5	4.0	74.3	13.1	95.9
1991-1995	0.4	0.8	2.8	55.7	22.0	81.7
1996-2000	a/	0.7	4.2	55.2	22.1	82.1
2001-2005	a/	1.4	9.6	49.2	16.3	76.5
2006	0.0	0.7	6.9	29.2	8.0	44.9
2007	0.0	1.6	5.4	20.9	3.5	31.4
2008	-	-	0.1	-	-	0.1
2009	0.0	0.6	-	-	-	0.6
2010	0.0	0.3	1.8	8.0	3.6	13.6
2011	0.0	1.5	4.4	17.5	6.0	29.5
2012	0.2	3.6	4.2	33.7	11.0	52.7
2013	a/	4.1	5.5	40.4	4.9	55.0
2014	0.1	3.2	5.4	34.0	5.5	48.3
2015	a/	1.9	3.4	30.1	2.2	37.7
2016 ^{b/}	a/	1.6	2.3	25.8	1.1	30.8
PRIVATE TRIPS						
1976-1980	18.4	22.7	9.3	34.4	6.0	90.8
1981-1985	22.4	21.8	7.8	16.8	9.3	78.1
1986-1990	38.6	34.4	11.4	24.3	36.1	144.8
1991-1995	13.9	14.0	17.6	37.1	49.3	131.9
1996-2000	6.8	10.9	15.0	38.8	40.9	112.5
2001-2005	4.1	15.5	18.6	34.3	31.1	103.6
2006	1.5	14.2	14.1	32.1	19.7	81.6
2007	2.1	16.8	11.7	22.2	21.7	74.5
2008	-	-	0.3	-	-	0.3
2009	1.1	3.6	-	-	-	4.7
2010	0.2	3.7	4.8	11.4	15.0	35.0
2011	0.8	12.7	9.9	16.9	21.9	62.2
2012	7.7	20.0	10.6	23.8	33.3	95.3
2013	7.0	18.6	11.7	29.2	25.7	92.3
2014	4.3	13.0	12.1	20.7	22.0	72.0
2015	0.6	6.4	8.4	15.8	13.0	44.1
2016 ^{b/}	0.6	6.8	7.3	17.6	6.7	38.9
TOTAL TRIPS						
1976-1980	20.0	23.9	11.7	97.9	10.0	163.5
1981-1985	23.1	23.1	9.6	78.9	12.2	147.0
1986-1990	39.6	37.9	15.4	98.6	49.2	240.7
1991-1995	14.3	14.8	20.4	92.8	71.2	213.6
1996-2000	6.8	11.7	19.1	94.0	63.0	194.6
2001-2005	4.1	16.9	28.2	83.5	47.4	180.1
2006	1.5	15.0	21.0	61.4	27.7	126.5
2007	2.1	18.4	17.1	43.1	25.2	105.9
2008	-	-	0.4	-	-	0.4
2009	1.1	4.3	-	-	-	5.4
2010	0.2	4.0	6.6	19.4	18.5	48.7
2011	0.8	14.2	14.4	34.4	28.0	91.7
2012	7.8	23.6	14.8	57.5	44.3	148.0
2013	7.0	22.8	17.3	69.5	30.7	147.3
2014	4.4	16.2	17.5	54.7	27.5	120.3
2015	0.6	8.3	11.8	45.9	15.2	81.8
2016 ^{b/}	0.6	8.4	9.6	43.4	7.8	69.7

a/ Fewer than 50 angler trips.

b/ Preliminary.

TABLE IV-12. Estimates of Oregon recreational ocean salmon angler trips (thousands) by port area and boat type. (Page 1 of 2)

Year or Avg.	Astoria	Tillamook	New port	Coos Bay	Brookings	State Total
CHARTER TRIPS						
1979	18.5	2.8	26.7	22.7	3.0	73.7
1980	26.3	3.7	26.7	19.6	2.8	79.1
1981-1985	10.3	3.0	17.2	11.9	3.3	45.7
1986-1990	7.1	5.3	27.5	13.0	3.6	56.5
1991-1995 ^{a/}	4.3	1.6	7.9	3.5	0.7	18.0
1996-2000	1.3	0.4	2.4	0.6	0.6	5.3
2001	4.3	1.4	8.8	3.0	0.7	18.2
2002	3.1	1.6	7.1	3.5	0.3	15.7
2003	3.9	2.0	13.0	4.0	0.5	23.4
2004	3.0	2.5	11.1	3.8	0.6	21.1
2005	2.3	1.0	3.7	2.6	0.3	9.9
2006	2.1	0.6	3.0	2.0	0.3	8.0
2007	2.6	1.1	5.6	1.9	0.2	11.4
2008	0.7	0.1	0.9	0.1	0.1	1.9
2009	2.7	1.3	8.1	0.3	0.2	12.6
2010	1.8	0.4	2.8	0.1	0.1	5.0
2011	1.6	0.5	3.6	0.1	0.1	5.9
2012	1.7	0.4	3.7	0.5	0.2	6.6
2013	1.7	0.6	4.2	0.3	0.6	7.4
2014	2.6	1.0	10.2	0.3	0.4	14.5
2015	2.0	0.6	5.1	c/	0.1	7.8
2016 ^{b/}	0.4	0.1	1.9	-	c/	2.4
PRIVATE TRIPS						
1979	24.3	16.3	45.4	52.9	48.8	187.7
1980	20.1	29.3	56.6	65.2	47.7	218.9
1981-1985	15.6	27.1	40.4	51.8	53.0	187.9
1986-1990	10.6	23.7	47.1	48.4	54.8	184.5
1991-1995 ^{a/}	8.5	12.0	17.0	22.4	22.0	82.0
1996-2000	4.1	7.7	3.0	7.6	17.8	40.3
2001	19.0	15.1	14.8	28.1	25.4	102.4
2002	9.0	22.8	10.9	29.9	19.4	91.9
2003	15.4	26.0	26.5	38.9	14.3	121.1
2004	15.6	26.8	27.9	36.7	17.7	124.6
2005	11.0	11.1	9.7	22.1	12.3	66.1
2006	6.2	15.3	7.4	15.2	10.4	54.4
2007	9.8	20.0	15.2	21.0	10.9	76.9
2008	2.9	9.0	4.6	7.3	4.7	28.5
2009	9.5	21.1	21.5	14.1	5.8	71.9
2010	8.5	13.1	12.2	8.6	5.9	48.3
2011	5.8	12.3	8.3	10.2	6.2	42.8
2012	3.1	12.0	11.1	16.0	18.6	60.7
2013	4.4	13.5	11.1	29.5	19.5	78.1
2014	9.7	24.2	27.0	29.5	16.7	107.0
2015	6.6	14.9	13.1	14.7	8.9	58.2
2016 ^{b/}	4.0	10.9	6.3	11.2	4.2	36.4

TABLE IV-12. Estimates of Oregon recreational ocean salmon angler trips (thousands) by port area and boat type. (Page 2 of 2)

Year or Avg.	Astoria	Tillamook	New port	Coos Bay	Brookings	State Total
TOTAL TRIPS						
1979	42.8	19.1	72.1	75.6	51.8	261.4
1980	46.4	33.0	83.3	84.8	50.5	298.0
1981-1985	26.0	30.0	57.5	63.7	56.3	233.5
1986-1990	17.7	29.0	74.6	61.4	58.4	241.0
1991-1995 ^{a/}	12.8	13.6	24.9	26.0	22.7	100.0
1996-2000	5.4	8.1	5.3	8.3	18.4	45.6
2001	23.3	16.5	23.6	31.1	26.1	120.6
2002	12.1	24.4	18.1	33.4	19.7	107.6
2003	19.3	28.0	39.6	42.9	14.8	144.5
2004	18.6	29.3	39.0	40.5	18.3	145.7
2005	13.3	12.1	13.4	24.6	12.6	76.0
2006	8.2	15.9	10.4	17.2	10.6	62.3
2007	12.4	21.0	20.8	23.0	11.1	88.3
2008	3.7	9.1	5.4	7.4	4.8	30.4
2009	12.3	22.4	29.6	14.4	5.9	84.5
2010	10.3	13.5	15.0	8.6	6.0	53.3
2011	7.4	12.8	12.0	10.3	6.3	48.8
2012	4.8	12.4	14.8	16.5	18.8	67.3
2013	6.1	14.1	15.3	29.8	20.1	85.5
2014	12.3	25.2	37.2	29.8	17.1	121.5
2015	8.6	15.5	18.2	14.7	9.0	66.0
2016 ^{b/}	4.3	11.0	8.2	11.2	4.2	38.9

a/ The fishery north of Cape Falcon was closed in 1994, and it is assumed that no trips were taken out of Astoria into the south of Cape Falcon area. No samplers were stationed in Astoria.

b/ Preliminary.

c/ Less than 50 trips.

TABLE IV-13. Estimates of Washington recreational ocean salmon angler trips (thousands) by port area and boat type.
(Page 1 of 2)

Year or Avg.	Neah Bay ^{a/}	La Push	Westport	Ilwaco ^{b/}	State Total
CHARTER TRIPS					
1984 ^{c/}	0.3	-	11.6	18.0	29.9
1985 ^{c/}	2.0	-	42.2	20.7	64.9
1986-1990	2.0	-	35.7	15.9	53.5
1991-1995	0.7	0.1	19.4	7.9	28.0
1996-2000	0.3	0.1	9.7	3.6	13.6
2001	1.4	0.3	25.6	13.9	41.2
2002	1.5	0.4	24.5	10.6	37.0
2003	2.0	0.9	27.3	14.3	44.5
2004	1.9	0.6	22.5	11.4	36.5
2005	1.2	0.6	20.5	9.4	31.7
2006	0.5	0.5	15.4	8.0	24.5
2007	0.6	0.4	15.7	10.1	26.7
2008	0.3	0.2	9.9	3.7	14.2
2009	0.5	0.7	18.5	9.7	29.4
2010	0.4	0.6	18.4	7.0	26.5
2011	0.5	0.7	14.1	6.9	22.2
2012	0.8	0.7	16.2	6.9	24.5
2013	0.9	0.7	15.9	7.1	24.7
2014	1.1	1.1	22.7	9.7	34.6
2015	1.0	0.8	20.2	8.6	30.6
2016 ^{d/}	0.6	0.3	7.5	5.3	13.7
PRIVATE TRIPS					
1984 ^{c/}	8.3	0.2	2.3	36.0	46.8
1985 ^{c/}	15.2	1.5	13.7	19.4	49.8
1986-1990	16.9	2.5	16.6	23.4	59.4
1991-1995	16.4	2.8	18.5	25.4	63.1
1996-2000	8.8	1.6	12.7	12.8	35.8
2001	16.6	3.1	24.1	28.7	72.4
2002	12.2	3.0	16.9	25.3	57.4
2003	18.4	3.5	20.7	32.9	75.5
2004	24.2	3.9	15.7	29.3	73.1
2005	17.2	4.4	14.7	22.6	58.9
2006	12.9	3.6	9.1	13.5	39.1
2007	12.8	2.9	10.2	20.0	45.9
2008	5.3	1.9	8.8	6.3	22.2
2009	16.0	4.4	19.3	29.8	69.5
2010	11.1	3.2	20.0	20.1	54.4
2011	10.6	3.6	19.4	15.7	49.2
2012	12.7	3.3	21.1	13.4	50.5
2013	14.4	3.6	20.0	14.4	52.3
2014	15.4	3.9	31.2	27.6	78.1
2015	13.8	2.7	25.2	19.6	61.3
2016 ^{d/}	7.7	0.8	10.4	15.1	34.0

TABLE IV-13. Estimates of Washington recreational ocean salmon angler trips (thousands) by port area and boat type.
(Page 2 of 2)

Year or Avg.	Neah Bay ^{a/}	La Push	Westport	Ilwaco ^{b/}	State Total
TOTAL TRIPS					
1984 ^{c/}	8.6	0.2	13.9	54.0	76.7
1985 ^{c/}	17.2	1.5	55.9	40.1	114.7
1986-1990	18.9	2.5	52.3	39.3	113.0
1991-1995	17.1	2.9	37.9	33.3	91.1
1996-2000	9.1	1.6	22.4	16.4	49.4
2001	17.9	3.4	49.7	42.5	113.6
2002	13.7	3.4	41.4	35.9	94.4
2003	20.4	4.4	48.0	47.1	120.0
2004	26.1	4.6	38.2	40.6	109.5
2005	18.5	4.9	35.2	32.1	90.6
2006	13.4	4.1	24.5	21.5	63.6
2007	13.4	3.3	25.9	30.1	72.7
2008	5.6	2.1	18.7	10.0	36.4
2009	16.5	5.1	37.8	39.5	98.9
2010	11.5	3.8	38.4	27.0	80.8
2011	11.1	4.2	33.5	22.5	71.4
2012	13.4	3.9	37.3	20.3	75.0
2013	15.4	4.3	35.9	21.5	77.0
2014	16.5	5.1	53.9	37.2	112.7
2015	14.8	3.5	45.5	28.2	91.9
2016 ^{d/}	8.3	1.1	17.8	20.5	47.7

a/ Does not include effort from the late-season state water Area 4B fishery, when open.

b/ Does not include effort from the Columbia River Jetty.

c/ Values for 1984 and 1985 include some Columbia River fishing after closure of the ocean fishery.

d/ Preliminary.

TABLE IV-14. Oregon and Washington recreational salmon, bottomfish, and sturgeon angler trips (thousands) by ocean port area and boat type for the area north of Cape Falcon. (Page 1 of 3)

Year	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
SALMON EFFORT														
1984	NA	NA	-	NA	54.0	11.6	2.3	13.9	0.0	0.2	0.2	0.3	8.3	8.6
1985	NA	NA	-	NA	90.3	42.2	13.7	55.9	0.0	1.5	1.5	2.0	15.2	17.2
1986	NA	NA	-	NA	144.3	36.6	14.8	51.4	0.0	1.7	1.7	2.4	17.4	19.8
1987	39.5	130.0	169.5	12.4	181.9	34.1	9.8	43.9	0.0	2.0	2.0	1.9	17.8	19.7
1988	34.5	154.4	188.9	16.9	205.8	23.5	13.9	37.4	0.0	2.8	2.8	2.0	14.8	16.8
1989	40.4	169.2	209.6	22.9	232.5	40.8	18.7	59.5	0.0	1.6	1.6	2.8	25.5	28.3
1990	32.8	128.7	161.5	5.7	167.2	43.4	25.9	69.3	0.0	4.2	4.2	3.0	30.8	33.8
1991	37.9	172.7	210.6	35.5	246.1	28.6	24.2	52.8	0.2	3.3	3.5	1.9	23.5	25.4
1992	22.3	116.6	138.9	28.4	167.3	28.1	25.6	53.7	0.2	2.3	2.5	1.1	18.6	19.7
1993	20.2	103.3	123.5	24.6	148.1	27.4	23.5	50.9	0.1	2.8	2.9	1.6	25.7	27.3
1994	0.5	6.3	6.8	3.6	10.4	-	-	-	-	-	-	-	-	-
1995	9.0	43.4	52.4	8.5	60.9	12.7	9.0	21.7	0.1	1.4	1.5	0.3	9.2	9.5
1996	7.3	26.8	34.1	7.5	41.6	10.3	5.2	15.5	a/	1.3	1.3	0.3	10.6	10.9
1997	8.4	53.0	61.3	7.4	68.7	10.0	7.3	17.3	0.1	0.9	0.9	0.2	4.6	4.8
1998	3.2	30.7	33.9	3.6	37.5	4.5	3.5	8.0	0.0	0.6	0.6	0.1	6.3	6.4
1999	8.7	63.9	72.6	6.2	78.8	11.5	7.6	19.1	0.1	2.9	2.9	0.5	7.6	8.1
2000	9.8	82.2	92.0	7.0	99.0	12.2	7.7	19.8	0.1	1.8	2.0	1.1	10.3	11.4
2001	22.5	165.0	187.5	17.0	204.5	25.6	24.1	49.7	0.3	3.1	3.4	1.4	16.8	18.1
2002	15.2	115.1	130.3	2.8	133.1	44.5	16.9	41.4	0.4	3.0	3.4	1.5	12.2	13.7
2003	19.3	133.3	152.7	7.2	159.8	27.3	20.7	48.0	0.9	3.5	4.4	2.0	18.4	20.4
2004	15.8	113.3	129.2	3.2	132.3	22.5	15.7	38.2	0.6	3.9	4.6	1.9	24.2	26.1
2005	12.0	88.5	100.5	b/	100.5	20.5	14.7	35.2	0.6	4.4	4.9	1.2	17.2	18.5
2006	10.4	59.8	70.2	1.7	71.9	15.4	9.1	24.5	0.5	3.6	4.1	0.5	12.9	13.4
2007	13.6	64.2	77.8	b/	77.8	15.7	10.2	25.9	0.4	2.9	3.3	0.6	12.8	13.4
2008	5.5	40.7	46.1	0.4	46.5	9.9	8.8	18.7	0.2	1.9	2.1	0.3	6.1	6.4
2009	13.1	109.9	122.9	2.6	125.5	18.5	19.3	37.8	0.7	4.4	5.1	0.5	16.0	16.5
2010	8.9	79.9	88.9	0.1	89.0	18.4	20.0	38.4	0.6	3.2	3.8	0.4	11.1	11.5
2011	10.5	76.2	86.7	2.2	88.9	14.1	19.4	33.5	0.7	3.6	4.2	0.5	10.6	11.1
2012	9.5	79.3	88.8	2.7	91.5	16.2	21.1	37.3	0.7	3.3	3.9	0.8	12.7	13.4
2013	10.2	82.3	92.5	4.8	97.2	15.9	20.0	35.9	0.7	3.6	4.3	0.9	14.4	15.4
2014	12.8	140.3	153.1	10.9	164.0	22.5	31.2	53.8	1.1	3.9	5.1	1.1	15.4	16.5
2015	11.1	127.4	138.5	5.2	143.8	20.2	25.2	45.5	0.8	2.7	3.5	1.0	13.8	14.8
2016 ^{c/}	6.0	107.5	113.5	3.8	117.3	7.5	10.4	17.8	0.3	0.8	1.1	0.6	7.7	8.3

TABLE IV-14. Oregon and Washington recreational salmon, bottomfish, and sturgeon angler trips (thousands) by ocean port area and boat type for the area north of Cape Falcon. (Page 2 of 3)

Year	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
BOTTOM FISH EFFORT^{d/}														
1984	2.1	0.1	2.2	-	-	12.4	0.5	12.9	0.0	0.0	0.0	1.8	12.3	14.1
1985	1.9	0.2	2.1	-	-	15.3	1.0	16.3	0.0	0.1	0.1	3.0	10.6	13.6
1986	1.7	0.2	1.9	-	-	19.6	0.8	20.4	0.0	0.2	0.2	3.5	11.4	14.9
1987	1.7	0.3	2.0	0.5	2.5	21.1	1.2	22.3	0.0	0.5	0.5	5.6	16.0	21.6
1988	2.1	0.2	2.3	0.8	3.1	24.4	1.1	25.5	0.0	0.7	0.7	5.7	14.8	20.5
1989	1.2	0.6	1.8	1.5	3.3	19.3	1.0	20.3	0.0	0.6	0.6	6.8	16.3	23.1
1990	1.4	0.3	1.7	2.4	4.1	21.8	0.8	22.6	0.0	0.8	0.8	6.4	18.1	24.5
1991	1.3	0.4	1.7	1.8	3.5	23.5	1.1	24.6	0.0	0.9	0.9	5.9	18.2	24.1
1992	1.4	0.5	1.9	2.3	4.1	20.5	2.2	22.7	0.0	1.5	1.5	4.8	19.1	23.9
1993	2.2	0.6	2.8	2.6	5.4	21.5	1.8	23.0	0.1	1.1	1.2	5.1	19.2	24.3
1994	2.7	0.7	3.3	2.7	6.0	26.0	1.7	27.7	0.2	1.9	2.1	4.1	15.0	19.1
1995	1.3	0.9	2.3	2.2	4.4	21.1	1.6	22.7	a/	1.6	1.6	4.1	19.2	23.3
1996 ^{e//}	1.2	0.5	1.7	1.7	3.4	21.4	1.2	22.6	0.0	1.6	1.6	4.8	21.0	25.8
1997	1.2	0.7	2.0	2.5	4.4	19.2	1.4	20.6	0.0	2.2	2.2	4.9	22.7	27.7
1998	1.8	0.5	2.3	0.9	3.2	21.5	1.3	22.8	0.0	1.2	1.2	5.1	23.9	29.0
1999	1.0	0.5	1.5	0.5	2.0	17.1	1.2	18.3	0.1	1.0	1.1	4.5	20.3	24.9
2000	1.2	0.6	1.8	0.5	2.3	16.7	0.9	17.6	0.2	1.3	1.5	4.5	20.1	24.6
2001	2.8	0.4	3.2	0.9	4.1	13.9	1.2	15.1	0.3	0.9	1.2	4.7	16.5	21.2
2002	14.3	0.5	1.9	0.8	2.8	14.9	1.2	16.1	0.3	1.2	1.6	4.0	15.7	19.7
2003	2.4	0.5	2.9	0.9	3.8	16.3	1.8	18.2	1.0	2.5	3.6	5.2	21.4	26.6
2004	2.4	0.8	3.2	0.3	3.5	14.8	1.7	16.5	0.4	1.7	2.1	3.5	15.2	18.7
2005	2.5	1.1	3.7	b/	3.7	15.5	1.8	17.3	0.5	2.5	3.0	3.5	18.8	22.4
2006	3.6	1.2	4.9	0.9	5.7	17.7	1.8	19.5	0.3	2.8	3.1	4.4	16.9	21.3
2007	3.1	1.5	4.6	b/	4.6	16.2	1.6	17.7	0.5	2.5	3.0	4.3	15.7	20.0
2008	2.9	2.0	4.9	0.4	5.3	15.5	1.7	17.2	1.0	2.3	3.3	2.3	16.2	18.5
2009	2.1	1.3	3.3	0.3	3.6	13.0	2.2	15.2	0.7	2.7	3.4	1.5	13.6	15.1
2010	2.9	1.7	4.7	0.5	5.2	11.7	1.8	13.5	0.7	3.6	4.3	1.2	15.4	16.6
2011	3.6	1.8	4.5	0.9	5.4	13.9	2.4	16.3	0.5	4.8	5.3	1.2	14.2	15.4
2012	3.2	2.0	5.2	0.6	5.8	15.5	2.5	18.0	0.4	5.9	6.3	0.9	13.5	14.4
2013	3.3	2.2	5.6	0.4	6.0	14.5	2.9	17.3	0.4	5.2	5.6	0.7	15.9	16.6
2014	3.0	1.5	4.5	0.8	5.3	13.8	2.7	16.5	0.4	5.0	5.4	0.8	17.6	18.4
2015	3.0	1.6	4.6	b/	4.6	16.4	3.6	19.9	0.5	5.3	5.8	0.9	15.3	16.2
2016 ^{c/}	4.6	3.0	7.5	1.6	7.5	18.8	5.5	24.3	0.8	6.4	7.2	1.3	17.7	19.0

TABLE IV-14. Oregon and Washington recreational salmon, bottomfish, and sturgeon angler trips (thousands) by ocean port area and boat type for the area north of Cape Falcon. (Page 3 of 3)

Year	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
STURGEON EFFORT^{g/}														
1984	1.7	28.4	30.1	-	30.1	-	-	-	-	-	-	-	-	-
1985	5.0	31.2	36.2	-	36.2	-	-	-	-	-	-	-	-	-
1986	5.7	35.7	41.4	-	41.4	-	-	-	-	-	-	-	-	-
1987	6.0	43.2	49.2	-	49.2	-	-	-	-	-	-	-	-	-
1988	6.2	32.4	38.5	-	38.5	-	-	-	-	-	-	-	-	-
1989	4.3	22.0	26.3	-	26.3	-	-	-	-	-	-	-	-	-
1990	3.9	28.0	31.9	-	31.9	-	-	-	-	-	-	-	-	-
1991	3.6	26.0	29.7	-	29.7	-	-	-	-	-	-	-	-	-
1992	5.0	38.3	43.3	-	43.3	-	-	-	-	-	-	-	-	-
1993	6.1	48.6	54.6	-	54.6	-	-	-	-	-	-	-	-	-
1994	7.5	40.4	47.8	-	47.8	-	-	-	-	-	-	-	-	-
1995	7.7	55.2	62.9	-	62.9	-	-	-	-	-	-	-	-	-
1996	11.1	45.2	56.3	-	56.3	-	-	-	-	-	-	-	-	-
1997	12.2	48.4	60.7	-	60.7	-	-	-	-	-	-	-	-	-
1998	14.2	64.3	78.5	-	78.5	-	-	-	-	-	-	-	-	-
1999	13.2	57.1	70.3	-	70.3	-	-	-	-	-	-	-	-	-
2000	11.6	52.1	63.7	-	63.7	-	-	-	-	-	-	-	-	-
2001	10.8	40.9	51.7	-	51.7	-	-	-	-	-	-	-	-	-
2002	9.9	45.9	55.8	-	55.8	-	-	-	-	-	-	-	-	-
2003	6.6	38.1	44.7	-	44.7	-	-	-	-	-	-	-	-	-
2004	7.4	32.2	39.6	-	39.6	-	-	-	-	-	-	-	-	-
2005	8.7	51.2	59.9	-	59.9	-	-	-	-	-	-	-	-	-
2006	6.7	37.3	44.0	-	44.0	-	-	-	-	-	-	-	-	-
2007	7.9	39.8	47.7	-	47.7	-	-	-	-	-	-	-	-	-
2008	7.5	38.5	46.0	-	46.0	-	-	-	-	-	-	-	-	-
2009	6.1	43.0	49.1	-	49.1	-	-	-	-	-	-	-	-	-
2010	5.4	31.4	36.8	-	36.8	-	-	-	-	-	-	-	-	-
2011	3.6	21.7	25.3	-	25.3	-	-	-	-	-	-	-	-	-
2012	2.4	16.5	18.9	-	18.9	-	-	-	-	-	-	-	-	-
2013	1.5	14.8	16.3	-	16.3	-	-	-	-	-	-	-	-	-
2014	0.1	1.5	1.7	-	1.7	-	-	-	-	-	-	-	-	-
2015	a/	1.0	1.0	-	1.0	-	-	-	-	-	-	-	-	-
2016 ^{c/}	a/	2.5	2.5	-	2.5	-	-	-	-	-	-	-	-	-

a/ Fewer than 50 angler trips.

b/ Columbia River north jetty was not sampled in 2005 and 2007 due to construction limiting access; the outer jetty was not sampled in 2015 due to construction limiting access to near-beach areas.

c/ Preliminary.

d/ Oregon data is a minimum estimate, as the jetty is not sampled, and bottomfish sampling of vessels only occurs when the ocean is open for salmon.

e/ No Oregon bottomfish trips are included.

f/ Includes tuna trips: Ilwaco - 9 charter, 14 private; Westport - 784 charter, 0 private.

g/ Annual sturgeon angler trips for the lower Columbia River from the western tip of Puget Island to mouth.

TABLE IV-15. Buoy 10^{a/b/} and Area 4B add-on recreational salmon angler trips and catch by boat type.
(Page 1 of 2)

Year or Avg.	Angler Trips			Chinook Catch			Coho Catch			Pink Catch	
	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private
OREGON BUOY 10											
1987-1990	4,002	38,619	4,029	793	6,415	29	3,292	18,348	690	0	0
1991-1995	1,528	21,547	4,555	122	1,318	30	1,625	14,520	1,389	0	0
1996-2000	626	15,760	1,832	126	2,712	3	206	3,764	353	0	0
2001	1,616	54,444	4,115	47	5,578	10	1,481	56,403	523	0	0
2002	512	39,943	1,589	31	10,728	-	2	3,058	52	0	0
2003	991	45,461	2,315	47	7,903	-	624	28,518	526	0	0
2004	66	33,092	1,170	19	9,191	-	17	7,585	47	0	0
2005	135	33,051	935	18	6,875	6	51	4,785	36	0	0
2006	37	24,194	1,457	1	1,350	-	-	2,800	-	0	0
2007	156	19,983	793	6	2,511	-	38	4,841	97	0	0
2008	198	19,020	-	43	5,608	-	69	4,487	-	0	0
2009	182	39,425	1,684	1	3,550	16	164	27,000	466	0	0
2010	82	30,159	710	2	4,537	11	8	5,171	22	0	0
2011	70	30,074	1,705	3	7,150	34	6	5,029	315	0	0
2012	468	39,753	1,368	52	12,934	22	42	4,909	104	0	0
2013	459	40,648	1,754	81	15,448	41	50	4,638	148	0	0
2014	237	70,402	3,696	13	19,033	41	385	39,873	2,295	0	0
2015	150	67,883	6,081	43	25,227	246	88	22,067	3,442	0	0
2016 ^{c/}	96	59,778	4,114	5	13,551	404	13	5,560	582	0	0
WASHINGTON BUOY 10											
1987-1990	10,678	71,927	6,567	1,907	14,398	68	8,353	40,415	1,627	1	11
1991-1995	4,162	41,770	5,908	466	3,710	42	5,178	31,681	1,426	0	16
1996-2000	1,957	23,952	1,045	393	3,999	24	950	6,305	82	0	0
2001	2,765	62,944	-	-	6,791	-	3,282	70,349	-	0	0
2002	1,001	40,927	485	232	8,424	26	98	3,023	-	0	0
2003	216	39,844	-	22	8,344	-	139	24,633	-	0	0
2004	685	33,805	-	45	6,791	-	139	7,381	-	0	0
2005	183	20,879	-	5	2,383	-	34	1,972	-	0	0
2006	421	14,597	-	5	351	-	8	879	-	0	0
2007	711	14,421	-	33	1,226	-	343	3,037	-	0	0
2008	804	12,445	-	154	2,544	-	436	3,581	-	0	0
2009	389	31,123	-	4	2,369	-	312	20,185	-	0	0
2010	106	21,241	-	7	2,250	-	11	2,767	-	0	0
2011	372	17,188	-	43	3,689	-	70	2,194	-	0	0
2012	447	23,034	-	51	5,491	-	82	2,248	-	0	0
2013	93	22,813	-	6	7,018	-	27	2,757	-	0	0
2014	179	32,675	333	-	7,701	-	179	14,673	339	0	0
2015	316	33,386	-	30	10,947	-	337	10,918	-	0	0
2016 ^{c/}	149	28,668	2,145	7	3,797	16	62	2,691	274	0	0

TABLE IV-15. Buoy 10^{a/b/} and Area 4B add-on recreational salmon angler trips and catch by boat type. (Page 2 of 2)

Year or Avg.	Angler Trips			Chinook Catch			Coho Catch			Pink Catch	
	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private
TOTAL BUOY 10											
1987-1990	14,680	110,547	10,596	2,700	20,812	98	11,645	58,763	2,317	1	11
1991-1995	5,690	63,317	10,463	588	5,029	72	6,803	46,201	2,814	0	16
1996-2000	2,583	39,712	2,877	519	6,710	27	1,157	10,070	435	0	0
2001	4,381	117,388	4,115	47	12,369	10	4,763	126,752	523	0	0
2002	1,513	80,870	2,074	263	19,152	26	100	6,081	52	0	0
2003	1,207	85,305	2,315	69	16,247	0	763	53,151	526	0	0
2004	751	66,897	1,170	64	15,982	0	156	14,966	47	0	0
2005	318	53,930	935	23	9,258	6	85	6,757	36	0	0
2006	458	38,791	1,457	6	1,701	0	8	3,679	0	0	0
2007	867	34,404	793	39	3,737	0	381	7,878	97	0	0
2008	1,002	31,465	0	197	8,152	0	505	8,068	0	0	0
2009	571	70,548	1,684	5	5,919	16	476	47,185	466	0	0
2010	188	51,400	710	9	6,787	11	19	7,938	22	0	0
2011	442	47,262	1,705	46	10,839	34	76	7,223	315	0	0
2012	915	62,787	1,368	103	18,425	22	124	7,157	104	0	0
2013	552	63,461	1,754	87	22,466	41	77	7,395	148	0	0
2014	416	103,077	4,029	13	26,734	41	564	54,546	2,634	0	0
2015	466	101,269	6,081	73	36,174	246	425	32,985	3,442	0	0
2016 ^{c/}	245	88,446	6,259	12	17,348	420	75	8,251	856	0	0
TOTAL AREA 4B ADD-ON^{d/}											
1989-1990	1,084	10,941	-	62	375	-	2,095	18,021	-	36	212
1991-1995	429	6,852	-	12	153	-	725	9,188	-	73	970
1996	36	1,511	-	-	5	-	61	2,266	-	0	0
1997	136	1,788	-	-	4	-	65	1,429	-	139	412
1998	71	6,296	-	5	98	-	125	7,937	-	0	3
1999 ^{e/}	-	-	-	-	-	-	-	-	-	0	0
2000	373	3,046	-	-	8	-	614	3,796	-	0	0
2001-2005	-	-	-	-	-	-	-	-	-	0	0
2006 ^{e/}	-	-	-	-	-	-	-	-	-	0	0
2007	-	-	-	-	-	-	-	-	-	0	0
2008	-	782	-	-	11	-	-	137	-	0	0
2009 ^{f/}	-	-	-	-	-	-	-	-	-	0	0

a/ From 2000, catch downstream of boundary line from Tongue Pt., OR to Rocky Pt., WA. Prior to 2000, only catch downstream of Astoria-Megler Br.

b/ Prior to 1987, data on charter and private anglers were combined. Total Buoy 10 catch and effort data prior to 1987 are provided in Table B-21.

c/ Preliminary.

d/ There was no Area 4B add-on fishery prior to 1989.

e/ There was no Area 4B add-on fishery opening because the Area 4 ocean quota was not attained.

f/ There has been no Area 4B add-on fishery planned since 2008.

TABLE IV-16. Estimates of California coastal community and state personal income impacts in thousands of real (inflation adjusted, 2016) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	Coastal Community Total ^{b/}	State-Level Total
OCEAN TROLL^{c/}							
1976-1980	6,679	16,965	16,635	21,822	9,366	71,466	91,879
1981-1985	3,383	4,081	9,551	18,029	6,143	41,187	51,279
1986-1990	1,272	3,149	16,751	32,527	12,165	65,864	80,833
1991-1995	10	149	1,053	12,241	6,974	20,427	24,616
1996-2000	11	178	744	12,815	7,770	21,517	22,766
2001	16	327	1,081	11,362	2,404	15,189	15,766
2002	286	548	3,904	16,238	4,373	25,349	26,928
2003	231	40	15,865	16,531	2,607	35,275	39,232
2004	2,034	449	7,780	24,441	5,501	40,206	41,051
2005	152	457	5,672	14,122	7,412	27,815	28,510
2006	-	-	2,586	6,686	1,031	10,302	10,622
2007	348	862	3,565	8,507	1,734	15,016	15,284
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010 ^{d/}	-	34	1,485	159	101	1,779	2,416
2011	35	434	4,176	2,646	644	7,936	9,904
2012	20	700	4,033	12,707	3,774	21,234	25,032
2013	109	1,717	10,034	19,464	1,975	33,299	38,916
2014	105	752	6,420	9,510	560	17,346	20,199
2015	26	433	5,093	4,338	822	10,712	13,337
2016 ^{e/}	2	65	1,761	4,055	906	6,788	8,358
RECREATIONAL							
1976-1980	1,296	1,502	875	13,149	881	17,702	19,857
1981-1985	1,419	1,463	701	11,644	930	16,157	18,187
1986-1990	2,405	2,506	1,222	14,231	3,824	24,188	28,188
1991-1995	872	939	1,418	12,037	5,765	21,031	24,693
1996-2000	404	744	1,448	12,068	5,301	19,965	23,227
2001	375	814	2,198	8,040	3,222	14,649	15,606
2002	167	906	2,325	10,094	4,973	18,465	19,612
2003	95	682	1,755	7,315	2,395	12,242	12,968
2004	143	1,143	2,276	11,836	4,646	20,044	21,203
2005	108	723	1,841	8,952	3,385	15,009	15,869
2006	64	714	1,517	6,082	2,037	10,414	11,055
2007	90	932	1,224	4,311	1,493	8,050	8,613
2008	-	-	28	-	-	28	32
2009	48	241	-	-	-	288	337
2010	21	442	912	3,695	2,305	7,375	10,555
2011	78	1,598	2,072	7,033	3,558	14,341	20,507
2012	814	2,770	2,088	12,395	5,817	23,883	33,947
2013	723	2,747	2,512	14,923	3,692	24,598	34,215
2014	465	1,982	2,519	12,056	3,448	20,469	28,496
2015	67	1,043	1,670	10,332	1,801	14,913	20,173
2016 ^{e/}	58	1,021	1,305	9,388	911	12,682	16,968

a/ Estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM) and IOPAC. These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Values from 2001 through 2009 are based on a run of the FEAM using 2000 PacFIN landings and 1998 IMPLAN data. Beginning with the 2010 data year, income impact estimates are based on the NWFSC's IOPAC model, which uses updated IMPLAN and landings data, and survey-based industry cost data. A description of the transition from FEAM-based to IOPAC-based impact multipliers and comparisons of results from the two models are found in Appendix E of the Review of 2014 Ocean Salmon Fisheries: <http://www.pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/review-of-2014-ocean-salmon-fisheries/>

b/ Total personal income impacts on coastal areas. Totals do not include impacts of one coastal area on another.

c/ Excluding pink salmon.

d/ Eureka impacts are from fish caught in the Fort Bragg area fishery and landed in Eureka.

e/ Preliminary.

TABLE IV-17. Estimates of Oregon coastal community and state personal income impacts in thousands of real (inflation adjusted, 2016) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

Year or Avg.	Astoria	Tillamook	New port	Coos Bay	Brookings	Coastal	State-Level Total
						Community Total ^{b/}	
OCEAN TROLL^{c/}							
1976-1980	4,288	5,519	12,947	19,924	8,283	50,960	69,093
1981-1985	1,389	1,787	4,191	7,390	3,208	17,965	24,414
1986-1990	641	3,738	8,320	16,039	3,040	31,778	42,918
1991-1995	89	697	2,856	1,387	141	5,171	6,971
1996-2000	148	292	3,022	1,745	421	5,628	6,858
2001	403	823	6,160	3,237	664	11,287	13,738
2002	1,153	977	5,275	4,663	843	12,911	15,637
2003	1,130	1,024	6,829	6,209	732	15,922	19,265
2004	953	762	6,746	7,340	1,571	17,372	18,773
2005	789	1,314	5,619	5,566	1,317	14,606	15,783
2006	1,033	643	1,688	455	396	4,214	4,521
2007	305	432	703	2,050	816	4,306	4,622
2008	434	212	-	-	76	722	761
2009	177	166	146	20	44	554	592
2010	956	158	1,276	1,118	189	3,697	5,208
2011	241	58	522	2,327	260	3,408	4,483
2012	710	283	1,962	2,275	353	5,582	7,942
2013	347	488	1,544	6,565	614	9,558	12,886
2014	1,846	1,009	5,388	8,020	1,189	17,451	24,587
2015	1,085	638	2,528	3,747	506	8,505	11,879
2016 ^{d/}	300	157	2,859	1,236	126	4,677	6,929
RECREATIONAL							
1979	3,594	1,148	5,465	5,534	2,664	18,405	23,729
1980	4,340	1,907	6,034	5,800	2,589	20,669	26,620
1981-1985	2,119	1,708	4,081	4,161	2,896	14,964	19,427
1986-1990	1,450	1,814	5,646	4,113	3,015	16,039	20,881
1991-1995	985	793	1,796	1,603	1,132	6,308	8,180
1996-2000	381	437	431	475	913	2,638	3,478
2001	1,481	798	1,883	1,578	1,101	6,841	8,384
2002	864	1,132	1,484	1,730	811	6,021	7,411
2003	1,260	1,309	2,969	2,162	636	8,336	10,255
2004	1,132	1,423	2,742	2,043	786	8,126	10,008
2005	821	587	932	1,270	525	4,135	5,067
2006	590	691	732	908	446	3,367	4,137
2007	828	939	1,420	1,136	457	4,780	5,875
2008	238	370	308	308	198	1,422	1,750
2009	834	1,012	2,048	611	252	4,757	5,856
2010	960	733	1,287	328	333	3,641	5,453
2011	744	715	1,225	400	350	3,434	5,230
2012	596	677	1,411	667	1,062	4,414	6,924
2013	676	793	1,508	1,144	1,177	5,298	8,622
2014	1,222	1,408	3,662	1,135	986	8,413	12,975
2015	894	861	1,800	553	504	4,613	7,047
2016 ^{d/}	347	575	759	415	234	2,329	3,749

a/ Estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM) and IOPAC. These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Values from 2001 through 2009 are based on a run of the FEAM using 2000 PacFIN landings and 1998 IMPLAN data. Beginning with the 2010 data year, income impact estimates are based on the NWFSC's IOPAC model, which uses updated IMPLAN and landings data, and survey-based industry cost data. A description of the transition from FEAM-based to IOPAC-based impact multipliers and comparisons of results from the two models are found in Appendix E of the Review of 2014 Ocean Salmon Fisheries:

<http://www.pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/review-of-2014-ocean-salmon-fisheries/>

b/ Total personal income impacts on coastal areas. Totals do not include impacts of one coastal area on another.

c/ Excluding pink salmon.

d/ Preliminary.

TABLE IV-18. Estimates of Washington coastal community and state personal income impacts in thousands of real (inflation adjusted, 2016) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

Year or Avg.	Neah Bay	La Push	Westport	Ilwaco ^{b/}	Coastal Community Total ^{c/d/}	Puget Sound	State-Level Total
OCEAN TROLL^{e/f/}							
1976-1980	6,192	8,454	16,760	6,002	37,409	8,332	59,678
1981-1985	1,217	493	4,592	1,099	7,401	1,778	11,633
1986-1990	673	177	2,110	459	3,419	1,029	5,601
1991-1995 ^{g/}	495	109	705	50	1,362	199	2,005
1996-2000	167	3	201	19	391	103	537
2001	330	0	687	46	1,063	0	1,150
2002	682	89	1,196	199	2,166	0	2,388
2003	1,239	209	1,023	150	2,621	47	3,039
2004	913	288	1,135	111	2,447	29	2,828
2005	748	447	1,151	142	2,488	1	2,812
2006	557	451	433	291	1,731	37	2,050
2007	246	250	1,021	127	1,643	22	1,828
2008	160	212	606	162	1,140	13	1,285
2009	326	336	1,173	81	1,916	37	2,185
2010	247	396	3,766	92	4,501	-	5,418
2011	567	225	1,371	94	2,256	-	2,978
2012	848	492	1,437	229	3,006	-	4,137
2013	476	441	2,602	73	3,592	-	4,504
2014	380	447	1,467	1,081	3,374	1	4,270
2015	310	631	2,965	410	4,316	24	5,315
2016	202	201	1,363	216	1,982	36	2,441
RECREATIONAL							
1976-1980	2,281	1,132	22,690	11,107	37,210	-	50,302
1981-1985	1,380	141	8,928	4,588	15,037	-	20,349
1986-1990	1,059	121	5,066	2,731	8,977	-	12,159
1991-1995	562	110	3,127	1,586	5,385	-	7,282
1996-2000	298	81	1,464	716	2,559	-	3,450
2001	833	170	6,195	3,925	11,123	-	12,995
2002	709	181	5,707	3,124	9,721	-	11,357
2003	1,030	288	6,427	4,163	11,909	-	13,932
2004	1,208	256	5,243	3,436	10,143	-	11,893
2005	828	259	4,785	2,783	8,655	-	10,135
2006	543	228	3,533	2,163	6,467	-	7,570
2007	554	177	3,626	2,827	7,183	-	8,398
2008	240	106	2,385	1,007	3,738	-	4,368
2009	646	284	4,550	3,113	8,593	-	10,051
2010	764	327	6,208	3,365	10,665	-	17,886
2011	745	357	5,095	2,983	9,179	-	15,530
2012	928	338	5,752	2,806	9,824	-	16,596
2013	1,071	362	5,586	2,937	9,956	-	16,920
2014	1,171	476	8,178	4,653	14,478	-	24,436
2015	1,042	329	7,084	3,730	12,185	-	20,449
2016	585	110	2,701	2,561	5,958	-	10,117

a/ Estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM) and IOPAC. These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Values from 2001 through 2009 are based on a run of the FEAM using 2000 PacFIN landings and 1998 IMPLAN data. Beginning with the 2010 data year, income impact estimates are based on the NWFSC's IOPAC model, which uses updated IMPLAN and landings data, and survey-based industry cost data. A description of the transition from FEAM-based to IOPAC-based impact multipliers and comparisons of results from the two models are found in Appendix E of the Review of 2014 Ocean Salmon Fisheries:

<http://www.pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/review-of-2014-ocean-salmon-fisheries/>

b/ Recreational values exclude recreational shorebased effort from the Columbia River north jetty.

c/ Total personal income impacts on coastal areas. Totals do not include impacts of one coastal area on another.

d/ Through 1993, commercial values include a very small amount of fish landed in Washington coastal areas not included in the major port groups.

e/ Excluding pink salmon.

f/ All commercial values in this table are based on preliminary information available at the start of each year's Salmon Review.

g/ The non-Indian commercial and recreational fisheries were closed north of Cape Falcon in 1994. Some commercial catch taken south of Cape Falcon was landed in the Puget Sound area.

TABLE IV-19. Local personal income impacts in real (inflation adjusted, 2016) dollars of the inriver commercial salmon fishery on Oregon and Washington Columbia River communities.^{a/}

Year or Avg.	Non-Indian - Gillnet ^{b/}						Treaty Indian - All Gears ^{c/}						Columbia River Total
	Chinook			Coho	Chum	TOTAL	Chinook			Coho	Chum	TOTAL	
	Spring	Fall					Spring	Fall					
	Brights ^{d/}	Tules				Brights ^{d/}	Tules						
Oregon													
1987-2003	1,011	2,635	267	1,966	3	5,883	13	1,110	79	11	e/	1,214	7,097
2004	2,354	1,561	332	1,894	1	6,142	393	1,603	385	60	-	2,440	8,582
2005	707	1,134	198	2,072	e/	4,111	-	598	91	1	-	690	4,801
2006	1,281	1,472	96	1,391	e/	4,240	1	798	16	33	-	847	5,087
2007	1,527	809	e/	615	e/	2,951	133	777	e/	34	-	943	3,895
2008	1,380	2,199	206	1,423	e/	5,208	643	1,988	216	113	-	2,960	8,168
2009	868	1,986	299	2,228	e/	5,383	295	1,389	153	60	-	1,896	7,279
2010	2,705	1,292	221	1,116	1	5,334	847	656	126	47	e/	1,675	7,009
2011	1,664	2,063	194	1,032	e/	4,953	261	852	44	43	e/	1,200	6,153
2012	1,496	1,275	156	211	e/	3,137	104	495	7	16	e/	623	3,760
2013	1,501	3,442	172	796	e/	5,911	145	1,680	37	10	e/	1,873	7,783
2014	996	2,572	224	2,635	e/	6,426	443	1,408	22	55	e/	1,928	8,354
2015	1,954	2,282	147	406	e/	4,789	670	1,544	46	3	e/	2,263	7,052
2016 ^{f/}	1,935	2,048	93	602	e/	4,677	218	1,308	3	12	e/	1,541	6,219
Washington^{g/h/}													
1987-2003	446	1,135		895	2	2,478	138	2,291		37	-	2,465	4,943
2004	618	1,240		970	e/	2,828	458	1,823		66	-	2,347	5,175
2005	492	879		479	e/	1,850	298	3,000		54	-	3,351	5,201
2006	691	995		608	-	2,294	995	3,293		86	e/	4,374	6,668
2007	246	499		500	e/	1,246	1	2,858		142	e/	3,001	4,247
2008	602	1,079		596	1	2,278	1,946	3,999		390	e/	6,335	8,613
2009	612	1,233		664	1	2,510	1,306	2,391		79	-	3,776	6,286
2010	857	808		512	2	2,178	3,131	2,740		35	e/	5,906	8,085
2011	560	1,184		378	1	2,123	2,646	4,612		370	1	7,628	9,751
2012	522	1,151		98	e/	1,771	1,459	2,697		57	e/	4,212	5,984
2013	288	1,999		322	e/	2,609	1,293	6,285		161	e/	7,740	10,349
2014	358	1,981		860	e/	3,199	2,866	7,421		523	3	10,810	14,009
2015	723	2,128		114	e/	2,965	3,799	8,673		39	e/	12,510	15,476
2016 ^{f/}	591	2,583		155	e/	3,329	2,666	6,114		122	e/	8,902	12,231
Columbia River													
1987-2003	1,457	4,037		2,861	5	8,361	151	3,480		48	e/	3,679	12,040
2004	2,971	3,134		2,864	1	8,970	851	3,811		126	-	4,787	13,757
2005	1,200	2,210		2,552	e/	5,961	-	3,689		55	-	4,041	10,003
2006	1,971	2,564		1,999	-	6,535	996	4,107		118	-	5,221	11,756
2007	1,773	1,308		1,115	e/	4,197	134	3,635		176	-	3,944	8,141
2008	1,982	3,484		2,019	1	7,486	2,589	6,202		503	-	9,295	16,781
2009	1,480	3,519		2,892	1	7,893	1,601	3,933		139	-	5,673	13,565
2010	3,561	2,320		1,627	4	7,512	3,978	3,522		82	e/	7,581	15,094
2011	2,224	3,441		1,410	1	7,076	2,907	5,508		413	1	8,828	15,903
2012	2,018	2,581		309	e/	4,908	1,563	3,199		73	e/	4,835	9,744
2013	1,789	5,613		1,118	e/	8,520	1,439	8,002		171	e/	9,612	18,132
2014	1,354	4,777		3,495	e/	9,626	3,308	8,851		578	3	12,738	22,363
2015	2,677	4,558		520	e/	7,755	4,468	10,263		42	e/	14,773	22,528
2016 ^{f/}	2,526	4,724		757	e/	8,007	2,885	7,425		134	e/	10,443	18,450

a/ Estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM) and IOPAC. These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Values from 2001 through 2009 are based on a run of the FEAM using 2000 PacFIN landings and 1998 IMPLAN data. Beginning with the 2010 data year, income impact estimates are based on the NWFSC's IOPAC model, which uses updated IMPLAN and landings data, and survey-based industry cost data. A description of the transition from FEAM-based to IOPAC-based impact multipliers and comparisons of results from the two models are found in Appendix E of the Review of 2014 Ocean Salmon Fisheries:

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b/ Mainstem below Bonneville and Select Areas (Youngs Bay, Tongue Point, Blind Slough, and Deep River).

c/ Treaty Indian values do not include direct sales to consumers.

d/ For Washington and the Columbia River this column includes fall brights, tules, and jacks.

e/ Less than \$500.

f/ Preliminary. (All Washington values in this table are based on preliminary information available when each year's Salmon Review is drafted.)

g/ Washington income impacts for years prior to 2000 are based on a combination of Washington and Oregon value information.

h/ Treaty Indian values are primarily mainstem Columbia set gillnet but also include Klickitat dipnet, Drano Lake (Little White Salmon River mouth), and Priest Rapids Pool fisheries.

TABLE IV-20. Local personal income impacts in real (inflation adjusted, 2016) dollars of the Buoy 10 recreational fishery in Oregon and Washington and the Area 4B add-on fishery in Washington.

Year or Avg.	Total Angler Trips (thousands)	Income Impacts (thousands of dollars)		
		Oregon	Washington	Total
BUOY 10 (including bank fishing)				
1987-1990	136	2,680	4,673	7,354
1991-1995	79	1,524	2,594	4,118
1996-2000	45	977	1,336	2,313
2001	126	2,730	2,882	5,612
2002	84	1,836	1,726	3,562
2003	89	2,175	1,506	3,681
2004	69	1,458	1,382	2,840
2005	55	1,458	804	2,261
2006	41	1,090	623	1,713
2007	36	903	676	1,579
2008	32	835	623	1,458
2009	73	1,766	1,222	2,988
<hr style="border-top: 1px dashed black;"/>				
2010	52	2,062	1,760	3,823
2011	49	2,120	1,495	3,615
2012	65	2,828	1,991	4,819
2013	66	2,911	1,885	4,796
2014	108	4,960	2,739	7,698
2015	108	4,931	2,803	7,735
2016 ^{b/}	95	4,252	2,552	6,804
AREA 4B ADD-ON^{c/}				
1989-1990	12	-	662	662
1991-1995	6	-	386	386
1996-2000	3	-	138	138
2001	-	-	-	-
2002	-	-	-	-
2003	-	-	-	-
2004	-	-	-	-
2005	-	-	-	-
2006	-	-	-	-
2007	-	-	-	-
2008	1	-	33	33
2009	-	-	-	-
<hr style="border-top: 1px dashed black;"/>				
2010	-	-	-	-
2011	-	-	-	-
2012	-	-	-	-
2013	-	-	-	-
2014	-	-	-	-
2015	-	-	-	-
2016 ^{b/}	-	-	-	-

a/ Estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM) and IOPAC. These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Values from 2001 through 2009 are based on a run of the FEAM using 2000 PacFIN landings and 1998 IMPLAN data. Beginning with the 2010 data year, income impact estimates are based on the NWFSC's IOPAC model, which uses updated IMPLAN and landings data, and survey-based industry cost data. A description of the transition from FEAM-based to IOPAC-based impact multipliers and comparisons of results from the two models are found in Appendix E of the Review of 2014 Ocean Salmon Fisheries:

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b/ Preliminary

c/ There were no Area 4B add-on fisheries prior to 1989.

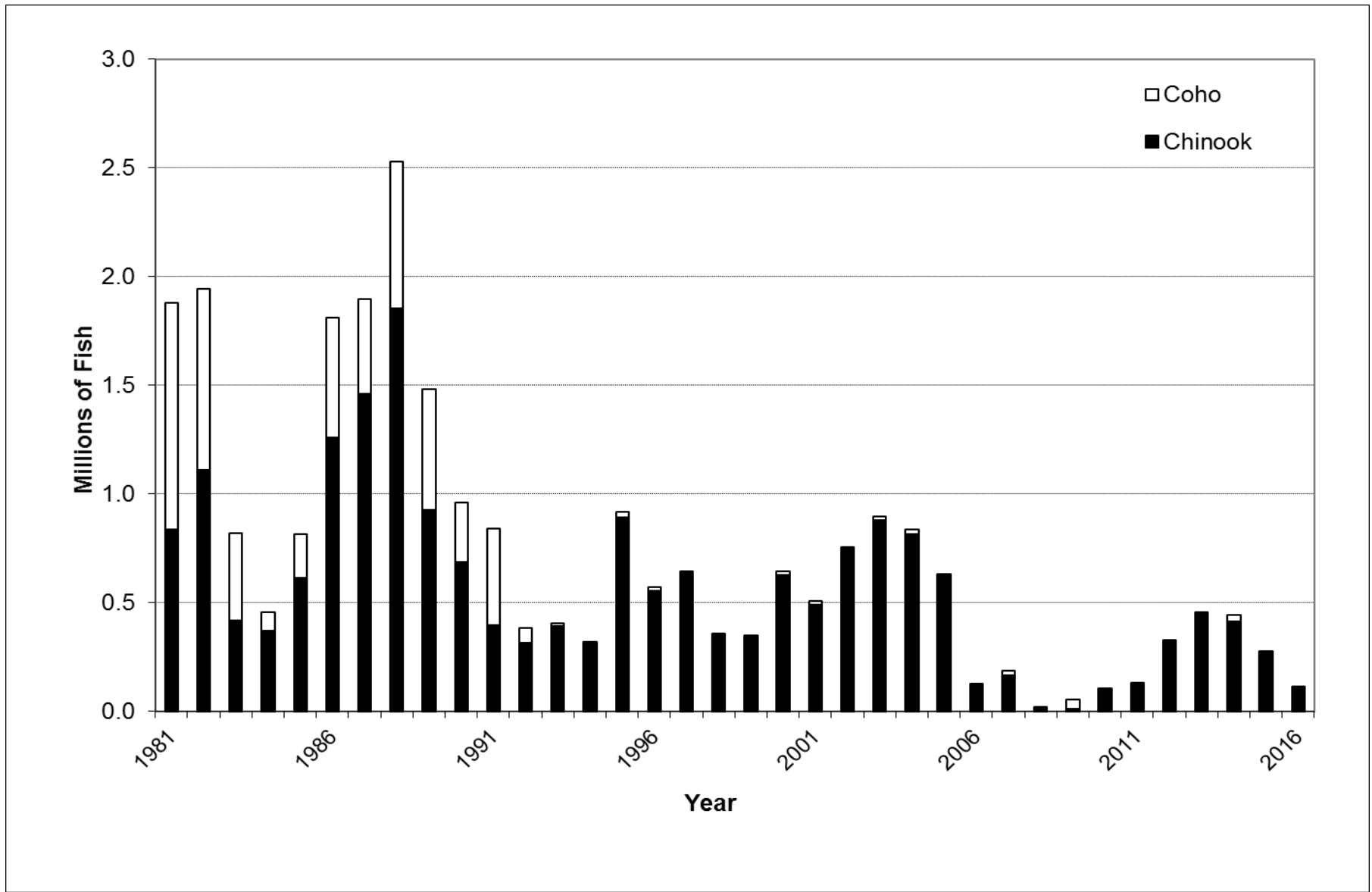


Figure IV-1. West Coast ocean non-Indian commercial Chinook and coho harvest.

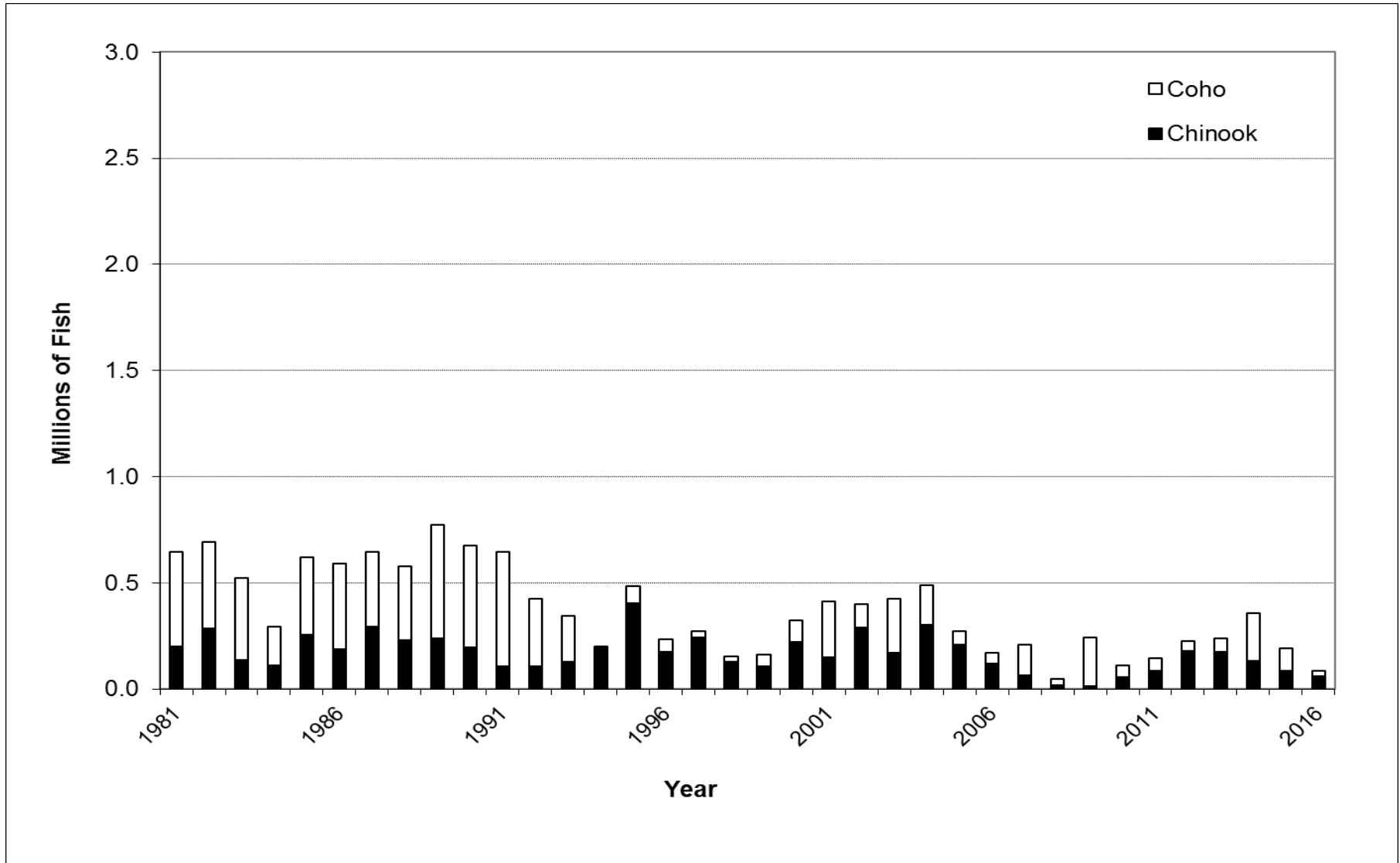


Figure IV-2. West Coast ocean recreational Chinook and coho harvest.

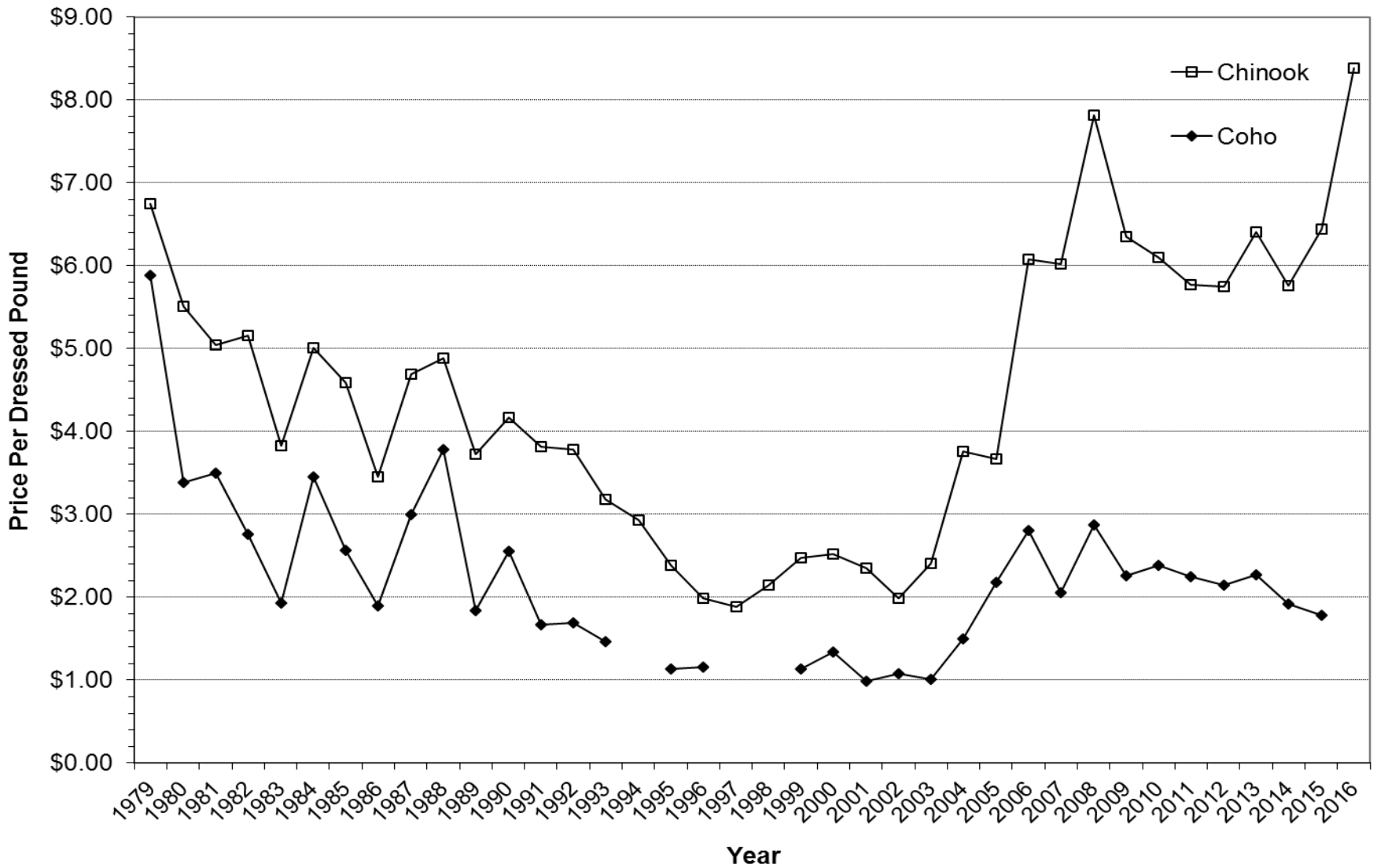


Figure IV-3. West Coast non-Indian ocean commercial salmon average annual exvessel prices (inflation adjusted, 2016 dollars).

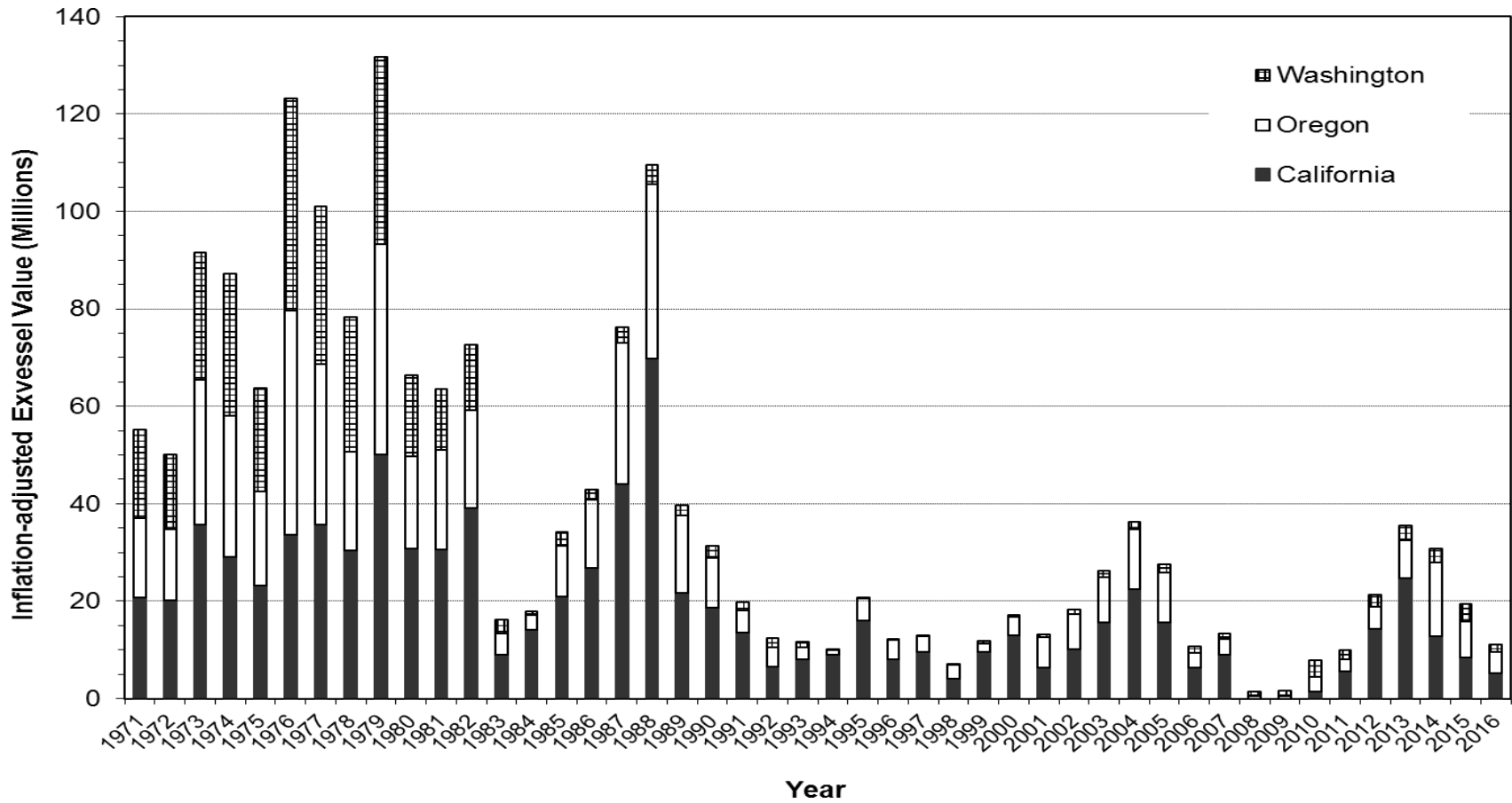


Figure IV-4. Exvessel value of West Coast non-Indian ocean commercial Chinook and coho landings by state of landing (inflation adjusted, 2016 dollars).

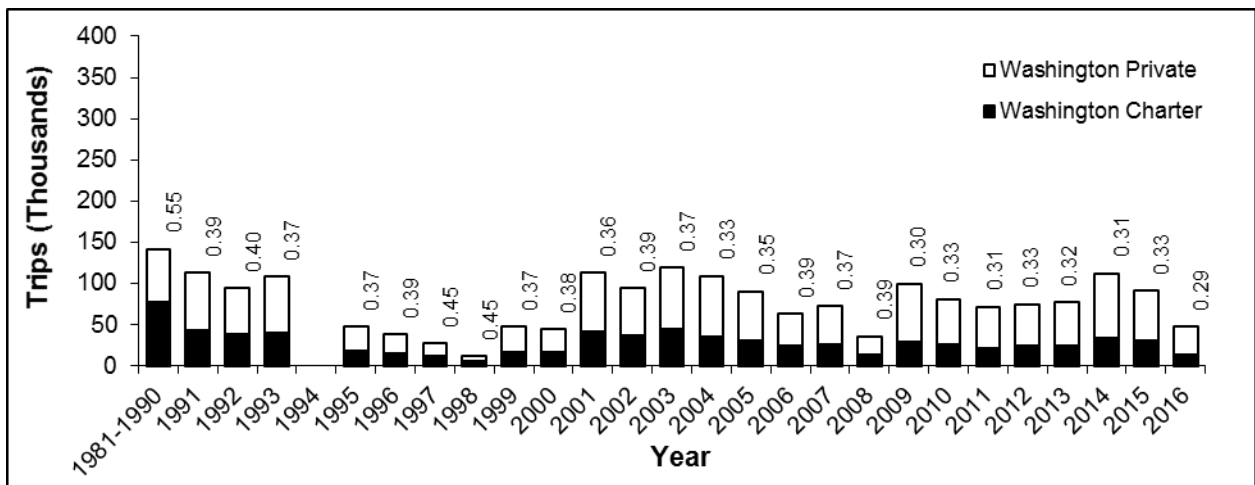
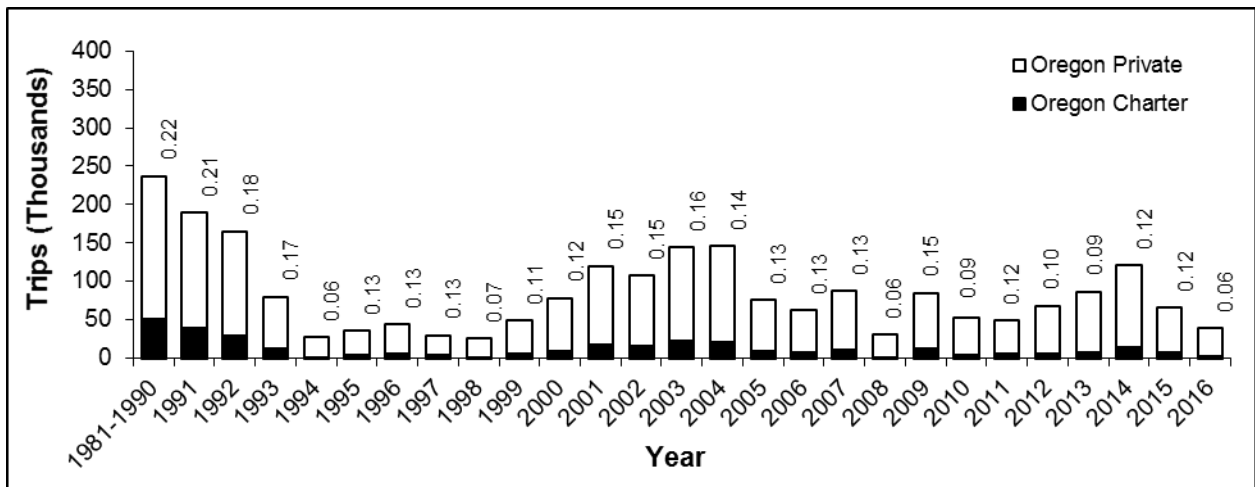
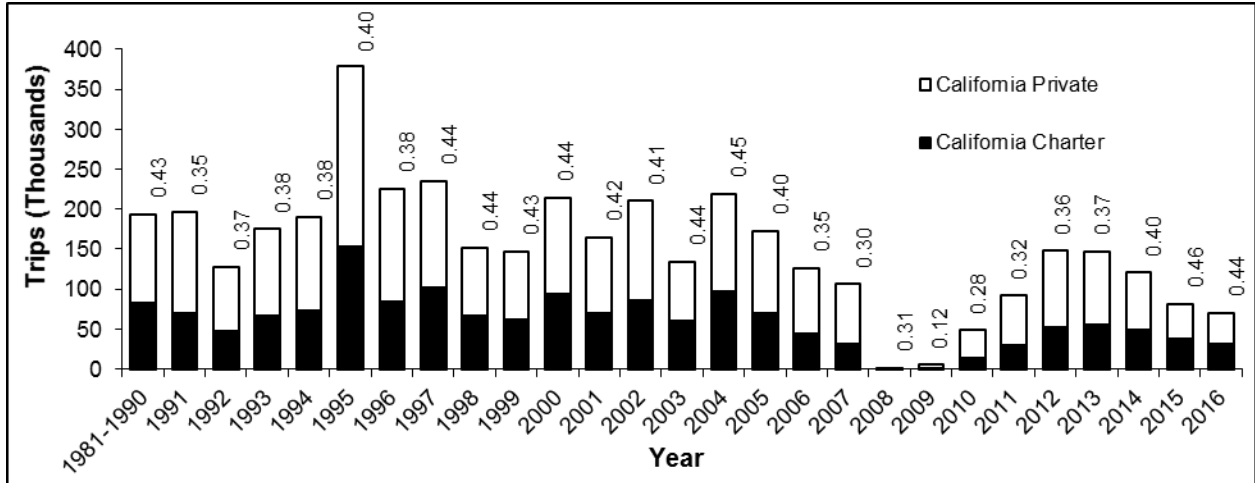


Figure IV-5. Total recreational ocean salmon trips for California, Oregon, and Washington, with proportion of charter trips shown above each bar.

**APPENDIX A
HISTORICAL RECORD OF OCEAN SALMON FISHERY
EFFORT AND LANDINGS**

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TABLE A-1. Summary of California commercial troll salmon fishing effort in days fished and landings in numbers of fish by catch area.

Year or Avg.	Crescent City ^{a/}	Eureka	Fort Bragg	San Francisco	Monterey	Oregon	Season
DAYS FISHED							
1978-1980	16,986	18,446	21,943	21,106	16,523	0	95,003
1981-1985	7,428	8,053	13,716	22,182	11,482	0	59,765
1986-1990	545	1,629	16,392	25,555	14,391	12	58,511
1991-1995	-	600	1,775	13,340	10,820	0	25,700
1996-2000	15	202	796	9,546	7,740	0	18,299
2001-2005	66	261	3,255	8,878	4,674	87	17,187
2006	-	-	434	5,488	2,337	-	8,259
2007	87	270	1,400	6,736	2,178	-	10,671
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	1,486	244	245	-	1,975
2011	20	181	2,143	2,907	1,722	-	6,973
2012	45	260	2,221	7,505	4,491	-	14,522
2013	98	563	5,341	8,327	2,964	-	17,293
2014	7	92	4,261	8,441	1,593	-	14,394
2015	10	22	4,971	5,466	2,542	-	13,011
2016 ^{b/}	7	52	1,479	4,063	1,559	-	7,160
CHINOOK LANDINGS							
1978-1980	44,259	166,282	143,867	174,684	89,545	0	618,637
1981-1985	48,548	61,130	109,258	181,548	84,103	0	462,652
1986-1990	13,997	32,329	252,416	351,115	144,846	1,064	794,703
1991-1995	-	4,700	17,354	200,588	126,517	0	341,928
1996-2000	126	3,379	12,529	195,662	156,305	0	368,001
2001-2005	1,412	5,298	96,466	210,228	64,827	9,484	383,921
2006	-	-	10,835	47,689	11,204	-	69,728
2007	2,367	6,395	16,116	75,254	14,009	-	114,141
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	12,553	1,105	1,430	-	15,088
2011	417	1,974	39,311	21,912	6,414	-	70,028
2012	400	4,831	38,282	119,100	52,972	-	215,585
2013	1,225	8,953	116,158	143,654	27,637	-	297,627
2014	21	599	76,931	82,424	8,308	-	168,283
2015	36	10	60,052	35,696	14,713	-	110,507
2016 ^{b/}	6	190	15,353	26,275	13,227	-	55,051
COHO LANDINGS							
1978-1980	72,133	90,024	29,918	20,778	9,418	0	222,270
1981-1985	20,094	23,675	14,628	7,728	1,356	0	67,480
1986-1990	3,795	5,998	26,000	9,377	1,611	39	46,819
1991-1995	-	3,100	4,500	26,900	11,775	-	46,275
1996-2000	-	-	-	-	-	-	-
2001-2005	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-

a/ Includes minor effort off Oregon for fish landed in California prior to 1986.

b/ Preliminary.

TABLE A-2. California commercial troll salmon fishing effort in days fished by catch area and month. (Page 1 of 2)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
<u>Crescent City^{a/}</u>								
1978-1980	56	2,043	4,261	6,285	5,025	756	-	16,986
1981-1985	-	1,363	961	1,947	2,509	1,295	-	7,428
1986-1990	-	9	360	219	253	10	-	545
1991-1995	-	-	-	-	-	-	-	-
1996-2000	-	-	-	-	10	13	-	15
2001-2005 ^{b/}	18	2	3	36	97	61	6	119
2006	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	87	-	87
2008	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-
2011	-	-	-	4	16	-	-	20
2012	-	-	-	-	-	45	-	45
2013	-	8	31	46	10	3	-	98
2014	-	-	-	-	-	7	-	7
2015	-	-	-	-	-	10	-	10
2016 ^{c/}	-	-	-	-	-	7	-	7
<u>Eureka</u>								
1978-1980	264	5,684	7,152	4,083	2,323	1,411	-	18,446
1981-1985	-	2,029	1,075	2,608	1,931	821	-	8,053
1986-1990	-	-	882	518	547	467	64	1,629
1991-1995	-	-	-	-	-	500	100	600
1996-2000	-	-	-	-	128	177	-	202
2001-2005	-	-	-	-	94	242	-	261
2006	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	270	-	270
2008	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-
2011	-	-	-	148	33	-	-	181
2012	-	-	-	-	-	260	-	260
2013	-	174	129	111	103	46	-	563
2014	-	-	-	-	-	92	-	92
2015	-	-	-	-	-	22	-	22
2016 ^{c/}	-	-	-	-	-	52	-	52
<u>Fort Bragg</u>								
1978-1980	29	2,285	4,678	9,987	4,348	2,185	-	21,943
1981-1985	-	2,084	2,156	5,527	2,422	1,527	-	13,716
1986-1990	-	2,775	3,887	5,151	3,802	777	-	16,392
1991-1995	-	100	-	-	3,500	875	-	1,775
1996-2000	-	-	-	-	1,300	536	-	796
2001-2005	-	614	-	1,380	1,926	1,026	-	3,255
2006	-	-	-	-	-	434	-	434
2007	106	-	-	-	1,252	42	-	1,400
2008	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2010	-	-	-	616	870	-	-	1,486
2011	-	-	-	596	1,386	161	-	2,143
2012	-	-	-	960	973	288	-	2,221
2013	-	277	1,032	2,221	1,251	560	-	5,341
2014	-	-	1,129	2,208	825	99	-	4,261
2015	-	2,376	987	768	623	217	-	4,971
2016 ^{c/}	-	-	663	-	611	205	-	1,479

TABLE A-2. California commercial troll salmon fishing effort in days fished by catch area and month. (Page 2 of 2)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
San Francisco								
1978-1980	347	5,780	5,242	7,139	2,417	2,044	-	21,106
1981-1985	727	3,897	2,958	6,819	5,214	3,003	-	22,182
1986-1990	-	6,506	7,111	5,948	4,125	1,864	-	25,555
1991-1995	-	3,480	2,540	2,700	2,840	1,780	-	13,340
1996-2000	100	1,525	1,732	2,730	1,916	1,624	-	9,546
2001-2005	-	2,106	1,894	2,643	1,493	1,249	293	8,878
2006	-	-	-	616	2,549	1,949	374	5,488
2007	-	1,656	-	2,954	1,152	806	168	6,736
2008	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2010	-	-	-	244	-	-	-	244
2011	-	900	164	873	394	459	117	2,907
2012	-	1,723	686	2,199	1,422	1,006	469	7,505
2013	-	2,401	2,062	1,358	1,269	1,014	223	8,327
2014	-	2,187	1,200	761	2,058	1,660	575	8,441
2015	-	839	745	639	1,250	1,478	515	5,466
2016 ^{c/}	-	575	140	-	1,815	1,359	174	4,063
Monterey								
1978-1980	1,024	5,293	4,310	4,581	2,220	873	-	16,523
1981-1985	1,311	4,245	2,767	2,746	964	236	-	11,482
1986-1990	-	5,235	4,255	3,367	1,335	198	-	14,391
1991-1995	-	4,360	3,080	2,460	780	140	-	10,820
1996-2000	313	3,117	2,441	1,840	178	94	-	7,740
2001-2005	-	2,318	852	1,069	315	120	-	4,674
2006	-	2,062	103	34	44	94	-	2,337
2007	-	1,476	29	334	255	84	-	2,178
2008	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2010	-	-	-	245	-	-	-	245
2011	-	979	340	268	117	18	-	1,722
2012	-	2,015	907	1,247	255	67	-	4,491
2013	-	1,590	810	400	118	46	-	2,964
2014	-	824	353	312	104	-	-	1,593
2015	-	1,219	660	536	127	-	-	2,542
2016 ^{c/}	-	1,080	479	-	-	-	-	1,559
Total Statewide^{a/}								
1978-1980	1,718	21,086	25,641	32,076	16,334	7,268	-	95,003
1981-1985	2,037	12,939	9,510	18,736	12,153	5,613	-	59,765
1986-1990	-	14,524	16,246	14,658	9,741	3,316	64	58,511
1991-1995	-	7,860	5,620	5,160	4,320	2,720	100	25,700
1996-2000	363	4,642	4,173	4,570	2,346	2,424	-	18,299
2001-2005	18	4,249	2,368	4,547	3,021	2,700	296	17,187
2006	-	2,062	103	650	2,593	2,477	374	8,259
2007	106	3,132	29	3,288	2,659	1,289	168	10,671
2008	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2010	-	-	-	1,105	870	-	-	1,975
2011	-	1,879	504	1,889	1,946	638	117	6,973
2012	-	3,738	1,593	4,406	2,650	1,666	469	14,522
2013	-	4,450	4,064	4,136	2,751	1,669	223	17,293
2014	-	3,011	2,682	3,281	2,987	1,858	575	14,394
2015	-	4,434	2,392	1,943	2,000	1,727	515	13,011
2016 ^{c/}	-	1,655	1,282	-	2,426	1,623	174	7,160

a/ Includes minor effort off Oregon for fish landed in California.

b/ Commercial fishery closed in all months except August 2002 (27 days fished) and September 2001-2005 (quota fisheries); all other harvest occurred in Oregon waters but were landed in Crescent City.

c/ Preliminary.

TABLE A-3. California commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month. (Page 3 of 3)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
CHINOOK								COHO								
Monterey																
1978-1980	12,314	29,539	23,936	18,117	9,381	3,509	-	89,545	37	3,539	4,986	1,778	72	34	-	9,418
1981-1985	15,312	34,978	16,852	19,382	5,619	1,148	-	84,103	84	149	896	260	65	12	-	1,356
1986-1990	-	61,484	42,139	29,992	9,011	2,220	-	144,846	-	-	1,024	508	89	10	-	1,611
1991-1995	-	51,806	30,129	37,446	5,936	1,200	-	126,517	-	-	9,300	2,400	75	-	-	11,775
1996-2000	5,947	71,787	50,021	30,878	1,131	421	-	156,305	-	-	-	-	-	-	-	-
2001-2005	-	32,363	13,821	16,115	2,047	480	-	64,827	-	-	-	-	-	-	-	-
2006	-	9,911	391	346	248	308	-	11,204	-	-	-	-	-	-	-	-
2007	-	11,202	156	1,930	605	116	-	14,009	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	1,430	-	-	-	1,430	-	-	-	-	-	-	-	-
2011	-	3,979	1,359	695	333	48	-	6,414	-	-	-	-	-	-	-	-
2012	-	24,852	9,295	16,926	1,670	229	-	52,972	-	-	-	-	-	-	-	-
2013	-	14,111	10,003	2,900	514	109	-	27,637	-	-	-	-	-	-	-	-
2014	-	4,341	1,538	2,011	418	-	-	8,308	-	-	-	-	-	-	-	-
2015	-	7,608	3,410	3,131	564	-	-	14,713	-	-	-	-	-	-	-	-
2016 ^{c/}	-	10,201	3,026	-	-	-	-	13,227	-	-	-	-	-	-	-	-
Total Statewide^{a/}																
1978-1980	42,724	200,034	136,693	173,352	67,912	33,804	-	618,637	38	54,897	149,408	53,987	12,921	2,035	-	210,303
1981-1985	31,016	124,589	74,723	145,130	82,132	23,673	-	462,652	92	5,037	12,948	28,164	12,469	1,079	-	58,726
1986-1990	-	240,135	257,835	195,138	77,291	24,112	480	794,703	-	-	23,790	18,257	4,444	1,138	125	46,780
1990-1995	-	121,373	73,940	80,950	42,707	22,878	400	341,928	-	-	25,850	12,250	2,825	3,000	100	42,475
1996-2000	7,580	121,717	101,679	88,632	24,597	28,344	-	368,001	-	-	-	-	-	-	-	-
2001-2005	1,186	81,387	73,639	123,448	56,697	46,255	2,022	383,921	-	-	-	-	-	-	-	-
2006	-	9,911	391	16,783	18,589	22,982	1,072	69,728	-	-	-	-	-	-	-	-
2007	748	36,598	156	41,808	23,212	11,267	352	114,141	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	8,906	6,182	-	-	15,088	-	-	-	-	-	-	-	-
2011	-	11,732	4,189	31,669	20,301	1,820	317	70,028	-	-	-	-	-	-	-	-
2012	-	58,857	19,385	92,842	28,266	12,922	3,313	215,585	-	-	-	-	-	-	-	-
2013	-	77,516	84,549	98,270	25,257	11,094	941	297,627	-	-	-	-	-	-	-	-
2014	-	34,946	39,581	54,568	24,085	12,118	2,985	168,283	-	-	-	-	-	-	-	-
2015	-	53,561	19,489	12,920	11,467	10,453	2,617	110,507	-	-	-	-	-	-	-	-
2016 ^{c/}	-	13,335	13,421	-	18,272	9,449	574	55,051	-	-	-	-	-	-	-	-

a/ Includes minor catches made off Oregon and landed in California prior to 2005.

b/ Commercial fishery closed all months except Aug. 2002 (681 Chinook) and Sept. 2001-2005; all other harvest occurred in Oregon waters but were landed in Crescent City.

c/ Preliminary.

TABLE A-4. California ocean recreational salmon fishing effort in angler trips by catch area and month. (Page 1 of 3)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>Crescent City</u>											
1976-1980	--	--	1	41	3,679	9,656	5,384	1,211	0	0	19,973
1981-1985	--	--	0	572	3,912	11,525	6,620	504	0	0	23,133
1986-1990	--	--	-	1,417	11,087	19,316	6,758	981	-	-	39,560
1991-1995	-	-	-	2,376	4,333	9,250	2,319	1,563	-	-	14,334
1996-2000	-	-	-	555	2,320	1,460	2,184	331	-	-	6,849
2001-2005	-	-	-	594	1,038	969	1,182	289	-	-	4,072
2006	-	-	-	325	754	312	-	87	-	-	1,478
2007	-	-	-	277	484	1,027	225	69	-	-	2,082
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	498	607	-	-	1,105
2010	-	-	-	72	38	48	33	15	-	-	206
2011	-	-	-	187	104	245	185	45	-	-	766
2012	-	-	-	455	1,018	4,134	1,702	502	-	-	7,811
2013	-	-	-	456	2,538	3,228	816	0	-	-	7,038
2014	-	-	-	1,441	786	1,996	172	10	-	-	4,405
2015	-	-	-	210	89	161	137	44	-	-	641
2016 ^{av}	-	-	-	59	222	176	56	50	-	-	563
<u>Eureka</u>											
1976-1980	--	--	3	315	5,292	12,575	5,346	350	12	0	23,893
1981-1985	--	--	1	1,222	4,740	11,724	4,914	493	14	0	23,108
1986-1990	--	--	-	1,648	9,487	18,674	7,126	963	0	-	37,898
1991-1995	-	-	-	1,480	5,837	8,301	2,249	2,151	21	-	14,789
1996-2000	-	-	-	1,539	3,808	1,758	3,815	723	-	-	11,643
2001-2005	-	-	-	2,309	4,388	2,651	5,749	1,819	-	-	16,915
2006	-	-	-	3,951	5,208	2,146	-	3,668	-	-	14,973
2007	-	-	-	1,737	4,987	4,914	5,212	1,511	-	-	18,361
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	2,017	2,237	-	-	4,254
2010	-	-	-	464	638	897	1,841	183	-	-	4,023
2011	-	-	-	1,664	2,574	4,625	4,597	723	-	-	14,183
2012	-	-	-	2,680	6,514	5,833	6,671	1,873	-	-	23,571
2013	-	-	-	2,756	5,976	6,028	7,416	614	-	-	22,790
2014	-	-	-	2,710	4,157	5,170	3,580	612	-	-	16,229
2015	-	-	-	2,431	1,166	2,321	2,216	164	-	-	8,298
2016 ^{av}	-	-	-	1,579	1,933	2,380	1,888	610	-	-	8,390

TABLE A-4. California ocean recreational salmon fishing effort in angler trips by catch area and month. (Page 2 of 3)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>Fort Bragg</u>											
1976-1980	--	--	0	117	1,652	5,610	3,703	596	1	0	11,679
1981-1985	--	--	2	53	2,246	5,039	2,074	138	4	0	9,557
1986-1990	0	2	80	705	4,483	7,055	2,464	650	4	0	15,441
1991-1995	161	313	745	2,001	6,137	9,103	5,427	1,316	276	6	20,573
1996-2000	32	374	910	2,269	6,011	3,120	5,059	1,277	265	--	19,117
2001-2005	463	878	1,309	3,054	6,649	8,885	6,013	996	75	8	28,239
2006	289	298	800	2,327	5,917	6,655	4,051	631	0	0	20,968
2007	249	855	692	2,280	5,593	5,271	2,013	146	25	0	17,124
2008	206	185	-	-	-	-	-	-	-	-	391
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	1,269	1,230	743	1,460	1,625	232	-	-	6,559
2011	-	-	1,532	1,522	2,294	6,234	1,975	650	182	-	14,389
2012	-	-	1,230	2,088	2,975	4,076	2,890	1,069	334	151	14,813
2013	-	-	934	1,666	3,519	7,136	3,076	667	220	47	17,265
2014	-	-	1,049	1,371	2,538	9,435	2,554	373	102	48	17,470
2015	-	-	1,051	1,321	1,615	5,002	2,278	423	94	5	11,789
2016 ^{av}	-	-	706	934	1,012	4,817	1,751	319	68	0	9,607
<u>San Francisco</u>											
1976-1980	8,103	10,269	7,245	8,582	10,414	15,307	15,199	12,488	7,866	4,022	97,886
1981-1985	4,117	5,811	6,039	6,892	10,779	15,006	14,061	9,291	5,577	1,343	78,915
1986-1990	4,825	9,832	12,258	8,986	12,572	18,560	15,985	9,606	4,755	1,198	98,579
1991-1995	666	5,891	6,812	8,020	12,807	29,791	17,622	8,726	4,520	148	94,781
1996-2000	-	6,364	9,125	9,112	13,999	27,446	17,266	7,577	3,985	916	93,968
2001-2005	-	-	6,252	10,800	11,324	24,675	16,469	8,815	4,073	1,140	83,548
2006	-	-	3,860	11,575	13,994	20,739	5,557	3,371	1,827	448	61,371
2007	-	-	3,505	6,915	8,340	13,775	4,908	2,511	1,766	1,394	43,114
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	3,889	1,521	1,693	4,846	5,730	1,673	-	-	19,352
2011	-	-	2,046	2,272	1,630	8,505	9,094	7,591	3,249	-	34,387
2012	-	-	4,113	6,663	11,396	15,667	10,085	6,421	2,779	418	57,542
2013	-	-	6,406	7,823	11,183	22,814	14,354	4,572	2,003	379	69,534
2014	-	-	3,433	3,406	2,163	11,779	18,604	9,589	5,046	675	54,695
2015	-	-	2,380	2,708	5,176	9,851	12,523	9,838	3,389	-	45,865
2016 ^{av}	-	-	2,797	4,723	2,786	11,517	11,299	8,069	2,175	-	43,366

TABLE A-4. California ocean recreational salmon fishing effort in angler trips by catch area and month. (Page 3 of 3)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
Monterey											
1976-1980	1,763	2,199	1,984	1,229	931	1,137	498	161	101	56	10,038
1981-1985	990	2,134	2,730	1,953	1,317	1,993	805	164	67	84	12,237
1986-1990	3,447	7,261	11,695	4,141	6,637	10,555	4,182	637	269	364	49,189
1991-1995	792	8,912	15,522	12,159	11,062	16,341	4,519	1,051	1,498	600	71,520
1996-2000	-	11,189	15,209	10,403	11,864	12,301	3,672	762	-	-	63,009
2001-2005	-	2,946	20,318	9,402	6,396	7,846	1,366	322	--	-	47,353
2006	-	-	14,538	3,226	5,465	4,311	76	100	-	-	27,716
2007	-	-	10,846	4,102	5,687	2,502	1,611	434	26	-	25,208
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	11,616	4,019	300	2,004	528	60	-	-	18,527
2011	-	-	11,987	2,149	3,013	5,561	3,318	1,923	-	-	27,951
2012	-	-	16,123	9,326	7,603	8,674	1,645	424	475	-	44,270
2013	-	-	12,262	5,698	3,613	6,210	2,582	282	22	-	30,669
2014	-	-	15,744	3,745	2,974	2,678	1,841	481	45	-	27,508
2015	-	-	7,654	3,372	2,419	1,391	317	32	-	-	15,185
2016 ^{a/}	-	-	4,503	2,624	484	150	-	-	-	-	7,761
Total Statewide											
1976-1980	9,865	12,468	9,233	10,285	21,968	44,285	30,130	14,806	7,981	4,078	163,469
1981-1985	5,107	7,945	8,772	10,692	22,993	45,287	28,475	10,590	5,662	1,426	146,950
1986-1990	8,272	17,094	24,034	16,896	44,266	74,160	36,515	12,837	5,029	1,563	240,667
1991-1995	1,263	15,054	23,079	25,264	38,143	62,125	30,137	14,807	5,943	302	215,996
1996-2000	32	17,927	25,245	23,878	38,002	46,084	31,995	10,517	4,144	916	194,586
2001-2005	463	2,645	27,879	26,158	29,796	45,026	30,779	12,176	4,148	1,148	180,127
2006	289	298	19,198	21,404	31,338	34,163	9,684	7,857	1,827	448	126,506
2007	249	855	15,043	15,311	25,091	27,489	13,969	4,671	1,817	1,394	105,889
2008	206	185	-	-	-	-	-	-	-	-	391
2009	-	-	-	-	-	-	2,515	2,844	-	-	5,359
2010	-	-	16,774	7,306	3,412	9,255	9,757	2,163	-	-	48,667
2011	-	-	15,565	7,794	9,615	25,170	19,169	10,932	3,431	-	91,676
2012	-	-	21,466	21,212	29,506	38,384	22,993	10,289	3,588	569	148,007
2013	-	-	19,602	18,399	26,829	45,416	28,244	6,135	2,245	426	147,296
2014	-	-	20,226	12,673	12,618	31,058	26,751	11,065	5,193	723	120,307
2015	-	-	11,085	10,042	10,465	18,726	17,471	10,501	3,483	5	81,778
2016 ^{a/}	-	-	8,006	9,919	6,437	19,040	14,994	9,048	2,243	0	69,687

a/ Preliminary.

TABLE A-5. California ocean recreational salmon landings in numbers of fish by catch area and month. (Page 1 of 2)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
	CHINOOK											COHO										
Crescent City																						
1976-1980	--	--	0	2	470	1,756	1,286	81	0	0	3,595	--	--	0	9	3,087	6,587	2,049	156	0	0	11,889
1981-1985	--	--	0	497	1,439	3,107	1,925	65	0	0	7,032	--	--	0	23	1,222	4,403	1,656	72	0	0	7,376
1986-1990	--	--	-	414	4,552	7,689	1,640	315	-	-	14,610	--	--	-	71	3,561	8,430	1,645	141	-	-	13,847
1991-1995	-	-	-	1,316	1,402	1,101	301	405	-	-	3,481	-	-	-	5	2,223	5,171	725	133	-	-	5,597
1996-2000	-	-	-	166	827	680	659	81	-	-	2,413	-	-	-	4	27	23	21	19	-	-	61
2001-2005	-	-	-	265	403	237	308	91	-	-	1,304	-	-	-	6	19	22	15	-	-	-	49
2006	-	-	-	252	273	216	-	15	-	-	756	-	-	-	3	9	8	-	-	-	-	20
2007	-	-	-	30	198	589	27	27	-	-	871	-	-	-	-	8	43	-	5	-	-	56
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	36	111	-	-	147	-	-	-	-	-	-	-	3	-	-	3
2010	-	-	-	0	0	0	0	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	36	12	42	18	5	-	-	113	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	115	761	4,761	1,469	326	-	-	7,432	-	-	-	-	23	27	-	-	-	-	50
2013	-	-	-	140	2,913	2,726	284	0	-	-	6,063	-	-	-	-	22	19	-	-	-	-	41
2014	-	-	-	1,522	402	1,284	25	0	-	-	3,233	-	-	-	-	16	50	-	-	-	-	66
2015	-	-	-	23	19	0	22	0	-	-	64	-	-	-	-	-	-	-	-	-	-	-
2016 ^W	-	-	-	4	9	20	0	0	-	-	33	-	-	-	-	-	-	-	-	-	-	-
Eureka																						
1976-1980	--	--	0	159	1,247	3,656	953	56	4	0	6,075	--	--	1	97	4,135	7,074	1,734	74	0	0	13,114
1981-1985	--	--	1	1,284	2,226	4,927	1,075	73	8	0	9,594	--	--	0	157	2,585	5,755	1,718	151	0	0	10,366
1986-1990	--	--	-	953	4,926	6,722	3,014	184	0	-	15,798	--	--	-	660	5,551	12,445	2,726	269	0	-	21,651
1991-1995	-	-	-	621	3,097	1,890	725	625	1	-	5,313	-	-	-	209	3,364	5,067	506	381	2	-	6,642
1996-2000	-	-	-	805	1,948	992	2,064	239	-	-	6,049	-	-	-	12	38	16	44	12	-	-	108
2001-2005	-	-	-	2,609	3,762	2,062	4,074	1,808	-	-	14,315	-	-	-	51	83	26	41	27	-	-	217
2006	-	-	-	4,316	5,413	2,113	-	3,805	-	-	15,647	-	-	-	88	20	25	-	88	-	-	221
2007	-	-	-	797	5,050	4,296	6,037	1,845	-	-	18,025	-	-	-	-	105	96	108	36	-	-	345
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	266	259	-	-	525	-	-	-	-	-	-	-	5	-	-	5
2010	-	-	-	17	158	37	477	31	-	-	720	-	-	-	-	-	-	50	-	-	-	50
2011	-	-	-	630	934	4,342	3,672	296	-	-	9,874	-	-	-	5	10	50	29	4	-	-	98
2012	-	-	-	3,462	10,104	7,049	9,019	2,378	-	-	32,012	-	-	-	-	12	5	-	-	-	-	17
2013	-	-	-	2,423	7,601	8,579	8,876	439	-	-	27,918	-	-	-	-	35	39	122	-	-	-	196
2014	-	-	-	2,074	4,877	3,159	2,181	303	-	-	12,594	-	-	-	19	72	118	4	3	-	-	216
2015	-	-	-	877	260	1,088	1,385	16	-	-	3,626	-	-	-	-	8	4	-	-	-	-	12
2016 ^W	-	-	-	1,450	934	1,414	646	523	-	-	4,967	-	-	-	-	18	9	-	-	-	-	27
Fort Bragg																						
1976-1980	--	--	0	19	367	1,724	1,212	100	0	0	3,423	--	--	0	59	634	1,239	391	82	0	0	2,406
1981-1985	--	--	1	29	616	1,553	319	11	1	0	2,530	--	--	0	0	224	568	137	3	0	0	932
1986-1990	0	1	85	360	2,626	3,857	674	71	2	0	7,676	0	0	0	38	860	1,862	264	70	0	0	3,094
1991-1995	52	85	429	1,182	5,940	2,869	2,378	456	43	1	11,801	0	1	4	177	1,847	7,157	678	111	10	0	6,985
1996-2000	6	112	641	1,433	4,923	3,268	3,312	728	37	-	14,291	-	-	3	8	66	20	46	17	-	-	123
2001-2005	196	426	746	2,129	6,469	9,036	4,379	397	28	0	23,767	-	-	-	21	89	119	33	13	-	-	241
2006	55	109	255	1,418	4,630	4,672	2,743	111	0	0	13,993	-	-	-	19	140	176	40	-	-	-	375
2007	48	200	67	1,425	1,873	1,980	158	0	0	0	5,751	-	-	-	-	5	12	4	-	-	-	21
2008	0	6	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	204	264	27	417	657	109	-	-	1,678	-	-	-	7	-	15	19	-	-	-	41
2011	-	-	880	705	938	4,043	510	204	118	-	7,398	-	-	-	-	18	83	4	-	5	-	110
2012	-	-	414	1,530	1,951	2,300	1,185	393	84	72	7,929	-	-	-	-	13	9	-	3	-	-	25
2013	-	-	310	695	2,459	5,145	1,296	258	5	0	10,168	-	-	-	-	9	20	4	-	-	-	33
2014	-	-	714	630	1,358	9,035	696	103	4	0	12,540	-	-	-	-	18	123	-	-	-	-	141
2015	-	-	394	331	215	3,071	1,295	183	4	0	5,493	-	-	-	5	-	13	5	-	-	-	23
2016 ^W	-	-	108	104	222	3,524	990	81	8	0	5,037	-	-	-	-	-	35	-	-	-	-	35

TABLE A-5. California ocean recreational salmon landings in numbers of fish by catch area and month. (Page 2 of 2)

Year or Avg.	CHINOOK											COHO										
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
San Francisco																						
1976-1980	5,338	7,787	7,423	5,763	10,882	14,396	8,390	7,292	6,618	1,328	75,216	4	8	229	1,341	875	883	203	53	14	2	3,611
1981-1985	5,339	5,819	5,505	7,181	12,346	16,869	16,032	8,497	5,527	1,367	84,484	0	1	11	138	439	323	145	37	29	0	1,123
1986-1990	4,510	10,976	16,873	8,315	12,172	17,167	15,479	7,596	4,108	1,094	98,291	0	1	38	159	339	379	480	83	12	0	1,490
1991-1995	249	5,050	7,028	6,921	14,149	33,404	13,387	8,221	3,591	52	91,971	1	8	17	71	1,035	1,184	157	31	13	0	2,517
1996-2000	-	6,310	8,191	8,343	13,124	27,456	12,395	4,759	2,955	982	82,664	-	-	-	8	60	68	12	15	6	-	140
2001-2005	-	-	5,540	11,659	13,806	26,717	10,680	6,287	2,220	395	77,305	-	-	2	56	68	187	55	9	-	-	348
2006	-	-	1,803	12,416	18,151	20,092	1,280	861	256	67	54,926	-	-	-	57	296	310	9	-	-	-	672
2007	-	-	796	4,245	4,642	5,419	650	278	441	325	16,796	-	-	-	37	30	114	9	14	-	-	204
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	1,004	452	598	1,764	2,012	286	-	-	6,116	-	-	-	-	68	-	-	8	-	-	76
2011	-	-	432	934	326	4,457	6,531	5,914	1,140	-	19,734	-	-	-	-	17	26	-	-	-	-	43
2012	-	-	3,837	5,143	10,700	15,329	5,340	3,871	1,881	88	46,189	-	-	-	3	-	5	-	-	-	-	8
2013	-	-	8,121	9,018	12,204	21,798	6,818	1,891	1,354	87	61,291	-	-	-	-	24	62	-	-	-	-	86
2014	-	-	1,854	2,318	559	5,587	12,679	6,266	3,065	125	32,453	-	-	-	4	-	40	-	-	-	-	44
2015	-	-	933	1,072	2,396	5,126	6,113	8,014	1,573	-	25,227	-	-	-	-	4	2	-	-	-	-	6
2016 ^{a/}	-	-	1,206	3,563	1,218	7,993	6,008	5,728	592	-	26,308	-	-	-	-	-	-	8	-	-	-	8
Monterey																						
1976-1980	493	717	1,292	456	532	437	92	41	45	11	4,114	6	6	9	39	43	29	7	0	0	0	139
1981-1985	608	1,446	1,731	444	341	568	236	22	18	43	5,457	0	0	10	11	17	12	20	0	0	0	70
1986-1990	1,120	4,312	9,407	1,362	4,126	7,467	1,704	167	129	225	30,020	0	0	18	15	101	144	28	1	0	0	306
1991-1995	292	6,001	14,107	7,457	7,574	18,690	2,519	248	1,032	372	57,730	0	0	2	12	245	361	34	0	6	0	657
1996-2000	-	7,763	15,030	7,820	11,023	9,943	1,908	490	-	-	52,326	-	-	-	-	19	12	4	-	-	-	20
2001-2005	-	2,235	15,937	3,243	4,292	5,967	440	81	--	--	31,284	-	-	4	82	40	34	-	-	-	-	124
2006	-	-	7,350	399	1,318	1,893	0	10	-	-	10,970	-	-	-	32	204	102	-	-	-	-	338
2007	-	-	2,289	735	2,098	681	346	112	0	-	6,261	-	-	-	16	69	23	12	-	-	-	120
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	4,057	1,692	5	387	154	0	-	-	6,295	-	-	8	-	-	-	-	-	-	-	8
2011	-	-	4,210	280	1,170	3,998	2,369	676	-	-	12,703	-	-	8	10	27	7	13	-	-	-	65
2012	-	-	14,535	4,473	4,376	6,268	462	121	129	-	30,364	-	-	-	-	1	-	-	-	-	-	1
2013	-	-	5,225	1,624	1,066	2,261	440	18	0	-	10,634	-	-	-	-	1	4	-	-	-	-	5
2014	-	-	11,356	964	782	613	267	34	4	-	14,020	-	-	-	12	-	-	-	-	-	-	12
2015	-	-	1,697	490	543	313	27	0	-	-	3,070	-	-	-	-	-	-	-	-	-	-	-
2016 ^{a/}	-	-	716	572	47	0	-	-	-	-	1,335	-	-	-	-	-	-	-	-	-	-	-
Total Statewide																						
1976-1980	5,830	8,504	8,715	6,399	13,497	21,969	11,933	7,569	6,667	1,338	92,422	10	14	239	1,545	8,774	15,812	4,383	366	15	2	31,158
1981-1985	5,947	7,266	7,239	9,435	16,968	27,024	19,587	8,667	5,554	1,410	109,097	0	1	21	329	4,486	11,061	3,677	262	29	0	19,866
1986-1990	5,630	15,288	26,365	11,404	28,402	42,902	22,512	8,333	4,240	1,319	166,395	0	1	56	943	10,412	23,259	5,142	563	12	0	40,388
1991-1995	484	11,136	21,564	17,109	31,262	55,610	18,628	9,956	4,451	239	170,296	0	9	23	389	7,597	11,982	1,717	656	25	0	22,399
1996-2000	6	14,184	23,734	18,567	31,846	42,339	20,338	6,198	2,977	982	157,742	-	-	3	16	167	126	125	29	6	-	452
2001-2005	196	1,767	22,222	19,905	28,732	44,019	19,882	8,648	2,248	395	147,974	-	-	3	171	280	379	122	31	-	-	979
2006	55	109	9,408	18,801	29,785	28,986	4,023	4,802	256	67	96,292	-	-	-	199	669	621	49	88	-	-	1,626
2007	48	200	3,152	7,232	13,861	12,965	7,218	2,262	441	325	47,704	-	-	-	53	217	288	133	55	-	-	746
2008	0	6	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	302	370	-	-	672	-	-	-	-	-	-	-	8	-	-	8
2010	-	-	5,265	2,425	788	2,605	3,300	426	-	-	14,809	-	-	8	7	68	15	69	8	-	-	175
2011	-	-	5,522	2,585	3,380	16,882	13,100	7,095	1,258	-	49,822	-	-	8	15	72	166	46	4	5	-	316
2012	-	-	18,786	14,723	27,892	35,707	17,475	7,089	2,094	160	123,926	-	-	-	3	49	46	-	3	-	-	101
2013	-	-	13,656	13,900	26,243	40,509	17,714	2,606	1,359	87	116,074	-	-	-	-	91	144	126	-	-	-	361
2014	-	-	13,924	7,508	7,978	19,678	15,848	6,706	3,073	125	74,840	-	-	-	23	118	331	4	3	-	-	479
2015	-	-	3,024	2,793	3,433	9,598	8,842	8,213	1,577	0	37,480	-	-	-	5	12	19	5	-	-	-	41
2016 ^{a/}	-	-	2,030	5,693	2,430	12,951	7,644	6,332	600	0	37,680	-	-	-	-	18	44	8	-	-	-	70

a/ Preliminary.

TABLE A-6. Summary of Oregon commercial troll salmon fishing effort in days fished and landings in fish by catch area.^{a/} (Page 1 of 2)

Year or Average	Astoria	Tillamook	New port	Coos Bay	Brookings	Oregon Subtotal	Alaska	Washington	California	Total
DAYS FISHED										
1976-1980	2,875	7,782	15,029	20,620	9,578	55,885	0	1	0	55,886
1981-1985	1,096	3,409	6,008	9,960	5,024	25,496	8	295	210	26,009
1986-1990	659	6,887	8,650	20,307	1,652	38,154	3	74	44	38,275
1991-1995	374	1,941	4,722	2,011	196	9,016	0	22	7	9,046
1996-2000	70	947	3,733	2,135	316	7,187	0	12	31	7,230
2001-2005	390	1,591	4,664	4,935	439	12,019	0	125	8	12,153
2006	984	751	2,216	367	184	4,502	0	0	0	4,502
2007	330	698	1,104	2,620	465	5,217	0	0	0	5,217
2008	655	49	-	48	51	803	0	0	-	803
2009	540	271	286	137	-	1,234	0	0	-	1,234
2010	632	404	1,524	1,555	181	4,296	0	0	-	4,296
2011	289	220	748	2,206	289	3,752	0	0	-	3,752
2012	416	635	2,112	2,711	382	6,256	0	0	-	6,256
2013	287	830	1,722	5,440	707	8,986	0	0	-	8,986
2014	816	556	3,697	4,864	770	10,703	0	0	-	10,703
2015	818	866	2,752	3,773	520	8,729	0	0	-	8,729
2016 ^{b/}	225	237	2,761	1,048	127	4,398	0	0	-	4,398
CHINOOK LANDINGS										
1976-1980	15,336	11,222	46,613	85,563	73,899	232,632	300	2,800	900	236,632
1981-1985	5,556	5,901	27,917	63,507	42,623	145,503	89	2,982	2,157	150,731
1986-1990	3,477	26,242	82,957	253,426	28,825	394,927	137	1,179	1,386	397,628
1991-1995	937	6,887	76,934	15,554	1,679	100,945	0	212	276	101,432
1996-2000	572	8,191	81,290	36,042	3,542	129,523	0	54	597	130,175
2001-2005	8,095	25,572	126,126	117,529	5,245	282,567	0	5,574	311	288,452
2006	10,489	2,756	18,895	1,979	738	34,857	0	0	0	34,857
2007	1,443	4,178	4,064	21,705	4,097	35,487	0	0	0	35,487
2008	5,434	76	-	208	236	5,954	0	0	-	5,954
2009	712	144	-	293	-	1,149	0	0	-	1,149
2010	11,120	3,648	12,377	11,419	869	39,433	0	0	-	39,433
2011	2,836	1,106	4,980	21,833	1,326	32,081	0	0	-	32,081
2012	8,444	7,397	26,612	25,204	5,444	73,101	0	0	-	73,101
2013	1,945	8,880	15,700	79,416	6,816	112,757	0	0	-	112,757
2014	16,182	7,009	83,122	85,637	16,146	208,096	0	0	-	208,096
2015	10,882	8,845	36,858	43,451	4,223	104,259	0	0	-	104,259
2016 ^{b/}	2,058	1,067	31,208	7,545	398	42,276	0	0	-	42,276

TABLE A-6. Summary of Oregon commercial troll salmon fishing effort in days fished and landings in numbers of fish by catch area.^{a/} (Page 2 of 2)

Year or Average	Astoria	Tillamook	New port	Coos Bay	Brookings	Oregon Subtotal	Alaska	Washington	California	Total
COHO LANDINGS										
1976-1980	73,122	126,085	192,121	290,131	60,235	741,694	1,800	9,300	300	753,094
1981-1985	21,305	84,331	109,715	131,470	24,728	301,499	0	9,590	621	311,710
1986-1990	21,364	106,658	135,872	132,522	6,375	397,243	7	4,179	279	401,708
1991-1995	9,949	48,905	41,190	35,625	-	119,367	0	106	55	119,527
1996-2000	12,258	-	-	8	-	6,133	0	57	-	6,190
2001-2005	5,749	-	-	-	-	5,749	0	189	-	5,938
2006	1,414	-	-	-	-	1,414	0	0	-	1,414
2007	11,554	1,279	1,883	2,393	-	17,109	0	0	-	17,109
2008	434	-	-	-	-	434	0	0	-	434
2009	12,684	3,490	5,105	683	-	21,962	0	0	-	21,962
2010	1,040	-	-	-	-	1,040	0	0	-	1,040
2011	464	-	-	-	-	464	0	0	-	464
2012	624	-	-	-	-	624	0	0	-	624
2013	452	-	-	-	-	452	0	0	-	452
2014	7,702	1,104	1,222	970	-	10,998	0	0	-	10,998
2015	2,213	-	-	-	-	2,213	0	0	-	2,213
2016	-	-	-	-	-	-	0	0	-	0

a/ Days fished and landings are reported by port of landing through 1978 and by area of catch beginning in 1979. Catch and landing areas include the following port areas: Astoria area includes Oregon ports from Astoria through Cannon Beach; Tillamook area includes Nehalem through Pacific City; New port area includes Depoe Bay through Waldport; Coos Bay area prior to 1986 includes Florence through Bandon and after 1987 includes Florence through Port Orford; Brookings area prior to 1986 includes Port Orford through Brookings and after 1987 includes Gold Beach through Brookings. Values include state-w aters only terminal area fisheries.

b/ Preliminary.

TABLE A-7. Oregon commercial troll salmon fishing effort in days fished by area and month^{a/} (Page 1 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
<u>Astoria</u>											
1976-1980	-	-	205	299	1,220	844	251	56	-	1	2,875
1981-1985	-	-	402	0	322	338	33	0	-	-	1,096
1986-1990	-	-	146	26	183	579	273	22	-	-	659
1991-1995	-	-	58	43	50	166	111	-	-	-	374
1996-2000	-	-	2	2	-	246	18	-	-	-	70
2001-2005	-	-	78	28	89	152	72	-	-	-	390
2006	-	-	516	296	-	79	93	-	-	-	984
2007	-	-	77	46	40	153	14	-	-	-	330
2008	-	-	272	282	33	58	10	-	-	-	655
2009	-	-	72	85	239	135	9	-	-	-	540
2010	-	-	68	288	141	119	16	-	-	-	632
2011	-	-	85	124	41	24	15	-	-	-	289
2012	-	-	58	223	37	25	73	-	-	-	416
2013	-	-	64	119	32	46	26	-	-	-	287
2014	-	-	455	79	161	65	56	-	-	-	816
2015	-	-	531	88	48	61	90	-	-	-	818
2016 ^{b/}	-	-	71	82	21	51	-	-	-	-	225
<u>Tillamook</u>											
1976-1980	-	-	23	1,152	3,574	2,656	316	62	-	-	7,782
1981-1985	-	-	98	47	2,030	999	140	94	-	-	3,409
1986-1990	-	-	182	328	2,931	1,831	1,007	604	17	-	6,887
1991-1995	-	-	96	95	714	476	558	513	2	-	1,941
1996-2000	-	-	71	188	61	186	276	186	13	-	947
2001-2005	71	64	268	354	174	225	301	218	10	-	1,591
2006	-	-	-	179	12	34	178	317	31	-	751
2007	-	8	280	100	4	86	95	95	30	-	698
2008	-	-	-	-	-	-	37	12	--	-	49
2009	-	-	-	-	-	-	247	24	-	-	271
2010	-	-	33	177	109	39	37	9	-	-	404
2011	-	-	25	96	21	23	42	13	-	-	220
2012	-	52	175	91	36	22	102	157	-	-	635
2013	-	189	87	52	40	196	192	74	-	-	830
2014	-	10	96	159	60	40	177	14	-	-	556
2015	-	50	321	249	9	26	140	71	-	-	866
2016 ^{b/}	-	44	38	66	8	12	55	14	-	-	237

TABLE A-7. Oregon commercial troll salmon fishing effort in days fished by area and month.^{a/} (Page 2 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
<u>New port</u>											
1976-1980	-	-	300	1,662	6,370	5,374	1,003	321	1	-	15,029
1981-1985	-	-	600	300	3,004	1,728	198	174	4	-	6,008
1986-1990	-	-	826	1,180	3,835	1,597	619	594	-	-	8,650
1991-1995	-	-	945	1,236	1,176	1,159	601	554	-	-	4,722
1996-2000	-	-	920	915	329	848	453	241	-	-	3,733
2001-2005	252	452	954	923	407	631	753	551	-	-	4,664
2006	-	-	-	838	471	151	413	250	93	-	2,216
2007	-	81	347	286	94	170	91	29	6	-	1,104
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	286	-	-	-	286
2010	-	-	477	411	290	346	-	-	-	-	1,524
2011	-	60	325	229	22	101	-	11	-	-	748
2012	-	155	475	335	114	312	465	256	-	-	2,112
2013	-	334	484	263	141	325	98	77	-	-	1,722
2014	-	469	1,076	507	354	932	255	104	-	-	3,697
2015	-	738	317	230	782	530	155	-	-	-	2,752
2016 ^{b/}	-	664	624	316	386	545	222	4	-	-	2,761
<u>Coos Bay</u>											
1976-1980	-	-	524	2,531	9,644	6,069	1,491	355	2,628	2,628	20,620
1981-1985	-	-	714	664	5,159	2,633	604	180	5	-	9,960
1986-1990	-	-	2,737	2,986	7,267	4,665	1,588	964	497	-	20,307
1991-1995	-	-	193	696	554	418	287	255	88	-	2,011
1996-2000	-	-	291	471	570	498	243	209	104	-	2,135
2001-2005	364	692	1,088	897	361	776	619	443	151	25	4,935
2006	-	-	-	-	-	-	30	156	155	26	367
2007	-	253	554	388	167	895	117	120	126	-	2,620
2008	-	-	-	-	-	-	-	-	48	-	48
2009	-	-	-	-	-	-	101	36	-	-	137
2010	-	-	505	399	169	334	-	148	-	-	1,555
2011	-	256	538	755	57	83	80	202	235	-	2,206
2012	-	315	784	510	96	298	320	267	121	-	2,711
2013	-	506	563	456	337	1,626	1,055	742	155	-	5,440
2014	-	473	929	1,052	648	1,183	310	171	98	-	4,864
2015	-	967	924	770	484	232	72	166	158	-	3,773
2016 ^{b/}	-	178	170	260	148	77	55	119	41	-	1,048

TABLE A-7. Oregon commercial troll salmon fishing effort in days fished by area and month.^{a/} (Page 3 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
Brookings											
1976-1980	-	-	187	1,090	3,079	2,241	1,469	939	572	-	9,578
1981-1985	-	-	265	188	1,367	1,708	427	732	336	-	5,024
1986-1990	-	-	319	647	556	607	125	224	217	-	1,652
1991-1995	-	-	45	-	48	56	22	186	-	-	196
1996-2000	-	-	55	-	-	80	47	150	-	-	316
2001-2005	3	8	40	81	98	94	84	108	13	-	439
2006	-	-	-	-	-	-	6	151	27	-	184
2007	-	6	8	138	99	95	60	47	12	-	465
2008	-	-	-	-	-	-	-	51	-	-	51
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	43	-	26	40	-	72	-	-	181
2011	-	-	60	60	8	86	-	75	-	-	289
2012	-	-	23	118	90	67	43	41	-	-	382
2013	-	13	3	107	284	208	40	52	-	-	707
2014	-	10	471	82	38	70	21	78	-	-	770
2015	-	12	150	100	90	24	-	144	-	-	520
2016 ^{b/}	-	7	13	47	8	-	-	52	-	-	127
South of Cape Falcon											
1976-1980	-	-	1,034	6,435	22,667	16,340	4,280	1,677	577	-	53,010
1981-1985	-	-	1,678	1,199	11,559	7,068	1,368	1,180	346	-	24,400
1986-1990	-	-	4,065	5,011	14,144	8,457	3,289	2,296	292	-	37,495
1991-1995	-	-	1,252	2,027	1,845	1,654	1,339	1,396	88	-	8,792
1996-2000	-	-	1,337	1,579	960	1,612	992	786	116	-	7,131
2001-2005	689	1,215	2,342	2,058	1,015	1,725	1,757	1,321	168	25	11,629
2006	-	-	-	1,017	483	185	627	874	306	26	3,518
2007	-	348	1,189	912	364	1,246	363	291	174	-	4,887
2008	-	-	-	-	-	-	37	63	48	-	148
2009	-	-	-	-	-	-	634	60	-	-	694
2010	-	-	1,058	987	594	759	37	229	-	-	3,664
2011	-	316	948	1,140	108	293	122	301	235	-	3,463
2012	-	522	1,457	1,054	336	699	930	721	121	-	5,840
2013	-	1,042	1,137	878	802	2,355	1,385	945	155	-	8,699
2014	-	962	2,572	1,800	1,100	2,225	763	367	98	-	9,887
2015	-	1,767	1,712	1,349	1,365	812	367	381	158	-	7,911
2016 ^{b/}	-	893	845	689	550	634	332	189	41	-	4,173

TABLE A-7. Oregon commercial troll salmon fishing effort in days fished by area and month.^{a/} (Page 4 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
Statewide Total											
1976-1980	-	-	1,238	6,734	23,887	17,184	4,531	1,733	577	1	55,885
1981-1985	-	-	2,080	1,199	11,881	7,407	1,401	1,181	346	-	25,496
1986-1990	-	-	4,211	5,027	14,180	8,804	3,398	2,301	292	-	38,154
1991-1995	-	-	1,287	1,647	1,870	1,753	1,384	1,396	88	-	9,016
1996-2000	-	-	1,339	1,581	960	1,661	995	786	116	-	7,187
2001-2005	689	1,215	2,419	2,086	901	1,532	1,800	1,321	168	25	12,019
2006	-	-	516	1,313	483	264	720	874	306	26	4,502
2007	-	348	1,266	958	404	1,399	377	291	174	-	5,217
2008	-	-	272	282	33	58	47	63	48	-	803
2009	-	-	72	85	239	135	643	60	-	-	1,234
2010	-	-	1,126	1,275	735	878	53	229	-	-	4,296
2011	-	316	1,033	1,264	149	317	137	301	235	-	3,752
2012	-	522	1,515	1,277	373	724	1,003	721	121	-	6,256
2013	-	1,042	1,201	997	834	2,401	1,411	945	155	-	8,986
2014	-	962	3,027	1,879	1,261	2,290	819	367	98	-	10,703
2015	-	1,767	2,243	1,437	1,413	873	457	381	158	-	8,729
2016 ^{b/}	-	893	916	771	571	685	332	189	41	-	4,398

a/ Summary of ODFW fish receiving ticket information. Beginning in 1979, monthly totals are the sum of statistical weeks with closest fit to the calendar month. Excludes effort occurring off Alaska, Washington, and California. Days fished data are reported by port of landing through 1978 and by area of catch beginning in 1979. Catch and landing areas include the following port areas: Astoria area includes Oregon ports from Astoria through Cannon Beach; Tillamook area includes Nehalem through Pacific City; New port area includes Depoe Bay through Waldport; Coos Bay area prior to 1986 includes Florence through Bandon and after 1987 includes Florence through Port Orford; Brookings area prior to 1986 includes Port Orford through Brookings and after 1987 includes Gold Beach through Brookings. Values include state-wide terminal area fisheries.

b/ Preliminary.

TABLE A-8. Oregon commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month.^{a/} (Page 1 of 4)

Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK											COHO					
<u>Astoria</u>																	
1952-1975	6,179	4,901	4,813	3,439	2,234	2,715	973	346	-	-	20,451	13,070	24,252	20,450	11,547	1,263	70,582
1976-1980	-	-	5,039	4,624	3,123	1,480	492	577	-	-	15,336	28,655	31,526	12,401	5,569	879	73,122
1981-1985	-	-	4,738	0	499	293	23	2	-	-	5,556	-	18,828	11,874	2,543	-	21,305
1986-1990	-	-	1,791	363	2,225	1,172	765	71	-	-	3,477	-	7,390	21,733	6,281	304	21,364
1991-1995	-	-	318	322	78	187	88	-	-	-	937	-	435	7,655	3,007	-	9,949
1996-2000	-	-	9	64	-	1,951	49	-	-	-	572	-	-	11,600	658	-	12,258
2001-2005	-	-	2,633	1,402	1,445	2,329	478	-	-	-	8,095	-	1,524	2,472	3,430	-	5,749
2006	-	-	7,167	3,168	1	61	92	-	-	-	10,489	-	10	915	489	-	1,414
2007	-	-	777	374	115	163	14	-	-	-	1,443	-	1,062	10,335	157	-	11,554
2008	-	-	2,616	2,508	129	161	20	-	-	-	5,434	-	49	356	29	-	434
2009	-	-	119	232	240	117	4	-	-	-	712	-	9,061	3,458	165	-	12,684
2010	-	-	580	6,652	2,121	1,657	110	-	-	-	11,120	-	637	368	35	-	1,040
2011	-	-	1,057	1,400	114	239	26	-	-	-	2,836	-	234	147	83	-	464
2012	-	-	1,034	5,366	210	149	1,685	-	-	-	8,444	-	38	35	551	-	624
2013	-	-	432	704	136	279	394	-	-	-	1,945	-	39	295	118	-	452
2014	-	-	12,804	725	2,282	175	196	-	-	-	16,182	-	2,428	1,570	3,704	-	7,702
2015	-	-	6,806	1,527	1,293	700	556	-	-	-	10,882	-	328	411	1,474	-	2,213
2016 ^{b/}	-	-	519	743	169	627	-	-	-	-	2,058	-	-	-	-	-	-
<u>Tillamook</u>																	
1952-1975	-	3	47	436	853	1,355	324	59	-	-	3,078	6,799	24,958	22,977	2,518	102	57,355
1976-1980	-	-	476	3,256	4,108	2,688	505	189	-	-	11,222	49,936	66,185	27,829	2,034	124	126,085
1981-1985	-	-	1,547	283	2,380	1,210	281	199	7	-	5,901	-	68,832	20,120	1,637	-	84,331
1986-1990	-	-	1,745	3,147	8,129	6,212	4,946	2,060	11	-	26,242	-	82,150	29,287	5,397	-	106,658
1991-1995	-	-	306	375	1,435	2,843	1,922	1,607	7	-	6,887	-	45,367	7,065	-	-	48,905
1996-2000	-	-	363	2,863	370	2,082	1,413	1,259	21	-	8,191	-	-	-	-	-	-
2001-2005	1,881	888	5,198	6,484	2,709	3,511	3,416	3,074	31	-	25,572	-	-	-	-	-	-
2006	-	-	-	1,153	60	39	450	959	95	-	2,756	-	-	-	-	-	-
2007	-	14	2,757	922	6	59	136	237	47	-	4,178	-	-	1,195	84	-	1,279
2008	-	-	-	-	-	-	64	12	--	-	76	-	-	-	-	-	-
2009	-	-	-	-	-	-	105	39	-	-	144	-	-	-	3,490	-	3,490
2010	-	-	108	2,466	931	72	56	15	-	-	3,648	-	-	-	-	-	-
2011	-	1	130	615	174	52	114	20	-	-	1,106	-	-	-	-	-	-
2012	-	440	1,492	441	178	55	1,146	3,645	-	-	7,397	-	-	-	-	-	-
2013	-	1,391	349	144	380	2,869	3,461	286	-	-	8,880	-	-	-	-	-	-
2014	-	20	1,133	2,640	593	246	2,355	22	-	-	7,009	-	-	-	1,104	-	1,104
2015	-	205	4,114	3,118	96	186	807	319	-	-	8,845	-	-	-	-	-	-
2016 ^{b/}	-	167	185	515	16	23	135	26	-	-	1,067	-	-	-	-	-	-

TABLE A-8. Oregon commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month.^{a/} (Page 2 of 4)

Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK											COHO					
<u>New port</u>																	
1952-1975	19	192	1,863	6,947	11,599	13,546	6,810	1,524	-	-	42,483	23,816	69,383	72,472	15,038	1,319	182,027
1976-1980	-	-	3,649	6,485	12,469	16,372	4,788	2,828	106	-	46,613	60,615	95,719	54,446	4,784	1,339	192,121
1981-1985	-	-	6,292	2,256	11,737	5,174	959	1,476	111	-	27,917	-	75,337	66,674	4,161	-	109,715
1986-1990	-	-	8,800	14,067	27,795	14,835	6,926	10,533	-	-	82,957	56	108,283	44,241	5,166	-	135,872
1991-1995	-	-	11,091	14,000	14,613	29,112	11,702	10,884	-	-	76,934	58,218	24,704	7,972	-	-	41,190
1996-2000	-	-	17,947	16,800	3,786	24,729	12,138	4,150	-	-	81,290	-	-	-	-	-	-
2001-2005	5,438	7,253	23,241	18,832	10,415	20,541	26,687	20,998	-	-	126,126	-	-	-	-	-	-
2006	-	-	-	8,397	3,556	923	3,852	1,528	639	-	18,895	-	-	-	-	-	-
2007	-	279	1,553	1,427	323	338	88	54	2	-	4,064	-	-	1,607	276	-	1,883
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,105	-	5,105
2010	-	-	3,950	3,513	2,505	2,409	-	-	-	-	12,377	-	-	-	-	-	-
2011	-	378	2,357	1,477	192	561	-	15	-	-	4,980	-	-	-	-	-	-
2012	-	1,090	4,408	2,578	998	5,819	8,550	3,169	-	-	26,612	-	-	-	-	-	-
2013	-	2,186	3,436	1,740	1,443	5,569	865	461	-	-	15,700	-	-	-	-	-	-
2014	-	9,078	18,829	8,108	6,348	36,167	3,658	934	-	-	83,122	-	-	-	1,222	-	1,222
2015	-	7,286	2,240	2,503	18,472	5,544	813	-	-	-	36,858	-	-	-	-	-	-
2016 ^{b/}	-	5,607	5,044	1,999	9,148	7,957	1,451	2	-	-	31,208	-	-	-	-	-	-
<u>Coos Bay</u>																	
1952-1975	16	155	2,913	11,578	18,162	26,765	8,692	1,872	111	-	70,148	47,943	96,268	52,431	9,087	964	206,694
1976-1980	-	17	3,113	11,974	30,188	28,911	7,483	3,863	28	-	85,563	88,960	168,959	47,488	2,358	264	290,131
1981-1985	-	-	5,515	4,301	29,871	17,260	5,419	1,129	11	-	63,507	-	115,958	31,021	5	-	131,470
1986-1990	-	-	30,467	28,162	103,530	64,284	18,029	8,518	2,178	-	253,426	22	103,641	44,708	10,213	-	132,522
1991-1995	-	-	1,102	3,642	3,908	4,544	3,587	1,701	451	-	15,554	33,031	35,841	1,069	-	-	35,625
1996-2000	-	-	3,377	8,994	9,724	11,353	4,218	1,930	981	-	36,042	8	-	-	-	-	8
2001-2005	7,479	17,217	21,669	20,217	7,753	26,693	18,998	8,507	1,276	148	117,529	-	-	-	-	-	-
2006	-	-	-	-	-	-	65	962	821	131	1,979	-	-	-	-	-	-
2007	-	1,563	3,018	2,114	1,430	11,963	489	504	621	3	21,705	-	-	2,234	159	-	2,393
2008	-	-	-	-	-	-	-	-	208	-	208	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	293	-	-	293	-	-	-	683	-	683
2010	-	-	4,961	2,987	840	1,316	-	1,315	-	-	11,419	-	-	-	-	-	-
2011	-	4,102	5,414	8,309	333	399	223	1,058	1,995	-	21,833	-	-	-	-	-	-
2012	-	2,103	8,633	4,338	609	2,897	3,981	1,942	701	-	25,204	-	-	-	-	-	-
2013	-	3,796	5,308	4,103	3,508	30,097	23,925	7,677	1,002	-	79,416	-	-	-	-	-	-
2014	-	6,403	15,427	17,812	11,385	30,187	2,838	1,116	469	-	85,637	-	-	-	970	-	970
2015	-	8,890	6,786	14,182	8,682	1,727	386	1,635	1,163	-	43,451	-	-	-	-	-	-
2016 ^{b/}	-	815	762	2,269	2,062	540	226	689	182	-	7,545	-	-	-	-	-	-

TABLE A-8. Oregon commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month.^{a/} (Page 3 of 4)

Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK											COHO					
Brookings																	
1952-1975	0	115	1,001	5,127	10,173	8,226	2,936	1,199	1,203	93	28,885	15,507	31,926	10,269	1,028	81	58,810
1976-1980	-	-	1,815	4,472	21,039	27,055	10,526	6,583	2,409	-	73,899	13,633	39,564	8,784	876	174	60,235
1981-1985	-	-	1,782	1,845	10,357	20,079	3,952	3,495	1,113	-	42,623	-	15,830	35,594	-	-	24,728
1986-1990	-	-	5,087	16,802	9,562	8,706	2,844	963	1,460	-	28,825	4,594	7,121	-	-	-	6,375
1991-1995	-	-	265	-	1,682	234	210	1,191	-	-	1,679	-	-	-	-	-	-
1996-2000	-	-	1,064	-	-	1,049	665	696	-	-	3,542	-	-	-	-	-	-
2001-2005	25	63	425	1,156	1,615	1,434	1,211	543	66	-	5,245	-	-	-	-	-	-
2006	-	-	-	-	-	-	12	590	136	-	738	-	-	-	-	-	-
2007	-	15	25	727	1,150	1,524	400	209	47	-	4,097	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	236	-	-	236	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	164	-	51	125	-	529	-	-	869	-	-	-	-	-	-
2011	-	-	601	254	27	337	-	107	-	-	1,326	-	-	-	-	-	-
2012	-	-	371	1,287	1,456	1,328	884	118	-	-	5,444	-	-	-	-	-	-
2013	-	50	7	1,450	3,171	1,848	135	155	-	-	6,816	-	-	-	-	-	-
2014	-	53	13,352	1,349	492	403	54	443	-	-	16,146	-	-	-	-	-	-
2015	-	39	1,146	1,528	779	92	-	639	-	-	4,223	-	-	-	-	-	-
2016 ^{b/}	-	12	34	179	21	-	-	152	-	-	398	-	-	-	-	-	-
South of Cape Falcon																	
1952-1975	35	465	5,824	24,088	40,787	49,892	18,762	4,654	1,313	93	144,594	94,065	222,535	158,148	27,671	2,466	504,885
1976-1980	-	17	9,052	26,186	67,804	75,026	23,302	13,463	2,458	-	217,296	185,506	370,427	138,547	10,052	1,901	668,571
1981-1985	-	-	15,135	8,684	54,345	43,724	10,612	6,299	1,149	-	139,947	-	275,957	97,114	5,803	-	350,243
1986-1990	-	-	46,099	58,818	141,367	90,555	31,607	21,689	1,642	-	391,449	3,700	295,499	95,999	20,776	-	380,152
1991-1995	-	-	12,605	18,016	15,388	29,246	16,869	14,668	453	-	100,382	91,249	105,911	8,382	-	-	109,418
1996-2000	-	-	22,751	29,104	13,880	39,214	18,035	8,035	1,002	-	129,065	8	-	-	-	-	8
2001-2005	14,823	25,409	50,447	42,413	22,088	52,179	50,313	33,123	1,347	148	274,472	-	-	-	-	-	-
2006	-	-	-	9,550	3,616	962	4,379	4,039	1,691	131	24,368	-	-	-	-	-	-
2007	-	1,871	7,353	5,190	2,909	13,884	1,113	1,004	717	3	34,044	-	-	5,036	519	-	5,555
2008	-	-	-	-	-	-	64	248	208	-	520	-	-	-	-	-	-
2009	-	-	-	-	-	-	105	332	-	-	437	-	-	-	9,278	-	9,278
2010	-	-	9,183	8,966	4,327	3,922	56	1,859	-	-	28,313	-	-	-	-	-	-
2011	-	4,481	8,502	10,655	726	1,349	337	1,200	1,995	-	29,245	-	-	-	-	-	-
2012	-	3,633	14,904	8,644	3,241	10,099	14,561	8,874	701	-	64,657	-	-	-	-	-	-
2013	-	7,423	9,100	7,437	8,502	40,383	28,386	8,579	1,002	-	110,812	-	-	-	-	-	-
2014	-	15,554	48,741	29,909	18,818	67,003	8,905	2,515	469	-	191,914	-	-	-	3,296	-	3,296
2015	-	16,420	14,286	21,331	28,029	7,549	2,006	2,593	1,163	-	93,377	-	-	-	-	-	-
2016 ^{b/}	-	6,601	6,025	4,962	11,247	8,520	1,812	869	182	-	40,218	-	-	-	-	-	-

TABLE A-8. Oregon commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month.^{a/} (Page 4 of 4)

Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season	June	July	Aug.	Sept.	Oct.	Season
CHINOOK												COHO					
Statewide Total																	
1952-1975	6,214	5,366	10,638	27,526	43,020	52,608	19,735	4,999	1,313	93	165,045	107,135	246,787	178,599	39,218	3,729	575,468
1976-1980	-	17	14,092	30,810	70,928	76,506	23,794	14,041	2,458	-	232,632	214,161	401,952	150,948	15,621	2,305	741,694
1981-1985	-	-	19,873	8,684	54,844	44,017	10,635	6,301	1,149	-	145,503	-	290,078	84,710	8,346	-	301,499
1986-1990	-	-	47,890	59,035	141,812	91,259	31,913	21,703	1,642	-	394,927	3,700	296,977	89,839	11,112	304	397,243
1991-1995	-	-	12,795	14,606	15,426	29,358	16,904	14,668	453	-	100,945	91,249	70,897	16,037	3,007	19	119,367
1996-2000	-	-	22,757	29,154	13,880	39,604	18,044	8,035	1,002	-	129,523	8	-	11,600	658	-	6,133
2001-2005	14,823	25,409	53,080	43,815	19,115	44,072	50,600	33,123	1,347	148	282,567	-	1,524	2,472	3,430	-	5,749
2006	-	-	7,167	12,718	3,617	1,023	4,471	4,039	1,691	131	34,857	-	10	915	489	-	1,414
2007	-	1,871	8,130	5,564	3,024	14,047	1,127	1,004	717	3	35,487	-	1,062	15,371	676	-	17,109
2008	-	-	2,616	2,508	129	161	84	248	208	-	5,954	-	49	356	29	-	434
2009	-	-	119	232	240	117	109	332	-	-	1,149	-	9,061	3,458	9,443	-	21,962
2010	-	-	9,763	15,618	6,448	5,579	166	1,859	-	-	39,433	-	637	368	35	-	1,040
2011	-	4,481	9,559	12,055	840	1,588	363	1,200	1,995	-	32,081	-	234	147	83	-	464
2012	-	3,633	15,938	14,010	3,451	10,248	16,246	8,874	701	-	73,101	-	38	35	551	-	624
2013	-	7,423	9,532	8,141	8,638	40,662	28,780	8,579	1,002	-	112,757	-	39	295	118	-	452
2014	-	15,554	61,545	30,634	21,100	67,178	9,101	2,515	469	-	208,096	-	2,428	1,570	7,000	-	10,998
2015	-	16,420	21,092	22,858	29,322	8,249	2,562	2,593	1,163	-	104,259	-	328	411	1,474	-	2,213
2016 ^{b/}	-	6,601	6,544	5,705	11,416	9,147	1,812	869	182	-	42,276	-	-	-	-	-	-

a/ Beginning in 1979, monthly totals are the sum of statistical weeks with closest fit to the calendar month. Excludes harvests off Alaska, Washington (north of Leadbetter Point), and California that were landed in Oregon. Landings are reported by port of landing through 1978 and by area of catch beginning in 1979. Catch and landing areas include the following port areas: Astoria area includes Oregon ports from Astoria through Cannon Beach; Tillamook area includes Nehalem through Pacific City; New port area includes Depoe Bay through Waldport; Coos Bay area prior to 1988 includes Florence through Bandon and after 1987 includes Florence through Port Orford; Brookings area prior to 1988 includes Port Orford through Brookings and after 1987 includes Gold Beach through Brookings. Values include state-waters only terminal area fisheries.

b/ Preliminary.

TABLE A-9. Oregon ocean recreational effort in salmon angler trips by catch area and month.^{a/} (Page 1 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>Astoria</u>										
1976-1980	-	0	890	8,582	17,436	25,284	8,325	374	22	60,746
1981-1985	-	-	977	3,269	11,837	9,897	4,192	-	-	26,221
1986-1990	-	-	146	1,110	8,890	9,559	1,423	-	-	17,740
1991-1995	-	-	-	1,496	6,681	6,695	2,084	-	-	15,833
1996-2000	-	-	-	-	2,457	2,909	946	-	-	5,442
2001-2005	-	-	155	260	4,788	10,258	2,041	-	-	17,275
2006	-	-	-	-	1,711	5,769	762	-	-	8,242
2007	-	-	-	-	2,548	8,849	989	-	-	12,386
2008	-	-	66	498	1,875	1,215	-	-	-	3,654
2009	-	-	-	85	5,698	6,097	370	-	-	12,250
2010	-	-	-	306	2,211	6,996	741	-	-	10,254
2011	-	-	-	459	1,402	4,645	877	-	-	7,383
2012	-	-	-	681	1,792	1,954	411	-	-	4,838
2013	-	-	-	1,593	1,329	2,912	302	-	-	6,136
2014	-	-	42	708	3,579	6,279	1,647	-	-	12,255
2015	-	-	62	699	2,723	3,092	2,053	-	-	8,629
2016 ^{b/}	-	-	-	-	1,920	2,412	-	-	-	4,332
<u>Tillamook</u>										
1976-1980	-	0	1,043	5,476	14,753	18,525	3,792	393	61	43,838
1981-1985	-	-	678	2,040	14,150	14,502	3,413	1,603	-	30,298
1986-1990	-	-	222	2,005	12,063	11,291	4,392	--	--	29,007
1991-1995	-	-	728	1,722	10,452	4,271	2,075	4,879	396	13,369
1996-2000	-	-	489	102	1,451	346	2,772	2,895	170	8,126
2001-2005	19	35	441	2,043	8,269	3,897	4,170	3,017	182	22,064
2006	2	16	385	1,334	3,299	497	5,292	4,988	98	15,911
2007	-	16	828	1,753	4,612	8,074	3,459	2,286	--	21,028
2008	-	-	-	643	1,269	1,226	3,635	2,348	--	9,121
2009	-	-	-	974	10,482	7,131	1,772	2,009	-	22,368
2010	-	-	126	1,158	3,833	3,620	3,718	1,048	-	13,503
2011	0	50	143	936	3,771	2,968	3,730	1,240	-	12,838
2012	0	38	567	830	2,372	2,933	4,126	1,521	-	12,387
2013	2	78	369	647	3,166	2,605	3,326	3,942	-	14,135
2014	0	7	1,052	1,110	9,027	4,657	8,066	1,305	-	25,224
2015	0	42	919	485	3,259	2,097	6,463	2,217	-	15,482
2016 ^{b/}	14	4	838	1,578	1,657	855	5,505	530	-	10,981

TABLE A-9. Oregon ocean recreational effort in salmon angler trips by catch area and month.^{a/} (Page 2 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>New port</u>										
1976-1980	-	0	2,686	14,777	37,841	34,826	6,813	1,205	46	97,675
1981-1985	-	-	1,237	6,383	28,951	25,961	3,812	--	-	57,094
1986-1990	-	-	997	7,789	37,404	24,000	5,730	-	-	74,574
1991-1995	-	-	484	3,881	26,682	9,837	1,389	117	-	24,888
1996-2000	-	-	101	114	3,819	1,090	249	29	-	5,396
2001-2005	20	77	235	3,896	13,532	6,509	2,064	397	-	26,723
2006	8	43	139	1,593	5,785	584	1,919	299	-	10,370
2007	19	26	87	3,472	8,013	8,284	778	46	40	20,765
2008	-	-	-	1,128	2,301	2,020	-	-	-	5,449
2009	-	-	-	2,126	13,786	12,307	1,388	-	-	29,607
2010	-	-	349	1,093	2,933	8,491	2,127	-	-	14,993
2011	20	2	103	847	4,550	2,518	3,913	-	-	11,953
2012	23	290	325	658	3,425	4,030	5,947	107	-	14,805
2013	354	441	204	425	5,037	4,073	4,606	188	-	15,328
2014	87	83	492	2,235	15,116	9,307	9,804	63	-	37,187
2015	48	76	136	716	9,102	2,369	5,680	75	-	18,202
2016 ^{b/}	50	9	41	647	2,448	1,037	3,886	75	-	8,193
<u>Coos Bay</u>										
1976-1980	-	0	5,296	24,105	44,633	29,677	6,974	652	98	111,116
1981-1985	-	-	3,365	13,367	34,917	20,849	3,452	--	--	63,724
1986-1990	-	-	891	8,744	33,097	15,721	3,842	--	--	61,349
1991-1995	-	-	605	5,646	26,029	8,416	1,728	21	--	25,929
1996-2000	-	-	118	381	4,301	2,953	507	53	--	8,282
2001-2005	24	100	783	6,477	16,186	8,250	2,564	117	--	34,491
2006	14	33	279	1,991	9,250	2,736	2,784	81	--	17,168
2007	17	33	329	2,603	9,442	9,550	990	9	--	22,973
2008	-	-	-	1,482	4,111	1,806	-	-	--	7,399
2009	-	-	-	1,044	8,744	3,991	583	--	--	14,362
2010	-	-	388	709	2,350	4,683	489	--	--	8,619
2011	2	23	187	1,182	2,514	4,687	1,711	-	16	10,322
2012	0	52	730	2,290	4,075	5,568	3,647	77	18	16,457
2013	123	174	338	2,898	3,011	19,299	3,901	84	--	29,828
2014	0	46	691	1,906	8,659	11,899	6,518	53	--	29,772
2015	12	34	327	1,149	5,664	3,060	4,443	82	--	14,771
2016 ^{b/}	18	5	158	574	2,277	2,943	5,188	7	--	11,170

TABLE A-9. Oregon ocean recreational effort in salmon angler trips by catch area and month.^{a/} (Page 3 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
Brookings										
1976-1980	-	0	1,250	11,841	27,828	20,162	6,768	5,604	913	74,368
1981-1985	-	-	2,109	10,478	25,949	15,387	3,357	3,402	230	56,207
1986-1990	-	-	2,226	12,965	24,727	13,463	3,098	5,030	--	58,492
1991-1995	-	-	2,866	5,957	11,093	3,333	4,014	3,831	-	22,694
1996-2000	-	-	1,177	3,022	2,353	6,833	2,212	2,766	-	18,363
2001-2005	-	-	1,595	3,138	3,059	7,048	2,192	3,145	-	20,177
2006	-	-	611	2,657	716	-	3,565	3,081	-	10,630
2007	-	-	332	752	1,600	4,741	424	3,263	-	11,112
2008	-	-	-	712	2,317	701	-	1,065	-	4,795
2009	-	-	-	268	2,329	754	2,580	-	-	5,931
2010	-	-	129	95	335	619	2,502	2,270	-	5,950
2011	-	-	393	296	189	1,772	1,853	1,757	-	6,260
2012	-	-	484	1,982	4,678	6,810	1,201	3,666	-	18,821
2013	-	-	289	2,259	6,658	7,147	208	3,547	-	20,108
2014	-	-	1,437	1,466	5,557	3,723	246	4,639	-	17,068
2015	-	-	305	424	1,492	574	1,120	5,040	-	8,955
2016 ^{b/}	-	-	44	467	717	190	898	1,872	-	4,188
South of Cape Falcon										
1976-1980	-	0	10,275	56,199	125,056	103,191	24,348	6,954	974	326,997
1981-1985	-	-	4,749	32,267	103,968	64,436	11,899	3,723	230	207,322
1986-1990	-	-	3,869	31,504	107,292	64,475	14,270	5,030	--	223,421
1991-1995	-	-	4,110	16,015	74,256	11,676	6,091	7,130	396	86,880
1996-2000	-	-	1,885	3,618	11,923	11,221	5,739	5,699	170	40,167
2001-2005	63	212	3,123	15,737	40,575	23,882	11,307	6,514	182	101,571
2006	24	92	1,414	7,575	19,050	3,817	13,560	8,449	98	54,079
2007	36	75	1,576	8,580	23,667	30,649	5,651	5,604	40	75,878
2008	-	-	-	3,965	9,998	5,753	3,635	3,413	--	26,764
2009	-	-	-	4,412	35,341	24,183	6,323	2,009	--	72,268
2010	-	-	992	3,055	9,451	17,413	8,836	3,318	--	43,065
2011	22	75	826	3,261	11,024	11,945	11,207	2,997	16	41,373
2012	23	380	2,106	5,760	14,550	19,341	14,921	5,371	18	62,470
2013	479	693	1,200	6,229	17,872	33,124	12,041	7,761	--	79,399
2014	87	136	3,672	6,717	38,359	29,586	24,634	6,060	--	109,251
2015	60	152	1,687	2,774	19,517	8,100	17,706	7,414	--	57,410
2016 ^{b/}	82	18	1,081	3,266	7,099	5,025	15,477	2,484	--	34,532

TABLE A-9. Oregon ocean recreational effort in salmon angler trips by catch area and month.^{a/} (Page 4 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
Total All Areas										
1976-1980	-	0	11,165	64,781	142,492	128,475	32,673	7,179	978	387,743
1981-1985	-	-	4,993	27,469	115,805	74,334	13,575	3,723	230	233,544
1986-1990	-	-	3,898	32,392	116,182	72,122	14,554	5,030	--	241,161
1991-1995	-	-	4,110	16,314	62,372	17,032	7,757	7,130	396	99,547
1996-2000	-	-	1,885	3,618	13,888	14,130	6,307	5,699	170	45,609
2001-2005	63	212	3,154	15,893	45,363	34,140	13,348	6,515	182	118,845
2006	24	92	1,414	7,575	20,761	9,586	14,322	8,449	98	62,321
2007	36	75	1,576	8,580	26,215	39,498	6,640	5,604	40	88,264
2008	-	-	66	4,463	11,873	6,968	3,635	3,413	--	30,418
2009	-	-	-	4,497	41,039	30,280	6,693	2,009	--	84,518
2010	-	-	992	3,361	11,662	24,409	9,577	3,318	--	53,319
2011	22	75	826	3,720	12,426	16,590	12,084	2,997	16	48,756
2012	23	380	2,106	6,441	16,342	21,295	15,332	5,371	18	67,308
2013	479	693	1,200	7,822	19,201	36,036	12,343	7,761	--	85,535
2014	87	136	3,714	7,425	41,938	35,865	26,281	6,060	--	121,506
2015	60	152	1,749	3,473	22,240	11,192	19,759	7,414	--	66,039
2016 ^{b/}	82	18	1,081	3,266	9,019	7,437	15,477	2,484	--	38,864

a/ Monthly totals are the sum of statistical weeks with closest fit to the calendar month. The average 1976-1980 effort is from combined salmon/steelhead punch card and sampled port data. Since 1981, data from sampled ports only. Effort since 1979 consists of salmon angler trips only. Data prior to 1979 include combined bottomfish and salmon trips. Astoria area includes Astoria, Warrenton, and Hammond; Tillamook area includes Garibaldi and Pacific City; New port area includes Depoe Bay and New port; Coos Bay area includes Florence, Winchester Bay, and Coos Bay; Brookings area includes Gold Beach and Brookings. Values include state-waters only terminal area fisheries.

b/ Preliminary.

TABLE A-10. Oregon ocean recreational salmon landings in numbers of fish by catch area and month.^{a/} (Page 1 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct. ^{b/}	Season ^{b/}
	CHINOOK										COHO						
Astoria																	
1976-1980 ^{b/}	-	0	333	3,210	4,073	7,975	1,490	85	4	17,132	897	12,916	20,699	21,677	7,142	323	63,525
1981-1985	-	-	29	922	2,427	1,902	729	-	-	5,364	1,699	4,463	16,455	11,211	5,509	-	33,780
1986-1990	-	-	29	127	954	1,459	87	-	-	2,246	-	1,825	15,220	14,456	1,307	-	28,506
1991-1995	-	-	-	81	224	302	63	-	-	609	-	2,409	10,831	9,892	2,332	-	23,657
1996-2000	-	-	-	-	197	223	38	-	-	403	-	-	3,775	3,675	935	-	7,257
2001-2005	-	-	33	127	774	1,605	241	3	-	2,704	-	212	6,991	14,070	2,020	-	23,165
2006	-	-	-	-	81	370	58	-	-	509	-	-	1,616	3,560	235	-	5,411
2007	-	-	-	-	81	457	56	-	-	594	-	-	3,812	13,807	778	-	18,397
2008	-	-	17	152	343	305	-	-	-	817	-	101	1,108	982	-	-	2,191
2009	-	-	-	4	422	543	11	-	-	980	-	138	9,593	9,330	358	-	19,419
2010	-	-	-	37	388	1,321	66	-	-	1,812	-	12	1,479	4,404	213	-	6,108
2011	-	-	-	129	147	1,264	79	-	-	1,619	-	178	981	4,132	755	-	6,046
2012	-	-	-	578	650	431	45	-	-	1,704	-	86	615	740	231	-	1,672
2013	-	-	-	731	323	792	72	-	-	1,918	-	1,143	991	1,706	173	-	4,013
2014	-	-	21	150	628	1,402	105	-	-	2,306	-	391	5,030	8,503	2,816	-	16,740
2015	-	-	28	259	434	1,030	1,006	-	-	2,757	-	732	3,764	2,872	1,472	-	8,840
2016 ^{c/}	-	-	-	-	653	387	-	-	-	1,040	-	-	915	1,739	-	-	2,654
Tillamook																	
1976-1980 ^{b/}	-	0	104	152	409	655	99	19	29	1,436	342	3,155	6,284	11,402	960	194	22,259
1981-1985	-	0	18	28	790	582	117	42	-	1,533	89	855	10,321	8,671	766	3	20,171
1986-1990	-	0	10	67	441	864	486	--	--	1,766	29	1,993	12,423	8,726	1,827	63	24,621
1991-1995	-	-	62	140	380	186	169	1,237	-	1,084	26	1,457	11,796	3,732	717	-	12,184
1996-2000	-	-	70	10	65	31	502	494	--	1,188	-	-	976	6	9	-	602
2001-2005	6	4	51	331	1,890	1,240	1,181	939	31	5,668	2	1,663	7,354	2,212	66	20	10,979
2006	0	0	40	75	204	14	1,079	1,944	49	3,405	-	184	1,055	-	119	-	1,358
2007	-	0	41	58	109	241	507	474	--	1,430	2	1,206	4,305	6,926	124	-	12,563
2008	-	-	-	2	-	3	262	201	--	468	-	43	220	930	45	3	1,241
2009	-	-	-	4	23	20	92	226	-	365	-	1,141	12,672	9,456	310	6	23,585
2010	-	-	12	72	112	190	323	122	-	831	-	323	1,392	1,390	268	-	3,373
2011	0	0	4	29	128	182	574	207	-	1,124	-	366	1,535	1,288	2,532	-	5,721
2012	0	1	79	102	133	429	1,008	419	-	2,171	-	13	423	1,302	1,424	-	3,162
2013	0	21	28	82	189	156	709	712	-	1,897	-	-	2,034	777	812	12	3,635
2014	0	0	84	16	385	236	703	111	-	1,535	-	641	10,479	5,817	9,692	49	26,678
2015	0	2	88	26	63	140	1,677	1,437	-	3,433	-	37	2,453	1,465	1,000	19	4,974
2016 ^{c/}	0	0	124	179	30	131	687	70	-	1,221	-	158	188	2	1,426	22	1,796

TABLE A-10. Oregon ocean recreational salmon landings in numbers of fish by catch area and month.^{a/} (Page 2 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct. ^{b/}	Season ^{b/}
CHINOOK											COHO						
<u>New port</u>																	
1976-1980 ^{b/}	-	0	112	520	839	806	184	31	1	2,480	1,273	12,737	25,257	22,756	1,813	211	63,962
1981-1985	-	-	18	344	1,462	942	89	--	-	2,706	126	3,484	22,849	19,232	2,241	-	46,040
1986-1990	-	-	68	497	1,687	1,029	601	-	-	3,649	662	9,013	46,079	23,917	3,429	-	82,281
1991-1995	-	-	44	143	1,155	507	65	28	-	1,113	31	8,315	36,626	11,925	1,119	-	40,251
1996-2000	-	-	26	44	262	408	95	3	-	837	-	-	8,151	30	7	-	3,286
2001-2005	0	25	79	475	3,829	3,126	1,445	375	-	9,354	2	3,466	12,245	4,402	79	2	19,484
2006	2	1	17	77	326	41	128	80	-	672	-	101	3,970	10	473	-	4,554
2007	1	0	13	82	150	163	28	0	16	453	-	2,715	6,516	5,982	175	-	15,388
2008	-	-	-	-	3	-	-	-	-	3	-	106	865	1,820	-	-	2,791
2009	-	-	-	2	6	25	-	-	-	33	-	2,564	17,733	14,694	447	-	35,438
2010	-	-	55	52	135	474	88	-	-	804	-	27	551	6,283	966	-	7,827
2011	0	6	21	44	111	52	234	-	-	468	-	179	1,703	385	3,680	-	5,947
2012	21	95	60	56	223	481	1,034	27	-	1,997	-	11	1,046	2,796	4,727	-	8,580
2013	231	123	28	126	498	251	305	76	-	1,638	-	-	2,648	1,779	1,517	7	5,951
2014	10	23	113	43	723	606	431	20	-	1,969	-	2,269	18,001	11,786	13,547	-	45,603
2015	30	3	45	32	151	39	393	14	-	707	-	213	6,755	1,011	1,695	3	9,677
2016 ^{c/}	28	5	2	14	117	348	135	6	-	655	-	29	582	18	1,793	-	2,422
<u>Coos Bay</u>																	
1976-1980 ^{b/}	-	0	484	2,108	2,866	3,618	1,181	94	24	10,323	7,484	31,027	44,646	20,736	2,845	265	106,898
1981-1985	-	-	37	921	4,075	1,994	436	--	--	7,087	2,106	13,671	29,455	13,020	1,699	--	53,301
1986-1990	-	-	75	1,213	4,999	2,206	963	--	--	9,249	453	10,859	39,003	12,888	1,568	-	64,366
1991-1995	-	-	40	862	1,495	352	231	7	--	2,033	465	12,213	39,345	10,077	2,713	-	59,645
1996-2000	-	-	11	89	1,660	793	142	16	--	2,702	-	-	2,042	22	3	-	1,549
2001-2005	1	33	136	2,738	7,334	3,467	1,458	24	--	15,190	11	2,357	8,406	1,264	34	-	12,066
2006	0	3	11	388	3,225	927	656	0	--	5,210	-	184	3,321	26	42	-	3,573
2007	2	0	18	115	545	672	62	0	--	1,414	-	813	8,402	3,509	12	-	12,736
2008	-	-	-	7	3	-	-	-	--	10	-	621	1,726	1,381	-	-	3,728
2009	-	-	-	3	7	2	-	--	--	12	-	1,154	7,596	1,175	42	-	9,967
2010	-	-	8	83	133	444	28	--	--	696	-	18	238	663	8	-	927
2011	0	1	31	88	254	389	248	-	6	1,017	-	11	330	338	411	-	1,090
2012	0	12	391	529	502	1,348	749	60	8	3,599	-	31	782	829	814	-	2,456
2013	26	52	135	1,189	790	11,479	657	4	--	14,332	-	9	66	94	329	-	498
2014	0	9	69	767	1,865	2,399	736	6	--	5,851	1	620	4,371	1,672	3,255	-	9,919
2015	0	3	18	209	187	197	744	3	--	1,361	-	208	2,633	81	1,731	-	4,653
2016 ^{c/}	4	4	2	44	91	213	318	0	--	676	-	58	410	59	959	-	1,486

TABLE A-10. Oregon ocean recreational salmon landings in numbers of fish by catch area and month.^{a/} (Page 3 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct. ^{b/}	Season ^{b/}
CHINOOK											COHO						
<u>Brookings</u>																	
1976-1980 ^{b/}	-	0	91	982	2,803	3,365	570	717	75	8,602	378	10,569	15,434	5,252	483	716	32,545
1981-1985	-	-	853	2,140	9,162	4,185	566	507	14	16,395	247	3,102	7,541	2,962	165	4	12,102
1986-1990	-	-	415	5,447	7,146	4,010	1,436	872	-	18,803	350	3,346	11,414	3,280	467	16	18,863
1991-1995	-	-	816	1,506	1,489	533	819	870	-	4,517	97	3,448	5,118	994	386	3	6,341
1996-2000	-	-	327	861	924	2,899	389	702	-	6,102	17	11	21	32	11	9	75
2001-2005	-	-	494	1,815	807	1,931	1,510	469	-	7,027	-	100	143	62	18	8	323
2006	-	-	52	513	186	-	644	397	-	1,792	2	474	117	-	81	7	681
2007	-	-	14	42	116	2,000	343	535	-	3,050	-	132	606	809	19	3	1,569
2008	-	-	-	-	-	-	-	280	-	280	-	449	1,273	409	-	3	2,134
2009	-	-	-	-	9	23	163	-	-	195	-	6	1,123	59	9	-	1,197
2010	-	-	7	2	3	24	247	541	-	824	-	-	19	25	16	-	60
2011	-	-	148	24	7	328	196	233	-	936	-	-	12	8	8	-	28
2012	-	-	334	904	2,329	4,014	1,208	534	-	9,323	-	15	144	48	-	2	209
2013	-	-	22	1,815	4,942	2,836	20	814	-	10,449	-	8	302	123	-	6	439
2014	-	-	817	477	3,341	1,053	16	1,115	-	6,819	3	31	528	5	-	-	567
2015	-	-	30	97	149	47	69	792	-	1,184	-	5	118	5	4	6	138
2016 ^{c/}	-	-	0	82	72	3	59	287	-	503	-	11	36	3	2	-	52
<u>South of Cape Falcon</u>																	
1976-1980 ^{b/}	-	0	792	3,762	6,917	8,445	2,033	804	90	22,841	9,476	57,488	91,620	60,146	6,100	1,387	225,663
1981-1985	-	-	908	2,071	15,489	7,703	1,208	516	9	27,722	1,988	21,112	70,167	43,292	4,870	4	131,613
1986-1990	-	-	535	7,125	14,274	8,109	3,075	349	--	33,467	1,259	25,210	108,918	48,811	5,926	16	190,131
1991-1995	-	-	798	2,349	4,518	844	1,004	1,024	28	8,747	554	19,075	92,885	11,088	1,663	3	84,075
1996-2000	-	-	434	1,004	2,911	4,132	1,128	1,204	14	10,828	17	11	5,092	74	18	8	5,203
2001-2005	3	61	761	5,358	13,860	9,764	5,595	1,807	31	37,238	9	6,560	28,149	7,940	177	25	42,851
2006	2	4	120	1,053	3,941	982	2,507	2,421	49	11,079	2	943	8,463	36	715	7	10,166
2007	3	0	86	297	920	3,076	940	1,009	16	6,347	2	4,866	19,829	17,226	330	3	42,256
2008	-	-	-	9	6	3	262	481	--	761	-	1,219	4,084	4,540	45	6	9,894
2009	-	-	-	9	45	70	255	226	--	605	-	4,865	39,124	25,384	808	6	70,187
2010	-	-	82	209	383	1,132	686	663	--	3,155	-	368	2,200	8,361	1,258	-	12,187
2011	0	7	204	185	500	951	1,252	440	6	3,545	-	556	3,580	2,019	6,631	-	12,786
2012	21	108	864	1,591	3,187	6,272	3,999	1,040	8	17,090	-	70	2,395	4,975	6,965	2	14,407
2013	257	196	213	3,212	6,419	14,722	1,691	1,606	--	28,316	-	17	5,050	2,773	2,658	25	10,523
2014	10	32	1,083	1,303	6,314	4,294	1,886	1,252	--	16,174	4	3,561	33,379	19,280	26,494	49	82,767
2015	30	8	181	364	550	423	2,883	2,246	--	6,685	-	463	11,959	2,562	4,430	28	19,442
2016 ^{c/}	32	9	128	319	310	695	1,199	363	--	3,055	-	256	1,216	82	4,180	22	5,756

TABLE A-10. Oregon ocean recreational salmon landings in numbers of fish by catch area and month.^{a/} (Page 4 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct. ^{b/}	Season ^{b/}
CHINOOK											COHO						
Total All Areas																	
1976-1980 ^{b/}	-	0	1,125	6,972	10,989	16,420	3,522	854	91	39,974	10,373	70,404	112,320	81,823	13,242	1,710	289,189
1981-1985	-	-	915	2,809	17,916	9,605	1,499	516	9	33,085	2,412	20,297	86,622	54,503	7,625	4	165,393
1986-1990	-	-	541	7,227	15,227	9,276	3,093	349	--	35,713	1,259	26,670	124,138	60,376	6,187	16	218,637
1991-1995	-	-	798	2,365	3,613	1,085	1,055	1,024	28	9,234	554	19,677	80,495	19,002	3,528	3	103,001
1996-2000	-	-	434	1,004	3,069	4,355	1,150	1,204	14	11,231	17	11	8,112	3,750	580	8	12,459
2001-2005	3	61	767	5,434	14,634	11,369	5,836	1,808	31	39,942	9	6,645	35,139	22,010	2,198	25	66,017
2006	2	4	120	1,053	4,022	1,352	2,565	2,421	49	11,588	2	943	10,079	3,596	950	7	15,577
2007	3	0	86	297	1,001	3,533	996	1,009	16	6,941	2	4,866	23,641	31,033	1,108	3	60,653
2008	-	-	17	161	349	308	262	481	--	1,578	-	1,320	5,192	5,522	45	6	12,085
2009	-	-	-	13	467	613	266	226	--	1,585	-	5,003	48,717	34,714	1,166	6	89,606
2010	-	-	82	246	771	2,453	752	663	--	4,967	-	380	3,679	12,765	1,471	-	18,295
2011	0	7	204	314	647	2,215	1,331	440	6	5,164	-	734	4,561	6,151	7,386	-	18,832
2012	21	108	864	2,169	3,837	6,703	4,044	1,040	8	18,794	-	156	3,010	5,715	7,196	2	16,079
2013	257	196	213	3,943	6,742	15,514	1,763	1,606	--	30,234	-	1,160	6,041	4,479	2,831	25	14,536
2014	10	32	1,104	1,453	6,942	5,696	1,991	1,252	--	18,480	4	3,952	38,409	27,783	29,310	49	99,507
2015	30	8	209	623	984	1,453	3,889	2,246	--	9,442	-	1,195	15,723	5,434	5,902	28	28,282
2016 ^{c/}	32	9	128	319	963	1,082	1,199	363	--	4,095	-	256	2,131	1,821	4,180	22	8,410

a/ Monthly totals are the sum of statistical weeks with closest fit to the calendar month and may include illegal catch. The 1976-1980 catch is from combined salmon/steelhead punch card and sampled port data. Since 1981, data is from sampled ports only. Astoria area includes Astoria, Warrenton, and Hammond; Tillamook area includes Garibaldi and Pacific City; New port area includes Depoe Bay and New port; Coos Bay area includes Florence, Winchester Bay, and Coos Bay; Brookings area includes Gold Beach and Brookings. Values include state-waters only, terminal area fisheries.

b/ October, season, and total catch for the following port areas and years includes the following catch in November: Astoria 1976 - 29 coho; Tillamook 1976 - 38 coho; New port 1976 - 22 coho; Coos Bay 1976 - 66 coho; Brookings 1976 - 367 coho.

c/ Preliminary.

TABLE A-11. Summary of Washington non-Indian commercial troll salmon fishing effort in days fished and landings in numbers of fish by catch area. (Page 1 of 2)

Year or Avg.	Ilwaco	Westport	La Push	Washington			Oregon	California	Alaska	Total
				Neah Bay ^{a/}	Subtotal					
DAYS FISHED										
1976-1980	9,007	15,023	9,446	9,707	43,184	664	42	970	44,860	
1981-1985	1,961	5,194	1,553	3,111	11,819	244	18	25	12,106	
1986-1990	871	2,619	300	928	4,718	100	0	3	4,821	
1991-1995	335	2,079	243	1,421	3,475	100	0	3	3,578	
1996-2000	20	128	55	235	431	30	0	0	460	
2001-2005	82	593	195	454	1,324	30	0	0	1,354	
2006	134	367	597	340	1,438	-	0	0	1,438	
2007	100	638	436	100	1,274	-	0	0	1,274	
2008	128	655	331	109	1,223	-	-	0	1,223	
2009	87	1,144	564	196	1,991	-	-	0	1,991	
2010	92	1,620	426	298	2,436	-	-	0	2,436	
2011	92	1,133	669	170	2,064	-	-	0	2,064	
2012	107	654	1,045	254	2,060	-	-	0	2,060	
2013	130	1,498	435	245	2,308	-	-	0	2,308	
2014	394	791	716	121	2,022	-	-	0	2,022	
2015	275	1,447	657	266	2,645	-	-	0	2,645	
2016 ^{b/}	188	881	411	148	1,628	-	-	0	1,628	
CHINOOK LANDINGS										
1976-1980	23,518	81,100	44,972	33,934	183,524	4,878	648	12,666	201,716	
1981-1985	9,172	34,995	7,061	10,074	61,303	901	184	203	62,591	
1986-1990	5,089	27,281	4,251	9,601	46,222	1,431	0	1	47,654	
1991-1995	1,386	13,907	2,769	12,082	25,628	1,431	0	1	27,060	
1996-2000	184	1,329	1,503	7,048	10,018	812	0	0	10,830	
2001-2005	1,293	17,254	4,481	17,310	40,338	812	0	0	41,149	
2006	2,124	2,557	7,877	4,211	16,769	-	0	0	16,769	
2007	500	8,111	5,103	554	14,268	-	0	0	14,268	
2008	1,242	4,673	2,222	499	8,636	-	-	0	8,636	
2009	261	8,132	2,722	1,201	12,316	-	-	0	12,316	
2010	886	34,171	5,911	4,131	45,099	-	-	0	45,099	
2011	1,032	12,518	10,418	2,934	26,902	-	-	0	26,902	
2012	2,250	8,781	19,722	6,102	36,855	-	-	0	36,855	
2013	560	25,171	8,388	5,971	40,090	-	-	0	40,090	
2014	8,980	12,550	13,851	3,326	38,707	-	-	0	38,707	
2015	4,025	33,410	13,180	4,698	55,313	-	-	0	55,313	
2016 ^{b/}	1,659	9,724	4,173	1,788	17,344	-	-	0	17,344	

TABLE A-11. Summary of Washington non-Indian commercial troll salmon fishing effort in days fished and landings in numbers of fish by catch area. (Page 2 of 2)

Year or Avg.	Washington								Total
	Ilwaco	Westport	La Push	Neah Bay ^{a/}	Subtotal	Oregon	California	Alaska	
COHO LANDINGS									
1976-1980	136,926	207,515	203,330	156,502	704,272	21,460	1,595	15,218	742,545
1981-1985	32,087	63,633	34,020	42,272	152,480	8,260	33	876	161,649
1986-1990	23,765	15,616	4,139	19,563	54,379	1,501	0	103	55,983
1991-1995	5,957	8,689	2,876	13,939	27,800	1,501	0	103	29,404
1996-2000	1,413	2,387	851	7,478	8,881	0	-	103	8,984
2001-2005	929	3,240	1,555	1,231	6,397	0	-	103	6,500
2006	74	184	766	241	1,265	-	-	0	1,265
2007	2,865	1,783	1,091	147	5,886	-	-	0	5,886
2008	77	1,132	490	7	1,706	-	-	0	1,706
2009	2,254	10,060	7,157	584	20,055	-	-	0	20,055
2010	151	1,657	209	87	2,104	-	-	0	2,104
2011	38	1,708	1,167	140	3,053	-	-	0	3,053
2012	89	856	2,119	204	3,268	-	-	0	3,268
2013	127	3,759	1,846	309	6,041	-	-	0	6,041
2014	2,239	8,525	4,602	41	15,407	-	-	0	15,407
2015	690	1,839	309	34	2,872	-	-	0	2,872
2016	-	-	-	-	-	-	-	0	0
PINK LANDINGS^{c/}									
1976-1980	3,598	27,219	143,277	238,787	412,880	1,829	0	2,380	417,089
1981-1985	1,272	7,589	22,914	107,620	139,394	342	1	263	140,000
1986-1990	45	412	364	18,894	19,714	19	0	0	19,733
1991-1995	30	11	1,773	23,992	25,792	19	0	0	25,811
1996-2000	0	2	7	21	29	19	0	0	48
2001-2005	13	18	38	29	97	19	0	0	116
2006	0	0	0	0	0	-	0	0	0
2007	0	1	122	24	147	-	0	0	147
2008	0	0	0	0	0	-	-	0	0
2009	0	9	117	9	135	-	-	0	135
2010	0	0	0	0	0	-	-	0	0
2011	0	110	98	7	215	-	-	0	215
2012	0	0	0	0	0	-	-	0	0
2013	0	15	99	27	141	-	-	0	141
2014	0	0	0	0	0	-	-	0	0
2015	0	12	36	20	68	-	-	0	68
2016 ^{b/}	0	0	0	0	0	-	-	0	0

a/ Neah Bay data includes landings from Strait of Juan de Fuca Area 4B.

b/ Preliminary.

c/ Landings primarily in odd-years only; averages are odd-year average.

TABLE A-12. Washington non-Indian commercial troll salmon fishing effort in days fished by catch area and month.^{a/} (Page 1 of 2)

Year or Avg.	May	June	July	Aug.	Sept. ^{b/}	Oct.	Season
<u>Neah Bay^{c/}</u>							
1976-1980	656	402	3,064	4,198	1,734	-	9,707
1981-1985	416	53	1,662	1,332	14	-	3,111
1986-1990	480	178	8	434	-	-	928
1991-1995	652	416	296	406	132	-	1,421
1996-2000	140	63	96	88	-	-	235
2001-2005	165	56	129	119	24	-	454
2006	144	89	15	54	38	-	340
2007	49	10	37	2	2	-	100
2008	34	65	1	9	0	-	109
2009	68	74	50	2	2	-	196
2010	139	97	44	18	0	-	298
2011	107	34	17	3	9	-	170
2012	114	83	21	21	15	-	254
2013	151	-	90	4	-	-	245
2014	109	1	6	5	-	-	121
2015	180	66	14	3	3	-	266
2016 ^{d/}	85	56	3	4	-	-	148
<u>La Push</u>							
1976-1980	570	541	3,812	3,609	1,143	-	9,446
1981-1985	175	25	1,199	505	-	-	1,553
1986-1990	186	110	5	136	15	-	300
1991-1995	74	85	127	52	16	-	243
1996-2000	36	23	12	8	5	-	55
2001-2005	31	12	76	88	15	-	195
2006	39	179	63	209	107	-	597
2007	29	180	168	57	2	-	436
2008	10	118	119	73	11	-	331
2009	123	114	173	124	30	-	564
2010	154	93	95	81	3	-	426
2011	199	236	139	70	25	-	669
2012	124	286	229	246	160	-	1,045
2013	190	-	175	70	-	-	435
2014	291	84	169	140	32	-	716
2015	227	-	194	174	62	-	657
2016 ^{d/}	213	56	111	31	-	-	411
<u>Westport</u>							
1976-1980	2,255	1,320	5,000	4,231	2,218	-	15,023
1981-1985	2,109	250	2,790	1,087	-	-	5,194
1986-1990	1,723	614	855	390	-	-	2,619
1991-1995	852	552	352	235	309	-	2,079
1996-2000	46	39	51	65	2	-	128
2001-2005	207	73	151	129	55	-	593
2006	176	113	21	33	24	-	367
2007	367	63	149	55	4	-	638
2008	202	170	103	131	49	-	655
2009	276	363	209	194	102	-	1,144
2010	218	668	362	329	43	-	1,620
2011	300	386	292	135	20	-	1,133
2012	126	264	202	39	23	-	654
2013	380	498	206	331	83	-	1,498
2014	189	103	222	192	85	-	791
2015	411	418	283	273	62	-	1,447
2016 ^{d/}	349	247	134	151	-	-	881

TABLE A-12. Washington non-Indian commercial troll salmon fishing effort in days fished by catch area and month. ^{a/} (Page 2 of 2)

Year or Avg.	May	June	July	Aug.	Sept. ^{b/}	Oct.	Season
<u>I/w aco</u>							
1976-1980	695	673	3,199	2,907	1,668	-	9,007
1981-1985	566	97	1,092	710	568	-	1,961
1986-1990	197	61	284	583	578	-	871
1991-1995	95	9	63	160	44	-	335
1996-2000	0	0	-	48	11	-	20
2001-2005	15	5	24	29	14	-	82
2006	71	54	1	2	6	-	134
2007	22	27	10	31	10	-	100
2008	34	80	3	8	3	-	128
2009	7	13	20	43	4	-	87
2010	23	22	23	17	7	-	92
2011	42	43	1	3	3	-	92
2012	5	76	14	2	10	-	107
2013	47	51	15	10	7	-	130
2014	250	49	42	35	18	-	394
2015	177	26	11	26	35	-	275
2016 ^{d/}	78	48	30	32	-	-	188
<u>Statewide Total</u>							
1976-1980	4,177	2,800	15,075	14,944	6,187	-	43,184
1981-1985	3,266	382	6,469	2,956	291	-	11,819
1986-1990	2,452	876	580	1,100	585	-	4,718
1991-1995	1,673	1,063	838	755	333	-	3,475
1996-2000	221	124	158	145	10	-	431
2001-2005	417	146	381	324	94	-	1,324
2006	430	435	100	298	175	-	1,438
2007	467	280	364	145	18	-	1,274
2008	280	433	226	221	63	-	1,223
2009	474	564	452	363	138	-	1,991
2010	534	880	524	445	53	-	2,436
2011	648	699	449	211	57	-	2,064
2012	369	709	466	308	208	-	2,060
2013	768	549	486	415	90	-	2,308
2014	839	237	439	372	135	-	2,022
2015	995	510	502	476	162	-	2,645
2016 ^{d/}	725	407	278	218	-	-	1,628

a/ Summary of Washington Department of Fish and Wildlife fish receiving ticket information by statistical month, excluding Washington landings from Oregon, California, and Alaska.

b/ Data for September include any effort after September.

c/ Neah Bay area includes effort and catches from Strait of Juan de Fuca Area 4B.

d/ Preliminary.

TABLE A-13. Washington non-Indian commercial troll Chinook, coho, and pink salmon landings in numbers of fish by catch area and month.^{a/} (Page 1 of 3)

Year or Avg	May	June	July	Aug.	Sept. ^{b/}	Season	May	June	July	Aug.	Sept. ^{b/}	Season	May	June	July	Aug.	Sept. ^{b/}	Season
	CHINOOK						COHO						PINKS					
<u>Neah Bay^{c/}</u>																		
1976-1980	6,781	3,805	12,440	8,782	2,659	33,934	-	19,014	67,297	58,787	33,270	156,502	45	235	42,003	192,169	4,336	238,787
1981-1985	3,293	532	6,289	1,424	31	10,074	-	-	43,965	15,853	100	42,272	113	20	38,466	103,127	415	107,620
1986-1990	8,157	4,180	74	672	-	9,601	-	-	776	24,066	-	19,563	0	-	1,524	36,263	-	18,894
1991-1995	8,818	5,679	1,388	424	366	12,082	-	-	3,378	9,604	5,293	13,939	9	9	64	23,603	535	23,992
1996-2000	3,887	1,923	3,428	1,524	-	7,048	-	-	2,997	4,481	-	7,478	1	1	30	8	-	21
2001-2005	6,624	2,491	4,402	4,393	699	17,310	-	-	424	962	171	1,231	0	3	18	12	0	29
2006	2,434	545	109	662	461	4,211	-	-	12	206	23	241	-	-	-	-	-	-
2007	223	122	171	20	18	554	-	-	143	0	4	147	8	0	16	0	0	24
2008	47	434	1	17	0	499	-	-	0	7	0	7	-	-	-	-	-	-
2009	597	461	138	3	2	1,201	-	-	458	102	24	584	1	8	0	0	0	9
2010	1,902	1,529	368	332	0	4,131	-	-	69	18	0	87	-	-	-	-	-	-
2011	2,022	513	276	30	93	2,934	-	-	1	0	139	140	0	0	7	0	0	7
2012	4,511	788	157	421	225	6,102	-	-	0	125	79	204	-	-	-	-	-	-
2013	3,984	-	1,900	87	-	5,971	-	-	279	30	-	309	2	-	2	23	-	27
2014	3,075	27	168	56	-	3,326	-	-	19	22	-	41	-	-	-	-	-	-
2015	3,274	839	402	104	79	4,698	-	-	15	13	6	34	0	20	0	0	0	20
2016 ^{d/}	948	794	39	7	-	1,788	-	-	-	-	-	0	-	-	-	-	-	-
<u>La Push</u>																		
1976-1980	6,487	5,777	19,674	10,996	2,548	44,972	-	46,357	112,723	63,373	22,453	203,330	281	156	39,572	102,977	293	143,277
1981-1985	1,879	257	4,971	1,313	-	7,061	-	-	29,610	8,820	-	34,020	39	-	7,150	15,725	-	22,914
1986-1990	3,225	2,241	40	527	11	4,251	-	-	350	5,397	16	4,139	0	-	728	0	-	364
1991-1995	921	1,020	734	335	11	2,769	-	-	1,773	1,465	1,050	2,876	0	0	20	1,736	46	1,773
1996-2000	966	416	336	150	-	1,503	-	-	140	547	328	851	0	0	0	13	0	7
2001-2005	797	338	1,798	1,848	176	4,481	-	-	745	956	187	1,555	1	0	21	18	10	38
2006	723	2,371	844	2,658	1,281	7,877	-	-	100	551	115	766	-	-	-	-	-	-
2007	144	2,932	1,588	437	2	5,103	-	-	803	286	2	1,091	0	19	103	0	0	122
2008	24	1,259	501	380	58	2,222	-	-	186	265	39	490	-	-	-	-	-	-
2009	1,372	523	522	272	33	2,722	-	-	2,466	3,888	803	7,157	0	2	80	34	1	117
2010	2,125	1,632	984	1,147	23	5,911	-	-	121	87	1	209	-	-	-	-	-	-
2011	2,700	4,075	2,683	781	179	10,418	-	-	574	436	157	1,167	0	2	58	37	1	98
2012	4,242	4,341	3,524	5,868	1,747	19,722	-	-	256	839	1,024	2,119	-	-	-	-	-	-
2013	4,186	-	2,396	1,806	-	8,388	-	-	1,054	792	-	1,846	0	0	93	6	0	99
2014	7,553	1,217	3,208	1,672	201	13,851	-	-	1,149	3,069	384	4,602	-	-	-	-	-	-
2015	4,288	-	4,292	3,619	981	13,180	-	-	133	114	62	309	0	0	36	0	0	36
2016 ^{d/}	2,228	551	1,305	89	-	4,173	-	-	-	-	-	0	-	-	-	-	-	-

TABLE A-13. Washington non-Indian commercial troll Chinook, coho, and pink salmon landings in numbers of fish by catch area and month (odd year averages).^{a/} (Page 2 of 3)

Year or Avg	May	June	July	Aug.	Sept. ^{b/}	Season	May	June	July	Aug.	Sept. ^{b/}	Season	May	June	July	Aug.	Sept. ^{b/}	Season
	CHINOOK						COHO						PINKS					
<u>Westport</u>																		
1976-1980	28,493	15,087	18,923	13,306	5,291	81,100	97	69,485	123,307	52,640	17,651	207,515	239	53	13,298	13,510	119	27,219
1981-1985	20,022	2,850	13,121	3,661	-	34,995	-	-	55,366	11,022	-	63,633	78	20	4,976	3,773	-	7,589
1986-1990	17,976	6,478	17,639	1,489	-	27,281	-	-	34,992	9,157	-	15,616	115	182	390	23	-	412
1991-1995	6,118	5,160	1,807	1,207	929	13,907	-	-	1,968	3,364	6,020	8,689	2	1	4	6	4	11
1996-2000	394	559	266	619	3	1,329	-	-	769	1,855	29	2,387	0	1	1	0	0	2
2001-2005	7,894	3,243	3,497	2,336	475	17,254	-	-	696	1,083	2,667	3,240	0	0	16	2	0	18
2006	1,578	632	120	138	89	2,557	-	-	10	59	115	184	-	-	-	-	-	-
2007	5,326	814	1,700	264	7	8,111	-	-	998	757	28	1,783	0	0	0	1	0	1
2008	1,380	1,657	671	764	201	4,673	-	-	165	645	322	1,132	-	-	-	-	-	-
2009	3,576	3,111	955	405	85	8,132	-	-	1,933	5,291	2,836	10,060	0	4	2	3	0	9
2010	4,192	19,171	4,761	5,788	259	34,171	-	-	895	639	123	1,657	-	-	-	-	-	-
2011	2,960	4,727	3,056	1,709	66	12,518	-	-	1,055	456	197	1,708	0	1	53	56	0	110
2012	1,613	5,242	1,631	109	186	8,781	-	-	490	152	214	856	-	-	-	-	-	-
2013	2,317	11,848	3,520	6,796	690	25,171	-	-	559	2,942	258	3,759	0	0	6	8	1	15
2014	2,160	1,313	4,722	3,936	419	12,550	-	-	1,739	2,959	3,827	8,525	-	-	-	-	-	-
2015	5,360	13,569	7,916	6,108	457	33,410	-	-	539	871	429	1,839	1	0	11	0	0	12
2016 ^{d/}	3,258	2,619	1,981	1,866	-	9,724	-	-	-	-	-	0	-	-	-	-	-	-
<u>Iwaco</u>																		
1976-1980	7,990	6,369	3,933	3,312	3,188	23,518	6	92,879	72,101	28,995	17,251	136,926	5	5	1,817	1,348	423	3,598
1981-1985	6,464	1,263	2,309	603	418	9,172	-	-	29,801	14,415	13,373	32,087	4	-	931	647	-	1,272
1986-1990	2,998	901	1,324	1,518	937	5,089	-	-	10,844	19,388	13,026	23,765	0	0	87	1	1	45
1991-1995	1,147	36	57	156	15	1,386	-	-	477	5,019	930	5,957	0	0	0	30	0	30
1996-2000	0	0	-	513	40	184	-	-	-	1,221	385	1,413	0	0	-	-	-	0
2001-2005	398	110	357	355	121	1,293	-	-	278	405	502	929	0	0	11	1	0	13
2006	1,746	364	0	1	13	2,124	-	-	7	29	38	74	-	-	-	-	-	-
2007	173	226	43	50	8	500	-	-	338	2,401	126	2,865	0	0	0	0	0	0
2008	361	847	7	24	3	1,242	-	-	4	65	8	77	-	-	-	-	-	-
2009	146	49	20	46	0	261	-	-	587	1,667	0	2,254	0	0	0	0	0	0
2010	210	230	168	237	41	886	-	-	99	38	14	151	-	-	-	-	-	-
2011	472	543	1	12	4	1,032	-	-	1	25	12	38	0	0	0	0	0	0
2012	263	1,687	66	0	234	2,250	-	-	23	2	64	89	-	-	-	-	-	-
2013	102	358	42	19	39	560	-	-	28	80	19	127	0	0	0	0	0	0
2014	7,438	553	598	297	94	8,980	-	-	534	822	883	2,239	-	-	-	-	-	-
2015	2,681	650	96	337	261	4,025	-	-	41	171	478	690	0	0	0	0	0	0
2016 ^{d/}	656	346	259	398	-	1,659	-	-	-	-	-	0	-	-	-	-	-	-

TABLE A-13. Washington non-Indian commercial troll Chinook, coho, and pink salmon landings in numbers of fish by catch area and month (odd year averages).^{a/} (Page 3 of 3)

Year or Avg	May	June	July	Aug.	Sept. ^{b/}	Season	May	June	July	Aug.	Sept. ^{b/}	Season	May	June	July	Aug.	Sept. ^{b/}	Season
	CHINOOK						COHO						PINKS					
Statewide Total																		
1976-1980	49,751	29,764	54,970	36,395	12,644	183,524	36	227,735	375,428	203,795	79,481	704,272	570	449	96,689	310,003	5,170	412,880
1981-1985	31,659	4,389	26,113	5,153	225	61,303	-	-	140,300	37,526	4,524	152,480	234	33	51,212	87,639	415	139,394
1986-1990	30,079	11,970	9,576	2,950	943	46,222	-	-	23,869	49,522	13,034	54,379	115	182	2,729	36,287	1	19,714
1991-1995	17,003	11,895	3,985	1,396	1,132	25,628	-	-	7,595	17,356	8,862	27,800	10	9	88	25,360	390	25,792
1996-2000	5,247	2,897	4,030	1,713	43	10,018	-	-	3,905	6,021	386	8,881	1	2	31	21	0	29
2001-2005	15,712	6,182	10,054	7,683	1,178	40,338	-	-	2,142	2,639	3,408	6,397	2	3	66	23	5	97
2006	6,481	3,912	1,073	3,459	1,844	16,769	-	-	129	845	291	1,265	-	-	-	-	-	-
2007	5,866	4,094	3,502	771	35	14,268	-	-	2,282	3,444	160	5,886	8	19	119	1	0	147
2008	1,812	4,197	1,180	1,185	262	8,636	-	-	355	982	369	1,706	-	-	-	-	-	-
2009	5,691	4,144	1,635	726	120	12,316	-	-	5,444	10,948	3,663	20,055	1	14	82	37	1	135
2010	8,429	22,562	6,281	7,504	323	45,099	-	-	1,184	782	138	2,104	-	-	-	-	-	-
2011	8,154	9,858	6,016	2,532	342	26,902	-	-	1,631	917	505	3,053	0	3	118	93	1	215
2012	10,629	12,058	5,378	6,398	2,392	36,855	-	-	769	1,118	1,381	3,268	-	-	-	-	-	-
2013	10,589	12,206	7,858	8,708	729	40,090	-	-	1,920	3,844	277	6,041	2	0	101	37	1	141
2014	20,226	3,110	8,696	5,961	714	38,707	-	-	3,441	6,872	5,094	15,407	-	-	-	-	-	-
2015	15,603	15,058	12,706	10,168	1,778	55,313	-	-	728	1,169	975	2,872	1	20	47	0	0	68
2016 ^{d/}	7,090	4,310	3,584	2,360	-	17,344	-	-	-	-	-	0	-	-	-	-	-	-

a/ Summary of Washington Department of Fish and Wildlife fish receiving ticket information by statistical month excluding Washington landings from Oregon, California, and Alaska.

b/ Data for September include any catch after September.

c/ Neah Bay area includes effort and catches from Strait of Juan de Fuca Area 4B.

d/ Preliminary.

TABLE A-14. Treaty Indian ocean troll salmon fishing effort in deliveries by catch area and month. (Page 1 of 2)

Year or Avg.	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.-Dec.	May-Sept.	Year
<u>Area 4B</u>										
1976-1980	207	33	41	37	44	22	4	37	177	424
1981-1985	167	53	43	54	57	16	14	32	224	436
1986-1990	167	63	53	75	92	24	2	43	309	520
1991-1995	75	35	27	29	64	3	26	26	158	269
1996-2000	14	12	14	1	25	6	-	2	58	74
2001-2005	34	15	18	27	27	10	-	65	97	196
2006	28	13	157	16	15	10	-	39	211	278
2007	179	9	29	48	18	0	-	129	104	412
2008	52	9	21	59	110	13	-	51	212	315
2009	76	48	202	101	124	4	-	18	479	573
2010	145	143	200	25	7	1	-	51	376	572
2011	303	68	51	7	1	0	-	22	127	452
2012	182	75	78	67	16	8	-	29	244	455
2013	268	141	70	37	6	1	-	117	255	640
2014	416	45	164	4	4	4	-	34	221	671
2015	384	254	170	4	27	15	-	7	470	861
2016 ^{av}	35	150	38	19	25	2	-	27	234	296
<u>Neah Bay</u>										
1976-1980	2	14	59	93	65	19	2	2	250	257
1981-1985	0	11	59	115	140	100	3	0	424	427
1986-1990	1	44	52	167	149	75	0	0	486	487
1991-1995	0	29	34	83	95	28	0	1	269	271
1996-2000	0	18	20	2	52	43	-	0	136	136
2001-2005	1	30	46	71	84	56	-	0	286	287
2006	1	78	118	138	112	101	-	2	547	550
2007	0	13	161	135	125	4	-	0	438	438
2008	2	14	74	30	83	74	-	0	275	277
2009	0	26	27	122	110	0	-	0	285	285
2010	0	5	94	63	99	41	-	0	302	302
2011	0	24	130	122	95	21	-	0	392	392
2012	0	56	175	134	190	94	-	0	649	649
2013	0	131	106	142	253	55	-	0	687	687
2014	0	97	57	70	69	18	-	0	311	311
2015	0	22	166	82	48	11	-	0	329	329
2016 ^{av}	0	12	149	95	54	0	-	0	310	310
<u>La Push^{b/}</u>										
1976-1980	0	14	37	54	43	8	0	0	156	156
1981-1985	0	10	26	86	93	29	0	0	243	243
1986-1990	0	21	39	119	150	37	-	-	366	366
1991-1995	0	3	7	44	100	5	-	-	160	160
1996-2000	0	0	1	0	3	2	-	-	6	6
2001-2005	0	0	0	1	1	1	10	-	4	12
2006	0	2	7	11	8	3	5	-	31	36
2007	0	0	15	2	13	1	0	-	31	31
2008	0	4	26	11	9	2	1	-	52	53
2009	0	2	3	2	6	0	4	-	13	17
2010	0	3	1	11	12	2	4	-	29	33
2011	0	0	3	0	3	2	1	-	8	9
2012	0	8	3	5	12	2	4	-	30	34
2013	0	6	17	22	10	2	6	-	57	63
2014	0	41	59	158	127	42	0	-	427	427
2015	0	36	21	120	66	29	0	-	272	272
2016 ^{av}	0	19	12	4	1	0	0	-	36	36

TABLE A-14. Treaty Indian ocean troll salmon fishing effort in deliveries by catch area and month. (Page 2 of 2)

Year or Avg.	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.-Dec.	Total	
									May-Sept.	Year Total
Westport										
1976-1980	0	1	1	8	10	0	0	0	20	20
1981-1985	0	6	12	30	23	2	0	0	72	72
1986-1990	0	10	24	73	68	24	-	-	199	199
1991-1995	0	1	4	26	52	10	-	-	95	95
1996-2000	0	1	2	8	15	3	-	-	29	29
2001-2005	0	2	1	1	4	2	-	-	10	10
2006	0	3	3	2	5	3	-	-	16	16
2007	0	0	0	4	11	2	-	-	17	17
2008	0	3	4	2	29	3	-	-	41	41
2009	0	6	6	8	29	1	-	-	50	50
2010	0	4	40	56	32	18	-	-	150	150
2011	0	0	8	23	41	1	-	-	73	73
2012	0	5	13	8	11	0	-	-	37	37
2013	0	1	8	2	15	2	-	-	28	28
2014	0	4	3	7	11	4	-	-	29	29
2015	0	6	8	18	9	0	-	-	41	41
2016 ^{a/}	0	3	6	4	2	0	-	-	15	15
Statewide Total										
1976-1980	209	61	137	192	162	50	6	39	603	858
1981-1985	167	79	141	284	313	146	17	32	963	1,179
1986-1990	168	138	168	434	460	161	2	43	1,360	1,572
1991-1995	75	69	71	182	311	48	10	27	682	794
1996-2000	14	31	38	11	96	53	-	2	229	246
2001-2005	35	47	66	100	116	69	10	65	397	505
2006	29	96	285	167	140	117	5	41	805	880
2007	179	22	205	189	167	7	0	129	590	898
2008	54	30	125	102	231	92	1	51	580	686
2009	76	82	238	233	269	5	4	18	827	925
2010	145	155	335	155	150	62	4	51	857	1,057
2011	303	92	192	152	140	24	1	22	600	926
2012	182	144	269	214	229	104	4	29	960	1,175
2013	268	279	201	203	284	60	6	117	1,027	1,418
2014	416	187	283	239	211	68	0	34	988	1,438
2015	384	318	365	224	150	55	0	7	1,112	1,503
2016 ^{a/}	35	184	205	122	82	2	0	27	595	657

a/ Preliminary.

b/ October effort beginning in 2002 occurred during Quileute ceremonial and subsistence fishery.

TABLE A-15. Treaty Indian ocean troll Chinook and coho salmon landings in numbers of fish by catch area and month. (Page 1 of 3)

Year or Avg.	Total										Total									
	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	Nov.-Dec.	May-Sept.	Year	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	Nov.-Dec.	May-Sept.	Year
CHINOOK										COHO										
<u>Area 4B</u>																				
1976-1980	8,521	360	641	98	103	27	10	776	1,229	10,536	406	23	499	191	252	152	5	61	1,116	1,589
1981-1985	13,109	1,066	248	94	49	29	145	823	1,485	15,562	42	245	184	825	1,015	208	36	7	2,476	2,561
1986-1990	6,009	2,540	1,746	284	323	63	12	2,677	4,956	13,654	9	0	65	2,150	7,766	813	7	13	10,794	10,822
1991-1995	3,549	467	865	60	282	2	147	1,068	1,677	6,323	2	0	0	554	4,036	30	257	7	4,620	4,731
1996-2000	694	371	459	25	113	31	-	32	1,000	1,726	0	0	0	1,221	132	-	0	0	1,353	1,353
2001-2005	894	388	2,299	522	485	358	-	3,765	4,052	8,711	1	0	0	1,309	3,197	545	-	30	5,051	5,082
2006	157	154	2,335	50	93	81	-	456	2,713	3,326	0	1	3	96	22	47	-	0	169	169
2007	2,218	53	324	556	167	0	-	1,340	1,100	4,658	0	0	0	1,496	29	0	-	5	1,525	1,530
2008	483	35	272	618	1,607	109	-	375	2,641	3,499	0	0	8	81	483	72	-	0	644	644
2009	464	481	4,528	593	615	12	-	68	6,229	6,761	0	0	0	3,319	4,555	17	-	0	7,891	7,891
2010	1,722	1,657	3,240	171	37	9	-	200	5,114	7,036	0	0	0	106	3	0	-	12	109	121
2011	2,883	585	373	46	15	0	-	90	1,019	3,992	2	0	0	10	13	0	-	2	23	27
2012	1,216	635	699	651	295	43	-	335	2,323	3,874	0	0	2	235	229	166	-	4	632	636
2013	1,669	1,989	2,456	164	43	1	-	721	4,653	7,043	3	0	0	303	0	0	-	10	303	316
2014	3,316	819	3,051	20	22	12	-	267	3,924	7,507	3	0	0	12	24	19	-	0	55	58
2015	3,268	4,140	4,284	47	135	75	-	17	8,681	11,966	0	0	0	0	249	196	-	0	445	445
2016 ^{a/}	244	1,758	239	135	84	5	-	148	2,221	2,613	0	0	0	0	0	0	-	0	0	0
<u>Neah Bay</u>																				
1976-1980	8	297	1,140	1,168	146	16	1	9	2,766	2,784	1	57	3,527	1,486	483	256	6	2	5,809	5,818
1981-1985	0	520	1,191	2,406	673	772	54	11	5,561	5,626	0	8	4,647	9,017	16,515	13,404	18	0	43,590	43,609
1986-1990	6	2,604	2,317	3,114	2,657	685	0	0	11,376	11,382	0	3	106	16,829	16,934	7,241	0	0	41,114	41,114
1991-1995	0	3,800	2,807	2,797	2,704	471	0	16	12,579	12,595	0	1	1	12,665	13,860	4,816	0	1	31,342	31,343
1996-2000	1	2,191	5,957	353	3,368	1,809	-	17	13,679	13,697	0	0	0	15	9,027	7,940	-	0	16,982	16,982
2001-2005	11	4,666	12,259	8,821	5,524	2,762	-	0	34,033	34,044	20	2	3	5,938	14,570	8,744	-	0	29,257	29,277
2006	6	2,565	5,714	6,827	5,696	4,744	-	35	25,546	25,587	2	15	99	9,928	9,304	10,418	-	0	29,764	29,766
2007	0	263	12,532	2,639	4,099	52	-	0	19,585	19,585	0	0	12	20,862	14,951	745	-	0	36,570	36,570
2008	55	242	5,694	1,066	3,119	3,071	-	0	13,192	13,247	17	0	8	511	2,107	9,304	-	0	11,930	11,947
2009	0	799	1,083	1,615	1,649	0	-	0	5,146	5,146	0	0	0	21,558	23,832	0	-	0	45,390	45,390
2010	0	231	8,059	5,080	8,486	957	-	0	22,813	22,813	0	0	13	1,304	4,580	2,882	-	0	8,779	8,779
2011	0	535	7,701	14,462	5,014	359	-	0	28,071	28,071	0	0	0	1,951	4,196	6,174	-	0	12,321	12,321
2012	0	2,975	19,218	8,805	13,121	4,627	-	0	48,746	48,746	0	1	27	2,131	16,750	15,524	-	0	34,433	34,433
2013	0	8,983	13,788	7,834	6,980	2,073	-	0	39,658	39,658	0	0	0	6,955	33,551	3,847	-	1	44,353	44,354
2014	0	7,247	5,754	4,362	2,617	492	-	0	20,472	20,472	0	0	11	2,852	9,739	1,070	-	0	13,672	13,672
2015	0	1,196	17,352	7,361	1,153	189	-	0	27,251	27,251	0	0	0	881	568	218	-	0	1,667	1,667
2016 ^{a/}	0	372	12,687	4,342	1,036	0	-	1	18,437	18,438	0	0	0	0	0	0	-	1	0	1

TABLE A-15. Treaty Indian ocean troll Chinook and coho salmon landings in numbers of fish by catch area and month. (Page 2 of 3)

Year or Avg.	CHINOOK										COHO									
	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	Nov.-Dec.	Total		Jan.-Apr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	Nov.-Dec.	Total	
									May-Sept.	Year									May-Sept.	Year
La Push^{b/}																				
1976-1980	0	118	243	483	142	27	0	0	1,013	1,013	0	641	3,624	1,229	482	34	0	0	6,010	6,010
1981-1985	0	243	321	827	508	212	0	0	2,112	2,112	0	30	2,251	5,302	6,393	2,855	0	0	16,832	16,832
1986-1990	0	1,062	944	2,044	744	259	-	-	5,054	5,054	0	0	2,694	8,430	7,021	2,250	-	-	20,395	20,395
1991-1995	0	61	278	465	601	22	-	-	1,428	1,428	0	0	0	2,863	6,123	201	-	-	9,187	9,187
1996-2000	0	0	16	0	40	7	-	-	63	63	0	0	0	0	103	95	-	-	198	198
2001-2005	0	52	10	70	40	15	23	-	186	204	0	0	0	12	84	12	66	-	109	162
2006	0	82	248	825	870	66	15	-	2,091	2,106	0	0	0	446	1,272	123	5	-	1,841	1,846
2007	0	0	1,773	60	234	5	0	-	2,072	2,072	0	0	0	248	1,099	52	0	-	1,399	1,399
2008	0	58	2,834	380	888	368	1	-	4,528	4,529	0	0	2	267	297	379	0	-	945	945
2009	0	83	99	20	158	0	25	-	360	385	0	0	0	102	3,060	15	15	-	3,177	3,192
2010	0	6	85	754	702	74	10	-	1,621	1,631	0	2	0	157	226	51	15	-	436	451
2011	0	0	457	0	69	46	0	-	572	572	0	0	0	0	29	482	0	-	511	511
2012	0	722	258	322	1,060	164	10	-	2,526	2,536	0	0	1	44	1,002	179	0	-	1,226	1,226
2013	0	954	2,694	1,188	160	8	11	-	5,004	5,015	0	0	7	370	1,176	93	0	-	1,646	1,646
2014	0	4,192	7,992	15,669	5,502	2,152	0	-	35,507	35,507	0	0	4	7,446	29,203	5,031	0	-	41,684	41,684
2015	0	1,868	1,371	14,068	1,999	524	0	-	19,830	19,830	0	0	0	1,008	383	298	0	-	1,689	1,689
2016 ^{a/}	0	641	555	256	4	0	0	-	1,456	1,456	0	0	0	0	0	0	0	-	0	0
Westport																				
1976-1980	0	12	14	27	24	1	0	0	78	78	0	0	27	10	58	1	0	0	95	95
1981-1985	0	321	123	310	105	6	0	0	865	865	0	0	353	1,262	561	199	0	0	2,376	2,376
1986-1990	0	671	949	1,283	783	241	-	-	3,926	3,926	0	0	1,391	4,901	4,221	747	-	-	11,260	11,260
1991-1995	0	15	231	188	656	74	-	-	1,165	1,165	0	0	0	1,138	2,019	228	-	-	3,385	3,385
1996-2000	0	18	91	67	286	46	-	-	508	508	0	0	0	0	712	367	-	-	1,079	1,079
2001-2005	0	355	92	49	222	125	-	-	843	843	0	0	0	0	114	80	-	-	194	194
2006	0	20	44	34	31	66	-	-	195	195	0	0	0	5	36	123	-	-	164	164
2007	0	0	0	94	79	13	-	-	186	186	0	0	0	137	344	63	-	-	544	544
2008	0	23	64	35	393	31	-	-	546	546	0	0	0	6	674	65	-	-	745	745
2009	0	128	118	101	144	0	-	-	491	491	0	0	0	443	3,694	68	-	-	4,205	4,205
2010	0	32	766	938	468	624	-	-	2,828	2,828	0	0	50	448	249	1,390	-	-	2,137	2,137
2011	0	0	286	253	1,610	13	-	-	2,162	2,162	0	0	0	101	553	55	-	-	709	709
2012	0	133	521	366	174	0	-	-	1,194	1,194	0	0	71	359	809	0	-	-	1,239	1,239
2013	0	3	153	54	331	25	-	-	566	566	0	0	0	18	974	48	-	-	1,040	1,040
2014	0	159	205	592	652	36	-	-	1,644	1,644	0	0	15	95	261	172	-	-	543	543
2015	0	96	620	1,526	488	0	-	-	2,730	2,730	0	0	1	100	80	0	-	-	181	181
2016 ^{a/}	0	43	249	270	156	0	-	-	718	718	0	0	0	6	5	0	-	-	11	11

TABLE A-15. Treaty Indian ocean troll Chinook and coho salmon landings in numbers of fish by catch area and month. (Page 3 of 3)

Year or Avg.	Total										Total										
	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	Nov.-Dec.	May-Sept.	Year	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	Nov.-Dec.	May-Sept.	Year	
	CHINOOK										COHO										
Statewide Total																					
1976-1980	8,529	787	2,037	1,776	415	70	11	785	5,086	14,411	407	720	7,677	2,915	1,275	443	11	63	13,030	13,512	
1981-1985	13,109	2,150	1,883	3,636	1,336	1,018	198	834	10,023	24,164	42	283	7,435	16,406	24,484	16,666	54	7	65,274	65,377	
1986-1990	6,015	6,877	5,955	6,726	4,506	1,248	12	2,677	25,312	34,016	9	3	4,256	32,310	35,942	11,051	7	13	83,563	83,591	
1991-1995	3,549	4,343	4,181	3,511	4,243	571	29	1,084	16,849	21,511	2	1	1	17,220	26,038	5,275	103	8	48,535	48,647	
1996-2000	695	2,580	6,524	446	3,806	1,893	-	49	15,249	15,994	0	0	0	15	11,063	8,533	-	0	19,611	19,611	
2001-2005	905	5,461	14,660	9,462	6,271	3,260	23	3,765	39,114	43,802	20	2	3	7,259	17,964	9,381	66	30	34,611	34,714	
2006	163	2,821	8,341	7,736	6,690	4,957	15	491	30,545	31,214	2	16	102	10,475	10,634	10,711	5	0	31,938	31,945	
2007	2,218	316	14,629	3,349	4,579	70	0	1,340	22,943	26,501	0	0	12	22,743	16,423	860	0	5	40,038	40,043	
2008	538	358	8,864	2,099	6,007	3,579	1	375	20,907	21,821	17	0	18	865	3,561	9,820	0	0	14,264	14,281	
2009	464	1,491	5,828	2,329	2,566	12	25	68	12,226	12,783	0	0	0	25,422	35,141	100	15	0	60,663	60,678	
2010	1,722	1,926	12,150	6,943	9,693	1,664	10	200	32,376	34,308	0	2	63	2,015	5,058	4,323	15	12	11,461	11,488	
2011	2,883	1,120	8,817	14,761	6,708	418	0	90	31,824	34,797	2	0	0	2,062	4,791	6,711	0	2	13,564	13,568	
2012	1,216	4,465	20,696	10,144	14,650	4,834	10	335	54,789	56,350	0	1	101	2,769	18,790	15,869	0	4	37,530	37,534	
2013	1,669	11,929	19,091	9,240	7,514	2,107	11	721	49,881	52,282	3	0	7	7,646	35,701	3,988	0	11	47,342	47,356	
2014	3,316	12,417	17,002	20,643	8,793	2,692	0	267	61,547	65,130	3	0	30	10,405	39,227	6,292	0	0	55,954	55,957	
2015	3,268	7,300	23,627	23,002	3,775	788	0	17	58,492	61,777	0	0	1	1,989	1,280	712	0	0	3,982	3,982	
2016 ^{a/}	244	2,814	13,730	5,003	1,280	5	0	149	22,832	23,225	0	0	0	6	5	0	0	1	11	12	

a/ Preliminary.

b/ October landings beginning in 2002 occurred during Quileute ceremonial and subsistence fishery.

TABLE A-16. Treaty Indian ocean troll pink salmon landings (odd years only) in numbers of fish by catch area and month.
(Page 1 of 2)

Year or Avg. ^{a/}	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.-Dec.	Total	
									May-Sept.	Year
<u>Area 4B</u>										
1977-1979	1	2	267	158	649	16	0	0	1,092	1,092
1981-1985	0	23	2	108	698	7	0	0	838	838
1987-1989	0	0	0	1,395	643	142	0	0	2,179	2,179
1991-1995	0	0	0	43	1,233	2	0	0	1,278	1,278
1997-1999	0	0	0	0	550	7	-	0	557	557
2001	0	0	0	504	334	15	-	0	853	853
2003	0	0	0	0	0	0	-	0	0	0
2005	0	0	0	154	88	0	-	0	242	242
2007	0	0	0	82	141	0	-	0	223	223
2009	0	0	0	189	219	0	-	0	408	408
2011	0	0	3	55	15	0	-	0	73	73
2013	0	0	0	39	0	0	-	0	39	39
2015	0	0	2	0	2	0	-	0	4	4
 <u>Neah Bay</u>										
1977-1979	0	42	91	636	1,339	5	0	0	2,112	2,112
1981-1985	0	0	94	1,340	6,684	302	0	0	8,419	8,419
1987-1989	0	2	4	6,553	2,901	377	0	0	9,837	9,837
1991-1995	0	0	1	385	4,002	249	0	0	4,636	4,636
1997-1999	0	0	0	0	1,023	74	-	0	1,096	1,096
2001	0	11	0	192	1,203	192	-	0	1,598	1,598
2003	0	0	0	172	41	23	-	0	236	236
2005	0	0	0	32	103	3	-	0	138	138
2007	0	0	7	244	96	0	-	0	347	347
2009	0	0	0	237	145	0	-	0	382	382
2011	0	0	3	659	310	16	-	0	988	988
2013	0	0	0	49	115	0	-	0	164	164
2015	0	0	4	0	16	0	-	0	20	20
 <u>La Push</u>										
1977-1979	0	5	1,192	259	1,032	0	0	0	2,488	2,488
1981-1985	0	7	100	654	418	12	0	0	1,191	1,191
1987-1989	0	3	6	625	667	65	-	-	1,365	1,365
1991-1995	0	0	0	65	277	10	-	-	353	353
1997-1999	0	0	0	0	0	0	-	-	0	0
2001	0	0	0	0	0	0	-	-	0	0
2003	0	0	0	0	0	0	0	-	0	0
2005	0	0	0	0	1	0	0	-	1	1
2007	0	0	0	0	14	0	0	-	14	14
2009	0	0	0	1	4	0	0	-	5	5
2011	0	0	0	0	4	0	0	-	4	4
2013	0	0	0	1	5	0	0	-	6	6
2015	0	0	0	98	0	0	0	-	98	98

TABLE A-16. Treaty Indian ocean troll pink salmon landings (odd years only) in numbers of fish by catch area and month.
(Page 2 of 2)

Year or Avg. ^{a/}	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.-Dec.	Total	
									May-Sept.	Year
Westport										
1977-1979	0	0	0	0	0	0	0	0	0	0
1981-1985	0	1	18	106	6	0	0	0	132	132
1987-1989	0	0	0	419	44	8	-	-	471	471
1991-1995	0	0	0	7	6	0	-	-	13	13
1997-1999	0	0	0	0	0	0	-	-	0	0
2001	0	0	0	0	0	0	-	-	0	0
2003	0	0	0	0	0	0	-	-	0	0
2005	0	0	0	0	6	0	-	-	6	6
2007	0	0	0	0	0	0	-	-	0	0
2009	0	0	0	4	1	0	-	-	5	5
2011	0	0	0	4	5	0	-	-	9	9
2013	0	0	0	0	0	0	-	-	0	0
2015	0	0	0	0	0	0	-	-	0	0
Total Statewide										
1977-1979	1	49	1,550	1,053	3,019	21	0	0	5,691	5,692
1981-1985	0	32	214	2,208	7,806	320	0	0	10,580	10,580
1987-1989	0	5	10	8,991	4,254	591	0	0	13,851	13,851
1991-1995	0	0	1	499	5,519	261	0	0	6,280	6,280
1997-1999	0	0	0	0	1,573	81	-	0	1,653	1,653
2001	0	11	0	696	1,537	207	-	0	2,451	2,451
2003	0	0	0	172	41	23	0	0	236	236
2005	0	0	0	186	198	3	0	0	387	387
2007	0	0	7	326	251	0	0	0	584	584
2009	0	0	0	431	369	0	0	0	800	800
2011	0	0	6	718	334	16	0	0	1,074	1,074
2013	0	0	0	89	120	0	0	0	209	209
2015	0	0	6	98	18	0	0	0	122	122

a/ Odd year averages only.

TABLE A-17. Washington ocean recreational salmon fishing effort in angler trips by port and statistical month. (Page 1 of 2)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
<u>Neah Bay</u>								
1976-1980	746	1,094	4,100	13,027	17,885	6,974	529	44,206
1981-1985	80	557	979	9,338	13,391	3,382	126	27,495
1986-1990	-	431	491	13,953	7,341	2,193	-	23,175
1991-1995 ^{a/}	-	1,258	4	12,553	9,455	994	-	20,494
1996-2000 ^{a/}	-	-	-	3,462	5,345	1,098	-	8,301
2001-2005	-	576	1,447	10,063	7,081	1,199	-	19,326
2006	-	-	946	6,600	4,935	928	-	13,409
2007	-	-	-	6,945	5,731	691	-	13,367
2008	-	-	1,066	2,475	2,582	247	-	6,370
2009	-	-	225	6,436	8,608	1,202	-	16,471
2010	-	-	1,239	5,701	3,803	807	-	11,549
2011	-	-	638	5,500	4,259	671	-	11,069
2012	-	-	1,204	7,324	3,641	1,268	-	13,439
2013	-	815	1,714	7,399	5,044	391	-	15,362
2014	-	827	2,334	8,102	3,547	1,706	-	16,517
2015	-	370	2,371	8,761	2,345	919	-	14,765
2016 ^{b/}	-	-	-	7,504	751	-	-	8,255
<u>La Push</u>								
1976-1980	24	344	1,341	7,932	11,716	3,916	436	24,736
1981-1985	-	0	77	1,119	2,075	231	239	3,332
1986-1990	-	66	60	1,768	749	154	113	2,478
1991-1995	-	-	-	2,236	548	480	8	2,587
1996-2000	-	-	-	1,060	666	588	-	1,537
2001-2005	-	59	199	1,711	1,486	678	132	4,138
2006	-	-	173	1,029	1,943	740	258	4,143
2007	-	-	-	989	1,640	639	0	3,268
2008	-	-	281	535	709	508	38	2,071
2009	-	-	102	1,462	2,700	601	212	5,077
2010	-	-	390	838	1,940	513	154	3,836
2011	-	-	194	1,406	1,946	676	16	4,237
2012	-	-	236	1,190	1,379	768	353	3,926
2013	-	136	239	971	2,263	420	237	4,266
2014	-	36	352	1,422	2,007	883	365	5,064
2015	-	90	247	1,389	1,058	420	300	3,504
2016 ^{b/}	-	-	-	702	387	-	-	1,089
<u>Westport</u>								
1976-1980	4,720	12,340	37,368	66,487	66,306	23,133	3,454	210,286
1981-1985	-	3,607	20,142	34,172	23,472	2,602	208	78,766
1986-1990	-	1,451	3,663	30,256	15,991	5,000	40	52,492
1991-1995	-	-	4,955	20,127	15,146	8,072	706	44,760
1996-2000	-	-	-	7,529	8,354	1,951	-	15,938
2001-2005	-	1,861	4,425	18,150	15,487	6,189	-	42,500
2006	-	-	-	8,857	13,802	1,883	-	24,541
2007	-	-	-	9,548	14,143	2,225	-	25,916
2008	-	-	2,660	8,381	5,880	1,809	-	18,731
2009	-	-	777	10,217	21,238	5,599	-	37,831
2010	-	-	7,822	11,841	13,804	4,961	-	38,428
2011	-	-	4,705	10,428	14,973	3,440	-	33,545
2012	-	-	8,187	8,898	14,147	6,092	-	37,325
2013	-	-	7,020	7,641	16,639	4,589	-	35,889
2014	-	780	7,645	19,006	18,838	7,500	-	53,769
2015	-	981	6,356	18,629	12,162	7,327	-	45,455
2016 ^{b/}	-	-	-	9,587	8,253	-	-	17,840

TABLE A-17. Washington ocean recreational salmon fishing effort in angler trips by port and statistical month. (Page 2 of 2)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
Ilwaco^{c/}								
1976-1980	914	4,670	20,809	41,988	62,372	18,676	2,127	150,581
1981-1985	-	921	7,560	23,249	21,383	3,652	721	53,751
1986-1990	-	298	1,641	19,733	19,450	1,782	-	41,268
1991-1995	-	-	1,660	17,100	11,766	7,412	-	37,108
1996-2000	-	-	-	4,775	7,041	3,037	-	12,683
2001-2005	-	215	781	12,573	23,125	7,773	-	43,983
2006	-	-	781	9,502	21,175	6,351	-	37,539
2007	-	-	-	7,486	20,350	2,295	-	30,132
2008	-	-	777	4,506	5,156	-	-	10,439
2009	-	-	193	10,271	30,247	1,470	-	42,181
2010	-	-	557	7,165	17,349	2,070	-	27,141
2011	-	-	674	5,358	15,127	3,586	-	24,744
2012	-	-	1,964	5,627	10,154	5,224	-	22,970
2013	-	-	2,843	4,833	13,381	3,438	-	24,496
2014	-	36	2,575	11,306	22,617	7,735	-	44,268
2015	-	207	2,347	8,520	15,497	6,819	-	33,389
2016 ^{b/}	-	-	-	7,666	16,587	-	-	24,254
Total Statewide^{c/}								
1976-1980	3,574	18,447	63,618	129,433	158,279	51,916	5,256	429,809
1981-1985	80	4,067	22,991	67,877	60,321	7,746	436	163,344
1986-1990	-	1,339	5,840	65,710	43,382	5,090	40	119,412
1991-1995 ^{a/}	-	1,258	4,140	48,319	36,915	16,837	714	104,949
1996-2000 ^{a/}	-	-	-	15,695	21,407	4,496	-	38,459
2001-2005	-	2,711	6,245	42,497	47,179	14,601	132	109,947
2006	-	-	1,119	22,226	36,159	5,501	258	65,263
2007	-	-	-	24,968	41,865	5,851	0	72,683
2008	-	-	4,784	15,898	14,327	2,564	38	37,610
2009	-	-	1,297	28,386	62,792	8,872	212	101,560
2010	-	-	10,008	25,546	36,896	8,351	154	80,955
2011	-	-	6,211	22,692	36,305	8,372	16	73,596
2012	-	-	11,591	23,040	29,322	13,352	353	77,659
2013	-	951	11,816	20,844	37,328	8,838	237	80,014
2014	-	1,678	12,906	39,834	47,010	17,824	365	119,617
2015	-	1,648	11,320	37,299	31,063	15,484	300	97,114
2016 ^{b/}	-	-	-	25,458	25,978	-	-	51,437

a/ Includes effort from the Washington State waters Area 4B fishery (none in 1994 or 1999).

b/ Preliminary.

c/ Includes effort from the North Jetty when the ocean fishery was open; does not include effort reported as occurring inside the Columbia River mouth (North Jetty effort when the ocean fishery was closed and Buoy 10 was open).

TABLE A-18. Washington ocean recreational Chinook and coho salmon landings in numbers of fish by port of landing and statistical month. (Page 1 of 3)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
CHINOOK								COHO								
<u>Neah Bay</u>																
1976-1980	318	534	1,197	2,438	1,424	617	96	6,334	213	537	3,363	11,424	20,652	7,761	252	44,158
1981-1985	57	149	234	1,293	483	194	35	2,224	80	338	639	8,878	16,452	3,414	150	29,436
1986-1990 ^{a/}	-	114	143	2,554	358	35	-	2,963	-	-	384	15,896	11,629	3,446	-	29,747
1991-1995 ^{b/}	-	148	-	1,443	232	62	-	1,420	-	40	-	15,654	13,052	991	-	25,804
1996-2000 ^{b/}	-	-	-	396	68	5	-	267	-	-	-	1,686	5,023	1,782	-	7,103
2001-2005	-	234	683	2,710	705	77	-	3,949	-	-	573	8,391	7,468	1,039	-	17,128
2006	-	-	166	734	443	73	-	1,417	-	-	380	3,763	1,570	309	-	6,023
2007	-	-	-	1,179	245	47	-	1,471	-	-	-	4,981	4,997	631	-	10,608
2008 ^{b/}	-	-	311	725	317	3	-	1,357	-	-	-	679	1,459	23	-	2,161
2009	-	-	51	1,277	1,071	47	-	2,447	-	-	118	4,807	7,500	912	-	13,336
2010	-	-	144	1,573	1,453	129	-	3,299	-	-	1	1,926	1,609	150	-	3,687
2011	-	-	257	1,382	1,330	14	-	2,983	-	-	54	1,918	943	140	-	3,054
2012	-	-	812	3,524	1,173	42	-	5,552	-	-	27	3,643	3,094	784	-	7,548
2013	-	127	635	3,267	2,142	74	-	6,245	-	-	257	3,082	2,934	233	-	6,506
2014	-	158	948	3,975	806	48	-	5,935	-	-	188	1,734	2,244	1,478	-	5,643
2015	-	96	1,577	6,196	522	107	-	8,498	-	-	214	2,137	1,274	4,140	-	7,764
2016 ^{c/}	-	-	-	3,011	255	-	-	3,266	-	-	-	30	23	-	-	53
<u>La Push</u>																
1976-1980	0	8	161	948	1,318	410	135	2,844	22	271	1,671	8,586	15,198	3,879	43	28,864
1981-1985	-	0	7	132	166	8	-	304	-	0	72	861	2,786	251	-	3,791
1986-1990 ^{a/}	-	9	10	303	93	15	-	391	-	-	37	2,129	1,026	125	-	3,022
1991-1995	-	-	-	215	31	29	2	207	-	-	-	2,766	606	444	2	3,014
1996-2000	-	-	-	188	125	54	-	259	-	-	-	894	732	704	-	1,550
2001-2005	-	7	96	740	541	195	51	1,586	-	-	-	1,110	1,306	309	10	2,770
2006	-	-	36	247	955	342	91	1,670	-	-	36	744	1,041	61	2	1,884
2007	-	-	-	132	348	116	0	595	-	-	-	758	1,869	142	0	2,769
2008	-	-	80	244	300	106	6	736	-	-	-	102	273	165	1	541
2009	-	-	7	194	329	53	97	680	-	-	165	1,944	4,317	377	92	6,896
2010	-	-	38	294	715	86	45	1,177	-	-	-	211	709	223	37	1,180
2011	-	-	32	501	907	90	5	1,535	-	-	48	572	1,029	398	2	2,050
2012	-	-	86	463	443	153	133	1,278	-	-	-	473	1,052	698	21	2,243
2013	-	4	99	693	1,288	152	119	2,355	-	-	57	439	2,015	269	18	2,798
2014	-	0	227	725	406	115	110	1,584	-	-	102	922	2,265	1,121	199	4,608
2015	-	7	159	1,417	537	115	164	2,399	-	-	37	195	156	178	13	579
2016 ^{c/}	-	-	-	221	34	-	-	255	-	-	-	3	2	-	-	5

TABLE A-18. Washington ocean recreational Chinook and coho salmon landings in numbers of fish by port of landing and statistical month. (Page 2 of 3)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK								COHO							
<u>Westport</u>																
1976-1980	2,826	5,744	20,759	18,019	15,844	5,707	929	67,945	161	12,374	43,808	89,416	63,127	21,910	2,274	232,518
1981-1985	-	2,328	16,253	17,397	7,513	407	17	40,102	-	2,457	11,790	27,665	22,997	3,371	34	63,289
1986-1990	-	667	1,539	10,334	5,012	1,692	-	17,387	-	19	2,220	40,125	23,296	7,004	45	69,421
1991-1995	-	-	1,911	3,062	2,764	1,496	213	7,853	-	-	6,781	24,170	19,803	8,578	322	54,327
1996-2000	-	-	-	1,908	1,667	585	-	3,544	-	-	-	8,644	9,155	1,241	-	17,062
2001-2005	-	1,020	3,199	3,878	5,128	919	-	12,070	-	4,793	8,346	22,280	22,493	7,574	-	56,780
2006	-	-	-	2,293	3,125	398	-	5,815	-	-	-	2,008	5,675	1,096	-	8,779
2007	-	-	-	2,494	2,545	208	-	5,247	-	-	-	7,289	14,055	1,648	-	22,992
2008	-	-	2,145	4,459	2,735	305	-	9,644	-	-	30	2,550	3,383	1,564	-	7,528
2009	-	-	124	2,080	2,594	225	-	5,023	-	-	539	10,745	33,181	9,403	-	53,868
2010	-	-	4,711	9,948	10,586	1,744	-	26,989	-	-	45	3,680	3,957	4,925	-	12,607
2011	-	-	2,220	5,579	10,835	455	-	19,089	-	-	229	4,499	6,723	2,392	-	13,843
2012	-	-	7,574	4,033	6,709	1,170	-	19,486	-	-	184	3,124	3,375	5,241	-	11,924
2013	-	-	2,192	3,403	7,021	1,074	-	13,689	-	-	379	3,097	12,233	4,668	-	20,377
2014	-	427	3,935	8,190	9,944	970	-	23,466	-	-	5,935	17,687	17,874	12,979	-	54,474
2015	-	431	3,345	8,048	4,613	2,682	-	19,120	-	-	2,357	12,753	7,358	8,216	-	30,684
2016 ^{cl}	-	-	-	4,198	4,232	-	-	8,430	-	-	-	30	13	-	-	43
<u>Ilwaco^{dl}</u>																
1976-1980	286	2,019	9,143	7,497	15,789	2,261	182	36,969	493	5,627	40,398	69,166	65,240	23,882	2,221	206,286
1981-1985	-	214	3,364	4,545	4,505	279	40	12,031	-	5,410	10,296	36,373	26,437	5,982	825	75,883
1986-1990	-	111	233	1,793	3,302	76	-	5,334	-	-	2,638	32,864	27,048	2,114	-	62,868
1991-1995	-	-	86	704	736	194	-	1,677	-	-	2,733	25,600	14,459	6,796	-	48,220
1996-2000	-	-	-	356	561	129	-	923	-	-	-	7,157	8,380	2,707	-	15,730
2001-2005	-	53	664	1,814	3,895	826	-	6,944	-	-	522	18,205	29,244	8,022	-	55,784
2006	-	-	-	478	1,148	140	-	1,765	-	-	-	6,533	12,222	646	-	19,401
2007	-	-	-	292	1,225	114	-	1,631	-	-	-	12,170	32,559	2,689	-	47,419
2008	-	-	474	1,166	1,258	-	-	2,898	-	-	330	3,337	4,973	-	-	8,640
2009	-	-	10	925	3,239	28	-	4,202	-	-	334	17,246	45,207	1,605	-	64,392
2010	-	-	106	1,485	3,588	229	-	5,409	-	-	1	6,430	11,725	650	-	18,805
2011	-	-	352	808	4,107	329	-	5,596	-	-	289	5,104	12,678	2,564	-	20,634
2012	-	-	1,793	2,200	2,691	730	-	7,414	-	-	196	3,057	4,421	2,045	-	9,719
2013	-	-	1,300	1,356	3,284	688	-	6,629	-	-	2,287	4,007	8,599	1,566	-	16,459
2014	-	44	917	2,570	5,019	491	-	9,041	-	-	2,223	14,833	30,029	11,247	-	58,332
2015	-	61	957	1,419	4,836	2,140	-	9,414	-	-	2,607	12,325	15,756	5,022	-	35,711
2016 ^{cl}	-	-	-	2,088	2,868	-	-	4,957	-	-	-	4,692	11,266	-	-	15,958

TABLE A-18. Washington ocean recreational Chinook and coho salmon landings in numbers of fish by port of landing and statistical month. (Page 3 of 3)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
CHINOOK								COHO								
Total Statewide^{d/}																
1976-1980	2,392	8,304	31,259	28,901	34,375	8,790	1,285	114,092	551	18,809	89,239	178,591	164,217	56,656	3,873	511,827
1981-1985	57	2,153	15,884	23,367	12,667	645	46	54,662	80	2,961	22,620	73,777	68,672	9,800	436	172,399
1986-1990 ^{a/}	-	901	1,886	14,984	8,674	1,212	-	26,075	-	19	5,077	91,015	62,794	7,165	45	165,058
1991-1995 ^{b/}	-	148	1,041	5,009	3,756	1,743	215	11,156	-	40	6,124	63,585	47,920	16,697	324	131,364
1996-2000 ^{b/}	-	-	-	2,603	2,407	564	-	4,940	-	-	-	17,736	23,289	3,967	-	41,445
2001-2005	-	2,607	5,200	14,961	12,700	2,859	51	35,251	-	5	1,795	40,606	52,131	15,016	10	109,200
2006	-	-	202	3,751	5,670	953	91	10,667	-	-	416	13,047	20,509	2,112	2	36,087
2007	-	-	-	4,097	4,362	485	0	8,944	-	-	-	25,198	53,479	5,110	0	83,788
2008 ^{b/}	-	-	3,011	6,594	4,611	414	6	14,635	-	-	360	6,669	10,088	1,752	1	18,870
2009	-	-	192	4,476	7,233	353	97	12,351	-	-	1,157	34,742	90,204	12,297	92	138,493
2010	-	-	5,000	13,299	16,341	2,189	45	36,874	-	-	47	12,247	17,999	5,947	37	36,278
2011	-	-	2,861	8,271	17,178	889	5	29,203	-	-	620	12,093	21,372	5,494	2	39,582
2012	-	-	10,265	10,220	11,016	2,096	133	33,729	-	-	407	10,297	11,942	8,767	21	31,434
2013	-	131	4,226	8,719	13,734	1,989	119	28,918	-	-	2,980	10,626	25,782	6,735	18	46,140
2014	-	629	6,027	15,460	16,174	1,624	110	40,025	-	-	8,448	35,175	52,411	26,824	199	123,057
2015	-	595	6,039	17,081	10,509	5,043	164	39,431	-	-	5,215	27,410	24,544	17,555	13	74,737
2016 ^{c/}	-	-	-	9,519	7,388	-	-	16,907	-	-	-	4,755	11,304	-	-	16,059

a/ Neah Bay and La Push statistics do not include estimates of 707 Chinook killed during Chinook nonretention fishery (July 19-August 20, 1987).

b/ Includes catch from the Washington State waters Area 4B fishery in 1991, 1992, 1993, 1996, 1997, 1998, 2000, and 2008.

c/ Preliminary.

d/ Includes catch from the North Jetty when the ocean fishery was open; does not include catch reported as occurring inside the Columbia River mouth (North Jetty catch when the ocean fishery was closed, and Buoy 10 was open).

TABLE A-19. Washington ocean recreational pink salmon landings in numbers of fish by port of landing and statistical month.
(Page 1 of 2)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
<u>Neah Bay</u>								
1977	0	0	15	1,667	8,714	89	0	10,485
1979	17	1	308	2,375	8,408	646	24	11,779
1981	-	18	7	1,787	5,965	-	27	7,804
1983	-	-	-	409	3,605	154	-	4,168
1985	-	-	0	143	1,071	9	-	1,223
1987	-	-	6	686	713	-	-	1,405
1989 ^{av}	-	0	0	1,443	295	202	-	1,940
1991 ^{av}	-	-	-	479	1,543	0	-	2,022
1993 ^{av}	-	0	-	609	1,264	371	-	2,244
1995	-	-	-	-	2,578	30	-	2,608
1997 ^{av}	-	-	-	79	498	-	-	577
1999	-	-	-	730	1,165	81	-	1,976
2001	-	-	-	1,715	1,081	3	-	2,799
2003	-	-	6	2,863	5,136	120	-	8,125
2005	-	-	-	1,456	1,375	62	-	2,893
2007	-	-	-	1,268	2,766	0	-	4,033
2009	-	-	9	2,591	4,266	270	-	7,136
2011	-	-	33	3,320	3,960	159	-	7,473
2013	-	-	31	4,088	1,866	13	-	5,997
2015	-	-	803	4,984	593	5	-	6,385
<u>La Push</u>								
1977	0	0	40	600	2,328	8	0	2,976
1979	-	1	16	259	1,529	0	-	1,805
1981	-	0	0	0	336	-	-	336
1983	-	-	-	7	253	1	-	261
1985	-	-	0	9	33	0	-	42
1987	-	-	0	12	37	-	-	49
1989	-	0	0	0	-	-	-	0
1991	-	-	-	46	-	-	-	46
1993	-	-	-	46	34	4	-	84
1995	-	-	-	-	78	11	-	89
1997	-	-	-	195	0	-	-	195
1999	-	-	-	87	47	0	-	134
2001	-	-	-	129	32	-	-	161
2003	-	-	4	419	459	23	0	905
2005	-	-	-	41	167	2	0	210
2007	-	-	-	42	84	0	0	126
2009	-	-	6	148	77	0	0	231
2011	-	-	4	520	929	67	0	1,520
2013	-	-	3	232	406	1	0	643
2015	-	-	24	113	5	0	0	142
<u>Westport</u>								
1977	0	303	1,424	11,649	909	10	0	14,295
1979	-	40	748	990	2,188	0	-	3,966
1981	-	31	177	771	717	-	-	1,696
1983	-	0	2	26	0	2	-	30
1985	-	-	0	695	907	4	-	1,606
1987	-	-	0	183	45	-	-	228
1989	-	0	0	28	45	-	-	73
1991	-	-	0	43	33	4	-	80
1993	-	-	-	33	35	2	-	70
1995	-	-	-	40	51	2	-	93
1997	-	-	-	520	96	22	-	638
1999	-	-	-	35	40	0	-	75
2001	-	-	-	782	136	-	-	918
2003	-	-	12	3,559	756	32	-	4,359
2005	-	-	0	26	128	0	-	154
2007	-	-	-	261	240	2	-	503
2009	-	-	51	79	131	0	-	261
2011	-	-	4	544	1,270	13	-	1,832
2013	-	-	5	648	372	0	-	1,024
2015	-	-	209	1,829	60	3	-	2,101

TABLE A-19. Washington ocean recreational pink salmon landings in numbers of fish by port of landing and statistical month.
(Page 2 of 2)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
Ilwaco^{b/}								
1977	0	33	171	689	602	4	0	1,499
1979	-	3	8	246	26	0	-	283
1981	-	2	4	101	260	-	-	367
1983	-	0	0	0	2	0	-	2
1985	-	-	0	6	203	-	-	209
1987	-	-	0	110	9	-	-	119
1989	-	0	0	11	12	-	-	23
1991	-	-	0	45	21	0	-	66
1993	-	-	-	7	11	0	-	18
1995	-	-	-	4	18	9	-	31
1997	-	-	-	0	0	-	-	0
1999	-	-	-	0	3	0	-	3
2001	-	-	-	5	31	4	-	40
2003	-	-	0	2	16	0	-	18
2005	-	-	-	3	0	0	-	3
2007	-	-	-	5	3	0	-	8
2009	-	-	0	0	0	0	-	0
2011	-	-	0	2	1	0	-	3
2013	-	-	0	0	4	0	-	4
2015	-	-	0	3	1	0	-	4
Total Statewide^{b/}								
1977	0	336	1,650	14,605	12,553	111	0	29,255
1979	17	45	1,080	3,870	12,151	646	24	17,833
1981	-	51	188	2,659	7,278	-	27	10,203
1983	-	0	2	442	3,860	157	-	4,461
1985	-	-	0	853	2,214	13	-	3,080
1987	-	-	6	991	804	-	-	1,801
1989 ^{a/}	-	0	0	1,482	352	202	-	2,036
1991 ^{a/}	-	-	0	613	1,597	4	-	2,214
1993 ^{a/}	-	0	-	695	1,344	377	-	2,416
1995	-	-	-	44	2,725	52	-	2,821
1997 ^{a/}	-	-	-	794	594	22	-	1,410
1999	-	-	-	852	1,255	81	-	2,188
2001	-	-	-	2,631	1,280	7	-	3,918
2003	-	-	22	6,843	6,367	175	0	13,407
2005	-	-	0	1,526	1,670	64	0	3,260
2007	-	-	-	1,575	3,093	2	0	4,670
2009	-	-	65	2,818	4,474	270	0	7,627
2011	-	-	41	4,386	6,161	240	0	10,828
2013	-	-	39	4,967	2,648	14	0	7,668
2015	-	-	1,035	6,929	659	8	0	8,631

a/ Includes catch from the Washington State waters Area 4B fishery.

b/ Includes catch from the North Jetty when the ocean fishery was open; does not include catch reported as occurring inside the Columbia River mouth (North Jetty catch when the ocean fishery was closed and Buoy 10 was open).

TABLE A-20. Cape Falcon to U.S./Mexico border commercial troll salmon fishing effort in days fished by region and month.

(Page 1 of 2)

Year or Avg	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
<u>Cape Falcon to Humbug Mt.^{a/}</u>											
1978-1980	-	-	650	2,964	12,169	11,602	1,692	598	10	-	29,684
1981-1985	-	-	1,413	1,011	10,193	5,360	941	448	10	-	19,377
1986-1990	-	-	3,745	4,494	14,033	8,093	3,214	2,162	257	-	35,843
1991-1995	-	-	1,234	2,027	2,444	2,054	1,335	1,321	88	-	8,674
1996-2000	-	-	1,282	1,573	960	1,532	973	636	114	-	6,815
2001-2005	687	1,208	2,310	1,994	942	1,631	1,673	1,213	161	25	11,190
2006	-	-	-	1,017	483	185	621	723	279	26	3,334
2007	-	342	1,181	774	265	1,151	303	244	162	-	4,422
2008	-	-	-	-	-	-	37	12	48	-	97
2009	-	-	-	-	-	-	634	60	-	-	694
2010	-	-	1,015	987	568	719	37	157	-	-	3,483
2011	-	316	888	1,080	100	207	122	226	235	-	3,174
2012	-	522	1,434	936	246	632	887	680	121	-	5,458
2013	-	1,029	1,134	771	518	2,147	1,345	893	155	-	7,992
2014	-	952	2,101	1,718	1,062	2,155	742	289	98	-	9,117
2015	-	1,755	1,562	1,249	1,275	788	367	237	158	-	7,391
2016 ^{b/}	-	886	832	642	542	634	332	137	41	-	4,046
<u>Humbug Mt. to Horse Mt. (KMZ)^{a/c/}</u>											
1978-1980	-	320	7,953	8,898	12,009	9,367	3,437	955	568	-	43,400
1981-1985	-	-	2,979	1,817	5,010	5,260	1,273	732	336	-	17,408
1986-1990	-	-	326	1,889	756	1,406	551	160	217	-	3,825
1991-1995	-	-	45	-	-	56	522	157	-	-	396
1996-2000	-	-	55	-	-	107	208	150	-	-	533
2001-2005	-	17	41	82	110	166	388	110	13	-	819
2006	-	-	-	-	-	-	6	151	27	-	184
2007	-	6	8	138	99	95	417	47	12	-	822
2008	-	-	-	-	-	-	-	51	-	-	51
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	43	-	26	40	-	72	-	-	181
2011	-	-	60	60	160	135	-	75	-	-	490
2012	-	0	23	118	90	67	348	41	-	-	687
2013	-	13	185	267	441	321	89	52	-	-	1,368
2014	-	10	471	82	38	70	120	78	-	-	869
2015	-	12	150	100	90	24	32	144	-	-	552
2016 ^{b/}	-	7	13	47	8	-	59	52	-	-	186

TABLE A-20. Cape Falcon to U.S./Mexico border commercial troll salmon fishing effort in days fished by region and month.
(Page 2 of 2)

Year or Avg	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
<u>Horse Mt. to U.S./Mexico Border</u>											
1978-1980	-	1,399	13,359	14,229	21,707	8,985	5,102	-	-	-	59,571
1981-1985	-	2,037	10,225	7,881	15,092	8,601	4,766	-	-	-	47,380
1986-1990	-	-	14,517	15,253	14,467	9,262	2,839	-	-	-	56,337
1991-1995	-	-	7,860	5,620	5,160	4,320	2,620	-	-	-	25,580
1996-2000	-	-	4,642	4,173	4,570	2,318	2,235	-	-	-	18,082
2001-2005	-	-	4,248	2,367	4,540	2,963	2,396	293	-	-	16,807
2006	-	-	2,062	103	650	2,593	2,477	374	-	-	8,259
2007	-	106	3,132	29	3,288	2,659	932	168	-	-	10,314
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	1,105	870	-	-	-	-	1,975
2011	-	-	1,879	504	1,737	1,897	638	117	-	-	6,772
2012	-	-	3,738	1,593	4,406	2,650	1,361	469	-	-	14,217
2013	-	-	4,268	3,904	3,979	2,638	1,620	223	-	-	16,632
2014	-	-	3,011	2,682	3,281	2,987	1,759	575	-	-	14,295
2015	-	-	4,434	2,392	1,943	2,000	1,695	515	-	-	12,979
2016 ^{b/}	-	-	1,655	1,282	-	2,426	1,564	174	-	-	7,101
<u>Total South of Cape Falcon^{a/}</u>											
1978-1980	-	1,718	21,962	21,347	45,885	29,955	10,230	1,553	578	-	132,655
1981-1985	-	2,037	14,617	10,709	30,296	19,221	6,981	1,180	346	-	84,165
1986-1990	-	-	18,589	21,258	28,802	18,198	6,604	2,322	292	-	96,006
1991-1995	-	-	9,112	7,242	6,636	5,974	4,059	1,416	88	-	34,492
1996-2000	-	-	5,979	5,752	4,953	3,957	3,416	786	116	-	25,430
2001-2005	689	1,222	6,590	4,426	5,359	4,401	4,457	1,616	168	25	28,816
2006	-	-	2,062	1,120	1,133	2,778	3,104	1,248	306	26	11,777
2007	-	454	4,321	941	3,652	3,905	1,652	459	174	-	15,558
2008	-	-	-	-	-	-	37	63	48	-	148
2009	-	-	-	-	-	-	634	60	-	-	694
2010	-	-	1,058	987	1,699	1,629	37	229	-	-	5,639
2011	-	316	2,827	1,644	1,997	2,239	760	418	235	-	10,436
2012	-	522	5,195	2,647	4,742	3,349	2,596	1,190	121	-	20,362
2013	-	1,042	5,587	4,942	4,938	5,106	3,054	1,168	155	-	25,992
2014	-	962	5,583	4,482	4,381	5,212	2,621	942	98	-	24,281
2015	-	1,767	6,146	3,741	3,308	2,812	2,094	896	158	-	20,922
2016 ^{b/}	-	893	2,500	1,971	550	3,060	1,955	363	41	-	11,333

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month.

b/ Preliminary.

c/ The current commercial KMZ boundaries are Humbug Mt. to Humboldt south jetty.

TABLE A-21. Cape Falcon to U.S./Mexico border commercial troll Chinook and coho salmon landings in numbers of fish by region and month. (Page 2 of 2)

Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK											COHO							
Horse Mt. to U.S./Mexico Border																			
1976-1980	-	34,194	108,017	87,178	128,494	48,348	26,139	-	-	-	432,370	13	13,988	42,514	19,864	4,307	540	0	67,225
1981-1985	-	31,016	95,110	63,197	128,909	57,751	17,536	-	-	-	393,519	37	503	5,765	14,913	2,219	276	0	23,173
1986-1990	-	-	239,714	226,495	193,068	71,735	17,365	-	-	-	748,377	-	-	15,505	17,802	3,427	163	0	36,897
1991-1995	-	-	121,373	73,940	80,950	42,707	22,018	-	-	-	340,988	-	-	25,850	12,250	2,825	-	-	40,925
1996-2000	-	-	121,717	101,679	88,632	24,057	25,378	-	-	-	361,464	-	-	-	-	-	-	-	-
2001-2005	-	-	81,370	73,618	122,399	52,345	39,885	1,905	-	-	371,521	-	-	-	-	-	-	-	-
2006	-	-	9,911	391	16,783	18,589	22,982	1,072	-	-	69,728	-	-	-	-	-	-	-	-
2007	-	748	36,598	156	41,808	23,212	2,505	352	-	-	105,379	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	8,906	6,182	-	-	-	-	15,088	-	-	-	-	-	-	-	-
2011	-	-	11,732	4,189	30,085	19,494	1,820	317	-	-	67,637	-	-	-	-	-	-	-	-
2012	-	-	58,857	19,385	92,842	28,266	7,691	3,313	-	-	210,354	-	-	-	-	-	-	-	-
2013	-	-	74,828	81,625	95,896	23,249	10,910	941	-	-	287,449	-	-	-	-	-	-	-	-
2014	-	-	34,946	39,581	54,568	24,085	11,498	2,985	-	-	167,663	-	-	-	-	-	-	-	-
2015	-	-	53,561	19,489	12,920	11,467	10,407	2,617	-	-	110,461	-	-	-	-	-	-	-	-
2016 ^{b/}	-	-	13,335	13,421	-	18,272	9,253	574	-	-	54,855	-	-	-	-	-	-	-	-
Total South of Cape Falcon^{a/}																			
1976-1980	-	42,728	209,087	135,541	241,157	142,938	57,106	13,463	2,458	-	844,479	26,024	54,897	267,931	424,414	151,469	12,087	1,141	857,041
1981-1985	-	31,016	139,724	83,407	199,475	125,855	34,284	6,299	1,149	-	621,208	37	4,029	12,948	248,929	70,738	2,240	0	334,855
1986-1990	-	-	286,235	316,652	336,505	167,846	55,719	21,881	1,642	-	1,186,481	-	-	27,490	313,756	80,277	4,883	0	426,405
1991-1995	-	-	133,977	88,353	93,260	71,953	39,747	14,748	453	-	442,491	-	-	71,475	118,161	10,265	3	12	199,916
1996-2000	-	-	144,468	130,783	94,184	63,810	46,379	8,035	1,002	-	488,661	-	-	8	-	-	-	-	8
2001-2005	14,823	25,883	131,834	116,052	141,118	98,440	96,569	35,145	1,347	148	658,393	-	-	-	-	-	-	-	-
2006	-	-	9,911	9,941	20,399	19,551	27,361	5,111	1,691	131	94,096	-	-	-	-	-	-	-	-
2007	-	2,619	43,951	5,346	44,717	37,096	12,380	1,356	717	3	148,185	-	-	-	-	5,036	519	-	5,555
2008	-	-	-	-	-	-	64	248	208	-	520	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	105	332	-	-	437	-	-	-	-	-	9,278	-	9,278
2010	-	-	9,183	8,966	13,233	10,104	56	1,859	-	-	43,401	-	-	-	-	-	-	-	-
2011	-	4,481	20,234	14,844	32,395	21,650	2,157	1,517	1,995	-	99,273	-	-	-	-	-	-	-	-
2012	-	3,633	73,761	28,029	96,083	38,365	27,483	12,187	701	-	280,242	-	-	-	-	-	-	-	-
2013	-	7,423	86,616	91,986	106,772	65,640	39,480	9,520	1,002	-	408,439	-	-	-	-	-	-	-	-
2014	-	15,554	83,687	69,490	73,386	91,088	21,023	5,500	469	-	360,197	-	-	-	-	-	3,296	-	3,296
2015	-	16,420	67,847	40,820	40,949	19,016	12,459	5,210	1,163	-	203,884	-	-	-	-	-	-	-	-
2016 ^{b/}	-	6,601	19,360	18,383	11,247	26,792	11,261	1,443	182	-	95,269	-	-	-	-	-	-	-	-

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month.

b/ Preliminary.

c/ The current commercial KMZ boundaries are Humbug Mt. to Humboldt south jetty.

TABLE A-22. Cape Falcon to U.S/Mexico border ocean recreational fishing effort in salmon angler trips by region and month.
(Page 1 of 2)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>Cape Falcon to Humbug Mt.^{a/}</u>											
1978-1980	-	-	0	9,025	44,358	97,228	83,028	17,580	2,250	151	252,629
1981-1985	-	-	-	5,279	21,790	78,019	61,312	10,677	1,603	--	151,116
1986-1990	-	-	-	2,054	18,538	82,564	51,012	11,171	--	--	164,930
1991-1995	-	-	-	1,817	11,249	63,162	22,523	5,191	4,948	396	64,187
1996-2000	-	-	-	708	596	9,570	4,388	3,527	2,933	170	21,804
2001-2005	-	63	212	1,460	12,416	37,987	18,656	8,798	3,531	182	83,279
2006	-	24	92	803	4,918	18,334	3,817	9,995	5,368	98	43,449
2007	-	36	75	1,244	7,828	22,067	25,908	5,227	2,341	40	64,766
2008	-	-	-	-	3,253	7,681	5,052	3,635	2,348	--	21,969
2009	-	-	-	-	4,144	33,012	23,429	3,743	2,009	--	66,337
2010	-	-	-	863	2,960	9,116	16,794	6,334	1,048	--	37,115
2011	-	22	75	433	2,965	10,835	10,173	9,354	1,240	16	35,113
2012	-	23	380	1,622	3,778	9,872	12,531	13,720	1,705	18	43,649
2013	-	479	693	911	3,970	11,214	25,977	11,833	4,214	--	59,291
2014	-	87	136	2,235	5,251	32,802	25,863	24,388	1,421	--	92,183
2015	-	60	152	1,382	2,350	18,025	7,526	16,586	2,374	--	48,455
2016 ^{b/}	-	82	18	1,037	2,799	6,382	4,835	14,579	612	--	30,344
<u>Humbug Mt. to Horse Mt. (KMZ)^{a/}</u>											
1978-1980	0	0	4	1,607	20,812	50,059	30,892	8,329	5,617	913	118,233
1981-1985	0	0	1	3,481	14,938	49,198	26,922	4,354	3,416	138	102,448
1986-1990	0	0	-	5,291	33,539	62,718	27,347	5,042	3,353	-	135,949
1991-1995	-	-	-	6,722	16,127	28,644	7,901	7,727	2,879	-	51,816
1996-2000	-	-	-	3,271	9,150	5,570	12,832	3,266	2,766	-	36,854
2001-2005	-	-	-	4,566	8,748	6,208	12,157	4,617	2,983	-	39,279
2006	-	-	-	4,887	8,619	3,174	-	7,320	3,081	-	27,081
2007	-	-	-	2,346	6,223	7,541	10,178	2,004	3,263	-	31,555
2008	-	-	-	-	712	2,317	701	-	1,065	-	4,795
2009	-	-	-	-	268	2,329	3,269	5,424	-	-	11,290
2010	-	-	-	665	771	1,280	2,493	2,700	2,270	-	10,179
2011	-	-	-	2,244	2,974	5,059	6,554	2,621	1,757	-	21,209
2012	-	-	-	3,619	9,514	14,645	15,183	3,576	3,666	-	50,203
2013	-	-	-	3,501	10,773	15,914	15,379	822	3,547	-	49,936
2014	-	-	-	5,588	6,409	12,723	7,475	868	4,639	-	37,702
2015	-	-	-	2,946	1,679	3,974	2,927	1,328	5,040	-	17,894
2016 ^{b/}	-	-	-	1,682	2,622	3,273	2,134	1,558	1,872	-	13,141

TABLE A-22. Cape Falcon to U.S/Mexico border ocean recreational fishing effort in salmon angler trips by region and month.
(Page 2 of 2)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
Horse Mt. to U.S./Mexico Border											
1976-1980	9,865	12,468	9,230	9,929	12,998	22,054	19,400	13,245	7,968	4,078	119,603
1981-1985	5,107	7,945	8,771	8,898	14,341	22,038	16,941	9,593	5,648	1,426	100,709
1986-1990	8,272	17,094	24,034	13,831	23,693	36,170	22,631	10,893	5,029	1,563	163,209
1991-1995	1,263	15,054	23,079	22,180	30,007	51,595	26,483	11,093	5,939	302	186,873
1996-2000	32	14,341	25,245	21,784	31,874	42,867	25,997	9,463	4,144	610	176,094
2001-2005	371	2,645	27,879	23,256	24,370	41,406	23,848	10,068	4,148	1,148	159,140
2006	289	298	19,198	17,128	25,376	31,705	9,684	4,102	1,827	448	110,055
2007	249	855	15,043	13,297	19,620	21,548	8,532	3,091	1,817	1,394	85,446
2008	206	185	-	-	-	-	-	-	-	-	391
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	16,774	6,770	2,736	8,310	7,883	1,965	-	-	44,438
2011	-	-	15,565	5,943	6,937	20,300	14,387	10,164	3,431	-	76,727
2012	-	-	21,466	18,077	21,974	28,417	14,620	7,914	3,588	569	116,625
2013	-	-	19,602	15,187	18,315	36,160	20,012	5,521	2,245	426	117,468
2014	-	-	20,226	8,522	7,675	23,892	22,999	10,443	5,193	723	99,673
2015	-	-	11,085	7,401	9,210	16,244	15,118	10,293	3,483	5	72,839
2016 ^{b/}	-	-	8,006	8,281	4,282	16,484	13,050	8,388	2,243	0	60,734
Total South of Cape Falcon ^{a/}											
1976-1980	9,865	12,468	9,233	20,561	78,167	169,341	133,321	39,154	14,935	3,420	490,465
1981-1985	5,107	7,945	8,772	14,491	42,353	149,255	92,912	22,489	9,385	1,564	354,272
1986-1990	8,272	17,094	24,034	20,765	75,770	181,452	100,990	27,107	7,041	1,563	464,088
1991-1995	1,263	15,054	23,079	29,374	54,157	106,679	41,813	20,897	10,221	425	302,876
1996-2000	32	14,341	25,258	25,763	41,620	58,007	43,217	16,256	9,843	723	234,753
2001-2005	371	2,683	28,091	29,281	45,533	85,601	54,662	23,483	10,662	1,330	281,698
2006	289	322	19,290	22,818	38,913	53,213	13,501	21,417	10,276	546	180,585
2007	249	891	15,118	16,887	33,671	51,156	44,618	10,322	7,421	1,434	181,767
2008	206	185	-	-	3,965	9,998	5,753	3,635	3,413	--	27,155
2009	-	-	-	-	4,412	35,341	26,698	9,167	2,009	--	77,627
2010	-	-	16,774	8,298	6,467	18,706	27,170	10,999	3,318	--	91,732
2011	-	22	15,640	8,620	12,876	36,194	31,114	22,139	6,428	16	133,049
2012	-	23	21,846	23,318	35,266	52,934	42,334	25,210	8,959	587	210,477
2013	-	479	20,295	19,599	33,058	63,288	61,368	18,176	10,006	426	226,695
2014	-	87	20,362	16,345	19,335	69,417	56,337	35,699	11,253	723	229,558
2015	-	60	11,237	11,729	13,239	38,243	25,571	28,207	10,897	5	139,188
2016 ^{b/}	-	82	8,024	11,000	9,703	26,139	20,019	24,525	4,727	0	104,219

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month.

b/ Preliminary.

TABLE A-23. Cape Falcon to U.S./Mexico border ocean recreational salmon landings in numbers of fish by region and month. (Page 1 of 2)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
CHINOOK												COHO										
<u>Cape Falcon to Humbug Mt.^{a/}</u>																						
1978-1980	-	-	0	700	2,780	4,114	5,079	1,463	144	39	14,239	-	-	-	9,099	46,920	76,187	54,894	5,617	671	-	193,118
1981-1985	-	-	-	55	787	6,327	3,518	642	42	--	11,326	-	-	-	2,321	18,010	62,626	40,922	4,706	-	-	119,511
1986-1990	-	-	-	150	1,678	7,128	4,099	1,639	--	--	14,664	-	-	-	1,136	21,865	97,505	45,530	6,824	-	-	171,268
1991-1995	-	-	-	146	1,144	3,030	1,044	465	1,254	42	4,230	-	-	-	522	21,985	87,767	25,734	3,192	-	-	97,169
1996-2000	-	-	-	107	142	1,987	1,233	738	503	36	4,726	-	-	-	-	-	8,452	42	12	1	-	5,127
2001-2005	-	3	61	266	3,544	13,052	7,832	4,085	1,338	31	30,212	-	-	-	8	6,461	28,005	7,878	163	21	-	42,529
2006	-	2	4	68	540	3,755	982	1,863	2,024	49	9,287	-	-	-	-	469	8,346	36	634	-	-	9,485
2007	-	3	0	72	255	804	1,076	597	474	16	3,297	-	-	-	2	4,734	19,223	16,417	311	-	-	40,687
2008	-	-	-	-	9	6	3	262	201	--	481	-	-	-	-	770	2,811	4,131	45	3	-	7,760
2009	-	-	-	-	9	36	47	92	226	--	410	-	-	-	-	4,859	38,001	25,325	799	6	-	68,990
2010	-	-	-	75	207	380	1,108	439	122	--	2,331	-	-	-	-	368	2,181	8,336	1,242	-	-	12,127
2011	-	0	7	56	161	493	623	1,056	207	6	2,609	-	-	-	-	556	3,568	2,011	6,623	-	-	12,758
2012	-	21	108	530	687	858	2,258	2,791	506	8	7,767	-	-	-	-	55	2,251	4,927	6,965	-	-	14,198
2013	-	257	196	191	1,397	1,477	11,886	1,671	792	--	17,867	-	-	-	-	9	4,748	2,650	2,658	19	-	10,084
2014	-	10	32	266	826	2,973	3,241	1,870	137	--	9,355	-	-	-	1	3,530	32,851	19,275	26,494	49	-	82,200
2015	-	30	8	151	267	401	376	2,814	1,454	--	5,501	-	-	-	-	458	11,841	2,557	4,426	22	-	19,304
2016 ^{b/}	-	32	9	128	237	238	692	1,140	76	--	2,552	-	-	-	-	245	1,180	79	4,178	22	-	5,704
<u>Humbug Mt. to Horse Mt. (KMZ)^{a/}</u>																						
1978-1980	-	0	0	252	2,699	8,214	5,604	706	721	75	18,272	--	--	1	483	17,791	29,095	9,034	713	430	0	57,548
1981-1985	-	0	1	2,463	4,949	17,196	7,185	703	515	9	33,021	--	--	0	378	5,668	17,700	5,744	354	1	0	29,844
1986-1990	-	0	-	1,782	14,924	21,557	8,664	1,935	581	-	49,211	--	--	-	1,081	12,458	32,289	7,650	877	10	-	54,361
1991-1995	-	-	-	2,752	6,005	4,480	1,559	1,849	653	-	13,312	-	-	-	186	8,173	15,356	2,224	900	2	-	18,580
1996-2000	-	-	-	1,298	3,637	2,596	5,622	709	702	-	14,564	-	-	-	33	63	55	98	22	9	-	244
2001-2005	-	-	-	3,369	5,979	3,107	6,313	3,409	469	-	22,646	-	-	-	54	201	182	117	38	8	-	588
2006	-	-	-	4,620	6,199	2,515	-	4,464	397	-	18,195	-	-	-	93	503	150	-	169	7	-	922
2007	-	-	-	841	5,290	5,001	8,064	2,215	535	-	21,946	-	-	-	-	245	745	917	60	3	-	1,970
2008	-	-	-	-	-	-	-	-	280	-	280	-	-	-	-	449	1,273	409	-	3	-	2,134
2009	-	-	-	-	-	9	325	533	-	-	867	-	-	-	-	6	1,123	59	17	-	-	1,205
2010	-	-	-	24	160	40	501	278	541	-	1,544	-	-	-	-	-	19	75	16	-	-	110
2011	-	-	-	814	970	4,391	4,018	497	233	-	10,923	-	-	-	5	10	62	37	12	-	-	126
2012	-	-	-	3,911	11,769	14,139	14,502	3,912	534	-	48,767	-	-	-	-	50	176	48	-	2	-	276
2013	-	-	-	2,585	12,329	16,247	11,996	459	814	-	44,430	-	-	-	-	65	360	245	-	6	-	676
2014	-	-	-	4,413	5,756	7,784	3,259	319	1,115	-	22,646	-	-	-	22	119	696	9	3	-	-	849
2015	-	-	-	930	376	1,237	1,454	85	792	-	4,874	-	-	-	-	13	122	5	4	6	-	150
2016 ^{b/}	-	-	-	1,454	1,025	1,506	649	582	287	-	5,503	-	-	-	-	29	45	3	2	-	-	79

TABLE A-23. Cape Falcon to U.S./Mexico border ocean recreational salmon landings in numbers of fish by region and month. (Page 2 of 2)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
	CHINOOK											COHO										
<u>Horse Mt. to U.S./Mexico Border</u>																						
1976-1980	5,830	8,504	8,715	6,238	11,781	16,557	9,694	7,432	6,663	1,338	82,753	10	14	238	1,439	1,551	2,151	600	136	14	2	6,155
1981-1985	5,947	7,266	7,238	7,654	13,303	18,990	16,587	8,530	5,546	1,410	92,471	0	1	21	149	680	903	303	40	29	0	2,125
1986-1990	5,630	15,288	26,365	10,037	18,925	28,491	17,858	7,834	4,240	1,319	135,987	0	1	56	212	1,300	2,384	772	153	12	0	4,890
1991-1995	484	11,136	21,564	15,561	27,663	53,815	17,807	8,925	4,451	159	161,502	0	9	23	260	3,128	5,839	733	142	25	--	10,159
1996-2000	6	14,184	23,734	17,596	29,070	40,667	17,615	5,878	2,977	982	149,280	-	-	3	11	112	91	59	16	6	-	283
2001-2005	196	1,767	22,222	17,031	24,567	41,719	15,500	6,749	2,248	395	132,355	-	-	3	118	179	340	66	22	-	-	713
2006	55	109	9,408	14,233	24,099	26,657	4,023	982	256	67	79,889	-	-	-	108	640	588	49	-	-	-	1,385
2007	48	200	3,152	6,405	8,613	8,080	1,154	390	441	325	28,808	-	-	-	53	104	149	25	14	-	-	345
2008	0	6	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	5,265	2,408	630	2,568	2,823	395	-	-	14,089	-	-	8	7	68	15	19	8	-	-	125
2011	-	-	5,522	1,919	2,434	12,498	9,410	6,794	1,258	-	39,835	-	-	8	10	62	116	17	-	5	-	218
2012	-	-	18,786	11,146	17,027	23,897	6,987	4,385	2,094	160	84,482	-	-	-	3	14	14	-	3	-	-	34
2013	-	-	13,656	11,337	15,729	29,204	8,554	2,167	1,359	87	82,093	-	-	-	-	34	86	4	-	-	-	124
2014	-	-	13,924	3,912	2,699	15,235	13,642	6,403	3,073	125	59,013	-	-	-	4	30	163	-	-	-	-	197
2015	-	-	3,024	1,893	3,154	8,510	7,435	8,197	1,577	0	33,790	-	-	-	5	4	15	5	-	-	-	29
2016 ^{b/}	-	-	2,030	4,239	1,487	11,517	6,998	5,809	600	0	32,680	-	-	-	-	-	35	8	-	-	-	43
<u>Total South of Cape Falcon^{a/}</u>																						
1976-1980	5,830	8,504	8,715	7,190	17,259	28,886	20,378	9,602	7,471	1,428	115,264	10	14	239	11,021	66,262	107,432	64,529	6,466	847	2	256,821
1981-1985	5,947	7,266	7,239	10,162	19,039	42,513	27,290	9,875	6,070	1,419	136,819	0	1	21	1,919	17,153	81,228	46,969	4,158	30	0	151,479
1986-1990	5,630	15,288	26,365	11,939	35,527	57,176	30,621	11,409	4,588	1,319	199,862	0	1	56	2,202	35,623	132,177	53,953	6,489	18	0	230,519
1991-1995	484	11,136	21,564	17,908	33,611	58,321	19,472	10,960	5,475	140	179,043	0	9	23	722	22,857	67,713	12,805	2,319	26	--	106,474
1996-2000	2	11,347	23,735	19,001	32,850	45,250	24,470	7,326	4,181	678	168,570	-	-	3	22	175	5,218	199	42	9	-	5,655
2001-2005	157	1,769	22,283	20,665	34,090	57,878	29,645	14,243	4,055	427	185,213	-	-	3	176	6,841	28,528	8,062	202	25	-	43,830
2006	55	111	9,412	18,921	30,838	32,927	5,005	7,309	2,677	116	107,371	-	-	-	201	1,612	9,084	85	803	7	-	11,792
2007	48	203	3,152	7,318	14,158	13,885	10,294	3,202	1,450	341	54,051	-	-	-	55	5,083	20,117	17,359	385	3	-	43,002
2008	0	6	-	-	9	6	3	262	481	--	767	-	-	-	-	1,219	4,084	4,540	45	6	-	9,894
2009	-	-	-	-	9	45	372	625	226	--	1,277	-	-	-	-	4,865	39,124	25,384	816	6	-	70,195
2010	-	-	5,265	2,507	997	2,988	4,432	1,112	663	--	17,964	-	-	8	7	436	2,215	8,430	1,266	-	-	12,362
2011	-	0	5,529	2,789	3,565	17,382	14,051	8,347	1,698	6	53,367	-	-	8	15	628	3,746	2,065	6,635	5	-	13,102
2012	-	21	18,894	15,587	29,483	38,894	23,747	11,088	3,134	168	141,016	-	-	-	3	119	2,441	4,975	6,968	2	-	14,508
2013	-	257	13,852	14,113	29,455	46,928	32,436	4,297	2,965	87	144,390	-	-	-	-	108	5,194	2,899	2,658	25	-	10,884
2014	-	10	13,956	8,591	9,281	25,992	20,142	8,592	4,325	125	91,014	-	-	-	27	3,679	33,710	19,284	26,497	49	-	83,246
2015	-	30	3,032	2,974	3,797	10,148	9,265	11,096	3,823	0	44,165	-	-	-	5	475	11,978	2,567	4,430	28	-	19,483
2016 ^{b/}	-	32	2,039	5,821	2,749	13,261	8,339	7,531	963	0	40,735	-	-	-	-	274	1,260	90	4,180	22	-	5,826

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month.

b/ Preliminary.

TABLE A-24. U.S./Canada border to Cape Falcon commercial troll salmon fishing effort in days fished by area and month.^{a/}
(Page 1 of 3)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
U.S./Canada Border to Leadbetter Pt. - Non-Indian							
1976-1980	3,482	2,262	11,876	12,038	4,519	-	34,176
1981-1985	2,700	309	5,650	2,388	14	-	9,858
1986-1990	2,255	830	438	750	15	-	3,847
1991-1995	1,578	1,054	775	635	304	-	3,224
1996-2000	221	124	158	129	5	-	419
2001-2005	402	141	357	294	80	-	1,242
2006	359	381	99	296	169	-	1,304
2007	445	253	354	114	8	-	1,174
2008	246	353	223	213	60	-	1,095
2009	467	551	432	320	134	-	1,904
2010	511	858	501	428	46	-	2,344
2011	606	656	448	208	54	-	1,972
2012	364	633	452	306	198	-	1,953
2013	721	498	471	405	83	-	2,178
2014	589	188	397	337	117	-	1,628
2015	818	484	491	450	127	-	2,370
2016 ^{b/}	647	359	248	186	-	-	1,440
U.S./Canada Border to Leadbetter Pt. - Treaty Indian^{c/}							
1976-1980	61	137	192	162	50	6	603
1981-1985	79	141	284	313	146	17	963
1986-1990	138	168	434	460	161	2	1,360
1991-1995	69	71	182	311	48	10	682
1996-2000	31	38	11	96	53	-	229
2001-2005	47	66	100	116	69	-	397
2006	96	285	167	140	117	5	805
2007	22	205	189	167	7	0	590
2008	30	125	102	231	92	1	580
2009	82	238	233	269	5	4	827
2010	155	335	155	150	62	4	857
2011	92	192	152	140	24	1	600
2012	144	269	214	229	104	4	960
2013	279	201	203	284	60	6	1,027
2014	187	283	239	211	68	0	988
2015	318	365	224	150	55	0	1,112
2016 ^{b/}	184	205	122	82	2	0	595
U.S./Canada Border to Leadbetter Pt. - Total^{c/}							
1976-1980	3,543	2,399	12,069	12,200	4,569	6	34,780
1981-1985	2,779	388	4,804	2,701	149	17	10,821
1986-1990	2,393	832	609	1,210	164	2	5,207
1991-1995	1,016	704	492	819	230	10	3,260
1996-2000	208	137	74	173	55	-	648
2001-2005	449	207	457	411	117	-	1,639
2006	455	666	266	436	286	5	2,109
2007	467	458	543	281	15	0	1,764
2008	276	478	325	444	152	1	1,675
2009	549	789	665	589	139	4	2,731
2010	666	1,193	656	578	108	4	3,201
2011	698	848	600	348	78	1	2,572
2012	508	902	666	535	302	4	2,913
2013	1,000	699	674	689	143	6	3,205
2014	776	471	636	548	185	0	2,616
2015	1,136	849	715	600	182	0	3,482
2016 ^{b/}	831	564	370	268	2	0	2,035

TABLE A-24. U.S./Canada border to Cape Falcon commercial troll salmon fishing effort in days fished by area and month. ^{a/}
(Page 2 of 3)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
<u>Leadbetter Pt. to Cape Falcon - Non-Indian</u>							
1976-1980	900	838	4,419	3,751	1,920	56	11,882
1981-1985	969	58	977	906	146	0	3,057
1986-1990	343	87	467	1,162	850	22	1,530
1991-1995	153	52	113	326	155	-	709
1996-2000	2	2	-	294	29	-	85
2001-2005	93	33	114	181	86	-	472
2006	587	350	1	81	99	-	1,118
2007	99	73	50	184	24	-	430
2008	306	362	36	66	13	-	783
2009	79	98	259	178	13	-	627
2010	91	310	164	136	23	-	724
2011	127	167	42	27	18	-	381
2012	63	299	51	27	83	-	523
2013	111	170	47	56	33	-	417
2014	705	128	203	100	74	-	1,210
2015	708	114	59	87	125	-	1,093
2016 ^{b/}	149	130	51	83	-	-	413
<u>U.S./Canada Border to Cape Falcon - Non-Indian Total</u>							
1976-1980	4,382	3,100	16,295	15,788	6,438	56	46,058
1981-1985	3,669	305	5,497	3,294	149	0	12,915
1986-1990	2,598	895	671	1,447	858	22	5,377
1991-1995	1,731	1,106	888	879	407	-	3,756
1996-2000	223	126	158	227	19	-	487
2001-2005	495	173	470	475	166	-	1,713
2006	946	731	100	377	268	-	2,422
2007	544	326	404	298	32	-	1,604
2008	552	715	259	279	73	-	1,878
2009	546	649	691	498	147	-	2,531
2010	602	1,168	665	564	69	-	3,068
2011	733	823	490	235	72	-	2,353
2012	427	932	503	333	281	-	2,476
2013	832	668	518	461	116	-	2,595
2014	1,294	316	600	437	191	-	2,838
2015	1,526	598	550	537	252	-	3,463
2016 ^{b/}	796	489	299	269	-	-	1,853
<u>U.S./Canada Border to Cape Falcon - Treaty Indian Total^{c/}</u>							
1976-1980	61	137	192	162	50	6	603
1981-1985	79	141	284	313	146	17	963
1986-1990	138	168	434	460	161	2	1,360
1991-1995	69	71	182	311	48	10	682
1996-2000	31	38	11	96	53	-	229
2001-2005	47	66	100	116	69	-	397
2006	96	285	167	140	117	5	805
2007	22	205	189	167	7	0	590
2008	30	125	102	231	92	1	580
2009	82	238	233	269	5	4	827
2010	155	335	155	150	62	4	857
2011	92	192	152	140	24	1	600
2012	144	269	214	229	104	4	960
2013	279	201	203	284	60	6	1,027
2014	187	283	239	211	68	0	988
2015	318	365	224	150	55	0	1,112
2016 ^{b/}	184	205	122	82	2	0	595

TABLE A-24. U.S./Canada border to Cape Falcon commercial troll salmon fishing effort in days fished by area and month.^{a/}
(Page 3 of 3)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
U.S./Canada Border to Cape Falcon - Total Treaty Indian and Non-Indian^{c/}							
1976-1980	4,443	3,237	16,487	15,950	6,489	62	46,662
1981-1985	3,748	446	5,781	3,607	295	17	13,878
1986-1990	2,736	884	702	1,907	504	6	6,737
1991-1995	1,108	735	537	1,014	292	10	3,686
1996-2000	210	139	74	232	61	-	716
2001-2005	541	239	570	592	168	10	2,111
2006	1,042	1,016	267	517	385	5	3,227
2007	566	531	593	465	39	0	2,194
2008	582	840	361	510	165	1	2,458
2009	628	887	924	767	152	4	3,358
2010	757	1,503	820	714	131	4	3,925
2011	825	1,015	642	375	96	1	2,953
2012	571	1,201	717	562	385	4	3,436
2013	1,111	869	721	745	176	6	3,622
2014	1,481	599	839	648	259	0	3,826
2015	1,844	963	774	687	307	0	4,575
2016 ^{b/}	980	694	421	351	2	0	2,448

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month. Washington data are summarized by statistical month.

b/ Preliminary.

c/ Treaty troll effort in number of landings, which closely approximates days fished because treaty Indian fishers do not usually make multi-day trips. Season totals do not include January-April, October, or November-December treaty troll effort.

TABLE A-25. U.S./Canada border to Cape Falcon ocean troll Chinook and coho landings in number of fish by catch area and month.^{a/} (Page 1 of 4)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season	May	June	July	Aug.	Sept.	Oct.	Season
CHINOOK							COHO							
<u>U.S./Canada Border to Leadbetter Pt. - Non-Indian</u>														
1976-1980	41,761	24,669	51,037	33,083	9,456	-	160,006	97	134,856	303,327	174,800	62,229	-	567,347
1981-1985	25,195	3,442	24,381	4,671	31	-	52,131	-	-	117,950	25,994	100	-	120,394
1986-1990	27,081	11,294	8,914	1,811	11	-	41,133	-	-	18,447	34,981	16	-	35,367
1991-1995	15,857	11,859	3,929	1,279	1,118	-	24,589	-	-	7,119	13,592	8,242	-	23,332
1996-2000	5,247	2,897	4,030	1,456	3	-	9,880	-	-	3,905	5,207	193	-	7,939
2001-2005	15,314	6,072	9,697	7,328	1,057	-	39,045	-	-	1,864	2,234	2,906	-	5,468
2006	4,735	3,548	1,073	3,458	1,831	-	14,645	-	-	122	816	253	-	1,191
2007	5,693	3,868	3,459	721	27	-	13,768	-	-	1,944	1,043	34	-	3,021
2008	1,451	3,350	1,173	1,161	259	-	7,394	-	-	351	917	361	-	1,629
2009	5,545	4,095	1,615	680	120	-	12,055	-	-	4,857	9,281	3,663	-	17,801
2010	8,219	22,332	6,113	7,267	282	-	44,213	-	-	1,085	744	124	-	1,953
2011	7,682	9,315	6,015	2,520	338	-	25,870	-	-	1,630	892	493	-	3,015
2012	10,366	10,371	5,312	6,398	2,158	-	34,605	-	-	746	1,116	1,317	-	3,179
2013	10,487	11,848	7,816	8,689	690	-	39,530	-	-	1,892	3,764	258	-	5,914
2014	12,788	2,557	8,098	5,664	620	-	29,727	-	-	2,907	6,050	4,211	-	13,168
2015	12,922	14,408	12,610	9,831	1,517	-	51,288	-	-	687	998	497	-	2,182
2016 ^{b/}	6,434	3,964	3,325	1,962	-	-	15,685	-	-	-	-	-	-	0
<u>U.S./Canada Border to Leadbetter Pt. - Treaty Indian^{c/}</u>														
1976-1980	787	2,037	1,776	415	70	11	5,086	720	7,677	2,915	1,275	443	11	13,030
1981-1985	2,150	1,883	3,636	1,336	1,018	198	10,023	283	7,435	16,406	24,484	16,666	54	65,274
1986-1990	6,877	5,955	6,726	4,506	1,248	12	25,312	3	4,256	32,310	35,942	11,051	7	83,563
1991-1995	4,343	4,181	3,511	4,243	571	29	16,849	1	1	17,220	26,038	5,275	103	48,535
1996-2000	2,580	6,524	446	3,806	1,893	-	15,249	0	0	15	11,063	8,533	-	19,611
2001-2005	5,461	14,660	9,462	6,271	3,260	23	39,114	2	3	7,259	17,964	9,381	66	34,611
2006	2,821	8,341	7,736	6,690	4,957	15	30,545	16	102	10,475	10,634	10,711	5	31,938
2007	316	14,629	3,349	4,579	70	0	22,943	0	12	22,743	16,423	860	0	40,038
2008	358	8,864	2,099	6,007	3,579	1	20,907	0	18	865	3,561	9,820	0	14,264
2009	1,491	5,828	2,329	2,566	12	25	12,226	0	0	25,422	35,141	100	15	60,663
2010	1,926	12,150	6,943	9,693	1,664	10	32,376	2	63	2,015	5,058	4,323	15	11,461
2011	1,120	8,817	14,761	6,708	418	0	31,824	0	0	2,062	4,791	6,711	0	13,564
2012	4,465	20,696	10,144	14,650	4,834	10	54,789	1	101	2,769	18,790	15,869	0	37,530
2013	11,929	19,091	9,240	7,514	2,107	11	49,881	0	7	7,646	35,701	3,988	0	47,342
2014	12,417	17,002	20,643	8,793	2,692	0	61,547	0	30	10,405	39,227	6,292	0	55,954
2015	7,300	23,627	23,002	3,775	788	0	58,492	0	1	1,989	1,280	712	0	3,982
2016 ^{b/}	2,814	13,730	5,003	1,280	5	0	22,832	0	0	6	5	0	0	11

TABLE A-25. U.S./Canada border to Cape Falcon ocean troll Chinook and coho landings in number of fish by catch area and month.^{a/} (Page 3 of 4)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season	May	June	July	Aug.	Sept.	Oct.	Season
CHINOOK							COHO							
<u>U.S./Canada Border to Cape Falcon - Non-Indian</u>														
1976-1980	54,790	34,388	58,093	37,875	13,136	577	198,860	36	85,589	406,953	216,196	85,049	879	756,562
1981-1985	36,397	3,511	21,389	5,446	113	2	66,859	-	-	154,422	47,025	5,372	-	173,785
1986-1990	31,870	12,242	10,688	3,829	1,708	71	49,699	-	-	27,564	65,822	19,314	304	71,470
1991-1995	17,321	12,216	4,063	1,537	1,220	-	26,331	-	-	8,030	23,097	10,866	-	35,261
1996-2000	5,255	2,961	4,030	2,688	92	-	10,590	-	-	3,905	9,887	715	-	12,967
2001-2005	18,345	7,584	11,499	10,012	1,656	-	48,433	-	-	3,666	5,111	6,838	-	12,146
2006	13,648	7,080	1,074	3,520	1,936	-	27,258	-	-	139	1,760	780	-	2,679
2007	6,643	4,468	3,617	934	49	-	15,711	-	-	3,344	13,779	317	-	17,440
2008	4,428	6,705	1,309	1,346	282	-	14,070	-	-	404	1,338	398	-	2,140
2009	5,810	4,376	1,875	843	124	-	13,028	-	-	14,505	14,406	3,828	-	32,739
2010	9,009	29,214	8,402	9,161	433	-	56,219	-	-	1,821	1,150	173	-	3,144
2011	9,211	11,258	6,130	2,771	368	-	29,738	-	-	1,865	1,064	588	-	3,517
2012	11,663	17,424	5,588	6,547	4,077	-	45,299	-	-	807	1,153	1,932	-	3,892
2013	11,021	12,910	7,994	8,987	1,123	-	42,035	-	-	1,959	4,139	395	-	6,493
2014	33,030	3,835	10,978	6,136	910	-	54,889	-	-	5,869	8,442	8,798	-	23,109
2015	22,409	16,585	13,999	10,868	2,334	-	66,195	-	-	1,056	1,580	2,449	-	5,059
2016 ^{b/}	7,609	5,053	3,753	2,987	-	-	19,402	-	-	-	-	-	-	2,877
<u>U.S./Canada Border to Cape Falcon - Treaty Indian^{c/}</u>														
1976-1980	787	2,037	1,776	415	70	11	5,086	720	7,677	2,915	1,275	443	11	13,030
1981-1985	2,150	1,883	3,636	1,336	1,018	198	10,023	283	7,435	16,406	24,484	16,666	54	65,274
1986-1990	6,877	5,955	6,726	4,506	1,248	12	25,312	3	4,256	32,310	35,942	11,051	7	83,563
1991-1995	4,343	4,181	3,511	4,243	571	29	16,849	1	1	17,220	26,038	5,275	103	48,535
1996-2000	2,580	6,524	446	3,806	1,893	-	15,249	0	0	15	11,063	8,533	-	19,611
2001-2005	5,461	14,660	9,462	6,271	3,260	-	39,114	2	3	7,259	17,964	9,381	-	34,611
2006	2,821	8,341	7,736	6,690	4,957	15	30,545	16	102	10,475	10,634	10,711	5	31,938
2007	316	14,629	3,349	4,579	70	0	22,943	0	12	22,743	16,423	860	0	40,038
2008	358	8,864	2,099	6,007	3,579	1	20,907	0	18	865	3,561	9,820	0	14,264
2009	1,491	5,828	2,329	2,566	12	25	12,226	0	0	25,422	35,141	100	15	60,663
2010	1,926	12,150	6,943	9,693	1,664	10	32,376	2	63	2,015	5,058	4,323	15	11,461
2011	1,120	8,817	14,761	6,708	418	0	31,824	0	0	2,062	4,791	6,711	0	13,564
2012	4,465	20,696	10,144	14,650	4,834	10	54,789	1	101	2,769	18,790	15,869	0	37,530
2013	11,929	19,091	9,240	7,514	2,107	11	49,881	0	7	7,646	35,701	3,988	0	47,342
2014	12,417	17,002	20,643	8,793	2,692	0	61,547	0	30	10,405	39,227	6,292	0	55,954
2015	7,300	23,627	23,002	3,775	788	0	58,492	0	1	1,989	1,280	712	0	3,982
2016 ^{b/}	2,814	13,730	5,003	1,280	5	0	22,832	0	0	6	5	0	0	11

TABLE A-25. U.S./Canada border to Cape Falcon ocean troll Chinook and coho landings in number of fish by catch area and month.^{a/} (Page 4 of 4)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season	May	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK							COHO						
	U.S./Canada Border to Cape Falcon - Total Treaty Indian and Non-Indian^{c/}													
1976-1980	55,577	36,425	59,869	38,290	13,206	588	203,946	742	76,148	409,868	217,470	85,493	715	769,591
1981-1985	38,547	5,395	25,025	6,782	1,131	201	76,882	283	7,435	139,943	71,509	19,889	54	239,059
1986-1990	38,747	15,749	11,001	7,570	1,931	26	75,011	3	4,256	43,336	88,600	18,777	68	155,033
1991-1995	14,736	11,511	5,136	5,472	1,059	29	37,914	1	1	20,432	44,516	11,795	103	76,744
1996-2000	6,784	8,892	1,252	4,881	1,911	-	23,721	0	0	1,577	16,996	8,819	-	27,392
2001-2005	23,805	22,244	20,961	16,283	4,254	-	87,547	2	3	10,192	23,075	13,484	-	46,757
2006	16,469	15,421	8,810	10,210	6,893	15	57,803	16	102	10,614	12,394	11,491	5	34,617
2007	6,959	19,097	6,966	5,513	119	0	38,654	0	12	26,087	30,202	1,177	0	57,478
2008	4,786	15,569	3,408	7,353	3,861	1	34,977	0	18	1,269	4,899	10,218	0	16,404
2009	7,301	10,204	4,204	3,409	136	25	25,254	0	0	39,927	49,547	3,928	15	93,402
2010	10,935	41,364	15,345	18,854	2,097	10	88,595	2	63	3,836	6,208	4,496	15	14,605
2011	10,331	20,075	20,891	9,479	786	0	61,562	0	0	3,927	5,855	7,299	0	17,081
2012	16,128	38,120	15,732	21,197	8,911	10	100,088	1	101	3,576	19,943	17,801	0	41,422
2013	22,950	32,001	17,234	16,501	3,230	11	91,916	0	7	9,605	39,840	4,383	0	53,835
2014	45,447	20,837	31,621	14,929	3,602	0	116,436	0	30	16,274	47,669	15,090	0	79,063
2015	29,709	40,212	37,001	14,643	3,122	0	124,687	0	1	3,045	2,860	3,161	0	9,041
2016 ^{b/}	10,423	18,783	8,756	4,267	5	0	42,234	0	0	6	5	0	0	2,888

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month. Washington data are summarized by statistical month.

b/ Preliminary.

c/ Season totals do not include January-April, October, or November-December treaty troll catches.

TABLE A-26. U.S./Canada border to Cape Falcon ocean troll pink salmon landings in numbers of fish by catch area and month (odd-year averages).^{a/} (Page 1 of 2)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
<u>U.S./Canada Border to Leadbetter Pt. - Non-Indian</u>							
1976-1980	565	444	94,872	308,655	4,747	-	409,282
1981-1985	230	33	50,591	86,991	415	-	138,123
1986-1990	115	182	2,642	36,286	-	-	19,670
1991-1995	10	9	88	25,340	390	-	25,772
1997-2001	1	4	26	11	0	-	29
2003	0	0	142	63	10	-	215
2005	4	0	2	2	-	-	8
2007	8	19	119	1	0	-	147
2009	1	14	82	37	1	-	135
2011	0	0	3	118	93	1	215
2013	0	2	0	101	37	1	141
2015 ^{b/}	0	1	20	47	0	0	68
<u>U.S./Canada Border to Leadbetter Pt. - Treaty Indian^{c/}</u>							
1976-1980	49	1,550	1,053	3,019	21	0	5,691
1981-1985	32	214	2,208	7,806	320	0	10,580
1986-1990	5	10	8,991	4,254	591	0	13,851
1991-1995	0	1	499	5,519	261	0	6,280
1997-2001	4	0	232	1,561	123	0	1,919
2003	0	0	172	41	23	0	236
2005	0	0	186	198	3	0	387
2007	0	7	326	251	0	0	584
2009	0	0	431	369	0	0	800
2011	0	6	718	334	16	0	1,074
2013	0	0	89	120	0	0	209
2015 ^{b/}	0	6	98	18	0	0	122
<u>U.S./Canada Border to Leadbetter Pt. - Total^{c/}</u>							
1976-1980	614	1,993	95,925	311,674	4,768	0	414,973
1981-1985	262	247	52,799	94,798	597	0	148,703
1986-1990	120	101	10,312	22,397	591	0	33,520
1991-1995	7	7	528	30,859	651	0	32,052
1997-2001	5	4	249	1,568	123	0	1,948
2003	0	0	314	104	33	0	451
2005	4	0	188	200	3	0	395
2007	8	26	445	252	0	0	731
2009	1	14	513	406	1	0	935
2011	0	6	721	452	109	1	1,289
2013	0	2	89	221	37	1	350
2015 ^{b/}	0	7	118	65	0	0	190
<u>Leadbetter Pt. to Cape Falcon - Non-Indian</u>							
1976-1980	5	36	3,110	3,798	1,052	-	8,000
1981-1985	5	4	842	2,327	0	0	3,178
1986-1990	0	0	109	1	1	-	111
1991-1995	0	0	0	55	0	-	55
1997-2001	65	17	17	17	0	-	115
2003	0	2	43	16	0	-	61
2005	0	0	1	1	1	-	3
2007	65	0	4	11	0	-	80
2009	0	0	2	8	8	-	18
2011	0	36	5	8	0	-	49
2013	0	0	0	0	0	-	0
2015 ^{b/}	0	0	0	0	0	-	0

TABLE A-26. U.S./Canada border to Cape Falcon ocean troll pink salmon landings in numbers of fish by catch area and month (odd-year averages).^{a/} (Page 2 of 2)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
U.S./Canada Border to Cape Falcon - Non-Indian							
1976-1980	570	479	97,982	312,453	5,799	-	417,282
1981-1985	235	37	51,434	89,318	277	-	141,301
1986-1990	115	91	1,430	18,144	1	-	19,781
1991-1995	7	6	29	25,395	390	-	25,827
1997-2001	66	21	34	24	0	-	145
2003	0	2	185	79	10	-	276
2005	4	0	3	3	1	-	11
2007	73	19	123	12	0	-	227
2009	1	14	84	45	9	-	153
2011	0	36	8	126	93	1	264
2013	0	2	0	101	37	1	141
2015 ^{b/}	0	1	20	47	0	0	68
U.S./Canada Border to Cape Falcon - Treaty Indian^{c/}							
1976-1980	49	1,550	1,053	3,019	21	0	5,691
1981-1985	32	214	2,208	7,806	320	0	10,580
1986-1990	5	10	8,991	4,254	591	0	13,851
1991-1995	0	1	499	5,519	261	0	6,280
1997-2001	4	0	232	1,561	123	0	1,919
2003	0	0	172	41	23	0	236
2005	0	0	186	198	3	0	387
2007	0	7	326	251	0	0	584
2009	0	0	431	369	0	0	800
2011	0	6	718	334	16	0	1,074
2013	0	0	89	120	0	0	209
2015 ^{b/}	0	6	98	18	0	0	122
U.S./Canada Border to Cape Falcon - Total^{c/}							
1976-1980	619	2,029	99,035	315,472	5,820	0	422,973
1981-1985	267	251	53,641	97,124	597	0	151,881
1986-1990	120	101	10,421	22,398	592	0	33,631
1991-1995	7	7	528	30,914	651	0	32,107
1997-2001	70	21	266	1,585	123	0	2,064
2003	0	2	357	120	33	0	512
2005	4	0	189	201	4	0	398
2007	73	26	449	263	0	0	811
2009	1	14	515	414	9	0	953
2011	0	42	726	460	109	1	1,338
2013	0	2	89	221	37	1	350
2015 ^{b/}	0	7	118	65	0	0	190

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month. Washington data are summarized by statistical month.

b/ Preliminary.

c/ Season totals do not include October treaty troll catches.

TABLE A-27. U.S./Canada border to Cape Falcon ocean recreational fishing effort in salmon angler trips by area and month.^{a/}

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season ^{b/}
<u>U.S./Canada Border to Leadbetter Pt.^{c/}</u>								
1976-1980	3,118	13,778	42,809	87,445	95,907	33,240	3,554	279,228
1981-1985	80	3,331	16,943	44,629	38,938	5,555	196	109,593
1986-1990	-	1,190	4,199	45,977	23,931	4,377	40	78,144
1991-1995	-	1,258	4,959	31,219	25,149	9,425	714	67,841
1996-2000	-	-	-	10,921	14,366	2,674	-	25,776
2001-2005	-	2,496	5,660	29,924	24,054	6,828	132	65,964
2006	-	-	1,119	16,486	20,679	3,551	258	42,093
2007	-	-	-	17,482	21,514	3,555	0	42,551
2008	-	-	4,007	11,392	9,171	2,564	38	27,171
2009	-	-	1,104	18,115	32,546	7,402	212	59,379
2010	-	-	9,451	18,380	19,546	6,282	154	53,813
2011	-	-	5,537	17,334	21,178	4,787	16	48,852
2012	-	-	9,627	17,413	19,168	8,128	353	54,689
2013	-	951	8,973	16,010	23,946	5,400	237	55,518
2014	-	1,643	10,331	28,529	24,393	10,089	365	75,349
2015	-	1,441	8,974	28,779	15,566	8,666	300	63,725
2016 ^{d/}	-	-	-	17,792	9,391	-	-	27,183
<u>Leadbetter Pt. to Cape Falcon</u>								
1976-1980	609	5,560	29,391	59,424	87,656	27,001	2,407	211,327
1981-1985	-	1,165	10,828	35,085	31,281	4,835	721	79,973
1986-1990	-	444	2,751	28,624	27,098	2,493	-	59,008
1991-1995	-	-	2,408	23,781	18,461	9,495	-	52,941
1996-2000	-	-	-	7,231	9,950	3,983	-	18,125
2001-2005	-	370	1,040	17,361	33,383	9,814	6	61,257
2006	-	-	-	7,451	21,249	2,712	-	31,412
2007	-	-	-	10,034	29,199	3,284	-	42,518
2008	-	66	1,275	6,381	6,371	-	-	14,093
2009	-	-	278	15,969	36,344	1,840	-	54,431
2010	-	-	863	9,376	24,345	2,811	-	37,395
2011	-	-	1,133	6,760	19,772	4,463	-	32,127
2012	-	-	2,645	7,419	12,108	5,635	-	27,808
2013	-	-	4,436	6,162	16,293	3,740	-	30,632
2014	-	78	3,283	14,885	28,896	9,382	-	56,523
2015	-	269	3,046	11,243	18,589	8,872	-	42,018
2016 ^{d/}	-	-	-	9,586	18,999	-	-	28,586
<u>U.S./Canada Border to Cape Falcon^{b/}</u>								
1976-1980	3,574	19,337	72,200	146,869	183,563	60,241	5,480	490,555
1981-1985	80	4,263	25,606	79,714	70,218	9,423	436	189,565
1986-1990	-	1,412	6,950	74,600	51,029	5,374	40	137,152
1991-1995	-	1,258	4,888	55,000	43,610	18,921	714	120,782
1996-2000	-	-	-	18,152	24,315	5,064	-	43,901
2001	-	2,866	6,440	47,285	57,436	16,642	133	127,222
2006	-	-	1,119	23,937	41,928	6,263	258	73,505
2007	-	-	-	27,516	50,714	6,840	0	85,069
2008	-	66	5,282	17,773	15,542	2,564	38	41,264
2009	-	-	1,382	34,084	68,889	9,242	212	113,810
2010	-	-	10,314	27,757	43,892	9,092	154	91,209
2011	-	-	6,670	24,094	40,950	9,249	16	80,979
2012	-	-	12,272	24,832	31,276	13,763	353	82,497
2013	-	951	13,409	22,173	40,240	9,140	237	86,150
2014	-	1,720	13,614	43,413	53,289	19,471	365	131,872
2015	-	1,710	12,019	40,022	34,155	17,537	300	105,743
2016 ^{d/}	-	-	-	27,378	28,390	-	-	55,769

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month. Washington data are summarized by statistical month.

b/ Includes minor effort from November in some years.

c/ Includes catch from the Washington State waters Area 4B fishery in 1991, 1992, 1993, 1996, 1997, 1998, 2000, and 2008.

d/ Preliminary.

TABLE A-28. U.S./Canada border to Cape Falcon ocean recreational Chinook and coho salmon landings in numbers of fish by area and month.^{a/} (Page 1 of 2)

Year or Avg.	April	May	June	July	Aug.	Sept.	Oct.	Season ^{b/}	April	May	June	July	Aug.	Sept.	Oct.	Season
	CHINOOK								COHO							
<u>U.S./Canada Border to Leadbetter Pt.^{c/}</u>																
1976-1980	2,202	6,285	22,116	21,405	18,586	6,528	1,103	77,123	304	13,182	48,841	109,426	98,977	32,774	2,097	305,540
1981-1985	57	1,982	13,193	18,822	8,162	505	26	42,631	80	1,157	12,324	37,404	42,235	6,211	161	96,516
1986-1990	-	790	1,653	13,191	5,373	1,161	-	20,741	-	19	2,439	58,151	35,746	6,320	45	102,190
1991-1995	-	148	1,911	4,305	3,020	1,549	215	9,479	-	40	6,781	37,985	33,461	9,902	324	83,144
1996-2000	-	-	-	2,246	1,846	467	-	4,016	-	-	-	10,579	14,909	2,343	-	25,715
2001-2005	-	-	-	13,147	8,805	2,033	51	28,307	-	-	-	22,401	22,887	6,994	10	53,416
2006	-	-	202	3,274	4,522	813	91	8,902	-	-	416	6,514	8,287	1,466	2	16,686
2007	-	-	-	3,804	3,138	371	0	7,313	-	-	-	13,028	20,920	2,421	0	36,369
2008	-	-	2,537	5,428	3,352	414	6	11,737	-	-	30	3,332	5,115	1,752	1	10,230
2009	-	-	182	3,551	3,994	325	97	8,149	-	-	823	17,496	44,998	10,692	92	74,101
2010	-	-	4,893	11,814	12,753	1,960	45	31,465	-	-	46	5,817	6,275	5,297	37	17,473
2011	-	-	2,509	7,462	13,071	559	5	23,607	-	-	331	6,989	8,694	2,931	2	18,947
2012	-	-	8,472	8,020	8,325	1,366	133	26,315	-	-	211	7,240	7,521	6,722	21	21,715
2013	-	131	2,927	7,363	10,450	1,300	119	22,289	-	-	693	6,619	17,182	5,169	18	29,681
2014	-	585	5,110	12,890	11,155	1,133	110	30,984	-	-	6,225	20,342	22,382	15,578	199	64,725
2015	-	534	5,081	15,662	5,672	2,903	164	30,017	-	-	2,608	15,085	8,787	12,533	13	39,027
2016 ^{d/}	-	-	-	7,431	4,520	-	-	11,951	-	-	-	63	38	-	-	101
<u>Leadbetter Pt. to Cape Falcon</u>																
1976-1980	191	2,352	12,353	11,569	23,764	3,751	246	54,102	493	6,524	53,314	89,865	86,917	31,024	2,463	269,812
1981-1985	-	221	4,286	6,972	6,406	672	40	17,395	-	7,109	14,759	52,828	37,648	7,241	825	109,663
1986-1990	-	140	360	2,747	4,469	120	-	7,580	-	-	4,463	48,084	38,613	2,767	-	91,374
1991-1995	-	-	126	928	1,038	257	-	2,286	-	-	3,938	36,431	24,351	9,127	-	57,502
1996-2000	-	-	-	553	783	167	-	1,326	-	-	-	10,932	12,055	3,643	-	22,986
2001-2005	-	-	-	2,588	5,500	1,068	3	9,648	-	-	663	25,195	43,314	10,042	-	78,949
2006	-	-	-	559	1,518	198	-	2,274	-	-	-	8,149	15,782	881	-	24,812
2007	-	-	-	373	1,682	170	-	2,225	-	-	-	15,982	46,366	3,467	-	65,816
2008	-	17	626	1,509	1,563	-	-	3,715	-	-	431	4,445	5,955	-	-	10,831
2009	-	-	14	1,347	3,782	39	-	5,182	-	-	472	26,839	54,537	1,963	-	83,811
2010	-	-	143	1,873	4,909	295	-	7,221	-	-	13	7,909	16,129	863	-	24,913
2011	-	-	481	955	5,371	408	-	7,215	-	-	467	6,085	16,810	3,319	-	26,680
2012	-	-	2,371	2,850	3,122	775	-	9,118	-	-	282	3,672	5,161	2,276	-	11,391
2013	-	-	2,031	1,679	4,076	760	-	8,547	-	-	3,430	4,998	10,305	1,739	-	20,472
2014	-	65	1,067	3,198	6,421	596	-	11,347	-	-	2,614	19,863	38,532	14,063	-	75,072
2015	-	89	1,216	1,853	5,866	3,146	-	12,171	-	-	3,339	16,089	18,628	6,494	-	44,551
2016 ^{d/}	-	-	-	2,741	3,255	-	-	5,997	-	-	-	5,607	13,005	-	-	18,612

TABLE A-28. U.S./Canada border to Cape Falcon ocean recreational Chinook and coho salmon landings in numbers of fish by area and month.^{a/} (Page 2 of 2)

Year or Avg.	April	May	June	July	Aug.	Sept.	Oct.	Season ^{b/}	April	May	June	July	Aug.	Sept.	Oct.	Season
CHINOOK									COHO							
U.S./Canada Border to Cape Falcon ^{c/}																
1976-1980	1,794	8,638	34,469	32,974	42,350	10,279	1,348	131,225	551	19,705	102,155	199,291	185,895	63,798	4,067	575,352
1981-1985	57	2,159	16,622	25,794	14,568	1,009	46	60,026	80	3,527	27,083	90,232	79,883	12,003	436	206,178
1986-1990	-	930	2,014	15,938	9,841	1,241	-	28,321	-	19	6,902	106,235	74,359	7,427	45	193,564
1991-1995	-	148	1,082	5,233	4,058	1,806	215	11,765	-	40	7,328	74,416	57,812	19,029	324	124,017
1996-2000	-	-	-	2,799	2,629	592	-	5,342	-	-	-	21,511	26,964	4,529	-	48,702
2001-2005	-	2,640	5,295	15,735	14,305	3,100	51	37,955	-	5	1,900	47,596	66,201	17,036	10	132,365
2006	-	-	202	3,832	6,040	1,011	91	11,176	-	-	416	14,663	24,069	2,347	2	41,498
2007	-	-	-	4,178	4,819	541	0	9,538	-	-	-	29,010	67,286	5,888	0	102,185
2008	-	17	3,163	6,937	4,916	414	6	15,452	-	-	461	7,777	11,070	1,752	1	21,061
2009	-	-	196	4,898	7,776	364	97	13,331	-	-	1,295	44,335	99,534	12,655	92	157,912
2010	-	-	5,037	13,687	17,662	2,255	45	38,686	-	-	59	13,726	22,403	6,160	37	42,386
2011	-	-	2,990	8,418	18,442	968	5	30,822	-	-	798	13,074	25,504	6,249	2	45,628
2012	-	-	10,843	10,870	11,447	2,141	133	35,433	-	-	493	10,912	12,682	8,998	21	33,106
2013	-	131	4,957	9,042	14,526	2,061	119	30,836	-	-	4,123	11,617	27,488	6,908	18	50,153
2014	-	650	6,177	16,088	17,576	1,729	110	42,331	-	-	8,839	40,205	60,914	29,640	199	139,797
2015	-	623	6,298	17,515	11,539	6,049	164	42,188	-	-	5,947	31,174	27,416	19,027	13	83,577
2016 ^{d/}	-	-	-	10,172	7,775	-	-	17,947	-	-	-	5,670	13,043	-	-	18,713

a/ Monthly totals for Oregon data are the sum of statistical weeks with closest fit to the calendar month. Washington data are summarized by statistical month.

b/ Includes minor effort in November in some years.

c/ Includes catch from the Washington State waters Area 4B fishery in 1991, 1992, 1993, 1996, 1997, 1998, 2000, and 2008.

d/ Preliminary.

**APPENDIX B
HISTORICAL RECORD OF ESCAPEMENTS TO
INLAND FISHERIES AND SPAWNING AREAS**

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TABLE B-1. Sacramento River fall Chinook salmon escapement in numbers of fish.^{a/b/}

Year or Average	Upper Sacramento Natural Areas ^{c/d/e/}		Lower Sacramento Natural Areas ^{c/}						Natural Area Totals ^{c/}		Sacramento Hatcheries						Hatchery Totals		Sacramento Totals	
	Adults	Jacks	Feather River		Yuba River		American River		Adults	Jacks	Coleman		Feather River		Nimbus ^{f/}		Adults ^{g/}	Jacks	Adults	Jacks
			Adults	Jacks	Adults	Jacks	Adults	Jacks			Adults	Jacks	Adults	Jacks	Adults	Jacks				
1971-1975	58,462	18,289	40,221	9,745	10,877	1,615	41,726	3,695	151,286	33,345	1,373	1,167	3,882	1,387	7,791	1,311	13,661	4,065	164,947	37,410
1976-1980	67,011	17,905	33,954	3,544	7,387	1,563	28,509	1,344	136,862	24,357	4,239	1,292	4,261	1,043	7,845	2,270	17,804	5,040	154,666	29,397
1981-1985	57,913	22,432	36,252	5,243	12,825	5,146	32,332	4,954	139,322	37,775	11,557	3,734	6,845	884	10,543	2,444	30,303	7,877	169,625	45,651
1986-1990	87,396	17,244	38,709	6,426	9,261	2,444	24,420	3,323	159,787	29,437	11,507	2,288	5,837	1,947	6,927	1,943	24,271	6,178	184,057	35,616
1991-1995	60,151	11,496	32,578	4,355	8,309	2,131	28,549	4,151	129,587	22,134	11,948	2,295	10,537	2,762	7,669	1,664	30,154	6,721	159,741	28,855
1996	131,268	11,649	44,593	12,577	23,492	4,408	67,719	7,026	267,072	35,660	18,848	2,330	6,494	1,613	9,219	2,273	34,561	6,216	301,633	41,876
1997	167,353	13,736	47,009	3,538	19,202	6,746	46,036	6,159	279,600	30,179	44,590	6,080	13,358	1,770	7,293	2,435	65,241	10,285	344,841	40,464
1998	60,713	5,137	39,600 ^{h/}	3,400	26,737	4,353	41,094	13,698	168,144	26,588	42,400	1,951	17,567	1,322	17,797	3,979	77,763	7,253	245,907	33,841
1999	256,629	7,495	30,000 ^{h/}	7,500	18,778	5,452	48,311	8,688	353,718	29,135	23,194	3,776	12,822	1,104	10,095	5,543	46,112	10,422	399,830	39,557
2000	152,923	3,900	109,924	7,017	12,954	2,041	93,413	5,646	369,214	18,604	20,793	866	16,470	1,676	11,060	1,893	48,323	4,435	417,537	23,039
2001	179,198	11,853	169,588	9,114	21,567	1,825	167,062	13,553	537,415	36,345	23,710	988	24,001	871	11,649	4,547	59,360	6,406	596,775	42,751
2002	474,812 ^{i/}	11,259	93,766	11,397	18,406	4,796	95,711	10,635	682,695	38,087	61,895	4,029	17,516	2,991	7,762	8,146	87,173	15,166	769,868	53,253
2003	164,802	4,402	85,578	4,369	26,820	1,489	136,238	9,627	413,438	19,887	82,882	5,352	13,615	1,352	13,081	7,032	109,578	13,736	523,016	33,623
2004	70,548	7,220	48,580	5,591	9,260	5,208	75,090	13,774	203,478	31,793	52,145	17,027	15,769	5,535	15,493	21,390	83,407	43,952	286,885	75,745
2005	96,716	3,267	43,738	4,848	16,251	987	54,001	2,842	210,706	11,944	139,979	2,694	20,597	1,787	24,723	3,437	185,299	7,918	396,005	19,862
2006	89,933	2,874	75,545	1,869	7,891	230	21,755	1,145	195,124	6,118	56,819	1,013	13,400	634	9,687	681	79,906	2,328	275,030	8,446
2007	36,079	978	21,541	321	2,523	81	9,855	130	69,998	1,510	11,543	201	5,169	172	4,664	21	21,376	394	91,374	1,904
2008	36,274	2,074	5,703	236	3,084	424	1,791	154	46,852	2,888	10,181	458	5,031	323	3,300	453	18,512	1,234	65,364	4,122
2009	12,277	1,624	3,950	897	3,992	803	3,118	575	23,337	3,899	5,433	719	6,240	3,723	5,863	1,126	17,536	5,568	40,873	9,467
2010	25,682	6,872	40,981	3,933	12,074	1,023	5,831	1,742	84,568	13,570	8,666	8,572	17,215	2,757	13,821	2,389	39,702	13,718	124,270	27,288
2011	20,466	15,096	35,656	11,633	6,917	2,204	13,432	7,888	76,471	36,821	19,312	23,068	15,925	16,691	7,634	8,963	42,871	48,722	119,342	85,543
2012	67,190	7,125	57,507	6,142	6,009	1,722	32,459	2,441	163,165	17,430	77,318	8,198	33,628	8,533	11,318	1,862	122,264	18,593	285,429	36,023
2013	89,409	6,228	145,650	5,559	13,830	1,050	52,631	1,628	301,520	14,465	67,822	2,199	25,152	2,470	11,706	1,339	104,680	6,008	406,200	20,473
2014	80,056	7,359	55,480	5,241	9,885	1,819	22,298	2,205	167,719	16,624	18,280	976	18,824	4,596	7,645	2,670	44,749	8,242	212,468	24,866
2015	40,687	3,350	18,069	2,497	2,993	3,514	11,448	2,345	73,197	11,706	13,819	1,895	18,081	2,707	7,850	3,918	39,750	8,520	112,947	20,226
2016 ^{j/}	9,618	541	34,334	4,104	3,536	521	7,138	3,346	54,626	8,512	8,247	279	16,413	2,763	9,887	3,502	34,547	6,544	89,173	15,056
GOALS	-	-	-	-	-	-	-	-	-	-	12,000 ^{k/}	-	6,000 ^{k/}	-	4,000 ^{k/}	-	22,000 ^{k/}	-	122,000 ^{l/}	-

a/ In 2004, CDFW reviewed and updated 1971-2003 escapement estimates to reflect final project reports.

b/ Chinook spawning during the fall; may include spring run fish in some survey areas.

c/ Most natural area estimates based on carcass surveys with a jack length cut-off.

d/ Upper Sacramento mainstem estimates generally based on carcass surveys with a jack length cut-off, however, jack estimates from Red Bluff Diversion Dam (RBDD) reports have occasionally been used. Early (pre-2001) mainstem Sacramento River adult and jack estimates based on RBDD passage.

e/ Upper Sacramento River escapement includes Sacramento River mainstem, Battle, Clear, Mill, Deer, Butte, Cottonwood, and Cow creeks; and other small tributaries when surveys were conducted. Specific escapement estimates by tributary can be found at www.calfish.org.

f/ Nimbus Hatchery adult and jack counts include fish taken at Nimbus Weir, 1979-current.

g/ Total adults in Sacramento hatcheries include Tehama-Colusa Fish Facility escapements, 1971-1985.

h/ Survey methodology was variable; may not be comparable to other surveys.

i/ Change in estimation methodology due to extremely high Battle Creek escapement.

j/ Preliminary.

k/ Current hatchery-specific goals, not PPMC goals.

l/ Sacramento River fall Chinook S_{MSY} .

TABLE B-2. San Joaquin River fall Chinook salmon escapement in numbers of fish.^{a/}

Year or Average	San Joaquin Natural Areas ^{b/}										San Joaquin Hatcheries						San Joaquin Totals				
	Mokelumne River		Stanislaus River		Tuolumne River		Merced River		Other Tributaries ^{c/d/}		Totals		Mokelumne River		Merced River		Totals		Adults	Jacks	
1971-1975	1,752	231	3,852	369	5,786	559	1,647	248	782	20	13,820	1,427	305	156	460	19	765	175	14,585	1,602	
1976-1980	733	246	144	28	835	204	1,103	266	71	19	2,886	763	271	59	346	23	617	82	3,503	846	
1981-1985	7,346	394	4,649	633	12,902	5,143	9,749	4,551	284	0	34,930	10,721	759	734	797	449	1,556	1,183	36,486	11,904	
1986-1990	1,294	162	4,174	824	2,951	2,910	2,414	480	20	0	10,853	4,377	278	286	299	140	577	426	11,430	4,803	
1991-1995	865	281	472	123	264	139	1,026	360	0	0	2,626	904	1,077	554	239	233	1,316	788	3,943	1,691	
1996	2,276	1,648	69	99	1,400	2,962	2,021	1,270	0	0	5,766	5,979	1,828	2,055	395	746	2,223	2,801	7,989	8,780	
1997	3,423	258	5,225	363	6,689	457	2,646	68	0	0	17,983	1,146	6,305	189	838	108	7,143	297	25,126	1,443	
1998	3,154	788	1,892	1,195	5,809	3,101	2,120	1,172	0	0	12,975	6,256	2,686	585	347	452	3,033	1,037	16,007	7,294	
1999	1,243	937	2,479	1,870	4,898	3,334	2,087	1,042	0	0	10,707	7,183	1,611	1,542	650	987	2,261	2,529	12,967	9,713	
2000	1,576	323	8,014	484	16,926	947	10,318	812	0	0	36,834	2,566	4,637	887	1,615	331	6,252	1,218	43,086	3,784	
2001	1,755	467	6,140	719	7,852	1,369	8,084	1,133	0	0	23,831	3,688	4,467	1,427	1,137	523	5,604	1,950	29,435	5,638	
2002	2,244	596	5,848	952	6,192	1,008	7,568	1,232	0	0	21,852	3,788	5,800	2,119	1,250	588	7,050	2,707	28,902	6,495	
2003	1,571	552	6,707	889	2,620	234	3,621	489	0	0	14,519	2,164	5,108	3,009	392	157	5,500	3,166	20,019	5,330	
2004	1,175	413	2,848	1,220	1,029	605	2,197	1,073	0	0	7,250	3,310	5,477	4,879	456	594	5,933	5,473	13,183	8,783	
2005	9,574	832	2,984	332	647	72	1,900	211	738	130	15,843	1,577	5,035	528	346	75	5,381	603	21,224	2,180	
2006	1,555	177	1,718	205	457	105	1,262	167	630	15	5,622	669	2,801	1,338	130	20	2,931	1,358	8,553	2,027	
2007	461	9	368	75	193	31	446	49	53	0	1,521	164	1,004	40	70	9	1,074	49	2,595	213	
2008	83	90	1,253	139	358	14	316	73	0	0	2,010	316	116	123	39	37	155	160	2,165	476	
2009	320	360	554	194	130	70	390	64	0	0	1,394	688	730	823	109	137	839	960	2,233	1,648	
2010	1,640	280	793	293	329	211	501	150	740	0	4,003	934	3,543	1,733	115	31	3,658	1,764	7,661	2,698	
2011	705	1,962	433	630	231	647	640	975	518	0	2,527	4,214	2,409	13,513	99	338	2,508	13,851	5,035	18,065	
2012	3,836	1,635	3,550	456	485	298	1,947	310	1,034	149	10,852	2,848	4,430	2,190	628	372	5,058	2,562	15,910	5,410	
2013	5,806	1,265	2,562	283	1,798	128	2,673	153	0	0	12,839	1,829	3,698	1,483	918	180	4,616	1,663	17,455	3,492	
2014	1,973	1,324	1,837	1,227	150	56	611	249	401	0	4,972	2,856	4,417	4,403	229	582	4,646	4,985	9,618	7,841	
2015	3,090	1,514	4,050	2,086	42	71	860	387	180	0	8,222	4,058	5,170	3,128	556	642	5,726	3,770	13,948	7,828	
2016 ^{e/}	1,283	706	5,283	4,047	659	687	977	1,564	986	262	9,188	7,266	3,310	3,571	1,392	1,604	4,702	5,175	13,890	12,441	
GOALS ^{f/}	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000 ^{g/}	-	1,000	-	4,000	-	-	-

a/ In 2004, CDFW review ed and updated 1971-2003 escapement estimates to reflect final project reports.

b/ Most natural area estimates based on carcass surveys w ith a jack length cut-off.

c/ Other San Joaquin tributary escapement includes Cosumnes and Calaveras Rivers w hen surveys w ere conducted. In some years no survey w as conducted due to logistical or environmental limitations.

d/ Calculating jack proportions w as not possible in some years due to sampling and/or environmental limitations. In those years jacks are included in the adult escapement values.

e/ Preliminary.

f/ Current hatchery-specific goals, not PFMC goals.

g/ Due to modernization of the hatchery facility and improved efficiencies, the Mokelumne Hatchery escapement goal w as reduced from 5,000 to 3,000 adults in 2010.

TABLE B-3. Sacramento River late-fall, winter, and spring Chinook salmon spawning escapement in numbers of fish.

Year or Average	Upper Sacramento River										
	Late-Fall ^{a/b/c/}		Winter ^{c/d/}				Spring				
	Adults	Jacks	RBDD ^{a/}		Carcass Survey		Tributary ^{e/}		Sacramento River ^{a/f/}		Feather River ^{g/}
Adults			Jacks	Adults	Jacks	Adults	Jacks	Adults and Jacks ^{h/}	Adults	Jacks	Adults
1971-1975	18,193	1,087	22,863	9,063	--	--	5,194	5,098	1,718	366	-
1976-1980	9,662	1,798	13,499	2,640	--	--	1,201	8,335	2,571	375	-
1981-1985	8,102	1,746	5,027	921	--	--	1,061	9,798	4,241	1,446	133
1986-1990	10,047	1,761	1,369	390	--	--	1,658	8,795	1,930	2,884	406
1991-1995	3,844 ^{i/}	383 ^{i/}	586	78	--	--	2,813	410	165	3,441	465
1996-2000	16,061 ^{i/}	2,478 ^{i/}	940	1,032	--	--	7,768	242	160	4,393	503
2001	20,614	1,199	1,696	3,827	7,443	781	21,623 ^{i/}	981	0 ^{h/}	4,052	83
2002	39,818	765	7,614	1,555	7,047	417	20,198 ^{i/}	430	53	3,982	207
2003	8,122	613	6,172	3,585	7,675	543	21,798 ^{i/}	0	0	8,373	389
2004	12,458	1,574	2,588	4,604	5,786	2,083	12,556 ^{i/}	763	326	3,630	572
2005	14,047	2,141	3,521	1,778	14,684	1,155	21,319 ^{i/}	21	9	1,811 ^{k/}	24 ^{k/}
2006	14,709	351	4,792	2,623	16,911	379	10,669 ^{i/}	0	0	2,052 ^{k/}	9 ^{k/}
2007	11,954	714	3,004	3,140	2,402	139	8,951 ^{i/}	226	22	2,669 ^{k/}	5 ^{k/}
2008	9,946	381	1,504	2,131	2,623	207	11,943 ^{i/}	0	0	1,056 ^{k/}	10 ^{k/}
2009	9,515	460	∕	∕	4,483	54	3,517 ^{i/}	∕	∕	867 ^{k/}	122 ^{k/}
2010	8,894	1,001	∕	∕	1,554	42	2,951 ^{i/}	∕	∕	1,655 ^{k/}	6 ^{k/}
2011	7,129	1,161	∕	∕	637	187	5,547 ^{i/}	∕	∕	1,831 ^{k/}	138 ^{k/}
2012	5,153	909	m/	m/	2,527	144	18,694 ^{i/}	m/	m/	3,510 ^{k/}	228 ^{k/}
2013	8,355	642	m/	m/	5,622 ^{n/}	462	18,507 ^{i/}	m/	m/	4,247 ^{k/}	44 ^{k/}
2014	11,359	1,367	m/	m/	2,688	327	6,895 ^{i/}	m/	m/	2,599 ^{k/}	177 ^{k/}
2015	9,118	193	m/	m/	3,382	57	1,039 ^{i/}	m/	m/	3,280 ^{k/}	51 ^{k/}
2016 ^{o/}	4,637	973	m/	m/	924	622	6,093 ^{i/}	m/	m/	1,596 ^{k/}	54 ^{k/}

a/ Jacks and adults based on sampling at Red Bluff Diversion Dam (RBDD) from unpublished CDFW data. Beginning in 1987 for late-fall and winter run, estimates based on historical run patterns and partial counts at RBDD due to raising of dam gates during the last part of the late-fall run and first part of the winter run.

b/ Since 1998, late-fall adult and jack estimates are based on carcass counts of natural spawners plus fish spawned at Coleman Hatchery.

c/ Estimates of late-fall and winter run includes Chinook trapped at Keswick Dam for use as broodstock at Coleman or Livingston Stone Hatcheries.

d/ RBDD and carcass survey estimates represent alternative methods for determining winter run Chinook escapement.

e/ Natural spawning spring run which are isolated from fall run; primarily Mill Creek, Deer Creek, and Butte Creek escapement.

f/ Sacramento River spring run estimates are the total RBDD counts minus the spring run numbers in the upper Sacramento tributaries. If this number is less than or equal to zero, the upper Sacramento River spring run estimates are zero.

g/ Feather River spring run estimates are primarily fish returning to Feather River Hatchery. Spring run are not distinguished from fall run in the natural spawning surveys and are reported in the fall run natural escapement numbers.

h/ Jack proportion could not be determined.

i/ Primarily number of spawners at Coleman Hatchery 1991-97. No data available for natural spawners, RBDD gates were raised during time coinciding with the late-fall run.

j/ Methodology change from using snorkel survey to carcass survey for Butte Creek spring run estimates.

k/ Methodology change for distinguishing spring run Chinook at Feather River Hatchery in 2005. Fish arriving prior to the spring Chinook spawning period were tagged and returned to the river. Spring Chinook escapement estimate is the number of these tagged fish that subsequently returned during the spring Chinook spawning period.

∕ RBDD did not go into operation until June 15, a month later than normal; thus RBDD winter and spring run estimates are unavailable.

m/ RBDD gates were permanently removed on September 1, 2012; thus RBDD winter and spring run estimates are no longer available.

n/ Includes 47 adults that were transferred from the Colusa Basin Drain to Livingston Stone Hatchery for use as broodstock.

o/ Preliminary.

TABLE B-4. Summary of Klamath River fall Chinook salmon estimates in numbers of adults and jacks.

Year or Average	Category	Total Inriver Run	Inriver Harvest			Nonlanded Fishery Mortality	Spaw ning Escapement								
			Indian	Sport	Total		Klamath River			Trinity River			Total		
							Hatchery	Natural	Total	Hatchery	Natural	Total	Hatchery	Natural	Total
1978-1980	Adults	63,306	14,621	2,777	17,398	1,329	3,886	21,277	25,163	3,823	15,593	19,416	7,709	36,871	44,579
	Jacks	23,731	1,379	3,385	4,764	189	544	8,224	8,768	1,515	8,495	10,010	2,059	16,719	18,778
1981-1985	Adults	63,230	17,128	5,096	22,224	1,593	8,812	16,313	25,125	2,934	11,354	14,288	11,746	27,667	39,413
	Jacks	29,811	1,287	6,447	7,734	243	1,162	6,227	7,389	4,888	9,556	14,444	6,050	15,783	21,833
1986-1990	Adults	151,203	36,669	15,145	51,814	3,498	13,194	21,543	34,737	11,912	49,242	61,154	25,106	70,785	95,891
	Jacks	20,227	446	4,924	5,370	139	1,009	3,460	4,469	2,285	7,964	10,248	3,294	11,423	14,718
1991-1995	Adults	80,666	10,574	3,094	13,668	983	12,980	26,594	39,574	5,104	21,339	26,442	18,084	47,932	66,016
	Jacks	12,038	291	2,741	3,032	81	1,140	3,216	4,356	1,134	3,435	4,569	2,274	6,651	8,925
1996-2000	Adults	123,856	24,565	6,817	31,382	2,275	24,549	32,279	56,828	11,421	21,950	33,371	35,970	54,229	90,199
	Jacks	10,332	170	1,805	1,976	52	1,413	2,628	4,042	872	3,391	4,262	2,285	6,019	8,304
2001	Adults	187,333	38,645	12,134	50,779	3,608	37,204	40,944	78,148	17,908	36,890	54,798	55,112	77,834	132,946
	Jacks	11,343	399	1,500	1,899	66	1,364	6,378	7,742	267	1,369	1,636	1,631	7,747	9,378
2002	Adults	160,788 ^{a/}	24,574	10,495	35,069	2,351	23,667	54,225	77,892	3,516	11,410	14,926	27,183	65,635	92,818
	Jacks	9,226	126	870	996	29	1,294	1,529	2,823	1,037	2,338	3,375	2,331	3,867	6,198
2003	Adults	191,949	30,034	9,680	39,714	2,810	31,970	55,423	87,393	29,812	32,219	62,031	61,782	87,642	149,424
	Jacks	3,845	44	814	858	21	290	848	1,138	574	1,254	1,828	864	2,102	2,966
2004	Adults	78,943	25,803	4,003	29,806	2,325	10,582	10,711	21,293	12,399	13,120	25,519	22,982	23,831	46,813
	Jacks	9,646	168	2,741	2,909	71	937	846	1,783	1,044	3,839	4,883	1,980	4,685	6,665
2005	Adults	65,227	8,016	1,985	10,001	738	13,955	13,554	27,509	13,744	13,235	26,979	27,699	26,789	54,488
	Jacks	2,296	70	1,030	1,100	27	42	398	440	59	670	729	101	1,068	1,169
2006	Adults	61,374	10,283	62	10,345	1,344	11,604	14,264	25,868	7,918	15,899	23,817	19,522	30,163	49,685
	Jacks	26,935	415	5,527	5,942	149	2,386	6,516	8,902	4,076	7,866	11,942	6,462	14,382	20,844
2007	Adults	132,131	27,573	6,312	33,885	2,526	16,969	21,292	38,261	18,081	39,378	57,459	35,050	60,670	95,720
	Jacks	1,684	21	369	390	10	180	232	412	33	839	872	213	1,071	1,284
2008	Adults	70,554	22,259	1,919	24,178	1,974	9,101	19,020	28,121	4,451	11,830	16,281	13,552	30,850	44,402
	Jacks	25,247	641	4,308	4,949	144	2,130	9,425	11,555	801	7,798	8,599	2,931	17,223	20,154
2009	Adults	100,644	28,387	5,651	34,038	2,583	12,263	27,743	40,006	7,351	16,666	24,017	19,614	44,409	64,023
	Jacks	11,914	178	2,214	2,392	60	1,229	1,948	3,177	143	6,142	6,285	1,372	8,090	9,462
2010	Adults	90,860	29,887	3,035	32,922	2,661	10,278	15,170	25,448	7,774	22,055	29,829	18,052	37,225	55,277
	Jacks	16,640	428	1,831	2,259	74	1,069	1,811	2,880	1,432	9,995	11,427	2,501	11,806	14,307
2011	Adults	101,977	26,353	4,147	30,500	2,377	8,490	17,973	26,463	13,847	28,790	42,637	22,337	46,763	69,100
	Jacks	84,895	1,322	9,981	11,303	319	9,549	24,746	34,295	1,875	37,103	38,978	11,424	61,849	73,273
2012	Adults	295,322	95,386	13,876	109,262	8,578	38,478	72,786	111,264	17,461	48,757	66,218	55,939	121,543	177,482
	Jacks	21,433	177	3,875	4,052	94	1,537	8,289	9,826	92	7,369	7,461	1,629	15,658	17,287
2013	Adults	165,025	63,036	19,800	82,836	5,885	13,431	31,711	45,142	3,717	27,445	31,162	17,148	59,156	76,304
	Jacks	14,356	259	2,260	2,519	69	1,323	3,274	4,597	135	7,036	7,171	1,458	10,310	11,768
2014	Adults	160,396 ^{b/}	25,967	5,386	31,353	2,392	24,300	70,709	95,009	6,975	24,395	31,370	31,276	95,104	126,380
	Jacks	22,321	348	3,364	3,712	100	1,039	10,520	11,559	221	6,719	6,940	1,259	17,239	18,498
2015	Adults	77,821 ^{b/}	28,048	7,842	35,890	2,611	7,956	23,273	31,229	3,129	4,839	7,968	11,085	28,112	39,197
	Jacks	6,094	496	1,605	2,101	76	220	748	968	224	2,724	2,948	444	3,472	3,916
2016 ^{c/}	Adults	24,567 ^{b/}	5,159	1,310	6,469	485	2,436	10,363	12,799	1,142	3,561	4,703	3,578	13,924	17,502
	Jacks	2,786	160	161	321	17	151	554	705	401	1,340	1,741	552	1,894	2,446
GOAL	Adults														≥40,700 ^{d/e/}

a/ Total inriver run includes an estimated 30,550 fish that died prior to spawning in September 2002.

b/ Total inriver run includes fish collected from the Klamath and Trinity rivers by the Yurok and Hoopa Valley tribes, respectively, to test for the presence of the parasite *Ichthyophthirius multifiliis* during the following years: 2014 - 282 fish; 2015 - 124 fish; 2016 - 113 fish.

c/ Preliminary.

d/ In December 2011, Amendment 16 to the Salmon Fishery Management Plan was approved, which replaced the 35,000 spawning escapement floor with an S_{MSY} management objective of 40,700 natural area adult spaw ners. The 35,000 spaw ner floor was in effect from 1989-2007 and in 2011. In 2008-2010, fisheries were managed for a natural area spawning escapement of 40,700 adults under requirements of a rebuilding plan.

e/ Annual escapement goals may be more or less than S_{MSY} in some years due to meeting S_{ACL} requirements and de minimis fishing provisions.

TABLE B-5. Estimates of Yurok and Hoopa Valley reservation Indian gillnet Chinook harvest in numbers of fish.

Year	Area ^{a/}	Spring Run			Fall Run		
		Jack	Adult	Total	Jack	Adult	Total
2011	Commercial:Estuary	1	32	33	373	14,963	15,336
	Middle Klamath	0	0	0	28	255	283
	Subsistence:Estuary	8	402	410	60	2,404	2,464
	Middle Klamath	12	1,242	1,254	238	2,177	2,415
	Upper Klamath	9	909	918	227	2,070	2,297
	Trinity River	108	2,282	2,390	426	4,863	5,289
	Total	137	4,867	5,005	1,351	26,733	28,084
2012	Commercial:Estuary	0	856	856	0	82,724	82,724
	Middle Klamath	0	0	0	0	156	156
	Subsistence:Estuary	22	905	927	72	10,792	10,864
	Middle Klamath	3	908	911	29	1,719	1,748
	Upper Klamath	10	1,104	1,114	30	1,940	1,970
	Trinity River	21	2,647	2,668	55	4,145	4,200
	Total	56	6,421	6,477	186	101,476	101,662
2013	Commercial:Estuary	0	962	962	0	52,046	52,046
	Middle Klamath	0	9	9	0	64	64
	Subsistence:Estuary	7	2,327	2,334	205	5,458	5,663
	Middle Klamath	0	110	110	13	843	856
	Upper Klamath	0	336	336	25	1,606	1,631
	Trinity River	19	1,202	1,221	16	3,019	3,035
	Total	26	4,946	4,972	259	63,036	63,295
2014	Commercial:Estuary	0	0	0	0	11,431	11,431
	Middle Klamath	0	0	0	0	401	401
	Subsistence:Estuary	7	2,438	2,445	153	8,665	8,818
	Middle Klamath	0	64	64	72	1,584	1,656
	Upper Klamath ^{b/}	10	658	668	68	1,719	1,787
	Trinity River	85	1,733	1,818	65	2,440	2,504
	Total	102	4,893	4,995	358	26,240	26,597
2015	Commercial:Estuary	0	0	0	0	16,899	16,899
	Middle Klamath	0	0	0	0	163	163
	Subsistence:Estuary	0	1,816	1,816	405	5,609	6,014
	Middle Klamath	0	133	133	10	642	652
	Upper Klamath ^{b/}	17	628	645	35	2,818	2,853
	Trinity River ^{c/}	15	1,087	1,102	47	2,040	2,087
	Total	32	3,664	3,696	497	28,171	28,668
2016 ^{d/}	Commercial:Estuary	0	0	0	0	0	0
	Middle Klamath	0	0	0	0	0	0
	Subsistence:Estuary	0	620	620	121	3,185	3,306
	Middle Klamath	0	265	265	7	405	412
	Upper Klamath ^{b/}	0	116	116	14	930	944
	Trinity River	15	679	694	20	750	770
	Total	15	1,680	1,695	162	5,270	5,432

a/ Klamath River tribal fishing areas are defined as follows: Estuary: mouth to Highway 101 bridge; Middle Klamath: Highway 101 bridge to Surpur Creek; Upper Klamath: Surpur Creek to Weitchpec.

b/ Harvest includes fish collected from the Upper Klamath by the Yurok Tribe to test for the presence of the parasite *Ichthyophthirius multifiliis* during the following years: 2014 - 17 spring run and 282 fall run; 2015 - 26 spring run and 104 fall run; 2016 - 113 fall run.

c/ Harvest includes 20 fall run collected from the Trinity River by the Hoopa Valley Tribe to test for the presence of the parasite *Ichthyophthirius multifiliis*.

d/ Preliminary.

TABLE B-6. Shasta, Scott, and Salmon rivers fall Chinook salmon spawning escapement estimates in numbers of fish.

Year	Shasta River ^{a/}		Scott River ^{b/}		Salmon River ^{c/}	
	Adults	Jacks	Adults	Jacks	Adults	Jacks
1931-1935 ^{d/}	37,474	12,690	-	-	-	-
1936-1940	26,165	8,223	-	-	-	-
1941-1945	9,654	3,129	-	-	-	-
1946-1950	1,862	178	-	-	-	-
1951-1955	1,577	370	-	-	-	-
1956-1960	6,146	1,074	-	-	-	-
1961-1965	15,167	4,388	-	-	-	-
1966-1970	10,472	1,410	-	-	-	-
1971-1975	6,297	2,866	-	-	-	-
1976-1980 ^{e/}	6,506	3,194	2,950	1,527	1,467	583
1981-1985 ^{f/}	4,560	1,942	3,373	1,929	1,287	389
1986-1990 ^{g/}	2,403	318	4,010	1,512	3,361	537
1991-1995	1,891	184	3,779	568	3,086	376
1991	716	10	2,019	146	1,337	143
1992	520	66	1,873	965	778	547
1993	1,341	85	5,035	265	3,077	456
1994	3,363	1,840	2,358	505	3,216	277
1995	12,816	695	11,198	3,279	4,140	1,335
1996	1,404	46	11,952	145	5,189	274
1997	1,667	334	8,284	277	5,783	217
1998	2,466	76	3,061	266	1,337	116
1999	1,296	1,901	3,021	563	670	110
2000	11,025	1,271	5,729	524	1,544	228
2001	8,452	2,641	5,398	744	2,607	743
2002	6,432	386	4,261	47	2,669	78
2003	4,134	155	11,988	65	3,302	73
2004	833	129	445	22	282	51
2005	2,018	37	698	58	401	105
2006	789	1,395	3,007	1,953	1,278	791
2007	2,009	27	4,494	11	1,377	55
2008	2,741	3,621	3,445	1,228	1,749	650
2009	6,145	151	2,167	44	2,204	516
2010	1,259	87	2,114	394	2,478	356
2011	213	11,175	3,019	2,502	3,674	1,819
2012	27,600	1,944	7,569	1,783	3,561	829
2013	6,925	1,096	4,036	588	2,240	240
2014	14,412	3,945	10,419	2,051	2,706	527
2015	6,612	133	2,092	21	1,978	92
2016 ^{h/}	2,754	135	1,376	139	1,032	26

a/ 1930-1937, 1957-1987 and 1991-present, Shasta River weir counts were made near the river mouth. 1938-1955, weir counts were made 6.5 miles upstream from the mouth; considerable spawning occurred downstream from the weir in these years. In 1956, there were no weir counts conducted. 1988-1990, escapements were estimated from mark-recapture data (spawning surveys).

b/ 1991, estimates were from weir counts. 1992-2007, estimates were from carcass surveys. 2008-2013, estimates were from a combination of video weir counts and carcass surveys. 2014, estimates were from a combination of video weir counts, carcass surveys,

c/ 1991, estimates were from weir counts. 1992-2004 and 2006, estimates were from carcass surveys. 2005 and 2007-2010, estimates were generated from redd counts. 2011-present, estimates were from a combination of carcass surveys and redd counts.

d/ Commercial fishing in lower Klamath River closed by the state after the 1933 season.

e/ Gillnetting resumed in lower 20 miles of Klamath River by Hoopa Valley Indian Reservation fishers in 1976.

f/ Shasta adults include 276 females taken to Iron Gate Hatchery in 1981.

g/ Low water conditions appeared to hinder entry into the Shasta River in 1988.

h/ Preliminary.

TABLE B-7. Summary of California North Coast salmon spawning stock surveys in numbers of fish or redd counts.

Year	Cañon Creek ^{a/b/c/} (Mad River)		Sprowl Creek ^{a/b/d/} (Eel River)		Tomki Creek ^{e/} (Eel River)	Russian ^{f/} River	Lagunitas ^{g/} Watershed
	Chinook	Coho	Chinook	Coho	Chinook	Chinook	Coho Redds
1978-1979	-	-	534	23	-	-	-
1979-1980	-	-	572	0	2,410	-	-
1980-1981	-	-	164	4	317	-	-
1981-1982	23	0	121	0	1,153	-	-
1982-1983	68	0	169	1	1,807	-	-
1983-1984	137	0	82	0	-	-	-
1984-1985 ^{h/}	16	0	67	13	1,292	-	-
1985-1986	514	14	320	0	3,558	-	-
1986-1987 ^{h/}	90	3	307	13	2,173	-	-
1987-1988	117	29	2,187	4	3,666	-	-
1988-1989	69	7	339	12	556	-	-
1989-1990 ^{h/}	9	9	89	14	-	-	-
1990-1991	0	3	0	0	-	-	-
1991-1992 ^{h/}	8	0	159	0	3	-	-
1992-1993 ^{h/}	57	1	142	2	15	-	-
1993-1994	20	0	171	36	5	-	-
1994-1995	33	3	52	0	21	-	-
1995-1996 ^{h/}	93	4	136	8	69	-	86
1996-1997	129	4	106	8	84	-	254
1997-1998	55	1	97	0	39	-	253
1998-1999	66	0	79	11	45	-	184
1999-2000 ^{h/}	162	1	34	1	24	-	203
2000-2001 ^{h/}	79	3	12	0	50	1,445	204
2001-2002	45	6	136	25	162	1,383	286
2002-2003	402	1	267	17	5	5,474	158
2003-2004 ^{h/}	79	1	106	8	137	6,103	383
2004-2005 ^{h/}	86	0	199	36	115	4,788	496
2005-2006	270	0	201	13	77	2,572	190
2006-2007 ^{i/}	152	2	37	9	20	3,410	338
2007-2008 ^{i/}	99	1	70	19	69	1,963	148
2008-2009 ^{i/}	65	0	158	40	17	1,125	26
2009-2010 ^{i/}	36	0	314	2	15	1,801	51
2010-2011 ^{i/}	131	2	273	60	151	2,516	80
2011-2012 ^{h/i/}	108	1	60	221	101	3,172	130
2012-2013 ^{i/}	77	1	280	29	226	6,713	217
2013-2014 ^{i/j/}	11	10	16	130	6	3,145	188
2014-2015 ^{i/}	161	5	174	24	82	1,420 ^{k/}	140
2015-2016 ^{i/}	124	4	81	31	0	4,119 ^{k/}	226
2016-2017 ^{i/}	m/	m/	m/	m/	61	1,070 ^{n/}	126

a/ Survey frequency variable from year to year (between 1 and 10 surveys annually).

b/ Numbers reflect maximum annual counts of live fish and carcasses with adults and jacks combined. Counts are not shown in years where visibility is too poor to conduct surveys.

c/ Survey area was from mouth to falls (2 miles).

d/ Survey area was the mainstem and West Fork (4.5 miles).

e/ Total run size estimate including jacks and adults. Survey methodology changed in 2000-2001 to using index sites, and subsequent estimates are not comparable to previous estimates.

f/ Video counts of combined adults and jacks made at Mirabel Dam. Image quality may be affected by turbidity.

g/ Numbers reported are redd counts. Olema Creek is excluded.

h/ Low flows appeared to increase mainstem spawning and decrease tributary spawning for Cañon, Sprowl, and Tomki creeks.

i/ Cañon and Sprowl creek totals exclude fish unidentifiable to species due to poor visibility or advanced decomposition.

j/ Extremely low flows created passage barriers that precluded or severely limited salmon access to surveyed tributaries.

k/ Minimum count that is not comparable to other years. Mirabel Dam video counts were unavailable due to construction of a new counting facility. The number recorded is the sum of counts made at two facilities upstream of Mirabel Dam.

l/ Preliminary.

m/ No survey due to lack of funding.

n/ Minimum count that is not comparable to other years. Monitoring at the Mirabel Dam was complicated by operational challenges associated with implementation of a new counting facility in addition to adverse environmental conditions.

Atypical sampling techniques and shortened periods of operation limited estimates of passage.

TABLE B-8. Peak spawning counts in index areas for selected south/local migrating Oregon coastal fall Chinook stocks.

Year or Avg.	Deep Creek (Pistol River) (0.4 mile)		Big Emily Creek (Chetco River) (1.0 mile)		Bear Creek (Winchuck River) (0.8 mile)		Index (fish per mile)	
	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks
1961-1965	6	1	-	-	22	1	-	-
1966-1970	31	3	-	-	36	2	-	-
1971-1975	5	0	211	12	25	2	130	7
1976-1980	2	1	124	32	18	1	65	14
1981-1985	24	2	62	10	13	1	45	6
1986-1990	11 ^{a/}	2 ^{a/}	58	12	10	2	35	7
1991-1995	12	9	74	10	16	2	46	10
1996	81	9	79	7	27	5	85	10
1997	17	1	60	5	14	1	41	3
1998	46	11	52	3	19	2	53	7
1999	58	3	12	1	10	0	36	2
2000	26	3	63	6	11	1	45	5
2001	25	2	49	2	9	3	38	3
2002	62	7	70	3	15	9	67	9
2003	20	7	28	5	12	1	27	6
2004	97	19	29	4	11	1	62	11
2005	15	2	16	3	1	0	15	2
2006	22	3	24	2	5	1	23	3
2007	44	0	14	4	6	1	29	2
2008	10	1	15	29	3	5	13	16
2009	20	1	91	11	35	9	66	10
2010	14	2	75	5	26	2	52	4
2011	12	2	49	6	17	3	35	5
2012	8	2	72	11	5	2	39	7
2013	10	5	38	11	3	1	23	8
2014	11	2	52	9	12	3	34	6
2015	34	1	77	7	22	2	60	5
2016 ^{b/}	5	1	42	5	28	2	34	4

a/ Pistol River was subject to several "slope failures" in 1986 resulting in severe short-term alterations in gravel bars and spawning index areas. Considerable debris and siltation severely limited Chinook surveys resulting in "0" counts in Deep Creek index areas through December.

b/ Preliminary.

TABLE B-9. Counts of natural and hatchery spring Chinook salmon at Gold Ray Dam on the Rogue River and at Winchester Dam on the North Umpqua River in thousands of fish.

Year or Avg.	Gold Ray Dam, Rogue River ^{a/}				Winchester Dam, Umpqua River ^{a/}			
	Natural ^{b/}	Hatchery	Total	Jacks ^{c/}	Natural	Hatchery	Total	Jacks ^{c/}
1942-1945	35.1	-	35.1	4.9	-	-	-	-
1946-1950	24.7	-	24.7	3.0	2.7	-	2.7	0.5
1951-1955	21.4	-	21.4	4.2	4.2	0.9	4.9	1.0
1956-1960	19.8	-	19.8	3.4	4.4	0.9	5.4	0.7
1961-1965	37.7	-	37.7	6.4	6.4	1.8	8.2	1.8
1966-1970	33.9	-	33.9	5.5	7.2	4.5	11.8	3.2
1971-1975	26.0	0.8	26.8	5.0	7.3	6.2	13.5	3.8
1976-1980	25.8	6.3	32.1	7.0	5.8	3.9	9.7	3.2
1981-1985	16.4	6.2	22.6	7.3	5.2	3.5	8.7	2.5
1986-1990	28.5	39.2	67.7	14.9	7.5	4.1	11.6	2.5
1991-1995	9.7	18.4	28.0	3.9	3.5	2.5	6.0	1.1
1996	10.3	26.3	36.6	3.4	4.3	2.2	6.5	1.0
1997	9.6	32.2	41.8	2.8	3.3	2.5	5.8	16.0
1998	3.7	12.3	16.0	2.8	4.0	2.9	6.9	1.5
1999	6.0	15.0	21.0	1.9	2.8	4.6	7.4	3.1
2000	3.4	26.8	30.2	3.1	3.4	9.2	12.6	4.6
2001	9.3	23.9	33.2	2.3	6.1	14.6	20.7	4.7
2002	7.0	40.8	47.8	3.2	6.8	17.4	24.2	3.1
2003	19.3	22.6	41.9	3.0	7.9	12.3	20.2	4.1
2004	13.3	26.0	39.3	3.8	5.4	10.1	15.4	2.5
2005	5.8	12.3	18.1	1.3	3.6	5.5	9.0	1.3
2006	4.8	7.0	11.7	2.2	2.6	3.5	6.1	1.7
2007	3.5	7.7	11.2	1.6	2.4	4.2	6.6	1.7
2008	4.0	8.6	12.5	3.8	2.6	5.1	7.7	2.7
2009	5.2	8.3	13.6	2.3	5.3	9.0	14.3	4.8
2010	9.6	11.5	21.1	1.9	6.1	7.8	13.9	3.8
2011	9.9	NA	NA	NA	8.9	7.7	16.6	5.4
2012	14.4	NA	NA	NA	8.2	8.4	16.7	3.6
2013	12.1	NA	NA	NA	7.2	7.9	15.2	2.6
2014	5.6	NA	NA	NA	6.4	8.2	14.6	4.5
2015	15.3	NA	NA	NA	4.8	4.8	9.6	1.9
2016 ^{d/}	9.6	NA	NA	NA	4.3	4.4	8.7	2.6

a/ Jacks included in natural, hatchery, and total counts.

b/ Gold Ray Dam removed October, 2010. Natural estimate derived using relationship of 2004-2010 spawning ground surveys to Gold Ray Dam passage. Estimate includes an unknown number of jacks.

c/ Jacks include all Chinook less than 20 inches prior to 1978 and all Chinook less than 24 inches beginning in 1978.

d/ Preliminary.

TABLE B-10. Rogue River fall Chinook carcass counts and Huntley Park passage of naturally produced fish. .

Year or Avg.	Carcass Counts ^{a/}			Huntley Park Passage		
	Adults	Jacks	Total	Adults	Jacks	Total
1977-1980	5,256	1,004	6,259	99,881	30,425	130,307
1981-1985	3,906	1,009	4,915	55,907	25,683	81,590
1986-1990	16,797	1,527	18,324	84,435	29,553	113,988
1990-1995	4,387	316	4,703	45,489	15,499	60,988
1996	2,448	121	2,569	48,763	15,682	64,445
1997	1,643	68	1,711	41,072	17,788	58,860
1998	3,601	40	3,641	40,939	6,793	47,732
1999	2,493	157	2,650	37,587	18,763	56,350
2000	3,366	226	3,592	87,783	12,918	100,701
2001	6,380	772	7,152	76,376	26,650	103,026
2002	11,836	905	12,741	154,143	42,806	196,948
2003	14,620	983	15,603	204,793	19,347	224,139
2004	5,326 ^{b/}	250	5,576	132,296	19,785	152,081
2005	-	-	-	56,474	4,849	61,323
2006	-	-	-	35,075	6,770	41,845
2007	-	-	-	43,493	3,284	46,778
2008	-	-	-	24,309	15,186	39,495
2009	-	-	-	60,223	13,660	73,883
2010	-	-	-	49,390	14,459	63,849
2011	-	-	-	67,750	30,125	97,875
2012	-	-	-	69,060	10,400	79,460
2013	-	-	-	81,655	23,027	104,682
2014	-	-	-	53,546	11,901	65,447
2015	-	-	-	30,462	7,841	38,303
2016 ^{c/}	-	-	-	27,278	16,762	44,040

a/ Surveys were discontinued in 2005.

b/ In 2004, one of the standard survey sections was not sampled. In the previous two years, this section accounted for 33 percent of the total adult carcass counts.

c/ Preliminary.

TABLE B-11. Peak counts for north migrating Oregon coastal Chinook stocks on selected fall Chinook spawning index stream surveys.

Year or Average	River Tributaries																				
	Humbug (Nehalem) (1.0 mile)		Tillamook (1.8 mile)		Niagara (Nestucca) (0.4 mile)		Sunshine (Siletz) (1.2 mile)		Grant (Yaquina) (1.7 mile)		Buck (Alsea) (1.0 mile)		Siuslaw (Lake) (0.8 mile)		W.F. Millicoma (Coos) (0.5 mile)		Salmon (Coquille) (0.8 mile)		Index Fish Per Mile		
	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults
1961-1965	95	22	116	25	72	5	59	13	43	13	28	9	61	15	2	1	23	13	54	13	
1966-1970	57	3	93	27	47	6	30	5	61	13	26	16	134	40	6	1	26	9	52	13	
1971-1975	101	26	55	5	55	4	40	5	64	8	17	3	94	49	18	13	15	5	50	14	
1976-1980	143	12	61	6	32	2	47	5	127	23	22	3	166	39	31	28	31	10	72	14	
1981-1985	163	18	95	9	78	6	55	2	178	24	47	6	149	31	6	2	45	7	89	11	
1986-1990	136	4	154	8	118	3	54	2	240	24	100	6	427	44	15	5	49	6	141	11	
1991-1995	65	2	92	6	103	3	60	2	153	10	44	4	395	18	49	7	86	5	116	6	
1996	86	2	60	0	40	0	122	0	a/	a/	62	2	614	29	92	3	29	3	147	5	
1997	162	1	47	1	24	1	60	0	a/	a/	49	3	325	9	12	0	108	3	105	2	
1998	93	2	42	1	42	0	83	3	a/	a/	78	0	176	2	33	10	193	7	99	3	
1999	116	3	38	1	60	2	36	3	a/	a/	55	5	478	14	14	3	136	8	124	5	
2000	175	3	40	3	32	2	63	1	a/	a/	38	3	205	18	5	0	83	9	85	5	
2001	220	4	62	6	53	7	195	3	a/	a/	95	6	711	49	30	5	153	22	203	14	
2002	311	1	137	3	124	1	221	1	a/	a/	118	6	834	22	51	12	218	9	269	7	
2003	215	6	135	5	27	1	120	3	341	7	145	1	1,230	37	209	31	147	2	279	10	
2004	196	3	71	2	76	1	19	0	238	11	91	5	988	16	40	4	101	5	198	5	
2005	124	3	a/	a/	74	2	54	1	a/	a/	40	1	302	5	17	2	61	2	118	3	
2006	31	0	65	0	67	0	82	0	a/	a/	22	0	165	0	7	1	129	8	76	1	
2007	91	1	34	2	20	0	6	0	a/	a/	17	1	132	2	14	3	2	0	42	1	
2008	73	1	15	2	13	0	8	0	a/	a/	11	2	135	15	20	5	28	8	40	4	
2009	92	13	17	0	2	0	32	2	a/	a/	50	0	179	26	34	9	a/	a/	61	7	
2010	57	0	24	1	27	2	56	3	a/	a/	75	6	301	7	46	14	a/	a/	87	5	
2011	164	5	96	4	15	1	29	0	a/	a/	46	2	329	21	53	1	a/	a/	109	5	
2012	144	3	38	2	34	0	57	3	a/	a/	56	4	611	17	38	1	a/	a/	146	4	
2013	384	10	89	2	78	3	47	2	166	9	41	3	625	6	156	20	a/	a/	189	7	
2014	176	2	55	0	54	2	109	1	216	40	60	7	556	21	92	6	a/	a/	157	9	
2015	237	1	a/	a/	31	1	122	1	391	3	130	2	625	2	93	3	a/	a/	247	3	
2016 ^{b/}	154	2	a/	a/	24	0	162	3	159	9	39	1	224	1	19	0	a/	a/	118	2	

a/ Surveys were not conducted.

b/ Preliminary.

TABLE B-12. Estimates of minimum inriver run size, catch, and escapement in numbers of Columbia River adult spring Chinook destined for areas below Bonneville Dam.

Year or Average	Minimum Inriver Run Size	Low er River Catch ^{a/}		Tributary Runs							Hatchery Escapement ^{d/}
				Willamette			Sandy	Cow litz ^{c/}	Lew is ^{c/}	Kalama	
				Commercial	Sport	Run Size					
1971-1975	84,000	13,800	3,700	53,300	17,000	34,300	--	11,900	200	1,100	20,000
1976-1980	92,160	6,160	2,720	51,240	14,380	31,420	975	19,680	2,980	2,020	26,580
1981-1985	130,000	6,680	1,840	67,700	15,620	35,580	1,940	19,960	4,220	3,740	28,840
1986-1990	175,563	11,980	4,330	103,100	21,140	58,760	2,425	10,691	11,340	1,877	32,460
1991-1995	119,467	3,680	2,300	66,039	18,180	32,580	4,920	6,801	5,870	1,976	23,700
1996	54,241	149	0	33,358	6,100	20,400	3,801	1,787	1,730	627	15,900
1997	53,345	300	0	34,536	1,900	26,200	4,410	1,877	2,196	505	18,100
1998	52,460	100	49	43,497	2,800	33,100	3,577	1,055	1,611	407	22,900
1999	62,948	349	0	52,584	5,500	38,900	3,585	2,069	1,753	977	25,900
2000	72,192	1,149	249	55,788	9,000	37,594	3,641	2,199	2,515	1,418	24,100
2001	100,666	3,700	4,300	78,436	7,600	52,700	5,329	1,609	3,777	1,796	29,000
2002	149,958	7,900	5,800	120,161	10,800	83,100	5,905	5,215	3,514	2,912	58,300
2003	163,303	1,900	8,200	123,355	13,500	87,600	5,615	15,954	5,040	4,556	50,286
2004	195,835	8,500	7,500	143,240	12,000	95,200	12,680	16,511	7,475	4,286	70,880
2005	85,947	3,400	4,400	59,471	5,800	35,453	7,668	9,379	3,512	3,367	35,865
2006	90,992	3,000	2,900	59,311	7,200	36,851	4,382	6,963	7,301	5,458	38,623
2007	69,259	1,900	2,600	39,943	5,700	22,818	2,813	3,975	7,596	8,030	27,756
2008	43,926	100	700	26,615	4,600	14,151	5,994	2,986	2,215	1,623	18,407
2009	49,710	349	2,000	35,432	4,500	25,795	2,429	5,977	1,493	404	22,496
2010	153,327	3,349	6,200	107,675	22,700	65,293	7,652	8,830	2,337	918	42,646
2011	101,941	2,349	2,500	76,549	22,800	43,748	5,721	5,834	1,311	778	31,030
2012	93,944	2,349	3,700	63,037	15,800	35,899	5,038	12,617	1,895	862	32,106
2013	69,745	1,800	1,798	44,880	7,400	27,897	5,700	9,536	1,597	1,014	26,892
2014	70,856	1,300	2,700	49,765	7,900	30,071	5,971	10,461	1,482	1,013	27,783
2015	127,737	2,649	4,266	84,532	13,552	53,088	4,000	23,931	1,006	3,149	52,237
2016 ^{e/}	86,836	1,200	2,600	47,225	6,000	30,317	4,151	22,407	468	3,980	30,853

a/ Includes some upriver origin spring Chinook through 1980. Beginning in 1981, the low er river catch of low er river spring Chinook is based on mark recoveries rather than the timing of the catch, as in previous years. Since 1986, GSI and VSI techniques have been used for stock composition analysis. Commercial catch includes Select Area fisheries. Sport catch is mainstem Columbia River, does not include tributaries. Catch may include small numbers of jacks. Sport fishery closed in 1995 to 1997.

b/ Prior to 1988, the escapement goal at Willamette Falls w as 30,000 to 35,000. Beginning in 1988, the goal w as dependent on run size under the Willamette Basin Fish Management Plan. Since 2001, hatchery escapement targets are set in the Fisheries Management and Evaluation Plan developed by ODFW. Low er Willamette sport catch may include small numbers of jacks.

c/ Includes hatchery escapement, tributary recreational catch, and natural spawning escapement for 1975 to present. The years 1971-1973 are based on using the 1975-1976 Cow litz River recreational fishery adult harvest rates.

d/ Includes hatcheries operated by all agencies. Values are included in the totals for the tributary runs.

e/ Preliminary.

TABLE B-13. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult spring Chinook destined for areas above Bonneville Dam^{a/} (Includes Snake River summer Chinook.)

Year or Avg.	Inriver Run Size	Low er River Catch ^{b/}		Bonneville Dam Count	Zone 6 Sport	Mainstem Treaty Indian Catch			Snake River Escapement ^{e/}		Rock Island Dam Count		Hatchery Escapement ^{f/}
		Commercial	Sport			Commercial ^{c/d/}	Ceremonial/ Subsistence	Hatchery	Wild	Hatchery	Wild		
1976-1980	55,960	185	0	55,775	-	1,973	1,714	2,903	6,413	2,800	2,241	2,613	
1981-1985	70,440	1,706	393	68,342	925	3,255	3,947	7,508	10,787	4,853	3,217	11,599	
1986-1990	108,167	2,378	1,356	104,433	3,366	6,011	10,269	19,648	10,192	5,928	3,042	19,384	
1991-1995	63,404	511	710	62,183	1,227	2,550	8,628	7,097	7,015	5,750	1,422	11,522	
1996	55,552	46	10	55,496	40	1,783	7,955	3,179	3,806	1,751	353	5,228	
1997	124,321	53	16	124,252	7,387	3,709	15,827	39,509	5,215	4,809	696	27,531	
1998	44,308	27	14	44,267	1,679	1,454	3,826	6,928	7,366	2,473	343	8,666	
1999	43,067	28	16	43,023	211	1,164	3,615	3,703	2,856	3,161	297	5,773	
2000	186,715	251	124	186,340	11,497	8,379	20,815	29,568	8,255	12,783	829	21,428	
2001	440,336	2,538	22,719	415,079	57,745	51,177	31,863	141,121	45,337	31,329	4,315	50,094	
2002	335,214	10,151	16,268	308,795	28,452	30,994	26,885	67,312	30,248	18,706	1,658	33,804	
2003	242,605	3,493	9,611	229,501	23,534	15,143	20,355	54,951	32,365	11,656	1,205	24,577	
2004	221,675	6,233	17,146	198,296	25,500	15,914	18,041	58,624	21,401	9,562	1,692	26,799	
2005	106,900	2,289	7,224	97,387	7,138	4,964	12,013	22,932	10,127	13,385	2,833	21,092	
2006	132,583	2,238	4,187	126,158	5,256	5,081	18,303	20,248	9,483	10,461	1,120	16,998	
2007	86,247	1,491	3,927	80,829	6,925	4,127	11,347	23,308	7,100	10,170	782	15,858	
2008	178,629	6,292	19,612	151,895	22,145	19,681	14,951	55,587	17,587	19,737	1,127	35,468	
2009	169,296	4,543	15,246	147,489	18,608	8,523	27,414	49,836	14,957	17,000	1,620	31,064	
2010	315,345	9,281	23,535	277,389	43,398	34,375	38,282	97,770	26,643	23,134	2,105	52,647	
2011	221,158	3,930	9,506	205,431	28,526	8,925	29,482	72,262	24,562	15,400	3,055	29,808	
2012	203,090	4,821	10,422	186,448	24,936	10,512	28,858	54,701	25,681	11,573	3,294	23,152	
2013	123,136	1,853	5,343	112,934	8,626	4,175	13,977	29,538	14,588	7,041	1,637	15,603	
2014	242,635	4,098	13,572	224,946	28,340	19,934	22,770	62,627	32,124	9,647	2,263	24,188	
2015	288,994	6,818	15,689	265,558	40,401	28,454	22,591	97,921	21,910	25,658	6,090	35,315	
2016 ^{g/}	187,816	3,508	10,167	172,614	24,274	9,839	24,603	58,214	15,946	17,455	1,191	25,406	
GOAL				115,000				35,000 ^{h/}	25,000 ^{h/}				

a/ Spring Chinook accounting ends on June 15. Chinook formerly managed separately as Snake River summer Chinook are now grouped with all upriver spring Chinook because of overlap in run timing. Snake River summer Chinook have been moved from Table B-14 to this table.

b/ Includes some low er river origin spring Chinook through 1980. Beginning in 1981, the low er river catch of upriver spring Chinook is based on mark recoveries rather than timing of the catch as in previous years. Since 1986, GSI techniques have been used for stock composition analysis. Commercial catch includes estimated miscellaneous fishery-related impacts from test fisheries, commercial shad fisheries, and Select Area commercial gillnet fisheries beginning in 1979 and catch and release mortalities from selective fisheries beginning in 2001. Sport catch includes mainstem fisheries between Buoy 10 and Bonneville Dam.

c/ Spring season fishery closed in 1975, 1976, and from 1978 to 2000. Spring Chinook landed during those years were from the winter season fishery.

d/ Includes below Bonneville Dam C&S starting in 2008.

e/ Snake River escapement at Low er Granite relative to escapement goals. Wild escapement goal includes Snake Basin harvest below Low er Granite Dam, Low er Granite count of wild escapement, and Tucannon wild return. Hatchery escapement goal includes Low er Granite count of hatchery escapement only.

f/ Hatchery rack and trap returns above Low er Granite Dam plus Tucannon and hatchery returns above Priest Rapids Dam (Wenatchee, Entiat, and Methow) plus Ringold. Does not include Leavenworth or East Bank.

g/ Preliminary.

h/ U.S. v. Oregon goal; not an FMP goal: wild escapement goal includes Snake Basin harvest below Low er Granite Dam, Low er Granite count of wild escapement, and Tucannon wild return. Hatchery escapement goal includes Low er Granite count of hatchery escapement only.

TABLE B-14. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult upper Columbia summer Chinook destined for areas above Bonneville Dam^{a/} (Excludes Snake River summer Chinook.)

Year or Avg.	Inriver Run Size	Lower River Catch ^{b/}		Bonneville Dam		Mainstem Treaty Indian Catch		Rock Island Dam Count	Upstream of McNary Dam	Tribal Harvest upstream of McNary Dam
		Commercial ^{c/}	Sport	Count	Zone 6 Sport	Commercial ^{d/}	Ceremonial/ Subsistence			
1976-1980	22,320	81	-	22,239	-	38	1,047	16,326	0	0
1981-1985	16,709	55	-	16,654	-	304	669	10,010	0	0
1986-1990	21,036	71	8	20,957	-	708	194	14,563	0	0
1991-1995	12,984	30	15	12,939	-	-	227	10,748	0	0
1996	12,080	15	34	12,031	0	0	374	9,417	0	0
1997	17,709	6	16	17,687	0	0	270	10,063	0	0
1998	15,536	1	27	15,508	0	0	335	11,225	0	0
1999	21,867	1	51	21,815	0	0	395	18,588	0	0
2000	22,595	0	17	22,578	0	0	209	20,218	1,092	442
2001	52,960	1	64	52,895	0	150	542	48,844	4,380	2,346
2002	89,524	8	1,447	88,069	113	74	2,019	86,825	4,535	2,720
2003	83,058	36	1,945	81,077	415	3,587	710	81,543	5,187	2,178
2004	65,623	222	1,246	64,155	260	8,004	390	62,311	5,849	1,874
2005	60,272	2,787	1,621	55,864	423	6,415	1,227	54,033	2,192	894
2006	77,573	4,828	4,926	67,819	276	15,771	548	61,821	3,864	1,340
2007	37,035	1,122	2,214	33,699	136	4,564	811	28,222	3,900	1,070
2008	55,532	1,429	2,140	51,963	942	8,317	712	38,171	2,597	1,861
2009	53,881	2,546	2,341	48,994	175	10,441	1,209	44,295	2,458	1,190
2010	72,346	4,740	2,738	64,638	435	15,569	0 ^{e/}	47,220	2,481	3,524
2011	80,574	5,004	5,576	69,994	303	20,645	0 ^{e/}	44,432	5,546	1,208
2012	58,300	1,715	3,281	53,304	231	7,824	0 ^{e/}	52,184	3,980	3,400
2013	67,603	1,987	2,058	63,508	173	13,272	125 ^{e/}	68,380	2,899	3,452
2014	78,254	2,838	2,385	72,871	308	19,179	210 ^{e/}	77,982	2,875	3,574
2015	126,882	4,043	6,152	116,657	609	37,733	30 ^{e/}	88,691	5,000	10,694
2016 ^{f/}	91,048	3,050	3,706	84,192	361	20,415	30 ^{e/}	79,253	4,418	4,199
GOAL	29,000 ^{g/}							12,143 ^{h/}		

a/ Summer Chinook accounting begins on June 16. Chinook managed as Snake River summer Chinook prior to 2004 are now grouped with all upriver spring Chinook because of overlap in run timing. As of 2004, they have been moved from this table to Table B-13.

b/ Includes estimated miscellaneous fishery-related impacts from mainstem recreational fisheries, test fisheries, commercial shad fisheries, and terminal area commercial gillnet fisheries beginning in 1979. Includes release mortality in selective fisheries beginning in 2002.

c/ No directed commercial summer Chinook fishery from 1964 to 2003. Landings during those years are bycatch from commercial shad and sockeye fisheries.

d/ No directed commercial summer Chinook fishery from 1965 to 2003. Landings during those years are bycatch from commercial sockeye fishery.

e/ Includes natural spawners in Wenatchee, Ential, Chelan, Methow, and Okanogan rivers. Does not include unknown numbers of natural spawners in mainstem Columbia.

e/ No ceremonial and subsistence permits issued, sales of platform and hook-and-line subsistence catch allowed and included in commercial catch.

g/ Incomplete estimates of natural spawners.

f/ Preliminary.

g/ Comanager goal established in 2004 associated with regrouping Snake River summer Chinook with Snake River spring Chinook.

h/ MSY spawning escapement objective adopted in 2011 under Amendment 16 based on Chinook Technical Committee Report 99-3.

TABLE B-15. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult Spring Creek Hatchery (SCH) stock fall Chinook^{a/}

Year or Average	Inriver Run Size	Harvest				Escapement	
		Bonneville Dam Count	Treaty Indian Commercial and Subsistence	Non-Indian		Natural	Hatchery ^{c/}
				Commercial ^{b/}	Sport		
1971-1975	105,700	67,600	29,000	37,900	300	2,900	17,000
1976-1980	116,522	83,000	32,533	31,794	131	3,884	21,972
1981-1985	63,342	49,780	24,637	9,747	580	2,711	15,955
1986-1990	16,673	10,200	6,080	2,920	820	1,500	4,600
1991-1995	30,192	25,564	11,360	2,067	1,280	1,460	9,700
1996	33,137	30,300	21,100	1,700	900	1,300	7,700
1997	27,377	23,300	10,329	0	2,981	4,612	8,688
1998	20,158	17,100	6,592	197	2,556	2,731	3,224
1999	50,189	46,800	28,197	258	2,617	3,338	14,488
2000	20,527	18,400	7,903	1,141	897	4,085	6,257
2001	124,951	115,800	52,124	3,693	3,302	5,063	36,663
2002	158,299	145,200	48,350	11,485	6,654	8,069	67,436
2003	180,592	161,735	48,204	9,850	7,659	27,894	56,935
2004	175,245	164,482	59,941	3,690	5,614	14,084	68,932
2005	103,526	98,322	49,471	3,981	3,049	4,667	31,977
2006	27,917	21,197	13,400	1,774	654	1,931	9,889
2007	14,549	13,072	5,034	474	306	2,870	5,899
2008	93,860	82,331	43,933	7,100	3,526	2,765	33,722
2009	48,970	40,268	21,622	5,262	1,523	4,103	13,680
2010	130,767	114,666	58,824	11,236	3,299	4,843	45,279
2011	70,096	53,655	28,801	12,196	1,242	10,283	17,092
2012	56,947	44,076	14,223	7,983	3,386	5,063	26,255
2013	86,707	62,525	29,746	15,823	3,200	10,074	16,307
2014	127,000	81,030	54,740	22,813	5,536	16,655	24,112
2015	166,370	111,900	67,922	22,767	8,669	22,319	43,246
2016 ^{d/}	47,744	30,159	24,564	9,510	1,730	3,080	8,860
GOAL							7,000 ^{e/}

a/ Based on Columbia River fall Chinook database, WDFW, unpublished.

b/ Includes Select Area fisheries.

c/ Does not include strays to hatcheries below Bonneville Dam. Includes fall Chinook tules trapped at Bonneville Dam, 1986-1994 and 1998.

d/ Preliminary estimates based on inseason run updates.

e/ Escapement goal was changed from 8,200 fish to 7,000 fish, or 4,000 females, in 1994.

TABLE B-16. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult lower river hatchery (LRH) stock fall Chinook.^{a/}

Year or Average	Inriver Run Size	Harvest			Escapement	
		Treaty Indian Commercial and Subsistence	Non-Indian		Natural	Hatchery ^{d/}
			Commercial ^{b/}	Sport ^{c/}		
1971-1975	175,900	0	78,100	5,400	49,200	43,200
1976-1980	145,377	20	59,400	4,380	36,940	44,620
1981-1985	107,163	851	25,604	4,486	37,755	36,846
1986-1990	199,938	655	93,794	17,420	38,774	48,821
1991-1995	55,519	238	2,871	4,998	19,915	27,419
1996	75,495	360	3,899	4,641	23,909	42,662
1997	57,393	0	2,369	7,704	22,663	24,657
1998	45,265	0	844	4,519	16,713	23,035
1999	39,933	0	2,234	6,118	12,551	19,030
2000	26,997	0	860	3,212	10,714	12,211
2001	94,331	0	4,428	7,443	39,434	42,996
2002	156,444	279	9,928	15,353	80,670	50,138
2003	154,983	0	9,216	14,213	97,089	34,465
2004	109,055	475	13,122	11,870	53,399	30,103
2005	78,293	186	9,219	10,140	33,598	25,042
2006	58,319	237	5,919	9,449	26,633	15,957
2007	32,689	0	1,308	6,123	10,208	15,050
2008	61,559	502	5,701	6,543	21,528	27,265
2009	76,738	0	10,259	11,295	23,746	31,436
2010	102,955	0	14,981	13,046	33,962	40,964
2011	108,961	223	15,417	17,248	28,334	47,735
2012	84,978	457	16,340	16,362	21,556	30,259
2013	104,777	574	10,578	19,420	40,411	33,662
2014	101,906	135	12,810	16,347	33,264	39,333
2015	128,705	42	15,146	15,142	34,588	63,784
2016 ^{e/}	142,540	0	13,450	16,360	50,200	62,530
GOAL						Hatchery Production

a/ Based on Columbia River fall Chinook database, WDFW, unpublished.

b/ Includes Select Area fisheries.

c/ Includes tributary catches.

d/ Does not include strays to hatcheries above Bonneville Dam or fish trapped at Bonneville Dam.

e/ Preliminary estimates based on inseason run updates.

TABLE B-17. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult lower river wild (LRW) stock fall Chinook.^{a/}

Year or Average	Inriver Run Size	Harvest			Escapement	
		Treaty Indian Commercial and Subsistence	Non-Indian		Natural	Hatchery
			Commercial	Sport ^{b/}		
1971-1975	59,700	0	27,900	2,100	29,400	100
1976-1980	26,963	20	11,720	1,220	13,720	240
1981-1985	16,287	0	1,940	1,320	12,480	480
1986-1990	32,600	60	10,689	3,251	18,383	181
1991-1995	14,761	0	2,159	2,433	10,101	68
1996	14,566	0	325	234	13,914	93
1997	12,323	0	0	1,082	11,241	0
1998	7,253	0	0	667	6,493	93
1999	3,349	0	18	0	3,257	74
2000	10,234	0	604	0	9,422	208
2001	15,721	0	1,382	729	13,610	0
2002	25,171	161	1,801	3,245	19,654	50
2003	26,021	0	3,391	4,962	17,668	0
2004	22,327	0	2,343	3,638	16,346	0
2005	16,767	0	2,240	2,632	11,725	170
2006	18,105	0	2,546	2,801	12,758	0
2007	4,276	0	258	138	3,857	23
2008	7,120	0	0	937	6,183	0
2009	7,533	0	293	347	6,893	0
2010	10,898	0	0	237	10,661	0
2011	15,180	0	674	3,636	10,601	269
2012	12,112	0	1,880	766	9,407	59
2013	25,841	0	2,095	5,071	18,675	0
2014	25,774	0	767	2,107	22,900	0
2015	32,403	0	3,126	2,106	27,169	2
2016 ^{c/}	22,420	0	850	4,500	17,070	0
GOAL					5,700 ^{d/}	

a/ Based on Columbia River fall Chinook database, WDFW, unpublished.

b/ Includes tributary catches.

c/ Preliminary estimates based on inseason run updates.

d/ Escapement objective is for North Lewis River, but escapement numbers include other fish. The escapement objective for the North Lewis River was met for all years except 1998, 1999, 2007, 2008, and 2009.

TABLE B-18. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult upriver bright (URB) stock fall Chinook destined for areas above McNary Dam and the Deschutes River.^{a/}

Year or Average	Harvest					Escapement							
	Inriver Run Size	Bonneville Dam Count	Treaty Indian Commercial and	Non-Indian		Natural Esc. ^{c/}	Upper Columbia		Deschutes above/below		Ice Harbor Dam Count	Total Lower Granite Count	SRW L. Granite Dam Count ^{f/}
				Commercial	Sport ^{b/}		Esc. ^{d/}	Hatchery	Sheares	McNary Dam Count			
1971-1975	110,500	80,400	35,100	29,300	3,100	36,800	NA	2,600	NA	39,500	5,600	-	-
1976-1980	92,301	72,360	32,160	19,180	980	29,480	NA	1,980	NA	31,080	1,160	532	532
1981-1985	111,873	94,120	26,700	13,880	3,020	46,060	NA	8,100	NA	51,042	1,583	586	450
1986-1990	291,407	222,337	100,379	61,499	13,613	90,709	NA	13,231	7,081	107,252	4,369	691	289
1991-1995	105,302	99,028	20,813	5,000	5,095	51,424	NA	9,419	7,342	61,362	3,352	903	473
1996	143,155	135,499	29,868	3,717	8,918	59,598	NA	15,905	10,233	73,929	3,810	1,308	639
1997	161,735	152,941	42,637	1,429	11,506	68,889	NA	13,114	20,208	67,192	2,752	1,451	797
1998	141,575	137,509	33,760	770	8,137	54,297	NA	18,798	15,908	63,791	4,220	1,909	306
1999	165,889	155,756	38,822	2,133	15,173	48,372	NA	30,272	7,389	78,356	6,586	3,381	905
2000	156,595	145,104	36,501	5,551	10,545	66,512	58,513	10,841	4,985	66,378	6,509	3,602	1,148
2001	232,366	219,801	35,422	8,151	12,648	92,194	72,738	21,143	12,817	110,517	13,635	8,915	5,163
2002	279,548	257,711	57,405	6,881	25,651	123,446	99,728	17,299	11,907	141,682	15,319	12,351	2,116
2003	374,154	341,208	49,060	15,930	25,918	176,865	146,437	12,356	13,413	179,970	20,903	11,732	3,856
2004	362,804	336,585	46,566	19,760	22,276	148,028	122,417	23,137	13,297	170,648	21,100	14,960	2,983
2005	278,539	256,119	45,776	8,464	23,980	115,612	98,777	23,299	14,936	131,550	14,677	11,170	2,602
2006	230,390	132,632	44,565	8,757	14,515	79,852	62,567	15,197	10,955	89,081	10,272	8,048	2,483
2007	114,065	105,626	18,878	2,833	10,860	51,004	34,201	7,267	6,361	57,268	13,408	10,195	2,016
2008	197,295	183,242	39,988	7,574	14,323	75,421	51,757	23,468	6,908	101,869	21,896	16,628	2,222
2009	212,047	190,695	58,616	11,601	17,310	87,585	62,428	15,762	6,429	104,544	24,824	15,167	1,431
2010	324,908	300,319	59,115	13,536	24,624	163,998	114,230	28,684	9,275	146,924	46,541	41,815	9,583
2011	322,233	280,377	80,288	22,215	34,172	119,959	93,510	44,136	17,117	161,191	31,405	25,249	7,895
2012	294,947	255,420	61,422	16,895	39,338	122,576	94,925	51,326	17,624	173,472	38,830	34,688	12,797
2013	784,116	702,503	162,964	47,636	67,186	344,625	305,445	89,647	18,068	454,991	57,850	56,565	20,425
2014	684,228	599,580	153,685	53,296	62,766	268,962	233,934	122,189	17,933	410,786	61,389	60,687	14,172
2015	795,915	706,440	159,717	38,375	88,531	367,234	323,276	76,458	17,074	396,580	62,978	59,299	NA
2016 ^{g/}	419,472	364,840	123,810	34,910	45,040	181,713	145,361	33,924	17,074	239,791	36,713	34,714	NA
GOAL							39,625 ^{h/}			60,000 ^{i/}			

a/ Based on Columbia River fall Chinook database, WDFW, unpublished. Does not include hatchery URB Chinook reared and released below McNary Dam.

b/ Includes tributary and mainstem catches between Bonneville and Priest Rapids dams.

c/ Includes Deschutes, Yakima, Upper Columbia, and Snake River escapements.

d/ Upper Columbia escapement only: Yakima River, Hanford Reach, and Priest Rapids Dam count.

e/ Deschutes esc. time series revised in 2010 to match Deschutes R. Chinook Spawner Esc. Goal using U.S. v. OR Tech. Advisory Comm. Data (Sharma et al. 2009).

f/ Snake River wild; adjusted for stray hatchery fish. Includes wild fish hauled to Lyons Ferry Hatchery.

g/ Preliminary based on inseason run update.

h/ MSY spawning escapement objective adopted in FMP Amendment 16 in 2011.

i/ The U.S. v. Oregon parties managed for a McNary Dam esc. of 60,000 beginning in 2008. Starting in 1994, inriver fisheries were managed for ESA consultation standards.

TABLE B-19. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult mid-Columbia bright (MCB) stock fall Chinook destined for areas below McNary Dam, not including the Deschutes River.^{a/}

Year or Average	Inriver Run Size	Bonneville Dam Count	Harvest			Escapement	
			Treaty Indian Commercial and Subsistence	Non-Indian		Natural	Hatchery ^{c/}
				Commercial	Sport ^{b/}		
1982-1985	10,275	4,925	1,875	1,675	100	0	3,450
1986-1990	60,894	24,780	16,288	26,547	2,277	4,253	9,194
1991-1995	32,352	19,360	6,014	4,151	1,622	7,327	10,631
1996	59,698	38,100	12,443	5,306	3,387	15,618	15,868
1997	58,932	36,600	11,596	3,320	6,517	15,916	15,808
1998	37,328	29,900	5,570	1,063	5,697	11,380	8,401
1999	50,788	40,400	10,581	1,543	5,927	17,213	7,334
2000	37,191	25,600	7,186	3,739	3,507	10,135	7,884
2001	76,504	48,100	16,821	7,023	9,580	14,600	13,701
2002	108,198	57,600	24,358	9,437	12,737	27,005	21,946
2003	150,042	97,179	27,830	20,432	12,804	38,204	24,175
2004	122,496	79,866	23,392	9,178	11,167	27,779	26,210
2005	100,333	60,464	23,158	6,590	10,727	14,271	30,991
2006	80,470	31,402	22,705	4,577	3,567	12,501	19,745
2007	47,556	29,029	13,369	6,665	2,528	5,559	13,053
2008	76,297	44,210	23,260	10,349	5,648	6,813	21,409
2009	73,069	41,298	21,213	8,508	7,433	9,320	22,003
2010	78,937	50,878	22,009	3,719	5,960	7,904	33,391
2011	87,262	58,775	27,569	7,596	10,275	12,399	24,923
2012	63,363	44,306	15,682	5,841	11,340	12,860	17,052
2013	243,508	187,748	55,876	16,947	27,383	65,999	58,045
2014	203,734	154,971	81,605	20,902	26,401	34,996	34,075
2015	170,620	123,722	62,520	14,536	25,947	31,305	30,744
2016 ^{d/}	60,700	46,172	39,200	6,510	6,460	1,720	6,810
GOAL							

a/ Based on Columbia River fall Chinook database, WDFW, unpublished. Does not include URB Chinook destined for areas above McNary Dam or the Deschutes River.

b/ Includes tributary and mainstem catches.

c/ Little White Salmon and Bonneville Hatcheries.

d/ Preliminary.

TABLE B-20. Estimates of minimum inriver run size and catch in numbers of adult spring, summer, and fall Chinook from the Columbia River. (Page 1 of 3)

Year or Avg.	Minimum Inriver Run Size	Below Bonneville Dam						Above Bonneville Dam					Total		
		Non-Indian Sport			Non-Indian Commercial			Non-Indian Sport		Treaty Indian			Non-Indian Total		Treaty Indian & Non-Indian
		Tributary ^{a/}	Buoy 10	Mainstem ^{b/}	Select Area ^{c/}	Mainstem	Bonneville Dam Counts	Mainstem	Tributary ^{d/}	Ticketed Commercial ^{e/}	Non-Ticketed Public Sales	Ceremonial & Subsistence ^{f/}	Sport	Commercial	
Spring Chinook^{g/}															
'79-'80	146,560	11,427	<i>h/</i>	1,150	-	2,900	55,775	-	-	259	--	1,714	12,653	2,900	17,525
'81-'85	200,440	19,568	<i>h/</i>	2,233	-	8,197	68,342	-	513	1,024	--	3,633	22,726	8,197	35,580
'86-'90	283,730	39,688	<i>h/</i>	5,685	-	14,138	104,433	-	2,615	186	--	9,323	48,740	14,138	72,387
'91-'95	182,871	33,201	<i>h/</i>	3,010	301	4,042	62,183	-	453	15	--	7,433	37,437	4,343	49,228
'96-'00	149,830	12,669	<i>h/</i>	93	2,664	430	90,676	-	3,923	279	--	8,346	16,925	3,094	28,644
'01-'05	408,488	25,933	<i>h/</i>	20,621	8,348	9,496	249,812	-	26,143	9,041	6,795	19,433	75,027	17,844	128,141
2006	223,575	18,623	<i>h/</i>	7,087	7,245	5,106	126,158	1,564	3,692	0	--	14,983	30,966	12,351	58,300
2007	155,506	14,608	<i>h/</i>	6,527	6,774	3,336	80,829	1,857	5,068	3	--	9,847	28,060	10,110	48,021
2008	222,555	7,284	<i>h/</i>	20,312	4,486	6,007	151,895	2,625	19,520	12,314	--	13,241	49,741	10,493	85,789
2009	219,006	10,257	<i>h/</i>	17,246	4,175	4,521	147,489	1,237	17,371	0	--	22,836	46,111	8,696	77,643
2010	468,672	35,987	<i>h/</i>	29,735	24,892	10,807	277,389	5,789	37,609	25,008	--	29,703	109,120	35,699	199,530
2011	323,099	32,008	<i>h/</i>	12,006	11,101	5,759	205,431	4,517	24,009	7	--	22,874	72,540	16,860	112,280
2012	297,034	28,293	<i>h/</i>	14,122	10,057	6,618	186,448	3,597	21,339	820	--	21,669	67,351	16,675	106,515
2013	192,881	15,116	<i>h/</i>	7,141	8,064	3,297	112,934	1,428	7,198	0	--	8,870	30,882	11,361	51,113
2014	313,491	15,456	<i>h/</i>	16,272	4,643	4,664	224,946	3,607	24,732	13,807	--	18,001	60,067	9,307	101,182
2015	416,731	27,244	<i>h/</i>	19,955	13,669	8,373	265,558	3,102	37,299	20,327	--	10,854	87,600	22,042	140,823
2016	274,652	18,845	<i>h/</i>	12,767	10,496	4,154	172,614	2,480	21,794	1,993	--	15,073	55,886	14,650	87,602
Summer Chinook^{g/i/}															
'79-'80	22,320	-	-	-	-	81	22,239	-	-	38	--	1,047	0	81	1,165
'81-'85	16,709	-	-	-	-	55	16,654	-	-	304	--	669	0	55	1,028
'86-'90	21,036	-	-	8	-	71	20,957	-	-	708	--	194	8	71	980
'91-'95	12,984	-	-	15	-	30	12,939	-	-	-	--	227	15	30	271
'96-'00	17,957	-	-	29	-	5	17,924	-	-	-	--	317	343	5	665
'01-'05	70,287	0	0	1,264	8	603	68,412	242	6,653	3,646	--	978	8,160	611	13,394
2006	77,573	0	0	4,926	9	4,819	67,819	276	5,439	15,771	0	548	10,641	4,828	31,788
2007	37,035	0	0	2,214	0	1,122	33,699	136	5,276	4,564	0	811	7,626	1,122	14,123
2008	55,532	0	0	2,140	59	1,370	51,963	942	4,701	8,317	0	712	7,783	1,429	18,241
2009	53,881	0	0	2,341	22	2,524	48,994	175	3,923	10,441	0	1,209	6,439	2,546	20,635
2010	72,346	0	0	2,738	20	4,720	64,638	435	6,504	15,569	0	230	9,677	4,740	30,216
2011	80,574	0	0	5,576	0	5,004	69,994	303	6,894	20,645	0	0	12,773	5,004	38,422
2012	58,300	0	0	3,281	23	1,692	53,304	231	7,468	7,824	0	0	10,980	1,715	20,519
2013	67,603	0	0	2,058	33	1,954	63,508	173	6,739	13,272	0	125	8,970	1,987	24,354
2014	78,254	0	0	2,385	45	2,793	72,871	308	6,745	19,179	0	210	9,437	2,838	31,664
2015	126,882	0	0	6,152	105	3,938	116,657	609	15,693	37,733	0	30	22,454	4,043	64,260
2016	91,048	0	0	3,706	60	2,990	84,192	361	8,617	20,415	0	100	12,683	3,050	36,248

TABLE B-20. Estimates of minimum river run size and catch in numbers of adult spring, summer, and fall Chinook from the Columbia River. (Page 2 of 3)

Year or Avg.	Minimum Inriver Run Size	Below Bonneville Dam					Above Bonneville Dam						Non-Indian Total		Total Treaty Indian & Non-Indian	
		Non-Indian Sport			Non-Indian Commercial		Non-Indian Sport			Treaty Indian			Sport	Commercial		
		Tributary ^{a/}	Buoy 10	Mainstem ^{b/}	Select Area ^{c/}	Mainstem	Bonneville Dam Counts	Mainstem	Tributary ^{d/}	Ticketed Commercial ^{e/}	Non-Ticketed Public Sales	Ceremonial & Subsistence ^{f/}				
Fall Chinook^v																
'79-'80	327,458	3,651	-	1,155	20,800	73,253	135,878	500	--	32,568	--	--	5,306	113,253	151,127	
'81-'85	307,206	4,158	2,870	1,528	8,560	45,490	150,768	1,677	--	48,888	--	5,025	10,234	54,050	118,196	
'86-'90	603,713	6,383	20,641	4,119	16,059	181,817	258,807	5,825	442	118,864	953	5,692	37,056	197,876	360,441	
'91-'95	240,267	3,541	4,979	2,633	1,230	14,693	145,489	4,150	584	33,408	4,732	526	15,887	15,923	70,476	
'96-'00	295,597	1,398	6,906	8,766	2,919	7,346	208,836	5,084	1,922	38,397	21,746	485	24,077	10,265	94,970	
'01-'05	711,807	7,790	14,123	18,586	8,507	35,718	497,144	9,553	4,350	95,071	26,772	498	54,402	44,225	220,968	
2006	422,433	7,052	1,620	13,447	4,822	23,144	299,161	5,136	3,969	58,842	18,849	391	31,224	27,966	137,272	
2007	219,628	2,700	3,389	7,888	3,650	11,685	159,815	4,914	2,019	34,001	11,085	270	20,910	15,335	81,601	
2008	448,985	3,499	7,764	10,881	12,495	27,678	314,995	7,022	2,647	90,968	18,055	40	31,813	40,173	181,049	
2009	428,981	7,616	4,218	14,954	10,973	32,668	283,691	8,124	3,330	63,498	12,008	15	38,242	43,641	157,404	
2010	657,083	8,074	6,473	16,948	18,137	30,712	467,524	13,527	3,307	118,447	13,029	27	48,329	48,849	228,681	
2011	619,942	11,081	10,166	28,459	19,788	50,257	401,576	14,642	1,292	109,655	19,834	550	65,640	70,045	265,724	
2012	525,191	7,888	18,437	24,663	18,728	36,165	350,047	18,416	6,171	78,154	50,954	832	75,575	54,893	260,408	
2013	1,268,559	16,262	23,793	35,223	23,250	83,863	953,221	38,964	10,881	185,382	48,903	66	125,124	107,113	466,588	
2014	1,159,114	9,825	27,622	29,705	20,213	100,646	854,826	37,750	12,411	206,220	60,055	187	117,313	120,859	504,634	
2015	1,305,453	7,370	38,628	43,016	16,838	83,851	954,886	47,114	7,799	215,844	39,994	1,987	143,927	100,689	502,441	
2016	708,676	13,600	15,820	25,210	13,430	56,970	441,171	21,740	NA	122,151	22,247	NA	76,370	70,400	291,169	
Total Chinook																
'79-'80	496,338	13,253	-	1,728	20,800	39,608	213,891	651	--	16,581	--	2,760	15,306	59,608	94,254	
'81-'85	524,355	23,726	2,870	3,761	8,560	53,742	235,764	2,090	513	50,216	--	9,327	32,959	62,302	154,804	
'86-'90	908,480	46,071	20,641	9,812	16,059	196,025	384,197	6,576	2,703	119,758	953	15,209	85,803	212,085	433,808	
'91-'95	436,121	36,741	4,979	5,658	1,531	18,765	220,611	4,924	1,037	33,424	4,732	8,186	53,339	20,295	119,976	
'96-'00	463,384	14,067	6,906	8,888	5,583	7,781	317,435	5,324	6,160	38,676	21,746	9,148	41,345	13,364	124,279	
'01-'05	1,190,582	33,722	14,123	40,471	16,863	45,817	815,368	12,126	37,147	107,758	33,567	20,909	137,589	62,680	362,504	
2006	723,582	25,675	1,620	25,460	12,076	33,069	493,138	6,976	13,100	74,613	18,849	15,922	72,831	45,145	227,359	
2007	412,169	17,308	3,389	16,629	10,424	16,143	274,343	6,907	12,363	38,568	11,085	10,928	56,596	26,567	143,745	
2008	727,071	10,783	7,764	33,333	17,040	35,055	518,853	10,589	26,868	111,599	18,055	13,993	89,337	52,095	285,079	
2009	701,868	17,873	4,218	34,541	15,170	39,713	480,174	9,536	24,624	73,939	12,008	24,060	90,792	54,883	255,683	
2010	1,198,101	44,061	6,473	49,422	43,049	46,239	809,551	19,751	47,419	159,024	13,029	29,960	167,126	89,288	458,427	
2011	1,024,245	43,237	10,166	46,041	31,371	61,020	677,001	19,461	34,275	130,307	19,834	23,424	153,180	92,391	419,136	
2012	880,702	36,181	18,441	42,143	28,831	44,505	589,799	22,244	34,978	86,798	50,954	22,501	153,987	73,336	387,576	
2013	1,526,926	31,378	21,674	44,423	31,347	89,114	1,129,663	40,565	24,818	198,654	48,903	9,061	162,858	120,461	539,937	
2014	1,550,859	25,281	27,622	48,361	24,901	104,659	1,152,643	41,665	43,888	239,206	60,055	18,398	186,817	129,560	634,036	
2015	1,849,067	34,614	38,628	69,123	30,612	96,162	1,337,101	50,824	60,792	273,904	39,994	12,871	253,981	126,774	707,524	
2016	1,074,375	32,445	15,820	41,682	23,986	64,114	697,977	24,581	30,411	144,559	22,247	15,173	144,939	88,100	415,019	

TABLE B-20. Estimates of minimum river run size and catch in numbers of adult spring, summer, and fall Chinook from the Columbia River. (Page 3 of 3)

- a/ For spring Chinook: includes lower and upper Willamette, Clackamas, Clatskanie, Kalama, Lewis, and Sandy Rivers. Sandy River harvest not available before 1990. Catch estimates may include small numbers of Jacks. Does not include SAFE sport. For summer Chinook: all tributaries are closed. For fall Chinook: all tributaries downstream from Bonneville Dam.
- b/ Includes Select Area catch.
- c/ Youngs Bay Select Area began in 1992. Tongue Point and Blind Slough began in 1998. Select Area test fisheries began in 1991. Other Select Areas include Knappa in Oregon and Deep River in Washington.
- d/ Includes tributaries between Bonneville and McNary Dams, the Snake and Yakima rivers, Icicle and Ringold creeks. For Spring Chinook, this is Ringold creeks and tributaries above Lower Granite Dam. For summer Chinook, this is Wanapum and Hanford Reach.
- e/ Primarily mainstem fisheries between Bonneville and McNary dams, but also includes fish caught in miscellaneous commercial Indian fisheries such as Klickitat dip net and mainstem fisheries upstream from McNary Dam. Spring season fishery closed in 1975, 1976, and from 1978 to 2000. Spring Chinook landed during those years were from the winter season fishery. Summer season fishery closed from 1974 to 1982, 1989 to 2000. Summer Chinook landed during those years are bycatch from shad and sockeye fishery.
- f/ Primarily mainstem fisheries between Bonneville and McNary dams. Significant subsistence fisheries also occur in tributaries throughout the Columbia and Snake River basin, especially for spring Chinook, which are not included in these estimates.
- g/ Upriver spring Chinook accounting ends on June 15 and summer Chinook accounting begins on June 16.
- h/ Spring Chinook Buoy 10 area catch is included in mainstem sport.
- i/ Preliminary. Fall Chinook estimates are from inseason run updates.
- j/ Summer Chinook retention was prohibited for all mainstem non-Indian and treaty Indian fisheries until 2003. Small non-Indian incidental mortalities prior to 2003 are associated with recreational Steelhead fisheries and commercial shad and Sockeye fisheries. A few stray summer Chinook are caught in Select Area (terminal) fisheries that are open for late returning spring Chinook and early returning fall Chinook. Prior to 2003, Treaty Indians could retain summer Chinook for subsistence purposes.
- k/ No ceremonial and subsistence permits issued, sales of platform and hook-and-line subsistence catch allowed and included in commercial catch or non-ticked public sales.
- l/ Fall Chinook minimum run size includes LRH, LRW, SCH, URB, MCB, and SAB.

TABLE B-21. Estimates of minimum inriver run size, catch, and escapement in thousands of adult coho entering the Columbia River.^{a/}

Year or Average	Minimum Inriver Run Size	Below Bonneville Dam					Above Bonneville Dam		
		Lower River Catch			Lower River Escapement		Bonneville Dam Counts ^{e/}	Mainstem	
		Commercial	Recreational		Hatchery ^{c/}	Tributary Dam Counts ^{d/}		Commercial Treaty Catch	Zone 6 Escapement ^{f/}
			Buoy 10	Mainstem ^{b/}					
1971-1975	373.4	199.4	-	11.8	117.1	9.5	35.7	9.1	26.6
1976-1980	263.3	123.6	-	10.1	102.2	3.6	23.8	2.6	21.2
1981-1985	305.3	132.1	30.6	11.4	101.0	4.6	31.9	2.6	29.2
1986-1990	705.0	392.2	82.3	13.9	147.6	5.8	46.3	5.5	40.7
1991-1995	315.1	115.8	55.9	10.7	96.0	3.7	23.6	2.0	21.6
1996	117.1	26.2	4.5	3.8	62.2	0.6	15.7	0.7	15.0
1997	156.4	20.4	20.4	11.6	69.7	2.8	24.2	0.6	23.6
1998	175.9	23.0	3.2	6.7	87.9	1.3	46.3	1.5	44.8
1999	289.1	79.1	9.0	19.9	124.5	1.0	40.7	2.3	38.4
2000	558.3	168.4	21.5	37.7	288.6	6.2	85.8	6.3	79.5
2001	1,128.3	253.1	132.0	78.0	377.3	8.2	259.8	5.4	254.4
2002	535.8	163.0	6.2	27.4	211.1	3.7	88.6	1.6	86.9
2003	713.2	257.3	54.4	23.6	205.4	11.2	125.7	5.8	120.0
2004	463.5	119.6	15.2	13.6	173.5	5.6	115.0	10.3	104.8
2005	354.7	94.8	6.9	10.5	142.3	3.3	83.3	4.9	78.5
2006	409.7	63.4	3.7	16.5	191.1	9.5	102.1	8.1	94.1
2007	349.0	40.3	8.4	24.2	161.0	10.5	92.5	8.0	84.5
2008	520.8	60.4	8.6	43.2	240.9	6.2	135.5	21.6	113.9
2009	760.2	124.2	48.1	40.5	260.4	32.3	244.9	8.9	236.0
2010	471.3	76.3	8.0	24.0	189.3	22.3	102.7	7.1	95.6
2011	376.5	62.3	7.6	18.0	108.3	8.7	146.5	33.3	113.2
2012	143.9	17.1	7.4	4.7	41.9	9.1	55.0	6.4	48.6
2013	258.3	48.4	7.6	10.7	81.9	21.6	59.6	8.8	50.8
2014	1,029.0	237.3	57.7	52.2	293.2	32.2	279.7	39.2	240.5
2015	174.7	31.1	36.9	7.4	43.5	4.6	37.4	2.3	35.1
2016 ^{g/}	196.3	31.4	9.2	12.7	84.1	4.7	42.0	5.0	37.0
GOAL					Hatchery Production				

a/ These numbers match OPI databases. Adjustments were made to the escapement figures and catches.

b/ Mainstem recreational catches listed in this table include tributary catches and catches in the Chinook/Hammond area of 3,195 in 1989, 28 in 1990, and 1,151 in 1991.

c/ Includes hatcheries operated by all agencies.

d/ Willamette Falls, Clackamas River (North Fork Dam) and Sandy River (Marmot Dam).

e/ Includes additional small adults counted as jacks for 1983-1984 and 1986-1989.

f/ Bonneville Dam count minus Zone 6 mainstem commercial treaty Indian harvest.

TABLE B-22. Estimated catch and effort in the Buoy 10 fishery.^{a/}

Year	Angler Trips	Catch ^{b/}		Catch Per Trip
		Chinook	Coho	
1982-1985	30,996	4,040	30,547	0.97
1986-1990 ^{c/d/}	130,633	22,107	82,910	0.78
1991-1995 ^{e/}	79,475	5,689	55,895	0.50
1996	18,034	1,409	4,537	0.33
1997	55,725	13,153	20,357	0.60
1998	29,998	5,784	3,175	0.30
1999	49,581	9,850	8,861	0.38
2000	72,518	6,085	21,478	0.38
2001	125,884	12,709	132,038	1.15
2002	84,457	19,441	6,233	0.30
2003	88,827	16,316	54,440	0.80
2004	68,818	16,016	15,169	0.45
2005	55,182	9,286	6,878	0.29
2006	40,688	1,706	3,687	0.13
2007	36,064	3,776	8,356	0.34
2008	32,467	8,349	8,573	0.52
2009	72,803	5,940	48,127	0.74
2010	52,300	6,807	7,980	0.28
2011	49,409	10,919	7,614	0.38
2012	65,070	18,550	7,385	0.40
2013	65,767	22,594	7,620	0.46
2014	107,522	26,788	57,744	0.79
2015	108,319	36,535	36,920	0.68
2016 ^{f/}	94,950	17,780	9,182	0.28

a/ Prior to 1982, Buoy 10 area catches were not estimated separately and are included in the Columbia River marine area (Cape Falcon to Leadbetter Pt.) recreational catches. Estimates include bank anglers fishing from Clatsop Spit in Oregon and from the North Jetty in Washington. Effort and catch for the North Jetty fishery applied to the ocean quota for the Columbia River area until the ocean fishery closed. Beginning in 2000, includes catch and effort from the Astoria-Megler Bridge upstream to the new boundary from Tongue Point, Oregon to Rocky Point, Washington.

b/ Includes adults and jacks as determined by CWT analysis.

c/ 1989 includes catch and effort data for the Chinook/Hammond fishery occurring during weeks 32 and 33. A total of 7,922 angler trips produced catches of 492 Chinook, 3,195 coho, and a catch rate of 0.47 fish per trip. Catches in this fishery were counted against the Buoy 10 quota.

d/ 1990 includes catch and effort data for the Chinook/Hammond fishery occurring during weeks 31 and 32. A total of 3,225 angler trips produced catches of 54 Chinook, 28 coho, and a catch rate of 0.03 fish per trip.

e/ 1991 includes catch and effort data for the Chinook/Hammond fishery occurring during weeks 31 and 32. A total of 2,759 angler trips produced catches of 39 Chinook, 1,151 coho, and a catch rate of 0.43 fish per trip.

f/ Preliminary.

TABLE B-23. Willapa Bay fall Chinook terminal run size, catch, and spawning escapement in numbers of fish.

Year or Average	Non-local Stocks	Terminal Catch		Spawning Escapement		Terminal Run Size ^{e/}
	Gillnet Catch ^{a/}	Gillnet ^{b/}	Sport ^{b/c/}	Natural ^{d/}	Hatchery	
1976-1980	6,083	16,725	419	1,995	4,529	21,439
1981-1985	672	7,675	589	1,588	5,398	14,906
1986-1990	2,167	18,483	1,578	5,576	22,458	47,805
1991-1995	1,121	28,252	2,823	2,819	17,086	50,981
1996	-	36,983	3,024	2,153	12,079	54,239
1997	-	12,309	2,404	3,891	13,729	32,333
1998	-	6,765	2,178	3,114	4,677	16,734
1999	-	265	1,906	1,360	4,900	8,431
2000	-	5,922	1,399	2,303	10,455	20,079
2001	-	5,459	2,121	2,161	10,099	19,840
2002	26	9,286	2,543	1,729	13,680	27,238
2003	125	7,574	3,242	2,732	14,628	28,176
2004	-	4,349	3,889	2,838	21,444	32,520
2005	-	6,354	4,820	1,978	18,088	31,240
2006	-	12,318	5,551	3,739	24,209	45,817
2007	-	4,108	2,579	1,907	13,400	21,994
2008	-	3,595	2,988	1,544	14,891	23,018
2009	-	6,929	4,623	2,345	19,831	33,728
2010 ^{g/}	81	8,959	3,376	4,499	21,565	38,399
2011 ^{g/}	778	20,068	8,450	3,811	21,838	54,167
2012 ^{g/}	932	11,242	6,072	2,677	14,134	34,125
2013 ^{g/}	1,080	14,185	5,854	1,904	14,483	36,426
2014 ^{f/g/}	1,322	13,969	7,458	2,075	18,367	41,869
2015 ^{f/g/}	106	5,283	16,949	2,824	26,584	51,640
2016 ^{f/g/}	96	3,502	NA	NA	NA	NA
GOAL				3,393 ^{h/}	9,800 ^{i/}	

a/ Non-local gillnet is catch prior to Aug. 16. 2010-13, 42% were considered non-local. In 2014, 28% were non-local based on genetic data samples. In 2015, non-local stock contribution based on genetic sampling throughout the duration of the Aug. commercial fishery.

b/ Includes catch, drop-off (2% recreational, 3% commercial), unmarked impacts in mark-selective fisheries, and incidental mortalities.

c/ Adults. Sport catch since 1991 includes marine areas within Willapa Bay (e.g., Washaway Beach).

d/ Escapement estimates after 1984 are based on revised spawning habitat estimates. Natural = adult returns assumed to be from natural origin parents.

e/ Does not include catch of non-local stocks.

f/ Preliminary.

g/ To calculate total gillnet catch, combine Non-local Stocks Gillnet Catch (column 1) and Terminal Catch Gillnet (column 2).

h/ MSY spawning escapement objective established in FMP Amendment 16; WDFW goal is 4,350.

i/ WDFW goal; not an FMP goal.

TABLE B-24. Willapa Bay coho terminal run size, catch, and spawning escapement in numbers of fish.

Year or Average	Terminal Catch		Spawning Escapement		Terminal Run Size ^{d/}
	Gillnet	Sport ^{a/}	Natural ^{b/}	Hatchery ^{c/}	
1976-1980	15,031	2,842	5,800	14,328	38,001
1981-1985	39,007	2,181	3,567	26,640	69,968
1986-1990	68,969	2,591	NA	35,811	107,371
1991-1995	34,255	2,802	4,582	27,205	65,178
1996	38,322	4,052	41,535	48,895	132,804
1997	1,526	806	7,813	6,399	16,544
1998	13,141	852	15,775	6,785	36,553
1999	5,467	2,836	14,032	22,711	45,046
2000	10,326	1,780	26,679	29,148	67,933
2001	31,913	5,707	56,166	54,359	148,145
2002	59,435	5,672	66,438	54,838	186,383
2003	66,470	5,887	55,943	68,797	197,097
2004	16,533	2,361	44,463	21,220	84,577
2005	48,929	3,892	32,558	45,165	130,544
2006	19,948	811	14,301	8,088	43,148
2007	8,189	955	18,310	9,243	36,697
2008	16,692	1,227	18,561	12,488	48,968
2009	75,095	6,461	50,650	22,813	155,019
2010	29,072	4,929	84,564	34,387	152,952
2011	47,975	5,652	31,737	22,022	107,386
2012	25,783	5,024	20,412	14,539	65,758
2013	11,567	4,281	26,303	13,686	55,837
2014 ^{e/}	77,475	21,271	59,569	88,882	247,197
2015 ^{e/}	1,922	11,105	17,086	21,386	51,499
2016 ^{e/}	19,304	NA	NA	NA	NA
GOAL			17,200 ^{f/}	6,100 ^{f/}	

a/ Adults. Sport catch since 1991 includes marine areas within Willapa Bay (e.g., Washaway Beach).

b/ Natural spawning escapement estimates were not made in 1984-1994; estimates in 1996, 1997, and 1998 do not include adult fish released upstream of hatchery racks. Estimates from 1996 to present include both wild and naturally spawning hatchery fish.

c/ Hatchery rack number includes fish released upstream.

d/ Does not include natural spawning escapement between 1984 and 1994.

e/ Preliminary.

f/ Willapa Bay Coho were added to the FMP in 2011; the STT finalized the new FMP goal for use beginning in 2016.

TABLE B-25. Grays Harbor Chinook terminal catch, spawning escapement, and run size in numbers of fish. (Page 1 of 2)

Year or Average	Terminal Catch					Spawning Escapement		Terminal Run Size ^{d/}
	Early Non-local Catch	Non-Indian Gillnet	Treaty Indian Gillnet	Chehalis Tribal Gillnet	Sport ^{a/}	Natural ^{b/}	Hatchery ^{c/}	
SPRING Chinook								
1976-1980	-	-	-	587	e/	600	-	1,187
1981-1985	-	-	-	57	5	924	-	963
1986-1990	-	-	e/	143	6	1,875	-	2,024
1991-1995	-	-	0	94	15	1,566	-	1,675
1996	-	-	104	127	52	4,462 ^{f/}	-	4,745
1997	-	-	52	172	160	4,460 ^{f/}	-	4,844
1998	-	-	6	164	121	2,388	-	2,679
1999	-	-	3	187	76	1,285	-	1,551
2000	-	-	17	174	91	3,135	-	3,417
2001	-	-	4	210	252	2,860	-	3,326
2002	-	-	76	419	124	2,598	-	3,217
2003	-	-	68	0	131	1,904	-	2,103
2004	-	-	54	177	65	5,034	-	5,330
2005	-	-	26	439	88	2,129	-	2,682
2006	-	-	5	249	128	2,481	-	2,863
2007	-	-	5	205	54	651	-	915
2008	-	-	2	0	0	995	-	997
2009	-	-	18	0	0	1,132	-	1,150
2010	-	-	0	0	0	3,495	-	3,495
2011	-	-	10	0	0	2,563	-	2,573
2012	-	-	6	201	66	878	-	1,151
2013	-	-	31	NA	148	2,459	-	2,638
2014	-	-	14	NA	62	1,583	-	1,659
2015 ^{g/}	-	-	32	156	36	1,841	-	2,065
2016 ^{g/}	-	-	7	104	NA	1,367	-	NA
GOAL						1,092 ^{h/}		

TABLE B-25. Grays Harbor Chinook terminal catch, spawning escapement, and run size in numbers of fish. (Page 2 of 2)

Year or Average	Terminal Catch					Spawning Escapement		Terminal Run Size ^{d/}
	Early Non-local Catch	Non-Indian Gillnet	Treaty Indian Gillnet	Chehalis Tribal Gillnet	Sport ^{a/}	Natural ^{b/}	Hatchery ^{c/}	
FALL Chinook								
1976-1980	4,433	3,642	3,108	1,006	1,128	7	413	9,303
1981-1985	602	964	3,524	465	268	10	742	5,973
1986-1990	694	4,122	10,414	597	1,340	20,730	1,319	38,522 ^{i/}
1991-1995	206	5,000	7,750	901	3,794	14,276	3,006	34,728 ^{i/}
1996	148	1,441	4,068	49	7,456	20,227	4,307	37,548 ^{i/}
1997	24	2,796	6,630	311	2,687	18,168	2,416	33,008 ^{i/}
1998	5	267	4,135	0	2,912	12,529	1,921	21,764 ^{i/}
1999	0	87	1,926	1	114	10,363	1,990	14,481 ^{i/}
2000	671	647	3,289	10	1,714	9,385	284	15,329
2001	0	2,523	3,885	13	3,320	9,492	282	19,515
2002	40	26	963	9	2,955	11,841	776	16,570
2003	0	359	851	0	1,031	19,871	838	22,950
2004	0	209	3,498	24	6,012	31,773	1,012	42,528
2005	0	304	2,260	3	118	19,695	897	23,277
2006	0	256	3,738	0	1,629	17,428	1,941	24,992
2007	0	529	2,472	19	1,698	13,117	583	18,418
2008	0	779	1,878	0	0	15,391	500	18,548
2009	0	1,231	2,485	0	860	9,290	666	14,532
2010	0	1,638	3,403	0	2,005	18,158	650	25,854
2011	0	2,298	6,402	0	3,086	22,870	1,363	36,019
2012	0	1,731	3,988	3	4,490	14,032	862	25,106
2013	0	103	2,875	0	3,618	12,582	701	19,879
2014	0	73	5,094	2	1,124	11,400	1,676	19,369
2015 ^{g/}	0	62	10,497	0	4,155	22,200	2,182	39,096
2016 ^{g/}	0	26	2,061	0	NA	NA	990	NA
GOAL						14,600 ^{h/}		

a/ Age-3 and older.

b/ Age-3 and older, including hatchery fish spawning naturally.

c/ Includes fish taken from the spawning grounds for broodstock.

d/ Minimum estimate due to incomplete estimates of river recreational catch. Does not include non-local catch.

e/ Fewer than 50 fish.

f/ WDFW is not able to differentiate spawning time and believes this includes fall Chinook.

g/ Preliminary.

h/ Spawning escapement objective adopted under Amendment 16. Previous objectives of 1,400 (spring) and 14,600 (fall) used for preseason

i/ Rec. catch estimates by WDFW reflect a catch record card bias correction factor of 0.833. Quinault Indian Nation does not believe this factor is appropriate. Unadjusted catch estimates are 1,000 for 1987; 2,400 for 1988; 2,500 for 1989; 2,400 for 1990; 4,500 for 1991; 2,600 for 1992; 4,200 for 1993; 4,300 for 1994; 6,500 for 1995; 6,800 for 1996; 3,400 for 1997; 3,500 for 1998; and 100 for 1999; terminal run sizes would be adjusted accordingly.

TABLE B-26. Grays Harbor coho terminal catch, spawning escapement, and run size estimates in numbers of fish.

Year or Average	Terminal Catch				Spawning Escapement ^{b/}		Terminal Run Size ^{c/}		
	Non-Indian Gillnet	Treaty Indian Gillnet	Chehalis Tribal Gillnet	Sport ^{a/}	Natural	Hatchery	Natural	Hatchery	Total ^{d/}
	1976-1980	5,231	9,675	3,510	2,021	29,510	10,207	44,430	17,933
1981-1985	5,299	15,614	2,865	5,012	36,847	17,253	49,162	32,882	82,044
1986-1990	7,715	30,109	1,817	5,355	44,116	29,963	58,835	60,298	119,133
1991-1995	12,502	29,166	2,609	10,503	35,826	31,304	46,949	76,403	123,352
1996	10,096	51,784	2,672	20,846	63,571	48,607	83,514	116,068	199,582
1997	115	5,395	125	1,547	22,470	13,074	19,928	22,982	42,910
1998	795	13,468	305	2,123	34,892	17,432	36,426	33,088	69,514
1999	1,674	12,062	68	4,507	33,348	25,375	35,528	41,964	77,493
2000	4,995	10,797	7	5,122	38,054	33,875	39,088	54,314	93,401
2001	3,152	15,520	82	20,868	80,100	80,142	71,442	129,181	200,622
2002	6,853	14,132	666	13,083	110,066	53,161	104,128	94,562	198,690
2003	6,623	12,041	1,000	12,026	84,952	66,654	85,122	98,847	183,969
2004	5,162	17,681	1,741	9,847	60,690	52,134	74,748	73,357	148,104
2005	3,238	23,260	2,286	10,919	38,297	51,450	75,110	55,293	130,403
2006	649	8,685	127	2,151	17,767	17,223	21,779	25,142	46,921
2007	1,687	8,926	1,108	4,450	25,121	15,236	26,833	30,080	56,913
2008	7,766	10,204	869	3,266	34,054	20,039	41,999	34,808	76,807
2009	567	28,513	2,519	16,288	69,222	55,864	80,867	93,334	174,201
2010	4,090	25,163	1,542	12,455	102,237	74,069	112,930	107,644	220,574
2011	3,517	28,267	742	14,569	64,403	23,757	80,488	55,886	136,374
2012	10,279	30,670	2,470	18,069	66,836	22,301	94,191	58,048	152,239
2013	5,935	21,957	2,515	21,246	56,785	26,732	73,263	62,936	136,198
2014	5,504	67,252	7,322	28,595	104,836	59,840	140,428	134,341	274,769
2015	1,540	12,544	610	8,197	21,278	9,646	28,719	25,010	53,729
2016 ^{e/}	232	2,063	891	NA	NA	23,030	NA	NA	NA
GOAL					24,426 ^{f/}				

a/ Beginning in 1987, estimates provided by WDFW for recreational catch reflect punch card bias correction factor.

b/ "Natural" includes hatchery fish spawning in wild. "Hatchery" includes wild fish taken for brood stock.

c/ Terminal run size numbers from 1981 to present are under co-manager review.

d/ The combined natural and hatchery run size total may not add to the sum of the catch and escapements due to hatchery total run size including on-station and off-station escapements.

e/ Preliminary.

f/ The MSH escapement objective of 35,400 was used for preseason planning through the 2013 season.

TABLE B-27. Treaty Indian gillnet catch of Chinook, chum, and sockeye salmon in the Quinault River in numbers of fish.

Year or Average	Spring/Summer Chinook ^{a/}	Fall Chinook ^{a/}	Chum	Sockeye
1976-1980	149	4,320	7,960	17,560
1981-1985	114	5,100	4,720	12,600
1986-1990	338	8,822	4,686	11,218
1991-1995	98	6,293	2,505	9,523
1996	41	5,221	594	1,244
1997	19	2,625	1,033	2,532
1998	75	6,124	4,699	3,440
1999	10	4,840	599	73
2000	0	3,421	755	0
2001	5	4,047	2,009	0
2002	36	4,542	1,151	16,939
2003	92	7,343	3,742	37,130
2004	142	10,662	2,916	6,990
2005	24	7,648	1,283	116
2006	16	7,044	862	8
2007	20	2,126	1,173	1
2008	10	3,682	1,171	0
2009	43	5,455	1,156	1,441
2010	8	4,521	2,037	1,856
2011	26	5,998	7,421	9,177
2012	15	5,090	3,426	1,193
2013	20	7,148	3,834	969
2014	11	12,349	1,250	4,313
2015	6	11,574	4,879	16,639
2016 ^{b/}	41	5,137	7,294	4,312

a/ Stock separation under review .

b/ Preliminary.

TABLE B-28. Estimated inriver run size, catch and escapement for Quinault River coho in numbers of fish.

Year or Average	Terminal Catch ^{a/}			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence	River Sport	Natural	Hatchery	Natural	Hatchery	Total
1977-1980	9,750	--	--	3,425	3,107	8,465	7,750	16,215
1981-1985	10,700	--	--	3,237	6,239	7,809	12,657	20,466
1986-1990	13,777	--	--	3,185	4,239	8,024	13,200	21,224
1991-1995	7,963	--	--	4,319	8,046	6,205	13,472	19,678
1996	10,087	--	--	13,327	9,521	18,849	13,865	32,714
1997	365	--	--	3,150	1,054	3,339	1,118	4,457
1998	5,946	--	--	3,770	3,158	7,156	5,581	12,737
1999	15,491	--	--	12,666	14,617	19,138	23,101	42,239
2000	16,194	--	--	7,421	9,481	14,559	18,099	32,658
2001	25,348	--	--	21,565	30,689	30,016	47,115	77,131
2002	19,197	--	--	12,213	16,841	16,847	30,196	47,043
2003	22,546	--	--	4,710	16,841	9,546	34,132	43,678
2004	17,055	--	--	1,404	10,321	3,377	24,821	28,198
2005	23,852	--	--	6,418	10,034	15,951	25,574	41,525
2006	9,785	336	325	1,110	3,207	3,432	11,032	14,464
2007	11,770	578	650	6,193	15,069	9,778	24,395	34,173
2008	25,227	961	978	14,920	14,959	26,544	29,774	56,318
2009	54,882	2,036	2,047	33,140	23,353	48,324	66,095	114,419
2010	41,726	1,449	1,450	19,302	12,785	33,577	41,680	75,257
2011	38,431	1,481	1,570	26,588	19,131	41,759	43,420	85,179
2012	19,166	656	798	13,026	5,383	23,171	15,514	38,684
2013	20,477	942	1,203	23,592	17,818	29,579	33,628	63,207
2014	50,294	2,061	2,334	54,065	31,132	78,517	62,945	143,003
2015 ^{b/}	9,734	548	809	17,476	13,473	22,601	20,753	43,387
2016 ^{b/}	37,187	NA	NA	NA	14,141	NA	NA	NA
GOAL					Hatchery Production			

a/ Includes dip-in fish destined for other river systems.

b/ Preliminary.

TABLE B-29. Estimated inriver run size, catch, and escapement of Queets River spring/summer Chinook in numbers of fish.

Year or Average	Terminal Catch			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence	River Sport ^{a/}	Natural ^{b/}	Hatchery	Natural	Hatchery	Total
1976-1980	267	18	53	851	24	1,176	37	1,078
1981-1985	243	20	27	890	52	956	74	1,209
1986-1990	646	46	67	1,527	-	2,287	-	2,287
1991-1995	64	5	10	610	-	689	-	688
1996	43	3	69	776	-	891	-	891
1997	72	10	71	540	-	693	-	693
1998	18	27	-	492	-	537	-	537
1999	12	41	-	373	-	426	-	426
2000	-	2	-	248	-	250	-	250
2001	-	17	-	548	-	565	-	565
2002	-	17	-	738	-	755	-	755
2003	-	6	-	189	-	195	-	195
2004	-	15	-	604	-	619	-	619
2005	-	8	-	298	-	306	-	306
2006	-	6	-	330	-	336	-	336
2007	-	6	-	352	-	358	-	358
2008	-	3	-	305	-	305	-	305
2009	-	0	-	495	-	495	-	495
2010	-	0	-	259	-	259	-	259
2011	-	0	-	373	-	373	-	373
2012	-	0	-	760	-	760	-	760
2013	-	<10	-	520	-	520	-	520
2014 ^{e/}	75	<10	-	377	-	452	-	462
2015 ^{c/e/}	44	<10	-	532	-	576	-	576
2016 ^{c/e/}	73	<10	-	NA	-	NA	-	NA
GOAL				700 ^{d/}				

a/ River catch of adults.

b/ Natural escapement includes hatchery strays.

c/ Preliminary.

d/ Minimum. Terminal run managed at 30 percent exploitation rate of inriver run size.

e/ A fishery targeting early fall coho at the tail end of August in weeks 33 and 34 caught a number of early Chinook.

TABLE B-30. Estimated inriver run size, catch, and escapement of Queets River fall Chinook in numbers of fish.

Average	Terminal Catch			Escapement Natural ^{b/}	Terminal Run Size		
	Gillnet	Ceremonial & Subsistence	River Sport ^{a/}		Natural ^{c/}	Indicator ^{d/}	Total
1976-1980	1,540	100	36	2,820	4,320	-	4,320
1981-1985	2,104	20	135	3,930	5,691	591	6,282
1986-1990	2,430	20	214	8,768	10,677	861	11,538
1991-1995	1,860	20	109	4,106	5,511	708	6,219
1996	1,307	20	238	4,218	4,693	1,234	5,927
1997	1,708	20	210	2,872	4,122	823	4,945
1998	804	20	347	3,859	5,009	164	5,173
1999	947	20	93	1,918	2,885	220	3,105
2000	262	20	50	3,755	3,752	395	4,147
2001	1,366	64	285	3,066	3,571	1,204	4,775
2002	2,887	69	20	2,598	4,385	1,186	5,571
2003	1,322	93	278	4,971	5,183	1,428	6,611
2004	1,228	93	370	5,173	4,846	2,018	6,864
2005	1,648	90	441	4,578	4,542	2,213	6,755
2006	1,079	57	71	3,059	3,262	1,004	4,266
2007	634	20	74	872	1,288	307	1,595
2008	1,020	41	0	3,105	3,510	698	4,208
2009	1,522	65	209	3,135	4,062	856	4,918
2010	1,722	81	169	4,031	4,250	1,751	6,001
2011	2,327	83	412	3,857	4,877	1,772	6,649
2012	2,722	86	296	3,707	5,835	922	6,757
2013	1,943	63	369	2,582	4,070	887	4,957
2014	1,180	73	117	3,820	3,099	2,059	5,158
2015	1,314	102	567	5,313	4,825	2,627	7,452
2016 ^{e/}	804	NA	NA	NA	NA	NA	NA
GOAL				2,500 ^{f/}			

a/ River sport catch of age-3 and older fish. The 2000 sport fishery was closed to retention of unmarked Chinook. The 2002 sport fishery was closed to Chinook retention on October 18 due to unusually low water conditions. The 2008 sport fishery was closed to the retention of Chinook. The 2009 sport fishery was closed to retention of unmarked Chinook in Queets and Salmon Rivers within Olympic National Park.

b/ Includes Indicator Stock. Estimates for years prior to 2001 assume a broodstock take of 150 as a placeholder until individual run reconstructions are complete.

c/ Includes from 100 to 200 wild Chinook captured each season near spawning grounds to be used as Indicator broodstock.

d/ This is an integrated wild/hatchery program. Brood stock are unmarked wild fish collected from river.

e/ Preliminary.

f/ Minimum. Terminal run managed at 40 percent exploitation rate of terminal run size.

TABLE B-31. Estimated terminal run size, catch, and escapement for Queets River coho in numbers of fish.

Year or Average	Terminal Catch ^{a/}			Escapement ^{c/}			Terminal Run Size ^{c/}			Total ^{d/}
	Gillnet	Ceremonial & Subsistence	River Sport ^{b/}	Natural	Supplemental	Hatchery	Natural	Supplemental	Hatchery	
1976-1980	2,440	60	140	3,460	-	1,000	5,100	-	1,640	6,740
1981-1985	2,385	20	104	5,397	-	2,654	6,411	-	3,794	10,205
1986-1990	8,455	18	241	4,826	996	3,700	6,343	1,825	9,685	17,123
1991-1995 ^{b/}	4,423	285	273	4,943	1,024	3,455	5,967	1,167	6,927	13,828
1996	16,035	920	279	8,926	3,575	5,189	10,722	4,502	13,078	28,302
1997	3,087	222	106	1,712	e/	2,137	1,970	e/	5,029	6,999
1998	7,411	452	135	4,134	1,387	3,503	4,661	1,536	9,545	15,742
1999	3,974	381	119	4,799	519	3,551	5,054	529	7,388	12,971
2000	5,066	479	223	8,104	682	2,032	8,715	701	5,366	14,782
2001	13,722	1,287	1,554	23,871	1,082	6,508	28,368	2,293	14,193	44,854
2002	23,712	1,009	399	13,968	1,065	2,240	16,123	1,311	21,514	38,948
2003	12,693	921	743	9,846	1,081	7,002	13,224	1,343	15,544	30,111
2004 ^{f/}	8,189	657	1,287	7,484	1,225	3,985	10,030	1,673	10,395	22,098
2005 ^{f/}	20,810	989	873	6,539	432	7,843	9,658	542	26,304	36,504
2006 ^{f/}	6,190	353	52	5,626	0	2,931	6,400	0	7,101	13,501
2007	2,261	304	153	4,680	0	1,874	6,066	0	2,779	8,845
2008	4,671	356	562	4,629	0	3,461	6,221	0	5,667	11,888
2009	25,004	1,680	865	9,404	0	14,151	16,909	0	30,161	47,070
2010	21,138	1,381	944	11,261	0	10,326	18,283	0	20,954	39,237
2011	16,641	1,204	1,521	8,588	0	12,887	15,350	0	19,812	35,162
2012	6,118	373	527	4,285	0	1,105	8,119	0	3,272	11,391
2013	4,519	519	1,285	5,684	0	9,680	9,086	0	11,578	20,664
2014	15,478	1,126	1,625	7,174	0	12,179	10,762	0	22,635	33,397
2015	2,268	209	299	2,028	0	868	2,494	0	5,119	7,613
2016 ^{g/}	6,745	NA	NA	NA	0	NA	NA	0	NA	NA
GOAL				5,800-14,500						

a/ Includes dip-in fish from other river systems.

b/ Recreational catch of adults (coho over 20 inches).

c/ Natural escapement and run size estimates include fish taken for hatchery brood stock.

d/ Queets stock only; does not include non-local, dip-in fish.

e/ 1991 and 1997 supplemental was included in natural escapement and run size.

f/ Escapement estimates are from non-standard methods due to poor survey conditions during the coho spawning season.

g/ Preliminary.

TABLE B-32. Estimated inriver run size, catch, and escapement for Hoh River spring/summer Chinook in numbers of fish.

Year or Average	Terminal Catch ^{a/}												
	Gillnet			Ceremonial & Subsistence				River Sport ^{b/}	Escapement		Terminal Run Size		
	Natural	Hatchery	Total	Natural	Hatchery	Total	Natural		Hatchery	Natural	Hatchery	Total	
1976-1980	NA	NA	640	--	--	52	84	1,040	0	1,835	0	1,835	
1981-1985	NA	NA	448	--	--	30	124	1,431	50	1,944	128	2,073	
1986-1990	NA	NA	1,072	--	--	33	315	2,829	34	4,043	257	4,300	
1991-1995	NA	NA	432	--	--	22	273	1,268	0	1,852	156	2,008	
1996	NA	NA	471	--	--	30	267	1,371	16	2,083	114	2,197	
1997	NA	NA	416	--	--	57	331	1,826	0	2,582	53	2,635	
1998	NA	NA	294	--	--	20	288	1,287	0	1,880	28	1,908	
1999 ^{c/}	NA	NA	155	--	--	20	52	928	99	1,081	171	1,252	
2000 ^{d/}	NA	NA	87	--	--	38	21	492	0	529	116	645	
2001 ^{d/}	NA	NA	134	--	--	39	43	1,159	0	1,231	101	1,332	
2002 ^{e/}	NA	NA	587	--	--	37	372	2,464	0	3,375	85	3,460	
2003 ^{e/}	NA	NA	296	--	--	20	206	1,228	0	1,646	104	1,750	
2004 ^{e/}	NA	NA	401	--	--	20	102	1,786	0	2,239	70	2,309	
2005 ^{e/}	NA	NA	323	--	--	36	73	1,193	0	1,389	217	1,606	
2006 ^{e/}	NA	NA	576	--	--	37	109	904	0	1,061	571	1,632	
2007 ^{e/}	NA	NA	760	--	--	68	136	810	0	1,023	592	1,615	
2008 ^{d/e/}	22	227	249	10	40	50	7	671	0	703	274	977	
2009 ^{d/e}	30	106	136	3	2	5	12	880	2	913	122	1,035	
2010 ^{d/e}	24	83	107	0	0	0	6	828	0	852	89	941	
2011 ^{d/e}	51	25	76	7	3	10	22	827	0	885	50	935	
2012 ^{d/e}	135	263	398	9	11	20	36	915	1	1,059	311	1,370	
2013 ^{d/e/}	117	415	532	6	17	23	65	750	0	873	497	1,370	
2014 ^{d/e/h/}	67	264	331	8	20	28	0	744	0	819	284	1,103	
2015 ^{d/e/h/}	17	55	72	9	5	14	0	1,070	0	1,096	60	1,156	
2016 ^{d/e/h/}	4	2	6	10	16	26	0	1,144	0	1,158	18	1,176	
GOAL									900 ^{g/}				

a/ Beginning in 1981, catch breakouts recalculated to account for Solduc hatchery yearling release dip-in fish.

b/ Recreational catch of adults (at least 24 inches total length); beginning in 2008, all Chinook must be marked with a healed adipose fin clip.

c/ Sport fishery closed until July 14.

d/ Sport fishery closed to retention of wild adult spring/summer Chinook through August 31 .

e/ Sport fishery open May 16 through August 31 from mouth to Willoughby Creek.

f/ Preliminary.

g/ Minimum. Terminal run managed at 31 percent harvest rate of inriver run size.

h/ Sport salmon fishery closed through August 31.

TABLE B-33. Estimated inriver run size, catch, and escapement for Hoh River fall Chinook in numbers of fish.

Year or Average	Terminal Catch			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence	River Sport ^{a/}	Natural ^{b/}	Hatchery	Natural ^{b/}	Hatchery	Total
1976-1980	760	36	37	2,080	-	2,960	-	2,960
1981-1985	849	36	59	2,745	20	3,684	100	3,784
1986-1990	2,000	32	213	4,500	33	6,819	88	6,907
1991-1995	871	27	233	2,774	0	3,590	65	3,655
1996	836	30	192	3,022	0	4,061	19	4,080
1997	1,114	35	164	1,773	0	3,034	52	3,086
1998	846	30	268	4,257	0	5,388	13	5,401
1999	596	30	413	1,924	0	2,941	22	2,963
2000	404	20	479	1,749	0	2,632	20	2,652
2001	946	40	600	2,560	0	4,116	120	4,236
2002 ^{c/}	1,461	30	134	4,415	82	5,716	406	6,122
2003	517	30	216	1,649	32	2,345	99	2,444
2004	815	30	400	3,211	26	4,410	72	4,482
2005	970	21	229	4,180	14	5,323	77	5,414
2006	586	30	204	1,535	0	2,336	19	2,343
2007	660	30	192	1,556	0	2,427	11	2,438
2008	659	0	278	2,999	0	3,911	25	3,936
2009	553	0	134	2,081	0	2,747	21	2,788
2010	342	0	297	2,599	0	3,204	34	3,238
2011	528	0	400	1,293	0	2,163	58	2,221
2012	929	10	237	1,937	0	3,014	99	3,113
2013	1,530	10	477	1,269	0	3,144	142	3,286
2014	658	10	144	1,933	0	2,664	81	2,745
2015 ^{d/}	493	11	198	1,592	0	2,236	58	2,294
2016 ^{d/}	137	3	0	2,333	0	2,467	6	2,473
GOAL				1,200 ^{e/}				

a/ Recreational catch of age-3 and older fish.

b/ Includes fish taken for hatchery brood stock.

c/ Low water in October and early November delayed upstream migration, prompting closure of the sport fishery to Chinook retention on October 19 for the remainder of season. Tribal gillnet fishery closed weeks 44 and 45.

d/ Preliminary.

e/ Minimum. Terminal run managed for a maximum 40 percent harvest rate of inriver run size.

TABLE B-34. Estimated inriver run size, catch, and escapement for Hoh River coho in numbers of fish.

Year or Average	Terminal Catch ^{a/}			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence	River Sport ^{b/}	Natural ^{c/}	Hatchery	Natural ^{c/}	Hatchery	Total
1976-1980	1,960	74	28	2,700	39	4,683	259	4,942
1981-1985	1,604	48	22	3,371	92	4,655	452	5,107
1986-1990	2,507	30	165	3,145	238	5,221	760	5,981
1991-1995	801	26	168	3,078	122	3,816	379	4,195
1996	972	50	101	4,858	0	5,835	146	5,981
1997 ^{d/}	85	25	4	1,386	0	1,449	51	1,500
1998	650	20	213	4,418	0	5,184	118	5,302
1999	1,706	25	256	4,594	0	6,293	308	6,601
2000	1,932	20	280	6,772	0	8,831	173	9,004
2001	3,909	40	786	10,773	840	14,801	1,547	16,348
2002 ^{e/}	3,114	30	401	9,009	1,922	11,254	3,222	14,476
2003	1,872	20	350	6,273	645	8,118	1,021	9,139
2004	1,255	20	437	4,702	14	6,291	137	6,428
2005	3,830	30	280	4,711	732	8,294	1,259	9,553
2006	1,313	30	108	1,282	0	2,267	466	2,733
2007	1,757	40	305	3,072	0	5,120	54	5,174
2008	1,788	4	204	2,461	67	4,308	220	4,528
2009	4,294	0	505	6,595	0	10,718	685	11,403
2010	2,638	0	515	8,231	0	10,549	468	11,017
2011	3,418	0	1,210	8,043	0	12,463	208	12,671
2012	2,706	10	444	4,072	0	7,106	126	7,232
2013	4,597	20	1,093	2,899	0	8,376	233	8,609
2014	3,879	20	417	4,565	0	8,641	240	8,881
2015 ^{f/}	575	10	253	1,794	0	2,605	27	2,632
2016 ^{f/}	295	2	NA	4,110	0	4,383	24	4,407
GOAL				2,000 to 5,000				

a/ Includes dip-in fish from other river systems.

b/ Recreational catch of adults (coho over 20 inches).

c/ Natural escapement and run sizes estimates include fish taken for hatchery brood stock.

d/ Recreational fishermen were limited to Chinook only. Release of adult coho required. Tribal net fishery used large mesh to minimize coho impacts.

e/ Sport and tribal gillnet seasons reduced inseason in response to delayed upriver movement of coho caused by extreme low water conditions in October and early November. Closures were for two weeks.

f/ Preliminary.

TABLE B-35. Estimated inriver run size, catch, and escapement for Quillayute River spring/summer Chinook in numbers of fish.

Year or Average	Terminal Catch			Escapement		Terminal Run Size		Total
	Gillnet	Ceremonial & Subsistence ^{a/}	River Sport ^{b/}	Natural ^{c/}	Hatchery ^{d/}	Natural ^{c/}	Hatchery ^{d/}	
1976-1980	2,520	20	380	2,093	800	-	-	3,698
1981-1985	700	20	48	731	260	-	-	1,164
1986-1990	1,631	22	258	1,602	1,003	3,085	2,503	4,341
1991-1995	893	25	293	1,159	832	1,444	1,758	3,202
1996	136	50	257	1,170	226	1,388	426	1,814
1997	106	50	263	890	198	1,177	305	1,482
1998	199	50	128	1,599	247	1,829	369	2,198
1999	368	50	238	713	596	818	1,147	1,965
2000	254	50	307	989	227	1,149	678	1,827
2001	330	50	353	1,225	973	1,399	1,515	2,914
2002	419	50	367	1,002	836	1,100	1,573	2,673
2003	184	50	343	1,219	1,250	1,308	1,738	3,046
2004	217	50	341	1,093	763	1,259	1,195	2,454
2005	332	3	479	876	801	1,033	1,467	2,500
2006	688	0	318	553	1,032	604	1,987	2,591
2007	800	0	180	502	1,007	568	1,921	2,489
2008	993	40	223	949	796	1,081	1,920	3,054
2009	483	30	192	555	722	682	1,301	2,073
2010	567	0	233	772	880	941	1,554	2,495
2011	599	41	659	569	696	823	1,759	2,582
2012	880	20	640	729	437	841	1,881	2,722
2013	1,204	0	803	957	528	1,148	2,380	3,528
2014	714	0	481	608	342	843	1,330	2,173
2015 ^{e/}	1,049	0	641	824	505	1,064	1,966	3,030
2016 ^{e/}	1,335	0	599	893	745	1,184	3,601	3,575
GOAL				1,200 ^{f/}				

a/ Beginning in 2005, ceremonial and subsistence catch taken during scheduled gillnet fishery is reported as gillnet catch. Catch during designated ceremonial and subsistence fisheries is listed separately.

b/ Recreational catch of adults; mark selective for adipose fin clipped coho beginning in 2003.

c/ Natural escapement includes hatchery strays and broodstock fish.

d/ Hatchery escapement and terminal run size exclude hatchery strays.

e/ Preliminary.

f/ FMP goal is adults; WDFW goal of 1,200 includes age-3 males (jacks).

TABLE B-36. Estimated inriver run size, catch, and escapement for Quillayute River fall Chinook in numbers of fish.

Year or Average	Terminal Catch			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence ^{a/}	River Sport ^{b/}	Natural ^{c/}	Hatchery ^{d/}	Natural ^{c/}	Hatchery ^{d/}	Total
1976-1980	2,640	20	220	4,220	144	6,540	640	7,180
1981-1985	2,075	50	131	6,282	77	8,219	305	8,525
1986-1990	5,475	50	564	12,238	112	18,004	379	18,383
1991-1995	713	50	289	5,670	11	6,705	29	6,733
1996	1,377	100	500	7,316	0	9,293	0	9,293
1997	282	50	310	5,405	0	6,047	0	6,047
1998	762	100	326	6,752	0	7,940	0	7,940
1999	1,129	100	195	3,334	0	4,758	0	4,758
2000	604	100	360	3,730	0	4,794	0	4,794
2001	1,650	100	659	5,136	0	7,545	0	7,545
2002	3,074	100	271	6,067	0	9,512	0	9,512
2003	1,345	100	626	7,398	0	9,469	23	9,492
2004	527	100	681	3,831	0	6,133	12	6,145
2005	1,414	0	499	6,406	0	8,319	32	8,351
2006	1,969	0	35	5,642	0	7,656	15	7,671
2007	905	0	166	3,066	0	4,137	0	4,137
2008	1,426	0	217	3,612	0	5,250	5	5,255
2009	2,434	0	352	3,130	0	5,874	42	5,916
2010	1,815	0	553	4,635	0	6,985	18	7,003
2011	1,972	3	868	3,963	0	6,765	41	6,806
2012	2,842	0	358	3,518	0	6,682	36	6,718
2013	2,001	0	1,024	4,017	0	6,993	49	7,042
2014	4,213	0	423	2,782	0	7,327	96	7,423
2015 ^e	2,387	0	602	3,098	0	6,068	19	6,087
2016 ^e	1,467	0	73	3,508	0	5,042	6	5,048
GOAL				3,000 ^{f/}				

a/ Beginning in 2005, ceremonial and subsistence catch taken during scheduled gillnet fishery is reported as gillnet catch.

b/ River recreational catch of age-3 and older fish.

c/ Includes fish taken for hatchery brood stock and hatchery strays.

d/ Hatchery escapement and terminal run size exclude hatchery strays.

e/ Preliminary.

f/ Minimum. Terminal run managed at 40 percent harvest rate.

TABLE B-37. Estimated inriver run size, catch, and escapement for Quillayute River coho stocks in numbers of fish. (Page 1 of 2)

Year or Average	Terminal Catch ^{a/}			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence ^{b/}	River Sport ^{c/}	Natural ^{d/}	Hatchery ^{e/}	Natural ^{d/}	Hatchery ^{e/}	Total
SUMMER COHO								
1976-1980	5,038	56	266	1,192	4,565	1,962	9,154	11,116
1981-1985	4,062	50	105	946	2,744	2,106	5,802	7,908
1986-1990	3,204	50	94	723	4,001	1,643	6,430	8,072
1991-1995	1,286	50	191	784	6,501	989	7,823	8,812
1996	2,552	50	189	465	3,400	801	5,855	6,656
1997	70	50	14	753	1,509	798	1,598	2,396
1998	1,310	50	93	346	1,688	593	2,894	3,487
1999	945	50	292	624	7,527	723	8,715	9,438
2000	1,188	50	278	1,001	3,745	1,237	5,025	6,262
2001	2,196	50	590	961	12,993	1,841	14,949	16,790
2002	3,982	50	150	1,012	3,939	2,099	7,034	9,133
2003	2,412	50	326	505	6,539	1,472	8,360	9,832
2004	1,337	50	343	1,269	6,527	1,874	7,652	9,526
2005	10,273	0	487	1,218	7,182	2,197	16,963	19,160
2006	2,146	0	141	621	1,832	1,549	3,191	4,740
2007	645	0	200	805	4,778	1,029	5,399	6,428
2008	1,313	0	198	706	6,419	971	7,665	8,636
2009	3,227	0	233	1,337	8,085	2,210	10,672	12,882
2010	890	0	58	273	1,644	564	2,304	2,868
2011	757	0	220	1,654	3,800	2,069	4,362	6,431
2012	430	0	251	672	1,588	789	2,152	2,941
2013	1,028	0	331	451	2,504	990	3,324	4,314
2014	4,281	0	267	688	5,085	2,018	8,303	10,321
2015 ^{g/}	251	0	283	624	4,570	741	4,987	5,104
2016 ^{g/}	2,450	0	382	663	2,116	1,725	3,886	5,611
GOAL	Hatchery Production							

TABLE B-37. Estimated inriver run size, catch, and escapement for Quillayute River coho stocks in numbers of fish. (Page 2 of 2)

Year or Average	Terminal Catch ^{a/}			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence ^{b/}	River Sport ^{c/}	Natural ^{d/}	Hatchery ^{e/}	Natural ^{d/}	Hatchery ^{e/}	Total
FALL COHO								
1976-1980	5,985	53	70	9,002	2,435	13,959	3,587	17,546
1981-1985	3,789	49	164	7,464	2,102	10,988	2,580	13,568
1986-1990	5,794	100	385	8,766	1,771	14,119	2,695	16,815
1991-1995	3,598	100	565	7,357	4,736	9,930	6,426	16,356
1996	8,419	100	1,336	11,009	11,515	14,596	17,783	32,379
1997	456	50	38 ^{f/}	4,623	2,645	5,021	2,791	7,812
1998	4,606	50	1,340	13,866	12,834	16,980	15,716	32,696
1999	22,946	50	1,054	9,365	13,528	19,524	27,515	47,039
2000	5,606	50	1,059	13,343	13,118	17,706	15,470	33,176
2001	23,991	50	2,620	18,876	23,892	36,714	32,715	69,429
2002	22,214	50	2,002	23,016	30,656	34,695	43,243	77,938
2003	13,949	50	2,533	14,756	13,799	25,188	19,899	45,087
2004	19,321	50	2,831	13,354	21,248	25,118	31,687	56,805
2005	29,530	0	3,420	11,501	24,137	22,125	46,463	68,588
2006	9,779	0	291	5,210	4,450	12,266	7,464	19,730
2007	10,152	0	826	6,252	5,423	10,942	11,711	22,653
2008	15,722	10	511	6,947	12,098	12,979	22,309	35,288
2009	37,112	0	4,620	7,863	23,373	24,653	48,315	72,968
2010	27,127	10	3,537	9,837	23,325	23,901	39,935	63,836
2011	21,983	11	3,955	8,070	22,487	20,887	35,634	56,521
2012	11,051	1	1,317	5,846	2,276	15,421	5,070	20,490
2013	12,611	0	4,565	7,063	5,111	18,220	11,139	29,359
2014	27,427	0	3,279	7,410	12,389	22,570	27,950	50,520
2015 ^{g/}	5,484	0	3,054	3,079	3,595	8,672	6,568	15,240
2016 ^{g/}	5,597	0	180	9,025	16,332	11,069	20,148	31,217
GOAL	6,300-15,800							

a/ Includes dip-in fish from other systems.

b/ Beginning in 2005, ceremonial and subsistence catch taken during scheduled gillnet fishery is reported as gillnet catch. Catch during designated ceremonial and subsistence fisheries is listed separately.

c/ Recreational catch of adults (coho over 20 inches).

d/ Natural escapement and run size estimates include fish taken for hatchery brood stock.

e/ Hatchery escapement and terminal run size exclude hatchery strays.

f/ Regulations required nonretention of coho.

g/ Preliminary.

TABLE B-38. Estimated inriver run size, catch, and escapement for Hoko River summer/fall Chinook in numbers of fish.

Year or Average	Terminal Catch			Escapement		Terminal Run Size		
	Gillnet	Ceremonial & Subsistence	River Sport ^{a/}	Natural ^{b/}	Supplemental	Natural ^{b/}	Supplemental	Total
1991-1995	-	-	5	362	432	362	432	795
1996	-	-	4	435	830	435	830	1,265
1997	-	-	8	365	529	365	529	894
1998	-	-	-	705	1,017	705	1,017	1,722
1999	-	-	-	734	954	734	954	1,688
2000	-	-	-	294	437	294	437	731
2001	-	-	-	496	450	496	450	946
2002	-	-	-	192	488	192	488	680
2003	-	-	-	402	696	402	696	1,098
2004	-	-	-	266	820	266	820	1,086
2005	-	-	-	72	212	72	212	284
2006	-	-	-	172	723	172	723	895
2007	-	-	-	251	317	251	317	568
2008	-	-	-	106	377	106	377	483
2009	-	-	-	38	347	38	347	385
2010	-	-	-	322	471	322	471	793
2011	-	-	-	1,081	423	1,081	423	1,504
2012	-	-	-	212	451	212	451	663
2013	-	-	-	726	680	726	680	1,406
2014	-	-	-	1,531	229	1,531	229	1,760
2015 ^{c/}	-	-	-	1,500	1,377	1,500	1,377	2,877
2016 ^{c/}	-	-	-	NA	NA	NA	NA	NA
GOAL				850 ^{d/}	200 ^{e/}			

a/ River recreational catch of age-3 and older fish.

b/ Includes fish taken for hatchery brood stock and hatchery strays.

c/ Preliminary.

d/ Goal in terms of naturally spawning fish and includes supplementation production

e/ Not an FMP goal.

TABLE B-39. Puget Sound commercial net and troll fishery salmon catches in numbers of fish.^{a/} (Page 1 of 2)

Average	Fishery	Chinook	Coho	Pink ^{b/}	Chum	Sockeye
1971-1975	Non-Indian	105,332	525,867	1,172,614	331,029	2,158,784
	Treaty Indian	57,672	224,743	61,818	78,266	38,225
	Total	163,005	750,610	1,234,433	409,295	2,197,009
1976-1980	Non-Indian	103,546	413,583	1,050,560	407,859	1,095,603
	Treaty Indian	135,592	492,549	185,831	296,057	277,771
	Total	239,138	906,132	1,236,391	703,916	1,373,374
1981-1985	Non-Indian	72,934	346,125	1,154,851	368,762	928,477
	Treaty Indian	155,966	608,241	829,340	387,951	912,408
	Total	228,899	954,366	1,984,191	756,713	1,840,885
1986-1990	Non-Indian	57,550	470,494	509,445	540,843	964,690
	Treaty Indian	176,966	812,712	590,138	662,215	1,028,361
	Total	234,516	1,283,206	1,099,583	1,203,058	1,993,051
1991-1995	Non-Indian	17,519	74,371	784,067	523,396	735,834
	Treaty Indian	82,513	316,784	832,948	607,028	741,058
	Total	100,033	391,155	1,617,015	1,130,424	1,476,892
1996-2000	Non-Indian	12,870	15,204	174,163	307,799	240,088
	Treaty Indian	64,442	184,866	211,946	210,140	321,849
	Total	77,311	200,071	386,109	517,939	561,937
2001-2005	Non-Indian	11,100	26,008	258,211	852,710	92,830
	Treaty Indian	94,113	340,391	214,297	725,349	194,046
	Total	107,667	369,373	475,002	1,620,081	288,484
2006 ^{c/}	Non-Indian	13,300	9,827	6	877,791	223,908
	Treaty Indian	104,956	259,779	411	790,603	548,661
	Total	118,256	269,606	417	1,668,394	772,569
2007 ^{c/}	Non-Indian	6,785	13,435	200,687	680,385	6,266
	Treaty Indian	120,252	209,137	301,847	782,804	6,327
	Total	127,037	222,572	502,534	1,463,189	12,593
2008 ^{c/}	Non-Indian	6,103	6,464	14	449,348	16,319
	Treaty Indian	103,181	227,273	744	575,947	44,865
	Total	109,284	233,737	758	1,025,295	61,184

TABLE B-39. Puget Sound commercial net and troll fishery salmon catches in numbers of fish.^{a/} (Page 2 of 2)

Year or	Fishery	Chinook	Coho	Pink ^{b/}	Chum	Sockeye
2009 ^{c/}	Non-Indian	2,753	20,091	2,789,870	294,841	1,605
	Treaty Indian	86,786	259,528	1,948,562	354,963	2,949
	Total	89,539	279,619	4,738,432	649,804	4,554
2010 ^{c/}	Non-Indian	7,922	18,220	309	416,252	749,668
	Treaty Indian	87,510	153,683	1,759	545,795	1,222,590
	Total	95,432	171,903	2,068	962,047	1,972,258
2011 ^{c/}	Non-Indian	10,097	28,821	2,266,672	463,116	86,908
	Treaty Indian	100,798	223,800	2,264,446	600,149	198,299
	Total	110,895	252,621	4,531,118	1,063,265	285,207
2012 ^{c/}	Non-Indian	9,053	35,628	417	576,660	41,048
	Treaty Indian	113,691	355,839	1,233	577,610	89,865
	Total	122,744	391,467	1,650	1,154,270	130,913
2013 ^{c/}	Non-Indian	9,189	29,577	3,193,644	909,250	6,999
	Treaty Indian	104,682	299,493	2,716,183	817,755	31,074
	Total	113,871	329,070	5,909,827	1,727,005	38,073
2014 ^{c/}	Non-Indian	4,343	11,815	29	543,142	234,200
	Treaty Indian	36,116	122,769	667	505,117	486,895
	Total	40,459	134,584	696	1,048,259	721,095
2015 ^{c/}	Non-Indian	3,367	4,777	398,670	561,379	16,906
	Treaty Indian	41,249	29,450	519,204	516,526	37,752
	Total	44,616	34,227	917,874	1,077,905	54,658
2016 ^{c/}	Non-Indian	6,604	14,486	0	444,586	0
	Treaty Indian	48,684	201,588	43	462,848	4,663
	Total	55,288	216,074	43	907,434	4,663

a/ Data do not reflect treaty Indian allocations. Includes U.S. and Canadian-origin salmon and fish caught in test fisheries.

b/ Odd-year averages for pink salmon.

c/ Preliminary.

TABLE B-40. Summary of Puget Sound marine recreational salmon catch estimates in numbers of fish from catch record cards.^{a/}

Year or Average	Chinook	Coho	Pink ^{b/}
1971-1975	225,650	119,301	14,855
1976-1980	253,763	202,983	47,029
1981-1985	156,183	196,632	14,910
1986-1990	127,860	251,087	40,884
1991-1995	77,310	137,637	71,030
1996	72,069	85,139	50
1997	60,425	137,571	35,197
1998	26,114	89,520	201
1999	28,739	22,055	23,780
2000	23,679	74,934	17
2001	44,422	193,454	117,367
2002	30,743	66,576	31
2003	30,349	92,114	143,248
2004	26,727	83,708	138
2005	22,879	58,309	68,546
2006	28,582	26,688	19
2007	48,726	65,306	93,251
2008	32,422	21,400	4
2009	31,305	75,719	156,901
2010	28,306	20,290	27
2011	27,507	56,775	142,781
2012	41,632	169,884	5
2013	41,036	115,934	134,539
2014	32,358	124,185	52
2015 ^{c/}	29,168	142,669	198,931
2016	NA	NA	NA

a/ WDFW Statistical Areas 5 through 13, which include the Strait of Juan de Fuca, San Juan Islands, and inner Puget Sound. 1981-1987: Adjusted all Puget Sound and freshwater estimates by 0.833, due to previous estimates being 20% too high. 1988: Area 5, no adjustment. Areas 6-13 adjusted by 0.633, due to estimates being 58% too high. 1989-Present: Area 5, no adjustment. Areas 6-13 adjusted by 0.685, due to estimates being 46% too high. 1991, 1992, and 1993 catch record card estimates adjusted for results of 1987-1990 WDFW/tribal sports emphasis study.

b/ Odd-year averages for pink salmon.

c/ Preliminary.

TABLE B-41. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound Chinook stocks.^{a/}
(Page 1 of 3)

Year or Average	Commercial Net Catches			Spawning Escapement			Puget Sound Run Size ^{c/}		
	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total
Strait of Juan de Fuca									
1981-1985	58	127	185	811	1,450	2,261	869	1,577	2,446
1986-1990	135	455	590	1,276	4,755	6,031	1,411	5,210	6,621
1991-1995	70	110	179	979	2,390	3,369	1,048	2,500	3,548
1996-2000	9	16	25	1,193	2,236	3,429	1,201	2,252	3,454
2001-2005	6	11	17	1,448	2,606	4,055	1,454	2,618	4,071
2006	8	15	22	1,234	3,145	4,379	1,242	3,160	4,401
2007	3	4	7	769	1,353	2,122	772	1,357	2,129
2008	11	22	34	683	1,182	1,865	694	1,204	1,899
2009	1	10	12	1,530	1,254	2,784	1,531	1,264	2,796
2010	10	21	31	737	1,781	2,518	747	1,802	2,549
2011	6	16	22	737	2,833	3,570	743	2,849	3,592
2012	8	11	19	1,158	2,095	3,253	1,166	2,107	3,272
2013	11	11	22	2,848	2,993	5,841	2,859	3,004	5,863
2014	31	49	80	2,633	4,172	6,805	2,664	4,221	6,885
2015	27	44	71	2,805	4,474	7,279	2,832	4,518	7,350
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL						5,300			
Nooksack-Samish									
1981-1985	54,062	33,672	87,734	16,083	6,562	22,645	70,145	40,234	110,379
1986-1990	38,059	26,262	64,320	10,729	4,113	14,841	48,787	30,374	79,161
1991-1995	18,213	2,303	20,516	8,646	740	9,386	26,859	3,042	29,901
1996-2000	20,321	4,648	24,969	8,263	2,623	10,886	28,584	7,271	35,855
2001-2005	10,456	15,539	25,995	3,909	7,155	11,064	14,365	22,694	37,059
2006	14,058	11,323	25,381	3,856	2,699	6,555	17,914	14,022	31,936
2007	8,479	9,069	17,548	4,452	4,535	8,987	12,931	13,604	26,535
2008	11,447	7,890	19,337	6,270	3,516	9,786	17,717	11,406	29,123
2009	4,113	7,238	11,351	3,494	6,054	9,548	7,607	13,292	20,899
2010	17,327	1,754	19,081	15,872	865	16,737	33,199	2,619	35,818
2011	21,054	3,336	24,390	8,506	378	8,884	29,560	3,714	33,274
2012	22,884	2,132	25,015	6,635	445	7,080	29,519	2,577	32,095
2013	18,829	3,159	21,988	8,816	473	9,289	27,645	3,632	31,277
2014	11,243	1,143	12,386	12,295	263	12,558	23,538	1,406	24,944
2015	8,838	3,173	12,011	6,049	0	6,049	14,887	3,173	18,060
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL				1,800					

TABLE B-41. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound Chinook stocks.^{a/}
(Page 2 of 3)

Year or Average	Commercial Net Catches			Spawning Escapement			Puget Sound Run Size ^{c/}		
	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total
Skagit									
1981-1985	597	9,183	9,780	787	11,109	11,896	1,384	20,292	21,676
1986-1990	251	4,039	4,290	815	12,398	13,213	1,066	16,437	17,503
1991-1995	464	1,586	2,049	2,402	6,280	8,682	2,866	7,865	10,731
1996-2000	10	463	473	316	10,390	10,705	326	10,852	11,179
2001-2005	12	806	818	221	17,503	17,725	233	18,310	18,543
2006	30	1,695	1,725	368	20,768	21,136	398	22,463	22,861
2007	54	1,657	1,712	370	11,281	11,651	424	12,938	13,363
2008	47	3,309	3,355	164	11,664	11,828	211	14,973	15,183
2009	57	5,142	5,199	77	6,979	7,056	134	12,121	12,255
2010	15	1,678	1,693	70	8,017	8,087	85	9,695	9,780
2011	44	3,668	3,712	67	5,537	5,604	111	9,205	9,316
2012	12	1,940	1,952	82	13,817	13,899	94	15,757	15,851
2013	14	2,069	2,083	73	10,882	10,955	87	12,951	13,038
2014	0	1,582	1,582	0	8,672	8,672	0	10,254	10,254
2015	0	1,372	1,372	0	13,314	13,314	0	14,686	14,686
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					14,900				
Hood Canal									
1981-1985	4,925	3,665	8,590	3,786	2,038	5,823	8,710	5,703	14,413
1986-1990	10,589	4,994	15,583	6,188	2,006	8,194	16,777	7,000	23,777
1991-1995	1,839	1,038	2,877	3,945	1,409	5,354	5,784	2,447	8,231
1996-2000	3,629	80	3,708	11,001	1,577	12,578	14,630	1,656	16,286
2001-2005	17,422	592	18,015	15,116	2,535	17,652	32,539	3,128	35,667
2006	21,860	690	22,550	15,749	1,553	17,302	37,609	2,243	39,852
2007	15,254	386	15,639	16,231	663	16,894	31,485	1,049	32,533
2008	16,092	707	16,799	14,813	1,439	16,252	30,905	2,146	33,051
2009	20,493	688	21,180	15,281	1,341	16,622	35,774	2,029	37,802
2010	21,419	1,096	22,514	13,956	1,341	15,297	35,375	2,437	37,811
2011	34,687	1,365	36,052	15,499	1,652	17,151	50,186	3,017	53,203
2012	58,321	1,753	60,075	28,256	2,000	30,256	86,577	3,753	90,331
2013	45,113	226	45,339	25,866	494	26,360	70,979	720	71,699
2014	15,841	183	16,025	8,921	253	9,174	24,762	436	25,199
2015	23,664	182	23,846	8,927	171	9,098	32,591	353	32,944
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL				3,400					

TABLE B-41. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound Chinook stocks.^{a/} (Page 3 of 3)

Year or Average	Commercial Net Catches			Spawning Escapement			Puget Sound Run Size ^{c/}		
	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total
Stillaguamish-Snohomish^{d/}									
1981-1985	3,253	7,497	10,750	1,990	4,901	6,891	5,244	12,397	17,641
1986-1990	3,840	3,698	7,538	1,148	5,210	6,358	4,988	8,908	13,897
1991-1995	4,277	1,359	5,636	2,253	4,371	6,624	6,530	5,731	12,260
1996-2000	5,924	4,281	10,204	5,543	6,813	12,357	11,467	11,094	22,561
2001-2005	2,945	3,974	6,919	3,757	8,463	12,220	6,702	12,437	19,139
2006	5,304	576	5,880	4,017	9,562	13,579	9,321	10,138	19,459
2007	5,752	284	6,036	6,222	4,769	10,991	11,974	5,053	17,027
2008	3,577	157	3,734	5,720	10,155	15,875	9,297	10,312	19,609
2009	1,245	73	1,318	2,422	3,323	5,745	3,667	3,396	7,063
2010	2,774	167	2,941	3,281	5,168	8,449	6,055	5,335	11,390
2011	4,157	199	4,356	3,665	3,040	6,705	7,822	3,239	11,061
2012	403	48	450	6,353	5,458	11,811	6,756	5,506	12,261
2013	1,760	102	1,862	5,656	3,484	9,140	7,416	3,586	11,002
2014	1,779	64	1,843	5,961	2,784	8,745	7,740	2,848	10,588
2015	852	1,503	2,355	4,682	2,739	7,421	5,534	4,242	9,776
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					7,300				
South Puget Sound									
1981-1985	23,472	8,740	32,213	23,341	6,371	29,712	46,813	15,111	61,925
1986-1990	30,029	22,654	52,684	36,997	18,108	55,106	67,027	40,762	107,789
1991-1995	21,860	13,438	35,298	30,556	14,488	45,044	52,416	27,926	80,342
1996-2000	15,271	10,535	25,805	36,157	23,280	59,437	51,428	33,815	85,243
2001-2005	23,522	13,889	37,411	46,563	23,647	70,209	70,085	37,536	107,621
2006	41,379	16,112	57,491	63,541	22,691	86,232	104,920	38,803	143,723
2007	64,809	13,785	78,594	75,549	16,275	91,824	140,358	30,060	170,418
2008	45,104	20,327	65,431	47,042	15,661	62,703	92,146	35,989	128,134
2009	33,327	6,150	39,478	38,486	7,671	46,157	71,813	13,821	85,634
2010	29,094	6,519	35,613	50,157	9,290	59,447	79,251	15,809	95,060
2011	26,188	11,413	37,601	40,935	9,178	50,113	67,123	20,591	87,714
2012	22,168	5,838	28,006	39,753	17,165	56,918	61,921	23,003	84,924
2013	22,012	9,990	32,002	53,452	6,988	60,440	75,465	16,978	92,442
2014	9,539	3,452	12,992	26,937	4,293	31,230	36,477	7,745	44,222
2015	9,380	4,714	14,094	33,981	6,544	40,525	43,361	11,258	54,620
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL						34,900			

a/ Includes treaty Indian and non-Indian net commercial catches during the adult accounting period. Source: Puget Sound run reconstruction model.

b/ Includes estimated off-station returns.

c/ Puget Sound run size is defined as the run available to Puget Sound net fisheries; spawning escapement plus Puget Sound net fishery catch. Does not include fish caught by troll and recreational fisheries inside Puget Sound.

d/ Since 1999, numbers include Tulaip hatchery returns, which are not added into escapement since no broodstock is taken at the hatchery.

TABLE B-42. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound coho stocks.^{a/} (Page 1 of 4)

Year or Average	Commercial Net Catches ^{c/}			Spawning Escapement			Terminal Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
Strait of Juan de Fuca									
1981-1985	15,822	2,907	18,729	9,300	5,960	15,260	25,122	8,867	33,989
1986-1990	5,956	2,301	8,258	2,913	6,920	9,833	8,869	9,221	18,091
1991-1995	1,872	286	2,158	4,316	4,810	9,126	6,188	5,096	11,284
1996-2000	4,117	811	4,928	10,276	12,951	23,227	15,355	13,999	29,354
2001-2005	5,638	1,467	7,104	11,951	22,146	34,097	19,634	24,154	43,788
2006	845	220	1,065	596	3,940	4,536	1,665	4,224	5,889
2007	2,747	708	3,455	2,021	8,023	10,044	5,318	8,889	14,207
2008	688	144	832	692	3,335	4,027	1,392	3,481	4,873
2009	5,481	1,396	6,877	9,838	17,526	27,364	16,162	19,145	35,307
2010	2,082	464	2,546	4,286	19,282	23,568	6,596	19,935	26,531
2011	4,245	1,278	5,523	7,893	13,288	21,181	13,819	15,132	28,951
2012	4,153	1,140	5,293	5,832	13,096	18,928	10,686	14,485	25,171
2013	2,040	88	2,128	6,767	8,461	15,228	10,245	8,549	18,794
2014	3,201	4	3,205	3,688	11,002	14,690	7,353	11,006	18,359
2015 ^{d/}	291	94	385	1,019	3,698	4,717	1,613	3,792	5,405
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL	7,000-11,000								
Nooksack-Samish									
1981-1985	122,433	17,539	139,972	27,720	7,700	35,420	150,153	25,239	175,392
1986-1990	140,733	21,839	162,572	23,087	8,020	31,107	163,821	29,859	193,680
1991-1995	48,056	13,878	61,934	19,793	10,835	30,629	67,849	24,713	92,563
1996-2000	36,169	5,272	41,441	36,920	7,611	44,530	75,056	13,577	88,633
2001-2005	41,809	17,222	59,031	36,653	15,154	51,808	80,183	33,324	113,507
2006	16,932	4,846	21,778	8,533	845	9,378	25,644	5,966	31,610
2007	27,341	7,536	34,877	14,781	11,205	25,986	42,293	18,997	61,290
2008	26,295	2,822	29,117	6,067	1,047	7,114	32,452	4,089	36,541
2009	39,574	4,658	44,232	12,000	1,802	13,802	52,009	6,460	58,469
2010	45,789	37,912	83,701	15,968	24,582	40,550	62,325	62,494	124,819
2011	63,369	5,453	68,822	14,645	2,228	16,873	78,608	7,681	86,289
2012	48,942	10,877	59,819	16,726	9,600	26,326	65,867	20,485	86,352
2013	32,970	16,517	49,487	16,700	20,494	37,194	51,010	37,063	88,073
2014	9,368	1,364	10,732	18,845	5,530	24,375	28,791	6,911	35,702
2015 ^{d/}	14,384	499	14,883	24,485	1,384	25,869	39,065	1,885	40,950
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL	17,900								

TABLE B-42. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound coho stocks. ^{a/}(Page 2 of 4)

Year or Average	Commercial Net Catches ^{c/}			Spawning Escapement			Terminal Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
Skagit									
1981-1985	6,619	8,858	15,477	21,740	19,800	41,540	28,359	28,658	57,017
1986-1990	5,309	11,448	16,757	13,861	25,800	39,661	19,170	37,248	56,418
1991-1995	1,338	1,739	3,077	11,082	14,240	25,322	12,420	15,979	28,399
1996-2000	738	5,909	6,647	10,166	42,139	52,306	11,251	50,571	61,822
2001-2005	3,681	18,529	22,211	13,700	76,980	90,680	18,332	100,976	119,307
2006	1,148	4,288	5,436	1,927	7,702	9,629	3,276	12,797	16,073
2007	1,226	15,850	17,076	10,302	52,333	62,635	12,408	72,647	85,055
2008	1,814	6,807	8,621	11,062	22,706	33,768	13,445	30,684	44,129
2009	1,898	7,636	9,534	11,018	76,689	87,707	13,556	88,781	102,337
2010	1,676	23,466	25,142	5,548	43,083	48,631	7,555	69,111	76,666
2011	5,075	16,540	21,615	12,328	49,162	61,490	18,804	71,289	90,093
2012	2,601	17,337	19,938	13,973	109,763	123,736	17,445	134,606	152,051
2013	4,490	22,103	26,593	14,830	88,246	103,076	21,772	124,941	146,713
2014	2,314	11,898	14,212	7,924	27,170	35,094	11,875	44,680	56,555
2015 ^{d/}	730	2,272	3,002	2,080	6,483	8,563	4,489	13,984	18,473
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL	14,875-25,000								
Hood Canal									
1981-1985	36,470	21,180	57,650	19,020	23,589	42,609	55,490	44,769	100,259
1986-1990	42,838	21,862	64,699	14,711	18,328	33,039	57,549	40,190	97,738
1991-1995	13,334	673	14,007	14,792	30,048	44,840	28,126	30,721	58,847
1996-2000	5,969	6,841	12,810	23,067	55,411	78,478	30,110	62,967	93,077
2001-2005	16,792	27,331	44,123	34,590	104,232	138,822	62,404	135,781	198,185
2006	24,542	34,126	58,668	3,883	13,665	17,548	32,106	49,718	81,824
2007	20,161	31,505	51,666	15,995	48,740	64,735	38,699	82,808	121,507
2008	31,860	12,408	44,268	8,876	11,796	20,672	43,916	25,518	69,434
2009	36,664	20,428	57,092	13,256	27,906	41,162	54,240	50,085	104,325
2010	14,944	12,907	27,851	9,494	4,753	14,247	25,385	17,867	43,252
2011	36,526	27,635	64,161	20,117	25,733	45,850	64,244	56,528	120,772
2012	37,357	52,711	90,068	16,956	46,802	63,758	61,633	103,276	164,909
2013	35,929	6,886	42,815	18,255	16,064	34,319	59,942	24,277	84,219
2014	8,020	16,181	24,201	7,066	26,787	33,853	16,865	44,694	61,559
2015	NA	NA	NA	NA	NA	NA	NA	NA	NA
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL	10,750-14,350								

TABLE B-42. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound coho stocks. ^{a/} (Page 3 of 4)

Year or Average	Commercial Net Catches ^{c/}			Spawning Escapement			Terminal Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
Stillaguamish									
1981-1985	0	9,492	9,492	0	13,592	13,592	0	23,572	23,572
1986-1990	0	20,495	20,495	0	15,886	15,886	0	36,983	36,983
1991-1995	27	5,132	5,159	94	15,717	15,811	124	21,231	21,355
1996-2000	18	1,286	1,303	35	16,770	16,806	62	19,273	19,335
2001-2005	9	3,579	3,589	71	47,628	47,699	84	53,012	53,095
2006	0	2,845	2,845	0	8,549	8,549	0	11,780	11,780
2007	16	3,915	3,931	160	38,732	38,892	188	45,457	45,645
2008	0	2,255	2,255	5	12,938	12,943	6	15,356	15,362
2009	0	2,313	2,313	5	22,179	22,184	6	27,505	27,511
2010	18	574	592	71	15,172	15,243	90	16,208	16,298
2011	19	6,184	6,203	155	49,991	50,146	183	59,079	59,262
2012	17	5,369	5,386	101	45,156	45,257	154	54,197	54,351
2013	57	7,881	7,938	0	60,387	60,387	80	73,386	73,466
2014	52	7,964	8,016	246	35,763	36,009	329	46,474	46,803
2015 ^{d/}	1	466	467	5	2,572	2,577	9	4,373	4,382
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL	6,100-10,000								
Snohomish									
1981-1985	25,601	31,346	56,947	11,767	83,460	95,227	37,914	117,513	155,426
1986-1990	48,719	75,429	124,148	26,350	94,156	120,507	75,971	173,208	249,179
1991-1995	36,652	26,247	62,900	23,634	84,503	108,137	61,054	114,178	175,232
1996-2000	31,493	4,900	36,393	21,206	83,292	104,498	55,392	97,133	152,525
2001-2005	36,746	15,200	51,947	18,272	193,475	211,747	57,319	219,745	277,064
2006	4,898	24,081	28,979	6,136	75,630	81,766	11,224	102,050	113,274
2007	14,107	11,845	25,952	7,147	117,736	124,883	22,104	137,744	159,848
2008	31,268	6,464	37,732	3,329	35,441	38,770	34,796	44,025	78,821
2009	19,350	8,972	28,322	11,472	98,979	110,451	33,008	116,146	149,154
2010	319	1,418	1,737	3,090	49,100	52,190	3,526	52,389	55,915
2011	5,342	9,891	15,233	7,747	111,374	119,121	13,808	131,209	145,017
2012	43,092	10,795	53,887	10,441	130,637	141,078	56,883	155,075	211,958
2013	29,463	16,400	45,863	10,453	125,870	136,323	42,688	162,989	205,677
2014	28,639	10,069	38,708	13,483	46,244	59,727	45,163	61,910	107,073
2015 ^{d/}	5,079	2,552	7,631	4,365	12,804	17,169	11,197	23,971	35,168
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL	31,000-50,000								

TABLE B-42. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound coho stocks.^{a/} (Page 4 of 4)

Year or Average	Commercial Net Catches ^{c/}			Spawning Escapement			Terminal Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
South Puget Sound									
1981-1985	328,516	141,229	469,745	76,560	38,510	115,070	405,076	179,738	584,815
1986-1990	509,525	211,476	721,001	69,198	28,882	98,080	578,723	240,358	819,081
1991-1995	137,961	56,462	194,423	97,002	23,945	120,947	234,963	80,407	315,370
1996-2000	57,648	29,324	86,972	73,685	28,337	102,022	140,763	62,893	203,656
2001-2005	116,825	41,503	158,327	110,918	36,881	147,799	243,845	85,823	329,668
2006	114,496	29,436	143,932	47,625	21,449	69,074	166,886	55,795	222,681
2007	57,894	25,382	83,276	53,136	32,187	85,323	120,018	66,938	186,956
2008	97,850	14,499	112,349	53,835	17,372	71,207	158,218	35,487	193,705
2009	87,470	18,554	106,024	51,672	26,164	77,836	156,182	62,414	218,596
2010	19,739	5,820	25,559	17,461	11,160	28,621	39,806	18,451	58,257
2011	31,699	10,929	42,628	49,765	34,651	84,416	92,488	56,177	148,665
2012	102,273	32,416	134,689	84,436	48,911	133,347	208,863	100,807	309,670
2013	70,907	13,870	84,777	70,586	23,298	93,884	162,450	54,660	217,110
2014	44,272	11,209	55,481	43,094	16,371	59,465	98,062	35,814	133,876
2015 ^{d/}	8,297	2,941	11,238	15,023	14,370	29,393	32,411	27,482	59,893
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL				52,000					

a/ Includes treaty Indian and non-Indian net commercial catches during the adult accounting period. Source: Puget Sound run reconstruction model.

b/ Includes estimated off-station returns.

c/ Terminal run size is defined as the run to terminal marine areas; spawning escapement plus sport and commercial net catch (inriver and terminal fishery catch). Prior to 1996, estimates are Puget Sound run size, which is defined as the run available to Puget Sound net fisheries; spawning escapement plus commercial net catch (inriver, terminal, and pre-terminal Puget Sound net fishery catch), but not including fish caught in Puget Sound troll and recreational fisheries.

d/ Preliminary.

TABLE B-43. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound pink stocks.^{a/} (Page 1 of 4)

Year or Average	Commercial Net Catches			Spawning Escapement			Puget Sound Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
Strait of Juan de Fuca									
1981	0	295	295	0	3,100	3,100	0	3,395	3,395
1983	0	144	144	0	5,088	5,088	0	5,232	5,232
1985	0	58	58	0	4,830	4,830	0	4,888	4,888
1987	3	158	161	47	1,956	2,003	50	2,114	2,164
1989	0	1,053	1,053	0	10,903	10,903	0	11,956	11,956
1991	0	1,129	1,129	0	9,896	9,896	0	11,025	11,025
1993	0	91	91	0	1,696	1,696	0	1,787	1,787
1995	4	262	266	100	8,254	8,354	104	8,516	8,620
1997	8	538	546	71	4,953	5,024	79	5,491	5,570
1999	0	6	6	0	7,306	7,306	0	7,312	7,312
2001	3	578	581	469	80,949	81,418	472	81,527	81,999
2003	0	319	319	0	15,148	15,148	0	15,467	15,467
2005	0	51	51	0	8,688	8,688	0	8,739	8,739
2007	0	117	117	0	6,252	6,252	0	6,369	6,369
2009	0	2,713	2,713	0	41,533	41,533	0	44,246	44,246
2011	0	2,041	2,041	0	27,616	27,616	0	29,657	29,657
2013	8	20,875	20,883	157	409,959	410,116	165	430,834	430,999
2015	0	18,104	18,104	0	337,724	337,724	0	355,828	355,828
GOAL ^{e/}	Not Agreed Upon								
Nooksack-Samish									
1981	0	21,659	21,659	0	26,814	26,814	0	48,473	48,473
1983	0	13,321	13,321	0	66,966	66,966	0	80,287	80,287
1985	0	6,204	6,204	0	24,914	24,914	0	31,118	31,118
1987	0	5,069	5,069	0	32,685	32,685	0	37,754	37,754
1989	237	24,727	24,964	1,200	126,006	127,206	1,437	150,733	152,170
1991	0	21,852	21,852	0	21,304	21,304	0	43,156	43,156
1993	0	4,323	4,323	0	51,680	51,680	0	56,003	56,003
1995	0	13,532	13,532	0	207,112	207,112	0	220,644	220,644
1997	0	4,152	4,152	0	26,000	26,000	0	30,152	30,152
1999	11	2,478	2,489	446	95,000	95,446	457	97,478	97,935
2001	208	13,886	14,094	3,714	226,000	229,714	3,922	239,886	243,808
2003	291	2,593	2,884	7,264	51,011	58,275	7,555	53,604	61,159
2005	629	1,546	2,175	1,791	3,719	5,510	2,420	5,265	7,685
2007	14	851	865	276	9,302	9,578	290	10,153	10,443
2009	250	6,222	6,472	2,097	45,120	47,217	2,347	51,342	53,689
2011	49	11,468	11,517	285	53,852	54,137	334	65,320	65,654
2013	63	100,407	100,470	284	224,000	224,284	347	324,407	324,754
2015	25	81,595	81,620	90	247,358	247,448	115	328,953	329,068
GOAL ^{e/}	50,000								

TABLE B-43. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound pink stocks.^{a/}
(Page 2 of 4)

Year or Average	Commercial Net Catches			Spawning Escapement			Puget Sound Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
Skagit									
1981	403	150,626	151,029	268	100,268	100,536	671	250,894	251,565
1983	4	19,023	19,027	128	470,128	470,256	132	489,151	489,283
1985	9	229,993	230,002	30	710,030	710,060	39	940,023	940,062
1987	1,090	421,176	422,266	1,535	593,535	595,070	2,625	1,014,711	1,017,336
1989	8	661,061	661,069	5	401,300	401,305	13	1,062,361	1,062,374
1991	0	188,927	188,927	0	351,000	351,000	0	539,927	539,927
1993	0	180,088	180,088	0	530,000	530,000	0	710,088	710,088
1995	0	568,561	568,561	0	857,000	857,000	0	1,425,561	1,425,561
1997	0	57,710	57,710	0	60,000	60,000	0	117,710	117,710
1999	0	32,626	32,626	0	320,000	320,000	0	352,626	352,626
2001	0	207,680	207,680	0	894,061	894,061	0	1,101,741	1,101,741
2003	0	234,621	234,621	0	567,080	567,080	0	801,701	801,701
2005	0	20,252	20,252	0	60,000	60,000	0	80,252	80,252
2007	0	11,713	11,713	0	300,000	300,000	0	311,713	311,713
2009	0	396,971	396,971	0	1,160,000	1,160,000	0	1,556,971	1,556,971
2011	0	378,553	378,553	0	560,000	560,000	0	938,553	938,553
2013	0	624,303	624,303	0	900,000	900,000	0	1,524,303	1,524,303
2015	0	75,281	75,281	0	290,000	290,000	0	365,281	365,281
GOAL ^{e/}					330,000				
Hood Canal									
1981	380	1,241	1,621	1,557	6,551	8,108	1,937	7,792	9,729
1983	50	831	881	503	25,201	25,704	553	26,032	26,585
1985	138	2,854	2,992	1,456	64,101	65,557	1,594	66,955	68,549
1987	1,855	6,942	8,797	8,056	62,220	70,276	9,911	69,162	79,073
1989	7,799	26,946	34,745	2,500	60,970	63,470	10,299	87,916	98,215
1991	409	13,518	13,927	3,300	118,450	121,750	3,709	131,968	135,677
1993	623	1,917	2,540	11,497	35,647	47,144	12,120	37,564	49,684
1995	1,565	994	2,559	24,665	31,306	55,971	26,230	32,300	58,530
1997	2,436	910	3,346	21,493	8,363	29,856	23,929	9,273	33,202
1999	18	10	28	7,639	12,667	20,306	7,657	12,677	20,334
2001	781	883	1,664	71,539	98,338	169,877	72,320	99,221	171,541
2003	525	782	1,307	25,217	37,531	62,748	25,742	38,313	64,055
2005	117	145	262	14,107	17,481	31,588	14,224	17,626	31,850
2007	82	541	623	4,406	29,001	33,407	4,488	29,542	34,030
2009	3,178	723	3,901	22,455	11,093	33,548	25,633	11,816	37,449
2011	5,081	1,117	6,198	17,792	15,122	32,914	22,873	16,239	39,112
2013	2,114	10,694	12,808	4,904	195,601	200,505	7,018	206,295	213,313
2015	485	27,706	28,191	5,948	595,679	601,627	6,433	623,385	629,818
GOAL ^{e/}					Not Agreed Upon				

TABLE B-43. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound pink stocks.^{a/}
(Page 3 of 4)

Year or Average	Commercial Net Catches			Spawning Escapement			Puget Sound Run Size ^{c/}		
	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
Stillaguamish-Snohomish									
1981	40	49,480	49,520	96	108,096	108,192	136	157,576	157,712
1983	51	57,452	57,503	283	324,383	324,666	334	381,835	382,169
1985	63	175,095	175,158	192	502,192	502,384	255	677,287	677,542
1987	173	111,881	112,054	418	271,418	271,836	591	383,299	383,890
1989	33	354,805	354,838	16	150,549	150,565	49	505,354	505,403
1991	139	82,150	82,289	447	260,000	260,447	586	342,150	342,736
1993	13	21,444	21,457	135	210,000	210,135	148	231,444	231,592
1995	5	33,871	33,876	26	309,600	309,626	31	343,471	343,502
1997	0	59,173	59,173	0	192,109	192,109	0	251,282	251,282
1999	0	13,451	13,451	0	461,543	461,543	0	474,994	474,994
2001	0	100,549	100,549	0	1,847,648	1,847,648	0	1,948,197	1,948,197
2003	0	191,453	191,453	0	1,577,001	1,577,001	0	1,768,454	1,768,454
2005	0	20,009	20,009	0	600,124	600,124	0	620,133	620,133
2007	0	47,466	47,466	0	1,383,591	1,383,591	0	1,431,057	1,431,057
2009	0	707,056	707,056	0	2,882,373	2,882,373	0	3,589,429	3,589,429
2011	0	517,760	517,760	0	612,903	612,903	0	1,130,663	1,130,663
2013	0	1,150,404	1,150,404	0	2,153,569	2,153,569	0	3,303,973	3,303,973
2015	0	125,701	125,701	0	480,674	480,674	0	606,375	606,375
GOAL ^{e/} - Stillaguamish					155,000				
GOAL ^{e/} - Snohomish					120,000				
South Puget Sound									
1981	1,569	9,818	11,387	791	12,715	13,506	2,360	22,533	24,893
1983	492	11,265	11,757	149	12,200	12,349	641	23,465	24,106
1985	119	5,335	5,454	13	34,700	34,713	132	40,035	40,167
1987	15	9,386	9,401	3	42,200	42,203	18	51,586	51,604
1989	361	36,999	37,360	452	62,220	62,672	813	99,219	100,032
1991	357	5,037	5,394	346	15,950	16,296	703	20,987	21,690
1993 ^{f/}	3	2,330	2,333	21	10,619	10,640	24	12,949	12,973
1995 ^{f/}	13	5,163	5,176	84	18,278	18,362	97	23,441	23,538
1997 ^{f/}	0	449	449	0	2,965	2,965	0	3,414	3,414
1999 ^{f/}	0	80	80	12	4,670	4,682	12	4,750	4,762
2001 ^{f/g/}	5	735	740	48	16,173	16,221	53	16,908	16,961
2003 ^{f/g/}	1	5,393	5,394	68	185,277	185,345	69	190,670	190,739
2005 ^{f/g/}	0	10,574	10,574	0	1,087,906	1,087,906	0	1,098,480	1,098,480
2007 ^{f/g/}	0	27,802	27,802	0	1,218,897	1,218,897	0	1,246,699	1,246,699
2009 ^{f/g/}	0	467,321	467,321	0	4,091,283	4,091,283	0	4,558,604	4,558,604
2011 ^{g/}	0	295,895	295,895	0	2,422,575	2,422,575	0	2,718,470	2,718,470
2013 ^{g/}	0	309,604	309,604	0	2,172,795	2,172,795	0	2,482,399	2,482,399
2015 ^{g/}	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{e/}					25,000				

TABLE B-43. Puget Sound commercial net fishery catches and spawning escapements in numbers of fish for hatchery and natural Puget Sound pink stocks.^{a/}
(Page 4 of 4)

- a/ Includes treaty Indian and non-Indian net commercial catches during the adult accounting period. Source: Puget Sound run reconstruction model.
- b/ Includes estimated off-station returns.
- c/ Puget Sound run size is defined as the run available to Puget Sound net fisheries; spawning escapement plus Puget Sound net fishery catch. Does not include fish caught by troll and recreational fisheries inside Puget Sound.
- d/ Preliminary.
- e/ State-Tribal comanager goal; the only Council goal is for a total Puget Sound pink salmon spawning escapement of 900,000 natural spawners.
- f/ Nisqually escapement estimate incomplete.
- g/ Large runs of pinks have returned to Green River in 2001, 2003, 2005, 2007, 2009, and 2011; however, no formal escapement methodology exists, and Green River pinks are not included in the run reconstruction model. When the model is revised, pre-terminal catch estimates for all stocks will be affected.

TABLE B-44. Puget Sound spring Chinook spawning escapement estimates in numbers of adult fish.

Year or Average	Stock						
	Skagit		NF Nooksack		SF Nooksack	White River	Quilcene
	Hatchery ^{a/}	Natural	Hatchery ^{a/}	Natural ^{b/}	Hatchery/ Natural	Hatchery ^{c/}	Hatchery ^{d/}
1981-1985	49	1,408	0	152	317	70	149
1986-1990	161	1,826	0	235	280	408	125
1991-1995	815	907	770	266	222	1,065	19
1996	856	1,051	1,070	535	203	1,625	12
1997	1,059	1,041	1,663	617	180	1,609	16
1998	1,050	1,086	1,280	370	157	2,710	5
1999	3,172	471	3,992	823	288	1,550	4
2000	1,102	1,021	2,052	1,242	373	2,864	0
2001	1,566	1,856	5,363	2,185	420	3,398	0
2002	1,663	1,065	5,649	3,741	625	1,761	0
2003	1,545	844	5,046	2,857	570	2,937	0
2004	3,107	1,575	3,501	1,719	170	3,088	0
2005	2,258	1,246	1,569	2,047	230	3,687	0
2006	1,487	1,896	732	1,184	515	4,137	0
2007	1,931	613	665	1,438	323	8,200	0
2008	1,462	1,470	1,194	1,266	443	3,927	0
2009	900	978	812	1,903	453	2,200	0
2010	1,371	1,361	1,279	2,048	548	2,193	0
2011	1,301	825	1,404	865	470	3,292	0
2012	1,579	2,763	1,215	758	508	4,096	0
2013	1,256	1,960	2,297	1,346	243	6,597	0
2014	1,109	1,608	1,998	1,398	208	2,157	0
2015 ^{e/}	1,836	1,408	2,994	1,717	135	2,938	0
2016 ^{e/}	2,441	2,428	1,806	NA	NA	6,718	0
GOAL		3,000					

a/ Hatchery escapement estimates include all rack returns (retained and released).

b/ Natural escapement estimates based on carcass counts expanded by a 3.48 multiplier developed from 5 years of redd count-based estimates. Most natural spaw ners are hatchery fish spaw ning in the wild.

c/ Estimate includes adult returns to Hupp Springs, White R. Hatchery, and Buckley Trap. Data from 1999 - 2013 were updated using new "agreed-to" methodology for estimating unsampled portions of Spring Chinook back to Buckley Trap.

d/ Program has been discontinued.

e/ Preliminary.

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**APPENDIX C
HISTORICAL RECORD OF OCEAN SALMON FISHERY
REGULATIONS AND A CHRONOLOGY OF 2016 EVENTS**

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TABLE C-1. Summary of actual California commercial salmon seasons in state and federal (EEZ) waters.^{a/} (Page 1 of 4)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho	
2011	OR/CA Border to Humboldt South Jetty	July 2-6, 9-13, 16-18	-	13	-	27	-	1,400 Chinook quota; 15 Chinook per vessel per day landing limit.
		Aug. 1-2	-	2	-	27	-	
	Horse Mt. to Pt. Arena	July 23-27,	-	67	-	27	-	
		July 29-Aug. 29, Sept. 1-30	-		-			
	Pt. Arena to Pt. Sur	May 1-31	-	31	-	27	-	
		June 25-July 5	-	11	-	27	-	
		July 9-13, 16-20, 23-27	-	15	-	27	-	
		July 29-Aug. 29	-	32	-	27	-	
	Pt. Reyes to Pt. San Pedro	Sept. 1-30	-	30	-	27	-	
		Oct. 3-7, 10-14	-	10	-	27	-	
	Pt. Sur to U.S./Mexico Border	May 1-31	-	31	-	27	-	
		June 1-24	-	24	-	27	-	
June 25-July 5		-	11	-	27	-		
July 9-13, 16-20, 23-27		-	15	-	27	-		
2012	OR/CA Border to Humboldt South Jetty	July 29-Aug. 29	-	32	-	27	-	
		Sept. 15-19	-	5	-	27	-	
Horse Mt. to Pt. Arena	July 11-Aug. 29	-	50	-	27	-		
	Sept. 1-30	-	30	-	27	-		All fish caught in the area must be landed north of Pt. Arena. When the California KMZ fishery is open, all fish must be landed between Horse Mt. and Pt. Arena.
Pt. Arena to Pt. Sur	May 1-June 4	-	35	-	27	-		
	June 27-Aug. 29	-	64	-	27	-		
	Sept. 1-30	-	30	-	26	-		All fish caught in the area must be landed south of Pt. Arena.
Pt. Reyes to Pt. San Pedro	Oct. 1-5, 8-12	-	10	-	26	-	All fish must be landed between Pt. Arena and Pigeon Pt.	
Pt. Sur to U.S./Mexico Border	May 1-June 4	-	35	-	27	-		
	June 5-26	-	22	-	27	-		
	June 27-Aug. 29	-	64	-	27	-		
		Sept. 1-30	-	30	-	26	-	All fish caught in the area must be landed south of Pt. Arena.

TABLE C-1. Summary of actual California commercial salmon seasons in state and Federal (EEZ) waters.^{a/} (Page 2 of 4)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho	
2013	OR/CA Border to Humboldt South Jetty	May 1-10	-	10	-	27	-	3,000 Chinook quota; 20 Chinook per vessel per day landing limit.
		June 1-9, 11	-	10	-	27	-	3,352 Chinook quota; 20 Chinook per vessel per day landing limit.
		July 15-21	-	7	-	27	-	2,547 Chinook quota; 20 Chinook per vessel per day landing limit.
		Aug. 1-3	-	3	-	27	-	1,692 Chinook quota; 20 Chinook per vessel per day landing limit.
		Sept. 16-30	-	15	-	27	-	6,000 Chinook quota; 20 Chinook per vessel per day landing limit.
	Horse Mt. to Pt. Arena	May 22-31	-	10	-	27	-	All fish caught in the area must be landed south of Horse Mt. whenever KMZ quota fishery is open during May through Sept.
		June 1-8, 21-30	-	18	-	27	-	
		July 15-Aug. 29	-	46	-	27	-	
		Sept. 1-30	-	30	-	27	-	
	Pt. Arena to U.S./Mexico Border	May 1-31	-	31	-	27	-	All fish caught in the area must be landed north of Pt. Arena during Sept.
		June 1-8, 21-30	-	18	-	27	-	
		July 15-Aug. 29	-	46	-	27	-	
		Sept. 1-30	-	30	-	26	-	
	Pt. Reyes to Pt. San Pedro	Oct. 1-4, 7-11, 14-15	-	11	-	26	-	All fish caught in the area must be landed south of Pt. Arena during Sept. All fish must be landed between Pt. Arena and Pigeon Pt. during Oct.
	2014	OR/CA Border to Humboldt South Jetty	Sept. 12-16, 19-23, 26-30	-	15	-	27	-
Horse Mt. to Pt. Arena		June 19-30	-	12	-	27	-	All fish caught in the area must be landed north of Pt. Arena during Sept. When the KMZ fishery is open, all fish must be landed south of Horse Mt.
		July 15-Aug. 29	-	46	-	27	-	
		Sept. 1-30	-	30	-	27	-	
Pt. Arena to Pigeon Pt.		May 1-June 30	-	61	-	27	-	All fish caught in the area must be landed south of Pt. Arena during Sept.
		July 15-Aug. 29	-	46	-	27	-	
		Sept. 1-30	-	30	-	26	-	
Pt. Reyes to Pt. San Pedro		Oct. 1-3, 6-10, 13-15	-	11	-	26	-	All fish must be landed between Pt. Arena and Pigeon Pt. during Oct.
Pigeon Pt. to U.S./Mexico Border		May 1-June 30	-	61	-	27	-	
		July 15-Aug. 13	-	30	-	27	-	

TABLE C-1. Summary of actual California commercial salmon seasons in state and Federal (EEZ) waters.^{a/} (Page 3 of 4)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions	
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Chinook	Coho		
2015	OR/CA Border to Humboldt South Jetty	Sept. 11-15, 18-30	-	18	-	28	-	3,000 Chinook quota; 20 Chinook per vessel per day landing limit.	
		Horse Mt. to Pt. Arena	May 1-31	-	31	-	27		-
			June 15-30	-	16	-	27		-
			July 12-Aug. 26	-	46	-	27		-
	Pt. Arena to Pigeon Pt.	Sept. 1-30	-	30	-	27	-	All fish caught in the area must be landed north of Pt. Arena during Sept. When the KMZ fishery is open, all fish must be landed south of Horse Mt.	
		May 1-31	-	31	-	27	-		
		June 7-30	-	24	-	27	-		
		July 8-Aug. 29	-	53	-	27	-		
	Pt. Reyes to Pt. San Pedro	Sept. 1-30	-	30	-	26	-	All fish caught in the area must be landed south of Pt. Arena during Sept.	
		Oct. 1-2, 5-9, 12-15	-	11	-	26	-		
	Pigeon Pt. to Pt. Sur	May 1-31	-	31	-	27	-	All fish must be landed between Pt. Arena and Pigeon Pt. during Oct.	
		June 7-30	-	24	-	27	-		
		July 8-Aug. 15	-	39	-	27	-		
	Pt. Sur to U.S./Mexico Border	May 1-31	-	31	-	27	-		
		June 7-30	-	24	-	27	-		
July 8-31		-	24	-	27	-			

TABLE C-1. Summary of actual California commercial salmon seasons in state and Federal (EEZ) waters.^{a/} (Page 4 of 4)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Chinook	Coho	
2016 ^{b/}	OR/CA Border to Humboldt South Jetty	Sept. 9-13, 16-20, 23-27	-	15	-	28	-	1,000 Chinook quota; 20 Chinook per vessel per day landing limit.
	Horse Mt. to Pt. Arena	June 13-30	-	18	-	27	-	All fish caught in the area must be landed north of Pt. Arena during Sept. When the KMZ fishery is open, all fish must be landed south of Horse Mt.
		Aug. 3-27	-	25	-	27	-	
		Sept. 1-30	-	30	-	27	-	
	Pt. Arena to Pigeon Pt.	May 6-31	-	26	-	27	-	All fish caught in the area must be landed south of Pt. Arena during Sept.
		June 13-30	-	18	-	27	-	
		Aug. 3-28	-	26	-	27	-	
		Sept. 1-30	-	30	-	26	-	
	Pt. Reyes to Pt. San Pedro	Oct. 3-7, 10-14	-	10	-	26	-	All fish must be landed between Pt. Arena and Pigeon Pt. during Oct.
	Pigeon Pt. to U.S./Mexico Border	May 1-June 30	-	61	-	27	-	

a/ For earlier years, see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-1.

b/ For detailed regulations and inseason adjustments, see Tables I-1 and C-9.

TABLE C-2. Summary of actual California recreational ocean salmon regulations.^{a/} (Page 1 of 2)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho	
2011	OR/CA Border to Horse Mt.	May 14-Sept. 5	115	2	24	-	
	Horse Mt. to Pigeon Pt.	Apr. 2-Oct. 30	212	2	24	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 2-Sept.18	170	2	24	-	
2012	OR/CA Border to Horse Mt.	May 1-Sept. 9	132	2	20	-	
	Horse Mt. to Pt. Arena	Apr. 7-Nov. 11	219	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 7-July 5	90	2	24	-	
		July 6-Nov. 11	129	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 7-July 5	90	2	24	-	
		July 6-Oct. 7	94	2	20	-	
2013	OR/CA Border to Horse Mt.	May 1-Sept. 8	131	2	20	-	
	Horse Mt. to Pt. Arena	Apr. 6-Nov. 10	219	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 6-July 31	105	2	24	-	Closed Monday-Tuesday June 1 through July 9.
		Aug. 1-Nov. 10	102	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 6-Oct. 6	172	2	24	-	Closed Monday-Tuesday June 1 through July 9.
2014	OR/CA Border to Horse Mt.	May 10-Sept. 7	121	2	24	-	
	Horse Mt. to Pt. Arena	Apr. 5-Nov. 9	219	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 5-June 30	87	2	24	-	
		July 1-Nov. 9	132	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 5-Oct. 5	184	2	24	-	

TABLE C-2. Summary of actual California recreational ocean salmon regulations.^{a/} (Page 2 of 2)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho	
2015	OR/CA Border to Horse Mt.	May 1-Sept. 7	130	2	20	-	
	Horse Mt. to Pt. Arena	Apr. 4-Nov. 8	219	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 4-30	27	2	24	-	
		May 1-Oct. 31	184	2	20	-	
	Pigeon Pt. to Pt. Sur	Apr. 4-May 31	58	2	24	-	
		June 1-Sept. 7	99	2	20	-	
	Pt. Sur to U.S./Mexico Border	Apr. 4-May 31	58	2	24	-	
June 1-July 19		49	2	20	-		
2016^{b/}	OR/CA Border to Horse Mt.	May 16-31	16	2	20	-	
		June 16-30	15	2	20	-	
		July 16-Aug. 16	32	2	20	-	
		Sept. 1-5	5	2	20	-	
	Horse Mt. to Pt. Arena	Apr. 2-Nov. 13	226	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 2-30	29	2	24	-	
		May 1-Oct. 31	184	2	20	-	
	Pigeon Pt. to Pt. Sur	Apr. 2-July 15	105	2	24	-	
Pt. Sur to U.S./Mexico Border	Apr. 2-May 31	60	2	24	-		

a/ For earlier years, see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-2.

b/ For detailed regulations and inseason adjustments, see Tables I-3 and C-9.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters.^{a/} (Page 1 of 7)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions	
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho		
2011	WA/OR Border to Cape Falcon	May 1-June 21	-	-	52	28	-	Seven days per week, no landing limits.	
		June 23-30	-	-	8	28	-	30 Chinook per vessel per open period	
		-	July 1-5, 8-12	-	10	28	16	50 Chinook and 50 marked coho per vessel per open period	
		-	July 15-19, 22-26, July 29-Aug. 2, Aug. 5-9	-	20	28	16	30 Chinook and 50 marked coho per vessel per open period	
		-	Aug. 19	-	1	28	16	12 Chinook and 50 marked coho per vessel per open period	
		-	Aug. 27-29	-	3	28	16	12 Chinook and 75 marked coho per vessel per open period	
		-	Sept. 3-6, 10-13	-	8	28	16	20 Chinook and 100 marked coho per vessel per open period	
		Cape Falcon to Humbug Mt.	Apr. 15-July 9, July 17-Aug. 31	-	-	132	28	-	
			October 1-31	-	-	31	28	-	50 Chinook per calendar week vessel limit.
			Sept. 1-30	-	-	30	28	-	25 Chinook per day vessel limit. Landings restricted to Garibaldi.
	Sept. 1-30	-	-	30	28	-	50 Chinook per day vessel limit. Landings restricted to Coos Bay, Charleston, and Bandon.		
	43°31'00" N Lat. South to 43°16'00" N Lat. inside 30 fm and 43°16'00" N Lat. South to Crooked Cr. (43°04'50" N Lat.) inside 3 nm (Coos/Coquille Area)	-	-	30	28	-			
	Cape Blanco to Humbug Mt. (Elk River Area)	Nov. 1-30	-	-	30	24	-	Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N Lat. 124°29'00" W Long. to Humbug Mt. 20 Chinook per day vessel limit. Landings restricted to Port Orford.	

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters.^{a/} (Page 2 of 7)

Year	Area	Seasons			Number of Days	Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except.-Chin.		Chinook	Coho	
2011 Cont.	Humbug Mt. to OR/CA Border	May 1-31	-	-	31	28	-	Landings restricted to Gold Beach, Port Orford, or Brookings.
		June 1-30	-	-	30	28	-	1,500 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports.
		July 1-31	-	-	31	28	-	1,200 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports.
		Aug. 1-31	-	-	31	28	-	1,000 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports.
	Tw in Rocks to OR/CA Border	Oct. 13-31	-	-	19	28	-	750 quota; 20 Chinook per day per vessel landing limit; landings restricted to Brookings; mandatory phone or email trip reports.
2012	WA/OR Border to Cape Falcon	May 1-June 20	-	-	51	28	-	Seven days per week, no landing limits.
		June 22-29	-	-	8	28	-	35 Chinook per vessel per open period
		-	July 1-4, 6-10, 13-17	-	14	28	16	20 Chinook and 40 marked coho per vessel per open period
		-	July 20-24	-	5	28	16	50 Chinook and 35 marked coho per vessel per open period
		-	July 27-31	-	5	28	16	60 Chinook and 35 marked coho per vessel per open period
		-	Aug. 3-7, 10-14	-	10	28	16	90 Chinook and 35 marked coho per vessel per open period
		-	Aug. 17-21, 24-28	-	10	28	16	120 Chinook and 40 marked coho per vessel per open period
		-	Aug. 31-Sept 4	-	5	28	16	150 Chinook and 40 marked coho per vessel per open period
	-	Sept. 7-11, 14-18	-	10	28	16	150 Chinook and 50 coho (non-mark-selective) per vessel per open period	
	Cape Falcon to Humbug Mt.	Apr. 1-Aug. 29, July 17-Aug. 31 Sept. 5-Oct. 31	-	-	151	28	-	
-		-	-	57	28	-	100 Chinook per calendar week vessel limit.	
Cape Blanco to Humbug Mt. (Elk River Area)	Nov. 1-30	-	-	30	26	-	Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N Lat. 124°29'00" W Long. to Humbug Mt. 20 Chinook per day vessel limit. Landings restricted to Port Orford.	

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters.^{a/} (Page 3 of 7)

Year	Area	Seasons			Number of Days	Minimum Size Limit (in.)		Other Restrictions		
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except.-Chin.		Chinook	Coho			
2012	Humbug Mt. to OR/CA Border Cont.	Apr. 1-May 31	-	-	61	28	-	Landings restricted to the State of Oregon. 2,000 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports. 1,500 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports. 915 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports. 1,000 quota; 30 Chinook per day vessel limit. Landings restricted to Gold Beach, Port Orford, or Brookings; mandatory phone or email trip reports.		
		June 1-30	-	-	30	28	-			
		July 1-31	-	-	31	28	-			
		Aug. 1-6	-	-	6	28	-			
		Sept. 5-7	-	-	3	28	-			
		Oct. 13-31	-	-	19	28	-			
2013	WA/OR Border to Cape Falcon	May 1-June 30	-	-	61	28	-	750 Chinook quota; 20 Chinook per day per vessel landing limit; landings restricted to Brookings; mandatory phone or email trip reports. Seven days per week, no landing limits. 50 Chinook and 40 marked coho per vessel per open period. 100 Chinook and 40 marked coho per vessel per open period. 150 Chinook and 80 marked coho per vessel per open period 35 Chinook and 40 marked coho per vessel per open period. 75 Chinook and 50 marked coho per vessel per open period.		
		-	July 1-9	-	9	28	16			
		-	July 12-16, July 19-23, July 26-30, Aug. 2-6	-	20	28	16			
		-	Aug. 9-13, Aug. 16-20	-	10	28	16			
		-	Aug. 30-Sept. 3	-	5	28	16			
		-	Sept. 6-10, Sept. 13-17	-	10	28	16			
		Cape Falcon to Humbug Mt.	Apr. 1-Aug. 29	-	-	151	28		-	
			Sept. 4-Oct. 31	-	-	58	28		-	
		Cape Blanco to Humbug Mt. (Elk River Area)	Nov. 1-30	-	-	30	26		-	Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N Lat. 124°29'00" W Long. to Humbug Mt. 20 Chinook per day vessel limit. Landings restricted to Port Orford.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 4 of 7)

Year	Area	Seasons			Number of Days	Minimum Size Limit (in.)		Other Restrictions		
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except.-Chin.		Chinook	Coho			
2013 Cont.	Humbug Mt. to OR/CA Border	Apr. 1 - May 31	-	-	61	28	-	Landings restricted to the State of Oregon.		
		June 1-30	-	-	30	28	-	4,000 quota; 30 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.		
		July 1-31	-	-	31	28	-	4,782 quota; 30 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.		
		Aug. 1-29	-	-	29	28	-	2,714 quota; 30 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.		
		Sept. 16-27	-	-	12	28	-	1,000 quota; 20 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.		
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 13-31	-	-	19	28	-	750 Chinook quota; 20 Chinook per day per vessel landing limit; landings restricted to Brookings; mandatory phone or email trip reports.		
		2014	WA/OR Border to Cape Falcon	May 1-20	-	-	20	28	-	Seven days per week, no landing limits.
				May 23-27	-	-	5	28	-	60 Chinook per vessel per open period.
				May 30-June 3	-	-	5	28	-	50 Chinook per vessel per open period.
				June 6-10	-	-	5	28	-	40 Chinook per vessel per open period.
June 13-17, 20-24, 27-30	-			-	14	28	-	20 Chinook per vessel per open period.		
-	July 1-8			-	8	28	16	60 Chinook and 60 marked coho per vessel per open period.		
-	July 11-15, 18-22, 25-29			-	15	28	16	35 Chinook and 60 marked coho per vessel per open period.		
-	Aug. 1-5			-	5	28	16	50 Chinook and 80 marked coho per vessel per open period.		
-	Aug. 8-12, 15-19			-	10	28	16	75 Chinook and 150 marked coho per vessel per open period.		
-	Aug. 22-26			-	5	28	16	35 Chinook and 150 marked coho per vessel per open period.		
-	Aug. 29-Sept. 2	-	5	28	16	20 Chinook and 150 marked coho per vessel per open period.				
-	Sept. 5-9	-	5	28	16	15 Chinook and 100 coho (non-mark-selective) per vessel per open period.				
-	Sept. 12-16	-	5	28	16	15 Chinook and 200 coho (non-mark-selective) per vessel per open period.				

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 5 of 7)

Year	Area	Seasons			Number of Days	Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except.-Chin.		Chinook	Coho	
2014 Cont.	Cape Falcon to Humbug Mt.	Apr. 1-July 31, Aug. 6-29	-	-	146	28	-	
		-	Sept. 3-30	-	28	28	16	Non-mark-selective coho quota of 6,300. 65 Chinook and one coho for each Chinook landed up to 20 coho per vessel per landing week (Wed.-Tues.).
		Oct. 1-31	-	-	31	28	-	65 Chinook per vessel per landing week (Wed.-Tues.)
	Cape Blanco to Humbug Mt. (Elk River Area)	Nov. 1-30	-	-	30	26	-	Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N Lat. 124°29'00" W Long. to Humbug Mt. 20 Chinook per day vessel limit. Landings restricted to Port Orford.
	Humbug Mt. to OR/CA Border	Apr. 1-May 31	-	-	61	28	-	Landings restricted to the State of Oregon.
		June 15-18	-	-	4	28	-	1,500 quota; 30 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.
		July 1-2	-	-	2	28	-	574 quota; 15 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.
		Aug. 6-7, 13-15, 20-21, 27-28	-	-	9	28	-	580 quota; 15 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.
		Sept. 12-27	-	-	16	28	-	500 quota; 20 Chinook per day vessel limit. Landings restricted to the area or Port Orford; mandatory phone or email trip reports.
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 12-31	-	-	20	28	-	600 Chinook quota; 20 Chinook per day per vessel landing limit; landings restricted to Brookings; mandatory phone or email trip reports.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 6 of 7)

Year	Area	Seasons			Number of Days	Minimum Size Limit (in.)		Other Restrictions		
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except.-Chin.		Chinook	Coho			
2015	WA/OR Border to Cape Falcon	May 1-29	-	-	29	28	-	Seven days per week, no landing limits.		
		June 5-9, 12-16	-	-	10	28	-	40 Chinook per vessel per open period.		
		June 19-23	-	-	5	28	-	80 Chinook per vessel per open period.		
		-	July 1-7	-	-	7	28	16	50 Chinook and 50 marked coho per open period vessel limit.	
		-	July 10-14, 17-21, 24-28, July 31-Aug.4, Aug 7-11	-	-	25	28	16	75 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 14-18	-	-	5	28	16	50 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 21-25	-	-	5	28	16	40 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 28-Sept. 1	-	-	5	28	16	35 Chinook and 50 marked coho per open period vessel limit.	
		-	Sept. 4-8, 11-15	-	-	10	28	16	40 Chinook and 50 marked coho per open period vessel limit.	
		-	Sept. 18-22	-	-	5	28	16	40 Chinook and 80 coho (non-mark-selective) per open period vessel limit.	
			Cape Falcon to Humbug Mt.	Apr. 1- Aug.27	-	-	149	28	-	
				Sept. 2-30	-	-	29	28	-	60 Chinook per vessel per landing week (Thurs.-Wed.).
			Tw in Rocks to Pyramid Rock Inside 3 nm (Tillamook Area)	Oct. 1-31	-	-	31	28	-	20 Chinook per day vessel limit. Landings restricted to Garibaldi.
			Cape Blanco to Humbug Mt. (Elk River Area)	Oct. 15-Nov. 30	-	-	47	26	-	Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N Lat. 124°29'00" W Long. to Humbug Mt. 20 Chinook per day vessel limit. Landings restricted to Port Orford.
	Humbug Mt. to OR/CA Border	Apr. 1-May 31	-	-	61	28	-	Landings restricted to the State of Oregon.		
		June 1-26	-	-	26	28	-	1,800 quota; 30 Chinook per day vessel limit. Landings restricted to the area or Port Orford.		
		July 1-2, 5-31	-	-	29	28	-	1,184 quota; 15 Chinook per day vessel limit July 1-2, 25 thereafter. Landings restricted to the area or Port Orford.		
		Aug. 1-27	-	-	27	28	-	772 quota; 25 Chinook per day vessel limit. Landings restricted to the area or Port Orford.		
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 12-17, 21, 23-24, 27-31	-	-	14	28	-	600 quota; 20 Chinook per day per vessel landing limit through Oct. 17, 10 Chinook thereafter; landings restricted to Brookings.		

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 7 of 7)

Year	Area	Seasons			Number of Days	Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except.-Chin.		Chinook	Coho	
2016 ^{b/}	WA/OR Border to Cape Falcon	May 1-3, 6-31	-	-	23	28	-	5 days per w.k. 40 Chinook per vessel per open period. 40 Chinook per vessel per open period. 65 Chinook per vessel per open period. 40 Chinook per vessel per open period. 80 Chinook per vessel per open period. 125 Chinook per vessel per open period. 225 Chinook per vessel per open period. 300 Chinook per vessel per open period.
		June 3-5	-	-	3	28	-	
		June 10-16	-	-	7	28	-	
		June 24-30	-	-	7	28	-	
		July 8-14	-	-	7	28	-	
		July 22-28	-	-	7	28	-	
		Aug. 1-7	-	-	7	28	-	
		Aug. 15-23	-	-	9	28	-	
		Cape Falcon to Humbug Mt.	Apr. 8-May 31	-	-	54	28	
	June 5-10, 15-30		-	-	22	28	-	
	July 8-31		-	-	24	28	-	
	Aug. 8-12, 18-24		-	-	12	28	-	
		Sept. 1-7, 15-30, Oct 1-31	-	-	54	28	-	45 Chinook per vessel per landing week (Thurs.-Wed.) and only open shoreward of the 40 fathom regulatory line in October.
	Cape Blanco to Humbug Mt. River Area)	(Elk Nov. 1-30	-	-	30	26	-	Inside of a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N Lat. 124°29'00" W Long. to Humbug Mt. 20 Chinook per day vessel limit. Landings restricted to Port Orford.
	Humbug Mt. to OR/CA border (Oregon KMZ)	Apr. 8-30	-	-	23	28	-	
		May 1-31	-	-	31	28	-	
		June 5-10, 15-30	-	-	12	28	-	720 Chinook quota; 15 Chinook per day per vessel landing limit.
July 8-31		-	-	24	28	-	594 Chinook quota; 15 Chinook per day per vessel landing limit.	
Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 10-31	-	-	22	28	-	300 quota; 5 Chinook per day per vessel landing limit through Oct. 25, 10 thereafter; landings restricted to Brookings.	

a/ For earlier years see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-3.

b/ For detailed regulations and inseason adjustments, see Tables I-1 and C-3.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations.^{a/} (Page 1 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions ^{c/}
					Chinook	Coho ^{b/}	
2011	WA/OR Border to Cape Falcon	June 18-25	8	2	24	-	4,800 marked Chinook quota Cape Falcon, OR to U.S./Canada Border.
	40,600 coho quota and 7,710 Chinook guideline south of Leadbetter Pt. WA	June 26-Aug. 6	42	2	24	16	Seven days per week; no more than one Chinook.
		Aug. 7-13	7	2	24	16	Seven days per week; no more than two Chinook.
		Aug. 14-28	15	2	24	16	Seven days per week; no more than one Chinook.
		Aug. 29-Sept. 4	7	2	24	16	Seven days per week; Chinook prohibited.
		Sept. 5-30	26	2	24	16	Seven days per week; no more than one Chinook.
	Cape Falcon to Humbug Mt.	Mar. 15-July 1, Aug. 14-31, Sept. 8-30	150	2	24	-	All salmon except coho.
		July 2-Aug. 13	43	2	24	16	All salmon; 15,000 marked coho quota.
		Sept. 1-7	7	2	24	16	All salmon; 5,900 non-mark-selective coho quota.
	Tillamook Area Tw in Rocks to Pyramid Rock Inside 15 fm	Mar. 15-July 31	139	2	24	16	Same regulations as ocean fishery above except that all retained Chinook must be marked.
	Tillamook Area Tw in Rocks to Pyramid Rock Inside 3 nm	Sept. 8- Oct. 31	54	2	24	-	Barbless hooks required. Only one unmarked Chinook per day, no more than 10 unmarked Chinook per season.
	Cape Blanco to Humbug Mt.: Inside a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. (Elk River Area)	Nov. 1-30	30	2	24	-	Barbless hooks required. Only one unmarked Chinook per day, no more than 10 unmarked Chinook per season.
	Humbug Mt. to OR/CA Border	May 14-Sept. 5	115	2	24	-	
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 1-12	12	1	24	-	Barbless hooks required. No more than five Chinook per season.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations.^{a/} (Page 2 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions ^{c/}
					Chinook	Coho ^{b/}	
2012	WA/OR Border to Cape Falcon	June 9-22	14	2	24	-	8,000 marked Chinook quota Cape Falcon, OR to U.S. Canada Border.
	34,860 coho quota and 11,100 Chinook guideline south of Leadbetter Pt. WA	June 23-Aug. 26	65	2	24	-	Seven Days per week; no more than one Chinook
		Aug. 27 - Sept. 2	7	2	24	16	Seven days per week
		Sept 3-30	28	2	24	16	Seven days per week, non-mark-selective coho fishery with remaining quota converted to an impact neutral quota of 9,500.
	Cape Falcon to Humbug Mt.	Mar. 15-June 30, Aug. 1-31, Sept. 4, 5, 9-12, 16-20, 22-30, Oct.1-31	190	2	24	-	All salmon except coho.
		July 1-31	31	2	24	16	All salmon; 8,000 marked coho quota.
		Sept. 1-3, 6-8, 13-15 and 21	10	2	24	16	All salmon; 11,800 non-mark-selective coho quota (inc. rollover from July mark-selective coho quota).
	Cape Blanco to Humbug Mt.: Inside a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. (Elk River Area)	Nov. 1-30	30	2	24	-	Barbless hooks required. Only one unmarked Chinook per day, no more than 10 unmarked Chinook per season.
	Humbug Mt. to OR/CA Border	May 1-June 30, Aug. 1-Sept. 9	101	2	24	-	All salmon except coho.
		July 1-31	31	2	24	16	All salmon, shared quota with July Cape Falcon to Humbug Mt. fishery.
Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)		Oct. 1-14	14	1	24	-	Barbless hooks required. No more than five Chinook per season.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations.^{a/} (Page 3 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions ^{c/}
					Chinook	Coho ^{b/}	
2013	WA/OR Border to Cape Falcon	June 8-21	14	2	24	-	8,000 marked Chinook quota Cape Falcon, OR to U.S. Canada Border.
	38,380 coho quota and 9,900 Chinook guideline south of Leadbetter Pt. WA	June 22-Aug. 22	62	2	24	16	Seven Days per week; no more than one Chinook
		Aug. 23-Aug. 31	9	2	24	16	Seven days per week
		Sept 1-30	30	2	24	16	Seven days per week, non-mark-selective coho fishery with remaining quota converted to an impact neutral quota of 9,785.
	Cape Falcon to Humbug Mt.	Mar. 15-June 30, Aug. 1-31, Sept. 3-4, 8-11, and Oct. 1-31	176	2	24	-	All salmon except coho.
		July 1-31	31	2	24	16	All salmon; 10,500 marked coho quota.
		Sept. 1-2, 5-7, and 12-30	24	2	24	16	All salmon; 19,580 non-mark-selective coho quota (inc. rollover from July mark-selective coho quota).
	Cape Blanco to Humbug Mt.: Inside a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. (Elk River Area)	Nov. 1-30	30	2	24	-	Barbless hooks required. Only one unmarked Chinook per day, no more than 10 unmarked Chinook per season.
	Humbug Mt. to OR/CA Border	May 1-June 30, Aug. 1-Sept. 8	100	2	24	-	All salmon except coho.
		July 1-31	31	2	24	16	All salmon, shared quota with July Cape Falcon to Humbug Mt. fishery.
Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 1-13	13	1	24	-	Barbless hooks required. No more than five Chinook per season.	

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations^{a/} (Page 4 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions ^{c/}
					Chinook	Coho ^{b/}	
2014	WA/OR Border to Cape Falcon	May 31-June 13	14	2	24	-	9,000 marked Chinook quota Cape Falcon, OR to U.S. Canada Border.
	92,400 coho quota and 13,100 Chinook guideline south of Leadbetter Pt. WA	June 14-Sept. 5	84	2	24	16	Seven Days per week; no more than one Chinook. Seven days per week, non-mark-selective coho fishery with remaining quota converted to an impact neutral quota of 13,100.
		Sept. 6-21	16	2	24	16	
	Cape Falcon to Humbug Mt.	Mar. 15-June 20	159	2	24	-	All salmon except coho.
		Aug. 11-29, Sept. 20-Oct. 31					
		June 21-Aug. 10	51	2	24	16	All salmon; 80,000 marked coho quota.
		Aug. 30-Sept. 19	21	2	24	16	All salmon; 35,000 non-mark-selective coho quota (includes rollover from mark-selective coho quota).
	Cape Blanco to Humbug Mt.: Inside a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. (Elk River Area)	Nov. 1-30	30	2	24	-	Two Chinook daily, one of which can be unmarked; no more than 10 unmarked per season in aggregate with Elk R., Sixes R., and Floras Ck./New R.
	Humbug Mt. to OR/CA Border	May 10-June 20, Aug. 11-Sept. 7	70	2	24	-	All salmon except coho.
		June 21-Aug. 10	51	2	24	16	All salmon, shared quota with June 21-Aug. 10 Cape Falcon to Humbug Mt. fishery.
Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 1-12	12	2	24	-	Two Chinook daily, one of which can be unmarked; no more than five unmarked per season.	

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations^{a/} (Page 5 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions ^{c/}
					Chinook	Coho ^{b/}	
2015	WA/OR Border to Cape Falcon	May 30-June 12	14	2	24	-	10,000 marked Chinook quota Cape Falcon, OR to U.S. Canada Border.
	79,400 coho quota and 15,225 Chinook guideline south of Leadbetter Pt. WA	June 13-Sept. 3	83	2	24	16	Seven days per week. All salmon; two fish per day, no more than one Chinook June 13-Aug.28.
		Sept. 4-30	27	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 15,300.
	Cape Falcon to Humbug Mt.	Mar. 15-June 26, Aug. 10-Sept. 3, and Oct. 1-31	159	2	24	-	All salmon except coho.
		June 27-Aug. 9	44	2	24	16	All salmon; 55,000 marked coho quota shared with June 27-Aug. 9 Humbug Mt. to OR/CA Border fishery.
		Sept. 4-30	27	2	24	16	All salmon; 20,700 non-mark-selective coho quota (includes rollover from mark-selective coho quota).
	Cape Blanco to Humbug Mt.: Inside a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. (Elk River Area)	Nov. 1-30	30	2	24	-	Two Chinook daily, one of which can be unmarked; no more than 10 unmarked per season in aggregate with Elk R., Sixes R., and Floras Ck./New R.
	Humbug Mt. to OR/CA Border	May 1-June 26, Aug. 10-Sept. 7	86	2	24	-	All salmon except coho.
		June 27-Aug. 9	44	2	24	16	All salmon, shared quota with June 27-Aug. 9 Cape Falcon to Humbug Mt. fishery.
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 1-11	11	2	24	-	Two Chinook daily, one of which can be unmarked; no more than five unmarked per season.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations^{a/} (Page 6 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions ^{c/}
					Chinook	Coho ^{b/}	
2016 ^{d/}	WA/OR Border to Cape Falcon	July 1-Aug. 27	58	2	24	16	All salmon. 10,200 Chinook guideline and 18,900 marked coho quota from Leadbetter Point, WA to Cape Falcon. No more than 1 Chinook per angler day through Aug. 15.
	Cape Falcon to Humbug Mt.	Mar. 15-June 24, Aug. 8-Sept. 2, and Oct. 1-31	159	2	24	-	All salmon except coho.
		June 25-Aug. 7	44	2	24	16	All salmon; 26,000 marked coho quota shared with June 25-Aug. 7 Humbug Mt. to OR/CA Border fishery.
		Sept. 3-30	29	2	24	16	All salmon; 7,500 non-mark-selective coho quota.
	Cape Blanco to Humbug Mt.: Inside a line from Cape Blanco to Black Rock to Best Rock to 42°40'30" N. Lat. 124°29'00" W. Long. to Humbug Mt. (Elk River Area)	Nov. 1-30	30	2	24	-	Two Chinook daily, one of which can be unmarked; no more than 10 unmarked per season in aggregate with Elk R., Sixes R., and Floras Ck. and New R.
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 1-3, 8-9	5	2	24	-	Two Chinook daily, one of which can be unmarked.
	Humbug Mt. to OR/CA Border	May 28-June 24, Sept. 3-5	31	2	24	-	All salmon except coho.
June 25-Aug. 7		44	2	24	16	All salmon. Shared 26,000 marked coho quota with Cape Falcon to Humbug Mt. fishery.	

a/ For earlier years see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-4.

b/ Mark-selective coho fishery unless otherwise noted; all retained coho must be marked with a healed adipose fin clip.

c/ All seasons are seven days per week unless otherwise indicated.

d/ For detailed regulations and inseason adjustments, see Tables I-3 and C-9.

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 1 of 5)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho	
2011	U.S./Canada Border to WA/OR Border	May 1-June 21;	-	52	-	28	-	Seven days per week, no landing limits. 30 Chinook per open period vessel limit. North of Leadbetter Pt. or the same south of Leadbetter Pt.
		June 23-30	-	8	-	28	-	
		-	July 1-5, 8-12	-	10	28	16	50 Chinook and 50 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	July 15-19, 22-26, July 29-Aug. 2, Aug. 5-9	-	20	28	16	30 Chinook and 50 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	Aug. 19	-	1	28	16	12 Chinook and 50 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	Aug. 27-29	-	3	28	16	12 Chinook and 75 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
2012	U.S./Canada Border to WA/OR Border	-	Sept. 3-6, 10-13	-	8	28	16	20 Chinook and 100 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		May 1-June 30;	-	51	-	28	-	Seven days per week, no landing limits. 35 Chinook per open period vessel limit. North of Leadbetter Pt. or the same south of Leadbetter Pt.
		June 22-29	-	8	-	28	-	
		-	July 1-4, July 6-10, July 13-17	-	14	28	16	40 Chinook and 35 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	July 20-24	-	5	28	16	50 Chinook and 35 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	July 27-31	-	5	28	16	60 Chinook and 35 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	Aug. 3-7, 10-14	-	10	28	16	90 Chinook and 35 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	Aug. 17-21, 24-28;	-	10	28	16	120 Chinook and 40 marked coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.
		-	Aug. 31 - Sept. 4	-	5	28	16	150 Chinook and 40 marked coho per open period vessel limit. North of Leadbetter Pt. or the same south of Leadbetter Pt.
-	Sept. 7-11, 14-18	-	10	28	16	150 Chinook and 50 non-mark-selective coho per open period vessel limit North of Leadbetter Pt. or the same south of Leadbetter Pt.		

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 2 of 5)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho	
2013	U.S./Canada Border to WA/OR Border	Areas 1 & 2 May 1-June 30	-	61	-	28	-	Seven days per week, no landing limits.
		Areas 3 & 4 May 1-20, 24-28	-	24	-	28	-	Seven days per week 28 Chinook vessel limit May 24-28.
		-	Areas 1 & 2 July 1-9	-	9	28	16	50 Chinook and 40 marked coho per open period vessel limit.
		-	July 12-16, 19-23, 26-30, Aug. 2-6	-	20	28	16	100 Chinook and 40 marked coho per open period vessel limit.
		-	Aug. 9-13, 16-20	-	10	28	16	150 Chinook and 80 marked coho per open period vessel limit.
		-	Aug. 30-Sept. 3	-	5	28	16	35 Chinook and 40 marked coho per open period vessel limit.
		-	Sept. 6-10, 13-17	-	10	28	16	75 Chinook and 50 marked coho per open period vessel limit.
		-	Areas 3 & 4 July 1-9, 12-16, 19-23	-	19	28	16	50 Chinook and 40 marked coho per open period vessel limit.
		-	July 26-30, Aug. 2-6, 9-13	-	15	28	16	40 Chinook and 40 marked coho per open period vessel limit.
		2014	U.S./Canada Border to WA/OR Border	Areas 1 & 2 May 1-20	-	20	-	28
May 23-27	-			5	-	28	-	60 Chinook per vessel per open period.
May 30-June 3	-			5	-	28	-	50 Chinook per vessel per open period.
June 6-10	-			5	-	28	-	40 Chinook per vessel per open period.
June 13-17, 20-24, 27-30	-			14	-	28	-	20 Chinook per vessel per open period.
Areas 3 & 4 May 1-8	-			8	-	28	-	Seven days per week, no landing limits.
May 10-13, 16-20	-			9	-	28	-	50 Chinook per vessel per open period.
May 23-27, May 30-June 3	-			10	-	28	-	40 Chinook per vessel per open period.
June 6-10	-			5	-	28	-	30 Chinook per vessel per open period.
June 13-17, 20-24, 27-30	-			14	-	28	-	20 Chinook per vessel per open period.

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 3 of 5)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho	
2014 (cont.)			Areas 1 & 2					
		-	July 1-8	-	8	28	16	60 Chinook and 60 marked coho per open period vessel limit.
		-	July 11-15, 18-22, 25-29	-	15	28	16	35 Chinook and 60 marked coho per open period vessel limit.
		-	Aug. 1-5	-	5	28	16	50 Chinook and 80 marked coho per open period vessel limit.
		-	Aug. 8-12, 15-19	-	10	28	16	75 Chinook and 150 marked coho per open period vessel limit.
		-	Aug. 22-26	-	5	28	16	35 Chinook and 150 marked coho per open period vessel limit.
		-	Aug. 29-Sept. 2	-	5	28	16	20 Chinook and 150 marked coho per open period vessel limit.
		-	Sept. 5-9	-	5	28	16	15 Chinook and 100 coho (non-mark-selective) per open period vessel limit.
		-	Sept. 12-16	-	5	28	16	15 Chinook and 200 coho (non-mark-selective) per open period vessel limit.
				Areas 3 & 4				
		-	July 1-8	-	8	28	16	60 Chinook and 40 marked coho per open period vessel limit.
		-	July 11-15, 18-22, 25-29	-	15	28	16	35 Chinook and 40 marked coho per open period vessel limit.
		-	Aug. 1-5	-	5	28	16	50 Chinook and 50 marked coho per open period vessel limit.
		-	Aug. 8-12, 15-19	-	10	28	16	75 Chinook and 150 marked coho per open period vessel limit.
	-	Aug. 22-26	-	5	28	16	35 Chinook and 50 marked coho per open period vessel limit.	
	-	Aug. 29-Sept. 2	-	5	28	16	20 Chinook and 50 marked coho per open period vessel limit.	
	-	Sept. 5-9, 12-16	-	10	28	16	15 Chinook and 20 marked coho per open period vessel limit.	

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 4 of 5)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions	
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho		
2015	U.S./Canada Border to WA/OR Border	Area 1							
		May 1-29	-	29	-	28	-	Seven days per week, no landing limits.	
		June 5-9, 12-16	-	10	-	28	-	40 Chinook per vessel per open period.	
		June 19-23	-	5	-	28	-	80 Chinook per vessel per open period.	
		Area 2							
		May 1-June 25	-	56	-	28	-	Seven days per week, no landing limits.	
		Area 3							
		May 1-June 30							
		May 1-16	-	16	-	28	-	Seven days per week, no landing limits.	
		Area 4							
		May 1-16	-	16	-	28	-	60 Chinook per vessel per open period.	
		May 22-26	-	5	-	28	-	15 Chinook per vessel per open period.	
		May 29-June 23	-	20	-	28	-	20 Chinook per vessel per open period.	
		June 26-27	-	2	-	28	-	12 Chinook per vessel per open period.	
		Areas 1 & 2							
		-	July 1-7	-	7	28	16	50 Chinook and 50 marked coho per open period vessel limit.	
		-	July 10-14, 17-21, 24-28, July 31-Aug.4, Aug 7-11.	-	25	28	16	75 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 14-18	-	5	28	16	50 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 21-25	-	5	28	16	40 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 28-Sept. 1	-	5	28	16	35 Chinook and 50 marked coho per open period vessel limit.	
		-	Sept. 4-8, 11-15	-	10	28	16	40 Chinook and 50 marked coho per open period vessel limit.	
		-	Sept. 18-22	-	5	28	16	40 Chinook and 80 coho (non-mark-selective) per open period vessel limit.	
		Areas 3 & 4							
		-	July 1-7	-	7	28	16	50 Chinook and 50 marked coho per open period vessel limit.	
		-	July 10-14, 17-21, 24-28, July 31-Aug.4, Aug 7-11	-	30	28	16	60 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 14-18	-	5	28	16	50 Chinook and 50 marked coho per open period vessel limit.	
		-	Aug. 21-25	-	5	28	16	40 Chinook and 50 marked coho per open period vessel limit.	
-	Aug. 28-Sept. 1	-	5	28	16	35 Chinook and 50 marked coho per open period vessel limit.			
-	Sept. 4-8, 11-15	-	10	28	16	40 Chinook and 50 marked coho per open period vessel limit.			
-	Sept. 18-22	-	5	28	16	40 Chinook and 80 non-mark-selective coho per open period vessel limit.			

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. ^{a/} (Page 5 of 5)

Year	Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions	
		All-Salmon-Except-Coho	All Salmon	All-Salmon-Except-Coho	All Salmon	Chinook	Coho		
2016 ^{b/}	U.S./Canada Border to WA/OR Border	Areas 1 & 2							
		May 1-3	-	3	-	28	-	40 Chinook per vessel per open period.	
		May 6-31	-	20	-	28	-	5 days per w k. 40 Chinook per vessel per open period.	
		June 3-5	-	3	-	28	-	40 Chinook per vessel per open period.	
		June 10-16	-	7	-	28	-	65 Chinook per vessel per open period.	
		June 24-30	-	7	-	28	-	40 Chinook per vessel per open period.	
		July 8-14	-	7	-	28	-	80 Chinook per vessel per open period.	
		July 22-28	-	7	-	28	-	125 Chinook per vessel per open period.	
		Aug. 1-7	-	7	-	28	-	225 Chinook per vessel per open period.	
		Aug. 15-23	-	9	-	28	-	300 Chinook per vessel per open period.	
		Area 3							
		May 1-3	-	3	-	28	-	40 Chinook per vessel per open period.	
		May 6-31	-	20	-	28	-	5 days per w k. 40 Chinook per vessel per open period.	
		June 3-5	-	3	-	28	-	40 Chinook per vessel per open period.	
		July 8-14	-	7	-	28	-	60 Chinook per vessel per open period.	
		July 22-28	-	7	-	28	-	150 Chinook per vessel per open period.	
		Aug. 1-7	-	7	-	28	-	225 Chinook per vessel per open period.	
		Aug. 15-23	-	9	-	28	-	300 Chinook per vessel per open period.	
		Area 4							
		May 1-3	-	3	-	28	-	40 Chinook per vessel per open period.	
		May 6-31	-	20	-	28	-	5 days per w k. 40 Chinook per vessel per open period.	
		June 3-5	-	3	-	28	-	40 Chinook per vessel per open period.	
		June 10-16	-	7	-	28	-	15 Chinook per vessel per open period.	
		June 24-30	-	7	-	28	-	14 Chinook per vessel per open period.	
		July 8-14	-	7	-	28	-	60 Chinook per vessel per open period.	
		July 22-28	-	7	-	28	-	150 Chinook per vessel per open period.	
		Aug. 1-7	-	7	-	28	-	225 Chinook per vessel per open period.	
		Aug. 15-23	-	9	-	28	-	300 Chinook per vessel per open period.	

a/ For earlier years see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-5.

b/ For detailed regulations and inseason adjustments, see Tables I-1 and C-9.

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. ^{a/} (Page 1 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho ^{b/}	
2011	U.S./Canada Border to WA/OR Border	June 18-25	8	2	24	-	4,800 marked Chinook quota north of Cape Falcon, OR.
	U.S./Canada Border to Cape Alava	June 26-July 31	36	2 ^{c/}	24	16	Seven days per week; no more than one Chinook.
	5,990 coho quota and 3,330 Chinook guideline.	Aug. 1-28	28	2 ^{c/}	24	16	Seven days per week; no more than two Chinook.
		Aug. 29-Sept. 4	7	2 ^{c/}	24	16	Seven days per week; Chinook prohibited.
		Sept. 5-18	11	2 ^{c/}	24	16	Seven days per week; no more than one Chinook.
	Cape Alava to Queets River	June 26-July 31	36	2 ^{c/}	24	16	Seven days per week; no more than one Chinook.
	2,600 coho quota and 1,460 Chinook guideline.	Aug. 1-28	28	2 ^{c/}	24	16	Seven days per week; no more than two Chinook.
		Aug. 29-Sept. 4	7	2 ^{c/}	24	16	Seven days per week; Chinook prohibited.
		Sept. 5-18	11	2 ^{c/}	24	16	Seven days per week; no more than one Chinook.
	48°00' N. Lat. to 47°50' N. Lat.	Sept. 24-Oct. 9	16	2 ^{c/}	24	16	Seven days per week; no more than one Chinook.
	Queets River to Leadbetter Point	June 26-July 31	26	2	24	16	Sun.-Thurs.; no more than one Chinook.
	24,860 coho quota and 17,600 Chinook guideline.	Aug. 1-6	6	2	24	16	Seven days per week; no more than one Chinook.
		Aug. 7-13	7	2	24	16	Seven days per week; no more than two Chinook.
		Aug. 14-18	5	2	24	16	Seven days per week; no more than one Chinook.
		Aug. 19-28	6	2	24	16	Sun.-Thurs.; no more than one Chinook.
		Aug. 29-Sept. 4	7	2	24	16	Seven days per week; Chinook prohibited.
		Sept. 5-18	14	2	24	16	Seven days per week; no more than one Chinook.
	Leadbetter Point to WA/OR Border.	June 26-Aug. 6	42	2	24	16	Seven days per week; no more than one Chinook.
	33,600 coho quota and 7,710 Chinook guideline for Leadbetter Pt. to Cape Falcon, OR	Aug. 7-13	7	2	24	16	Seven days per week; no more than two Chinook.
		Aug. 14-28	15	2	24	16	Seven days per week; no more than one Chinook.
		Aug. 29-Sept. 4	7	2	24	16	Seven days per week; Chinook prohibited.
		Sept. 5-30	26	2	24	16	Seven days per week; no more than one Chinook.

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. ^{a/} (Page 2 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho ^{b/}	
2012	U.S./Canada Border to Queets R. WA (Neah Bay and La Push subareas)	June 16-30	15	2	24	-	Coastwide quota: 8,000 marked Chinook.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	June 9-23	15	2	24	-	Coastwide quota: 8,000 marked Chinook.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 9-22	14	2	24	-	Coastwide quota: 8,000 marked Chinook.
	U.S./Canada Border to Cape Alava 8,200 coho quota and 4,700 Chinook guideline.	July 1-15	15	2	24	16	Seven days per week; no more than two Chinook.
		July 16-Aug. 16	32	2	24	16	Seven days per week; no more than one Chinook.
		Aug. 17-Sept. 23	38	2	24	16	Seven days per week; no more than two Chinook.
	Cape Alava to Queets River 2,360 coho quota and 2,050 Chinook guideline.	July 1-Sept. 23	85	2	24	16	Seven days per week.
	48°00' N. Lat. to 47°50' N. Lat.	Sept. 29-Oct. 14	16	2	24	16	Seven days per week; no more than one Chinook.
	Queets River to Leadbetter Point 25,800 coho quota and 17,600 Chinook guideline. Beginning Sept. 1, remaining quota converted to an impact neutral 9,000 non-mark-selective coho quota.	June 24-Aug. 16	44	2	24	16	Sun.-Thurs. June 24-Aug. 2; seven days per week otherwise. No more than one Chinook.
		Aug. 17-31	15	2	24	16	Seven days per week
		Sept. 1-12	12	2	24	16	Seven days per week; no more than one coho.
	Leadbetter Point to WA/OR Border. 34,860 coho quota and 11,100 Chinook guideline for Leadbetter Pt. to Cape Falcon, OR	June 23-Aug. 26	65	2	24	16	Seven days per week; no more than one Chinook.
Aug. 27-Sept. 2		7	2	24	16	Seven days per week	
Sept. 3-30		28	2	24	16	Seven days per week; non-mark-selective coho fishery with remaining quota converted to an impact neutral quota of 9,500.	

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. ^{a/} (Page 3 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho ^{b/}	
2013	U.S./Canada Border to Queets R. WA (Neah Bay and La Push subareas)	May 10-11, 17-18, June 22-28	11	2	24	-	Coastwide quota: 8,000 marked Chinook.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	June 8-22	15	2	24	-	Coastwide quota: 8,000 marked Chinook.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 8-21	14	2	24	-	Coastwide quota: 8,000 marked Chinook.
	U.S./Canada Border to Cape Alava	June 29-Sept 22	86	2	24	16	8,200 coho quota and 4,900 Chinook guideline. Seven days per week. Two salmon daily plus two additional pinks; Aug. 10-22 two salmon daily, no more than one Chinook, plus two additional pinks.
	Cape Alava to Queets River	June 29-Sept 22	86	2	24	16	3,040 coho quota and 1,700 Chinook guideline. Seven days per week. Two salmon daily plus two additional pinks; Aug. 10-22 two salmon daily, no more than one Chinook, plus two additional pinks.
	48°00' N. Lat. to 47°50' N. Lat.	Sept. 28-Oct. 13	16	2	24	16	Seven days per week. Two salmon daily plus two additional pinks.
	Queets River to Leadbetter Point	June 23-August 3	36	2	24	16	22,916 coho quota and 20,300 Chinook guideline. Sun.-Thurs. June 23-July 18; seven days per week otherwise.; no more than one Chinook.
		Aug. 4-Sept. 5 Sept. 6-30	33 25	2 2	24 24	16 16	Seven days per week Seven days per week, non-mark-selective coho fishery with remaining quota converted to an impact neutral quota of 6,350.
	Leadbetter Point to WA/OR Border.	June 22-Aug. 22	62	2	24	16	28,527 coho quota and 9,900 Chinook guideline. Seven Days per week; no more than one Chinook
		Aug. 23-Aug. 31 Sept 1-30	9 30	2 2	24 24	16 16	Seven days per week Seven days per week, non-mark-selective coho fishery with remaining quota converted to an impact neutral quota of 9,785.

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. ^{a/} (Page 4 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions	
					Chinook	Coho ^{b/}		
2014	U.S./Canada Border to Queets R. WA (Neah Bay and La Push subareas)	May 16-17, 23-24, May 31-June 13	18	2	24	-	Coastwide quota: 9,000 marked Chinook.	
		Queets R. to Leadbetter Pt. WA (Westport subarea)	May 31-June 13	14	2	24	-	Coastwide quota: 9,000 marked Chinook.
		Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	May 31-June 13	14	2	24	-	Coastwide quota: 9,000 marked Chinook.
	U.S./Canada Border to Cape Alava: 19,200 coho quota and 7,000 Chinook guideline.	June 14-Aug. 31	79	2	24	16	Seven days per week. All salmon; two fish per day.	
		Sept. 1-21	21	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 1,600.	
	Cape Alava to Queets River 4,750 coho quota and 2,350 Chinook guideline.	June 14-Aug. 31	79	2	24	16	Seven days per week. All salmon; two fish per day.	
		Sept. 1-21	21	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 1,500.	
	48°00' N. Lat. to 47°50' N. Lat.	Sept. 27-Oct. 12	16	2	24	16	Seven days per week. Two salmon per day. Quotas of 50 Chinook and 50 coho.	
	Queets River to Leadbetter Point 68,380 coho quota and 27,600 Chinook guideline.	June 14-Aug. 31	79	2	24	16	Seven days per week. All salmon; two fish per day, no more than one Chinook June 14-Aug. 17.	
		Sept. 1-19	19	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 13,750.	
	Leadbetter Point to WA/OR Border. 92,400 coho quota and 13,100 Chinook guideline.	June 14-Sept. 5	84	2	24	16	Seven days per week. All salmon; two fish per day, no more than one Chinook.	
		Sept. 6-21	16	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 13,100.	

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. ^{a/} (Page 5 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho ^{b/}	
2015	U.S./Canada Border to Queets R. WA (Neah Bay and La Push subareas)	May 15-16, 22-23, May 30-June 12	18	2	24	-	Coastwide quota: 10,000 marked Chinook.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	May 30 - June 12	14	2	24	-	Coastwide quota: 10,000 marked Chinook.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	May 30 - June 12	14	2	24	-	Coastwide quota: 10,000 marked Chinook.
	U.S./Canada Border to Cape Alava: 14,850 coho quota and 8,820 Chinook guideline, plus 1,700 mark-selective coho quota transferred from the commercial fishery.	June 13-Sept 3	83	2 ^{c/}	24	16	Seven days per week. All salmon; two fish per day. One Chinook allowed June 24-July 27, Aug. 14-15 and after Aug. 20, Chinook retention prohibited July 28- Aug. 13 and Aug. 16-20.
		Sept 4-10	7	2 ^{c/}	24	16	Seven days per week. All salmon except Chinook; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 4,100.
		Sept 11-30	20	2 ^{c/}	24	16	Seven days per week. All salmon except Chinook; two fish per day. 1,700 mark-selective coho quota transferred from the commercial fishery.
	Cape Alava to Queets River 3,610 coho quota and 2,735 Chinook guideline.	June 13-Sept. 3	83	2 ^{c/}	24	16	Seven days per week. All salmon; two fish per day; July 24-Sept. 30 limited to one Chinook.
		Sept. 4-30	27	2 ^{c/}	24	16	Seven days per week. All salmon; two fish per day, only one Chinook, unmarked coho retention allowed. Remaining coho quota converted to quota of 625.
	48°00' N. Lat. to 47°50' N. Lat.	Oct. 1-11	11	2 ^{c/}	24	16	Seven days per week. Two salmon per day. Quotas of 100 Chinook and 100 coho.
	Queets River to Leadbetter Point 52,840 coho quota and 28,320 Chinook guideline.	June 13-Sept. 3	83	2	24	16	Seven days per week. All salmon; two fish per day, no more than one Chinook June 13-Aug.14.
		Sept. 4-30	27	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 13,000.
	Leadbetter Point to WA/OR Border. 79,400 coho quota and 15,225 Chinook guideline.	June 13-Sept. 3	83	2	24	16	Seven days per week. All salmon; two fish per day, no more than one Chinook June 13-Aug.28.
Sept. 4-30		27	2	24	16	Seven days per week. All salmon; unmarked coho retention allowed. Remaining coho quota converted to impact neutral quota of 15,300.	

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. ^{a/} (Page 6 of 6)

Year	Area	Season	Days	Bag Limit	Minimum Size Limit (in.)		Other Restrictions
					Chinook	Coho ^{b/}	
2016 ^{c/}	U.S./Canada Border to Cape Alva (Neah Bay subarea)	July 1- Aug. 21	52	2	24	-	All salmon except coho. Chinook guideline: 6,200
	Cape Alva to Queets R. (La Push sub area)	July 1- Aug. 21	52	2	24	-	All salmon except coho. Chinook guideline: 2,000
	Queets R. to Leadbetter Pt. WA (Westport subarea)	July 1-22	22	1	24	-	All salmon except coho. Chinook guideline: 16,600
		July 23-Aug. 21	30	2	24	-	
Leadbetter Pt. WA to Cape Falcon (Columbia River subarea)	July 1- Aug. 27	58	2	24	16	All salmon. Guidelines: 10,200 Chinook, 18,900 coho. Daily bag limit allow s only 1 Chinook through Aug 15	

a/ For earlier years see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-6.

b/ Mark-selective coho fishery unless otherwise noted; all retained coho must be marked with a healed adipose fin clip.

c/ For detailed regulations and inseason adjustments, see Tables I-3 and C-9.

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 1 of 6)

Year	Tribe/Area	Seasons		Number of Days		Minimum		Other Restrictions
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Size Limit (in.)		
						Chinook	Coho	
2011	Quinault, Quileute, and Hoh							
	Sand Point to Point Chehalis	May 1-June 30	-	61	-	24	-	
		-	July 1-Aug. 19	-	50	24	16	
		-	Aug. 24-Sept. 7	-	15	24	16	23 Chinook per vessel per week landing limit
	Sand Point to Queets River (Quileute only)	-	Sept. 16-Oct. 15	-	30	24	16	Ceremonial and subsistence only
	Makah							
	Ocean waters north of 48°02'15" N. Lat. and east of 125°44'00" W. Long.							
		-	Jan. 1-Apr. 15	-	105	22	16	
		May 1-June 30	-	61	-	24	-	
		-	July 7-July 23	-	17	24	16	
		-	July 25-Aug. 8	-	15	24	16	100 Chinook per vessel per week landing limit
		-	Aug. 9-Aug. 16	-	8	24	16	75 Chinook per vessel per week landing limit
		-	Aug. 17-Aug. 19	-	3	24	16	100 Chinook per vessel per week landing limit
		-	Aug. 24-Sept. 6	-	14	24	16	23 Chinook per vessel per week landing limit
	Area 4B inside waters	-	Jan. 1-Apr. 15	-	105	22	16	
		May 1-June 30	-	61	-	24	-	
		-	July 7-July 23	-	17	24	16	
		-	July 25-Aug. 8	-	15	24	16	100 Chinook per vessel per week landing limit
		-	Aug. 9-Aug. 16	-	8	24	16	75 Chinook per vessel per week landing limit
		-	Aug. 17-Aug. 19	-	3	24	16	100 Chinook per vessel per week landing limit
		-	Aug. 24-Sept. 6	-	14	24	16	23 Chinook per vessel per week landing limit
		-	Nov. 1-Dec. 31	-	61	22	16	
	S'Kallam							
	Area 4B inside waters	-	Jan. 1-Apr. 15	-	105	22	16	
		May 1-June 30	-	61	-	24	-	
		-	July 1-Oct. 31	-	123	24	16	Ocean troll closed Sept. 7
		-	Nov. 1-Dec. 31	-	61	22	16	

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 2 of 6)

Year	Tribe/Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Chinook	Coho	
2012	Quinault, Quileute, and Hoh							
	Sand Point to Point Chehalis	May 1-June 30	-	61	-	24	-	
		-	July 1-Sept. 15	-	77	24	16	
	Sand Point to Queets River (Quileute only)	-	Sept. 16-Oct. 15	-	30	24	16	Ceremonial and subsistence only
	Makah							
	Ocean waters north of 48°02'15" N. Lat. and east of 125°44'00" W. Long.							
		May 1-June 30	-	61	-	24	-	
		-	July 1-Sept. 15	-	77	24	16	
	Area 4B inside waters	-	Jan. 1-Apr. 15		105	22	16	
		May 1-June 30	-	61	-	24	-	
		-	July 1-Sept. 15		77	24	16	
		-	Nov. 1-Dec. 31	-	61	22	16	
S'Klallam								
Area 4B inside waters	-	Jan. 1-Apr. 15						
	May 1-June 30	-	61	-	24	-		
	-	July 1-Oct. 31	-	123	24	16		
2013	Quinault, Quileute, and Hoh							
	Sand Point to Point Chehalis	May 1-June 18	-	49	-	24	-	
		-	July 1-Sept. 4	-	66	24	16	
	Sand Point to Queets River (Quileute only)	-	Sept. 16-Oct. 15	-	30	24	16	Ceremonial and subsistence only

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 3 of 6)

2013 Makah								
Cont.	Ocean waters north of 48°02'15" N. Lat. and east of 125°44'00" W. Long.							
		May 1-June 18	-	49	-	24	-	
		-	July 2-8	-	7	24	16	50 Chinook per vessel per open period
		-	July 9-15	-	7	24	16	100 Chinook per vessel per open period
		-	July 16-29	-	14	24	16	75 Chinook per vessel per open period
		-	July 30-Aug. 11	-	13	24	16	50 Chinook per vessel per open period
		-	Aug. 12-25	-	14	24	16	35 Chinook per vessel per open period
		-	Aug. 26	-	1	24	16	50 Chinook and 200 coho per vessel per open period
		-	Aug. 27	-	0	24	16	Closed
		-	Aug. 28-Sept. 3	-	7	24	16	100 Chinook and 100 coho per vessel per open period
	Area 4B inside waters	-	Jan. 1-Apr. 15	-	105	22	16	
		May 1-June 18	-	49	-	24	-	
		-	July 2-8	-	7	24	16	50 Chinook per vessel per open period
		-	July 9-15	-	7	24	16	100 Chinook per vessel per open period
		-	July 16-29	-	14	24	16	75 Chinook per vessel per open period
		-	July 30-Aug. 11	-	13	24	16	50 Chinook per vessel per open period
		-	Aug. 12-25	-	14	24	16	35 Chinook per vessel per open period
		-	Aug. 26	-	1	24	16	50 Chinook and 200 coho per vessel per open period
		-	Aug. 27	-	0	24	16	Closed
		-	Aug. 28-Sept. 3	-	7	24	16	100 Chinook and 100 coho per vessel per open period
		-	Nov. 1-Dec. 31	-	61	22	16	
	S'Klallam							
	Area 4B inside waters	-	Jan. 1-Apr. 15	-	105	22	16	
		May 1-June 18	-	49	-	24	-	
		-	July 1-Sept. 4	-	66	24	16	
		-	Nov. 1-Dec. 31	-	61	22	16	

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 4 of 6)

Year	Tribe/Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions	
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Chinook	Coho		
2014	Quinault, Quileute, and Hoh								
	Sand Point to Point Chehalis	May 1-June 30	-	61	-	24	-		
	Quileute and Hoh	-	July 1-Sept. 15	-	77	24	16		
	Quinault	-	July 1-Sept. 4	-	66	-	-		
		-	Sept 5-10	-	6	24	16	40 Chinook and 120 coho per vessel per open period	
		-	Sept 11-15	-	5	24	16	45 Chinook and 135 coho per vessel per open period	
	Sand Point to Queets River (Quileute only)	-	Sept. 16-Oct. 15	-	30	24	16	Ceremonial and subsistence only	
	Makah								
	Ocean waters north of 48°02'15" N. Lat. and east of 125°44'00" W. Long.								
			May 1-June 23		54	-	24	-	
			June 25-30		6	-	24	-	75 Chinook per vessel per open period
			-	July 1-31	-	31	24	16	
			-	Aug. 2-Aug. 9	-	8	24	16	70 Chinook per vessel per open period
			-	Aug. 11-13	-	3	24	16	70 Chinook per vessel per open period
			-	Aug. 15-20	-	6	24	16	100 Chinook and 315 coho per vessel per open period
			-	Aug. 22-27	-	6	24	16	120 Chinook and 360 coho per vessel per open period
			-	Aug. 29-Sept 3	-	7	24	16	120 Chinook and 200 coho per vessel per open period
			-	Sept 5-10	-	6	24	16	35 Chinook and 110 coho per vessel per open period
			-	Sept 11-15	-	5	-	-	45 Chinook and 135 coho per vessel per open period
	Area 4B inside waters		-	Jan. 1-Apr. 15	-	105	22	16	
			May 1-June 23		54	-	24	-	
			June 25-30		6	-	24	-	75 Chinook per vessel per open period
			-	July 1-31	-	31	24	16	
			-	Aug. 2-Aug. 9	-	8	24	16	70 Chinook per vessel per open period
			-	Aug. 11-13	-	3	24	16	70 Chinook per vessel per open period
			-	Aug. 15-20	-	6	24	16	100 Chinook and 315 coho per vessel per open period
			-	Aug. 22-27	-	6	24	16	120 Chinook and 360 coho per vessel per open period
			-	Aug. 29-Sept 3	-	7	24	16	120 Chinook and 200 coho per vessel per open period
			-	Sept 5-10	-	6	24	16	35 Chinook and 110 coho per vessel per open period
			-	Sept 11-15	-	5	-	-	45 Chinook and 135 coho per vessel per open period
			-	Nov. 1-Dec. 31	-	61	22	16	
	S'Klallam								
Area 4B inside waters		-	Jan. 1-Apr. 15	-	105	22	16		
		May 1-June 30	-	61	-	24	-		
		-	July 1-Sept. 15	-	77	24	16		
		-	Nov. 1-Dec. 31	-	61	22	16		

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 5 of 6)

Year	Tribe/Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Chinook	Coho	
2015	Quinault, Quileute, and Hoh							
	Sand Point to Point Chehalis	May 1-June 30	-	61	-	24	-	
	Quileute and Hoh	-	July 1-Sept. 15	-	77	24	16	
	Quinault	-	July 1-Sept. 15	-	77	-	-	
	Sand Point to Queets River (Quileute only)	-	Sept. 16-Oct. 15	-	30	24	16	Ceremonial and subsistence only
	Makah							
	Ocean waters north of 48°02'15" N. Lat. and east of 125°44'00" W. Long.							
		May 1-June 23		54	-	24	-	
		June 25-30		6	-	24	-	75 Chinook per vessel per open period
		-	July 6-11	-	6	24	16	75 Chinook per vessel per open period
		-	July 13-23	-	11	24	16	
		-	July 25-29	-	6	24	16	30 Chinook per vessel per open period
		-	July 31-Aug. 5	-	6	24	16	30 Chinook per vessel per open period
		-	Aug. 7-12	-	6	24	16	35 Chinook per vessel per open period
		-	Aug. 14-19; 21-26; 28-Sept 2	-	17	24	16	20 Chinook per vessel per open period
		-	Sept. 3-9	-	7	24	16	25 Chinook per vessel per open period
		-	Sept. 10-15	-	6			40 Chinook per vessel per open period
	Area 4B inside waters	-	Jan. 1-Apr. 15	-	105		16	
		May 1-June 23		54	-	24	-	
		June 25-30		6	-	24	-	75 Chinook per vessel per open period
		-	July 6-11	-	6	24	16	75 Chinook per vessel per open period
		-	July 13-23	-	11	24	16	
		-	July 25-29	-	6	24	16	30 Chinook per vessel per open period
		-	July 31-Aug. 5	-	6	24	16	30 Chinook per vessel per open period
		-	Aug. 7-12	-	6	24	16	35 Chinook per vessel per open period
		-	Aug. 14-19; 21-26; 28-Sept 2	-	17	24	16	20 Chinook per vessel per open period
		-	Sept. 3-9	-	7	24	16	25 Chinook per vessel per open period
		-	Sept. 10-15	-	6			40 Chinook per vessel per open period
		-	Nov. 1-Dec. 31	-	61	22	16	
	S'Klallam							
	Area 4B inside waters	-	Jan. 1-Apr. 15	-	105		16	
		May 1-June 30	-	61	-	24	-	
		-	July 1-Sept. 15	-	77	24	16	
		-	Nov. 1-Dec. 31	-	61	22	16	

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 6 of 6)

Year	Tribe/Area	Seasons		Number of Days		Minimum Size Limit (in.)		Other Restrictions
		All-Salmon- Except-Coho	All Salmon	All-Salmon- Except-Coho	All Salmon	Chinook	Coho	
2016^{b/}	Quinalt, Quileute, and Hoh							
	Sand Point to Point Chehalis	May 1-June 30	-	61	-	24	-	
	Quileute and Hoh	-	July 1-Aug. 31	-	62	24	16	No Coho retention
	Quinalt	-	July 1-Aug. 31	-	62	24	16	No Coho retention
	Sand Point to Queets River (Quileute only)	-	Closed	-	0	24	16	Ceremonial and subsistence only
	Makah							
	North of 48°02'15" N. Lat. (Norwegian Memorial) and east of	May 1-June 4 June 5-30		35 26	-	24	-	Area closure: Sw iftsure All Areas Open
			July 1-Aug. 6 Aug. 7-31		37 25	24	16	No Coho retention; Gear restriction plugs only No Coho retention; No gear restrictions
	Area 4B (inside waters) (Tootosh line east to Sieku R.)	- May 1-June 30	Jan. 1-Apr. 15		105 61	22 24	16 -	
			July 1-Aug. 6 Aug. 7-31		37 25	24	16	No Coho retention; Gear restriction plugs only No Coho retention; No gear restrictions
		-	Nov. 1-Dec. 31	-	61	22	16	
	S'Kallam/Area 4B							
	(Tootosh line east to Sieku R.)	- May 1-June 30	Jan. 1-Apr. 15		105 61	22 24	16 -	
		-	July 1-Aug. 31	-	62	24	16	No Coho retention
		-	Nov. 1-Dec. 31	-	61	22	16	

a/ For earlier years see Review of 2013 Ocean Salmon Fisheries, Appendix C, Table C-7.

b/ For detailed regulations see Table I-2.

TABLE C-8. Council preseason adopted catch quotas (thousands of fish) for ocean fisheries north of Cape Falcon and critical stocks driving management. (Page 1 of 2)

Year	Chinook				Coho				
	Critical Stocks	Catch Quota			Critical Stocks	Catch Quota			
		Treaty Indian	Non-Indian Commercial	Sport		Treaty Indian	Non-Indian Commercial	Sport	
1979	None	-	-	-	None	-	-	-	
1980	None	-	-	-	Washington coastal coho	-	-	-	
1981	None	-	-	-	Hoh and Skagit ^{a/}	-	372.0	248.0	
1982	None	-	-	-	Washington coastal coho	-	293.0	215.0	
1983	Columbia River hatchery and depressed upriver stocks	-	114.0	88.0	Queets and Skagit ^{b/}	-	164.0	318.0	
1984	Columbia River Lower River and Spring Creek Hatchery tules	8.3	16.7	10.3	Grays Harbor	38.5	24.8	50.2	
1985	Columbia River Spring Creek Hatchery tules	10.5	47.5 ^{c/}	37.2	Skagit	75.0	91.5	198.4	
1986	Columbia River Spring Creek Hatchery tules	12.5	51.0	37.1	Quillayute and Queets	86.0	140.6	207.5	
1987	Columbia River Spring Creek Hatchery tules	15.8	58.2 ^{d/}	44.6	Skagit	86.0	141.2	200.9	
1988	Columbia River upriver stocks	60.0	73.7	29.8	Washington coastal and Puget Sound	68.0	0.0 ^{e/}	100.0	
1989	Columbia River upriver stocks	32.0	47.5	47.5	Queets and Skagit	77.0	75.0	225.0	
1990	Columbia River Lower River Hatchery tules	31.2	37.5	37.5	Queets and Skagit	90.0	105.0	245.0	
1991	Columbia River Lower River Hatchery tules	33.0	40.0	40.0	Hood Canal and Skagit	80.0	87.0	233.0	
1992	Columbia River Lower River and Spring Creek Hatchery tules, and Snake River falls	33.0	47.0	33.0	Hood Canal and Stillaguamish	68.0	19.0	141.0	
1993	Columbia River Lower River and Spring Creek Hatchery tules, and Snake River falls	33.0	35.0	25.0	Skagit	90.0	47.5	202.5	
1994	Columbia River Lower River Hatchery tules and Snake River falls	16.4	0.0	0.0	Washington coastal and Puget Sound	0.0	0.0	0.0	
1995	Columbia River Lower River Hatchery tules and Snake River falls	12.0	0.0	0.0	Washington coastal and Puget Sound	30.0	25.0	75.0	
1996	Columbia River Lower River Hatchery tules and Snake River falls	11.0	0.0	0.0	Washington coastal and Puget Sound	30.0	20.8	62.2	
1997	Snake River falls	15.0	11.5	5.2	Washington coastal and Puget Sound	12.4	0.0	32.3 ^{f/}	
1998	Columbia River Lower River Hatchery tules	15.0	6.5	3.5	Washington coastal and Oregon Coast Natural	10.0	0.0	16.0	
1999	Columbia River Lower River Wild (Lewis River)	30.0	28.5	21.5	Queets, Strait of Juan de Fuca, and Oregon Coast Natural	38.5	20.0	110 ^{g/}	
2000	Columbia River Lower River Wild (Lewis River)	25.5	12.5	12.5	Queets, Skagit, Stillaguamish, Snohomish, Strait of Juan de Fuca, and OCN	20.0	25.0 ^{g/}	75.0 ^{g/}	
2001	Columbia River natural tules (Cow eeman)	37.0	30.0	30.0	Oregon Coast Natural	90.0	75.0 ^{g/}	225.0 ^{g/}	
2002	Columbia River natural tules (Cow eeman)	60.0	82.5	67.5	Oregon Coast Natural	60.0	5.0 ^{g/i/}	115.0 ^{g/i/}	
2003	Columbia River natural tules (Cow eeman) and Snake River falls	60.0	64.4	59.6	Oregon Coast Natural	90.0	75.0 ^{g/}	225.0 ^{g/}	
2004	Snake River falls and Columbia River natural tules (Cow eeman)	49.0	44.5	44.5	Interior Fraser (B.C.), Oregon Coast Natural, and upper Columbia River escapement	75.0	67.5 ^{g/}	202.5 ^{g/}	

TABLE C-8. Council Preseason adopted catch quotas (thousands of fish) for ocean fisheries north of Cape Falcon and critical stocks driving management. (Page 2 of 2)

Year	Critical Stocks	Chinook			Coho			
		Catch Quota			Catch Quota			
		Treaty Indian	Non-Indian Commercial	Sport	Treaty Indian	Non-Indian Commercial	Sport	
2005	Snake River falls	48.0	43.3	43.3	Interior Fraser (B.C.) and Skagit River	50.0	23.2 ^{g/}	121.8 ^{g/}
2006	Columbia River natural tules (Cow eeman) ^{h/}	42.2	34.0	31.0	Low er Columbia River natural and Interior Fraser (B.C.)	37.5	6.8 ^{g/}	73.2 ^{g/}
2007	Columbia River natural tules (Cow eeman) ^{h/}	35.0	16.3	16.3	Low er Columbia River natural and Interior Fraser (B.C.)	38.0	22.4 ^{g/}	117.6 ^{g/}
2008	Low er River w ild (Lew is River) ^{h/} and Columbia River natural tules	37.5	20.0	20.0	Low er Columbia River natural and Hood Canal Natural	20.0	4.0 ^{g/}	20.35 ^{g/}
2009	Columbia River natural tules	39.0	20.5	20.5	Low er Columbia River, Skagit, Stillaguamish, and Interior Fraser Natural	60.0	33.6 ^{g/}	176.4 ^{g/}
2010	Columbia River natural tules	55.0	56.0	61.0 ^{i/}	Low er Columbia River, Strait of Juan de Fuca, and Interior Fraser Natural	41.5	12.8 ^{g/}	67.2 ^{g/}
2011	Columbia River natural tules	41.0	30.9	33.7 ^{i/}	Low er Columbia River and Interior Fraser Natural	42.0	12.8 ^{g/}	67.2 ^{g/}
2012	Columbia River natural tules	55.0	47.4	51.5 ^{i/}	Low er Columbia River and Interior Fraser Natural	47.5	11.8 ^{g/}	71.2 ^{g/}
2013	Columbia River natural tules	52.5	44.0	48.0 ^{i/}	Low er Columbia River and Interior Fraser Natural	47.5	14.2 ^{g/}	74.8 ^{g/}
2014	Columbia River natural tules, and Puget Sound	62.5	56.9	59.1 ^{i/}	Low er Columbia River and Interior Fraser Natural	57.5	35.2 ^{g/}	184.8 ^{g/}
2015	Columbia River natural tules, and Puget Sound	60.0	67.0	64.0 ^{i/}	Low er Columbia River, Queets River and Interior Fraser Natural coho.	42.5	19.2 ^{g/}	150.8 ^{g/}
2016	Columbia River natural tules, and Puget Sound	40.0	35.0	35.0 ^{i/}	Low er Columbia River, Queets River and Interior Fraser Natural coho.	0.0	0.0	18.9 ^{g/}

a/ Although the Skagit River escapement goal would not be achieved, management was based on meeting WDFW's escapement goal for Hoh River coho and allocation based on aggregation to Washington coastal tribes.

b/ The Council management regime was not expected to meet equitable adjustment requirements for Skagit River coho.

c/ Plus 7,430 hooking mortality for pink fishery.

d/ Plus 3,250 hooking mortality for pink fishery.

e/ Hooking mortality of 2,800 coho for June 1-15 fishery not included.

f/ Plus 1,200 hook-and-release mortality for the Neah Bay all-salmon-except-coho fishery.

g/ Marked hatchery coho only (healed adipose fin clip).

h/ Sharing of impacts on ESA listed Puget Sound Chinook also affected the shaping of ocean and inside fisheries.

i/ For 2002, the Council elected to constrain fishing so that the OCN exploitation rate would not exceed 12.5 percent per ODFW's recommendation to provide additional protection for low er Columbia River natural coho, w hich are listed as endangered under the Oregon State-ESA. The FMP objective for OCN coho was 15 percent.

j/ Includes mark-selective fishery quotas of: 12,000 (5,000 non-mark selective quota) in 2010, 4,800 (2,000 non-mark selective quota) in 2011, 8, 000 in 2012 and 2013 (4,000 non-mark selective quota), 9,000 (4,500 non-mark selective) in 2014, and 10,000 in 2015 (4,000 non-mark selective).

TABLE C-9. Sequence of events in ocean salmon fishery management, 2016.^{a/} (Page 1 of 5)

GENERAL MANAGEMENT ACTIONS AND INSEASON CONFERENCES

Mar. 7	National Marine Fisheries Service (NMFS) provides the Council with a letter outlining the 2016 management guidance for stocks listed under the Endangered Species Act (ESA) and stocks of concern.
Mar. 10	Based on Council recommendations, NMFS takes inseason action to delay the scheduled opening for the commercial salmon fishery from Cape Falcon south to the OR/CA border, from March 15, 2016, to April 1, 2016.
Mar. 10	Based on Council recommendations, NMFS takes inseason action to cancel the opening scheduled in the commercial fishery from Horse Mountain, California to Point Arena, California (Fort Bragg Subarea), originally scheduled for April 16, 2016.
Mar. 13	Based on Council recommendations, NMFS takes inseason action to modify the commercial salmon fishery from Cape Falcon south to the OR/CA border to remain closed through April 7, 2016, and open April 8-30, 2016. Seven days a week. All salmon except coho. Chinook minimum size limit of 28 inches total length. All vessels fishing in the area must land their fish in the state of Oregon. Gear restrictions same as 2015.
Mar. 13	Council adopts three commercial, tribal, and recreational ocean salmon fishery management alternatives for public review.
Mar. 15	North of Cape Falcon Salmon Forum meets in Olympia, Washington to initiate consideration of recommendations for treaty Indian and non-Indian salmon management alternatives.
Mar. 28-29	Council holds public hearings on proposed 2016 management alternatives in Westport, Washington; Coos Bay, Oregon; and Fort Bragg, California.
Mar. 30	North of Cape Falcon Salmon Forum meets in Lynnwood, Washington to further consider recommendations for treaty Indian and non-Indian salmon management alternatives.
Apr. 14	Council adopts final ocean salmon fishery management recommendations for approval and implementation by the U.S. Secretary of Commerce. The proposed measures comply with the salmon fishery management plan (FMP) and the current biological opinions for listed species.
May 2	Ocean salmon seasons implemented as recommended by the Council and published in the <i>Federal Register</i> (81 FR 26157), with an effective date of May 1, 2016. Correction published June 6, 2016 in <i>Federal Register</i> (81 FR 36184).
June 8	NMFS inseason conference number one results: <ol style="list-style-type: none"> 1. The commercial salmon fishery from Cape Alava to Queets River (La Push Subarea) previously scheduled for June 10-16 and June 24-30, 2016 remains closed. 2. The landing limit in the commercial salmon fishery from the U.S./Canada border to Cape Alava (Neah Bay Subareas/WA Marine Area 4) was reduced from 40 to 15 Chinook per opening per vessel effective June 10. All fishermen intending to fish north of Cape Alava must declare that intention before fishing by first notifying WDFW via telephone with boat name and approximate time they intend to fish in Area 4 and destination at the end of the trip. All fish from Area 4 must be landed before fishing any other area. No fish from other areas may be in possession with fish from Area 4. 3. The landing limit in the commercial salmon fishery from the Queets River to Cape Falcon (Westport and Columbia River Subareas) was increased from 40 to 65 Chinook per opening per vessel effective June 10.

GENERAL MANAGEMENT ACTIONS AND INSEASON CONFERENCES

June 22	<p>NMFS inseason conference number two results:</p> <ol style="list-style-type: none"> 1. Effective June 24-30: The landing limit in the commercial salmon fishery from the U.S./Canada border to Cape Alava (Neah Bay Subarea/WA Marine Area 4) was reduced from 15 to 14 Chinook per opening per vessel. All fishermen intending to fish north of Cape Alava must declare that intention before fishing by first notifying WDFW via telephone with boat name and approximate time they intend to fish in Area 4 and destination at the end of the trip. All fish from Area 4 must be landed before fishing any other area. No fish from other areas may be in possession with fish from Area 4. 2. Effective June 24-30: The landing limit in the commercial salmon fishery from the Queets River to Cape Falcon (Westport and Columbia River Subareas) was decreased from 65 to 40 Chinook per opening per vessel. 3. Effective July 8: In the commercial salmon fishery from the U.S./Canada border to Queets River (Neah Bay and LaPush Subareas) the landing limit was changed to 60 Chinook per opening per vessel. Vessels in possession of salmon north of the Queets River may not cross the Queets River line without first notifying WDFW via telephone with area fished, total Chinook and halibut catch aboard, and destination. 4. Effective July 8: In the commercial salmon fishery from the Queets River to Cape Falcon (Westport and Columbia River Subareas) the landing limit was increased from 50 to 80 Chinook per opening per vessel. 5. Effective July 1: In the commercial salmon fishery from the U.S./Canada border to the U.S./Mexico border, the retention of Pacific halibut caught incidental to commercial salmon fishing will continue until further notice. IPHC license holders may land or possess no more than one Pacific halibut per each three Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio requirement and no more than 20 Pacific halibut may be possessed or landed per trip. Pacific halibut retained must be no less than 32 inches in total length (head on). IPHC license holders must comply with all applicable IPHC regulations. 6. Effective September 1: In the commercial salmon fishery from Cape Falcon to Humbug Mountain, the landing limit was changed to 45 Chinook per vessel per landing week (Thursday – Wednesday).
July 8	<p>NMFS inseason conference number three results: Effective July 8, in the commercial salmon fishery from Humbug Mountain to the Oregon/California border (Oregon KMZ) the July quota was adjusted to 594 Chinook due to an impact-neutral rollover of the remaining June quota.</p>
July 20	<p>NMFS inseason conference number four results:</p> <ol style="list-style-type: none"> 1. Effective July 22: In the commercial salmon fishery from the U.S./Canada border to Queets River (Neah Bay and LaPush Subareas) the landing limit was changed from 60 Chinook per opening per vessel to 125 Chinook per opening per vessel. 2. Effective July 22: In the commercial salmon fishery from the Queets River to Cape Falcon (Westport and Columbia River Subareas) the landing limit was increased to 150 Chinook per opening per vessel. 3. Effective July 23: In the recreational salmon fishery from the Queets River to Leadbetter Point the daily bag limit was changed to 2 Chinook per day.
July 29	<p>NMFS inseason conference number five results: Effective August 1 in the commercial salmon fishery from the U.S./Canada border to Cape Falcon the landing limit was increased to 225 Chinook per opening per vessel.</p>
Aug. 10	<p>NMFS inseason conference number six results:</p> <ol style="list-style-type: none"> 1. Effective August 16: In the recreational salmon fishery from Leadbetter Point to Cape Falcon (Columbia River Subarea), the daily salmon bag limit was changed from allowing 1 Chinook to allowing 2 Chinook per day. 2. Effective August 15: In the commercial salmon fishery from the U.S./Canada border to Cape Falcon the landing limit was increased from 225 Chinook per opening per vessel to 300 Chinook per opening per vessel.
Aug. 26	<p>NMFS inseason conference number seven results: Effective August 27 the recreational salmon fishery from Leadbetter Point to Cape Falcon (Columbia River Subarea) was closed.</p>

TABLE C-9. Sequence of events in ocean salmon fishery management, 2016.^{a/} (Page 3 of 5)

NON-INDIAN COMMERCIAL TROLL SEASONS

April 8	Cape Falcon to OR/CA border (Oregon KMZ) non-Indian commercial all-salmon-except-coho fishery opens seven days per week through May.
May 1	U.S./Canada border to Cape Falcon non-Indian commercial all-salmon-except-coho fishery opens on specific days until the earlier of June 30 or attainment of 14,600 preseason Chinook guideline, of which no more than 4,600 may be caught north of the Queets River and no more than 4,600 may be caught south of Leadbetter Point. For details see Table I-1 and Tables C-3 and C-5.
May 1	Pigeon Point to U.S./Mexico border non-Indian commercial all-salmon-except-coho fishery opens for a 61 day season through June 30.
May 6	Point Arena to Pigeon Point non-Indian commercial all-salmon-except-coho fishery opens for a 26 day season through May 31.
May 31	Cape Falcon to OR/CA border non-Indian commercial all-salmon-except-coho fishery closes as scheduled.
June 5	Cape Falcon to Humbug Mountain non-Indian commercial all-salmon-except-coho fishery opens on specific days through August 24. For details see Table I-1 and C-3.
June 5	Humbug Mountain to OR/CA border non-Indian commercial all-salmon-except-coho fishery opens on specific days in June with a quota of 720 Chinook for June. For details see Table I-1 and C-3.
June 13	Horse Mountain to Pigeon Point non-Indian commercial all-salmon-except-coho fishery opens for an 18 day season through June 30.
June 30	U.S./Canada border to Cape Falcon non-Indian commercial all-salmon-except-coho fishery closes as scheduled.
July 8	U.S./Canada border to Cape Falcon non-Indian commercial all-salmon fishery opens on specific days until the earlier of August 23 or attainment of 21,000 preseason Chinook guideline, of which no more than 8,300 may be caught north of the Queets River. For specific season dates and regulations see Table I-1 and Table C-5.
July 8	Humbug Mountain to OR/CA border non-Indian commercial all-salmon-except-coho fishery opens with quota of 594 for July, which includes a roll-over from the June quota. For details see Table I-1 and C-3.
Aug. 3	Horse Mountain to Pigeon Point non-Indian commercial all-salmon-except-coho fishery opens for a 25 day season through August 27 north of Point Arena and a 26 day season through August 28 south of Point Arena.
Sept. 1	Cape Falcon to Humbug Mountain non-Indian commercial all-salmon-except-coho fishery open on specific days in September. Landing/possession limit in place. For details see Table I-1 and C-3.
Sept. 1	Horse Mountain to Point Arena non-Indian commercial all-salmon-except-coho fishery opens for a 30 day season through Sept. 30. All fish must be landed north of Point Arena. When the California KMZ fishery is open, all fish must be landed south of Horse Mountain.
Sept. 1	Point Arena to Pigeon Point non-Indian commercial all-salmon-except-coho fishery opens for a 30 day season through Sept. 30. All fish must be landed south of Point Arena.
Sept. 9	OR/CA Border to Humboldt South Jetty non-Indian commercial all-salmon-except-coho fishery opens Friday through Tuesday until the earlier of Sept. 27 or attainment of 1,000 Chinook quota with a landing and possession limit of 20 Chinook per day. For details see Table I-1 and C-1.
Sept. 27	OR/CA Border to Humboldt South Jetty non-Indian commercial all-salmon-except-coho fishery closes as scheduled.
Oct. 3	Point Reyes to Point San Pedro non-Indian commercial all-salmon-except-coho fishery opens for a 10 day season, Monday through Friday, through Oct. 14. For details see Table I-1 and C-1.

TABLE C-9. Sequence of events in ocean salmon fishery management, 2016.^{al} (Page 4 of 5)

TREATY INDIAN COMMERCIAL TROLL SEASONS

May 1	All-salmon-except-coho fishery opens through the earlier of June 30 or attainment of 20,000 Chinook quota.
June 30	All-salmon-except-coho fisheries close as scheduled (see Table C-7).
July 1	All-salmon fisheries open through the earlier of August 31, attainment of 20,000 Chinook quota.
Aug. 31	All-salmon fisheries close as scheduled.

RECREATIONAL SEASONS

Mar. 15-June 24	Cape Falcon to Humbug Mountain all-salmon-except-coho fishery open seven days per week with a 24-inch minimum size limit for Chinook.
Apr. 2-Nov. 13	Horse Mountain to Point Arena all-salmon-except-coho fishery open seven days per week with a 20-inch minimum size limit for Chinook.
Apr. 2-Oct. 31	Point Arena to Pigeon Point all-salmon-except-coho fishery open seven days per week, with a 24-inch minimum size limit for Chinook through April 30; 20 inches thereafter.
Apr. 2-July 15	Pigeon Point to Point Sur all-salmon-except-coho fishery open seven days per week, with a 24-inch minimum size limit for Chinook.
Apr. 2-May 31	Point Sur to the U.S./Mexico border all-salmon-except-coho fishery open seven days per week, with a 24-inch minimum size limit for Chinook.
May 16-31	OR/CA border to Horse Mountain all-salmon-except-coho fishery open seven days per week with a 20-inch minimum size limit for Chinook.
May 28-June 24	Humbug Mountain to OR/CA border all-salmon-except-coho fishery open seven days per week with a 24-inch minimum size limit for Chinook.
June 16-30	OR/CA border to Horse Mountain all-salmon-except-coho fishery open seven days per week with a 20-inch minimum size limit for Chinook.
June 25	Cape Falcon to OR/CA border all-salmon mark-selective-coho fishery opens through earlier of August 7 or attainment of a 26,000 marked coho quota. Fishery is open seven days per week with a 24-inch minimum size limit for Chinook, and a 16-inch minimum size limit for coho.
July 1	U.S./Canada border to Cape Alava (Neah Bay Subarea), all-salmon-except-coho fishery opens through the earlier of August 21 or attainment of a 6,200 Chinook guideline, seven days per week. Bag limit is two fish per day; no chum retention after August 1. Beginning August 1 Chinook non-retention east of the Bonilla-Tatoosh line in Council area fisheries. Chinook minimum size limit is 24 inches.
July 1	Cape Alava to Queets River (La Push Subarea), all-salmon except coho fishery opens through the earlier of August 21 or attainment of a 2,000 Chinook guideline, seven days per week. Bag limit is two fish per day. Chinook minimum size limit is 24 inches.
July 1	Queets River to Leadbetter Point (Westport Subarea), all-salmon except coho fishery opens though the earlier of August 21 or attainment of a 16,600 Chinook guideline, seven days per week. Bag limit is one fish per day until inseason action increased the bag limit to 2 fish per day beginning July 23. Grays Harbor Control Zone closed beginning August 8. Chinook minimum size limit is 24 inches
July 1	Leadbetter Point to Cape Falcon (Columbia River Subarea), all-salmon fishery opens though the earlier of August 31 or attainment of an 18,900 marked coho subarea quota with a subarea guideline of 10,200 Chinook. Open seven days per week. Bag limit is two fish per day, only one of which can be a Chinook until inseason action modified the bag limit to allow for up to two Chinook per day beginning August 16. Chinook minimum size limit is 24 inches.
July 16-Aug. 16	OR/CA border to Horse Mountain all-salmon-except-coho fishery open seven days per week with a 20-inch minimum size limit for Chinook.

TABLE C-9. Sequence of events in ocean salmon fishery management, 2016.^{a/} (Page 5 of 5)

RECREATIONAL SEASONS, (continued)

Aug. 7	Cape Falcon to OR/CA border all-salmon mark-selective-coho fishery closes as scheduled.
Aug. 8-Sept. 2	Cape Falcon to Humbug Mountain all-salmon-except-coho fishery re-opens as scheduled. Seven days per week with a 24-inch minimum size limit for Chinook.
Aug. 21	U.S./Canada border to Leadbetter Point all-salmon-except-coho fishery closes as scheduled.
Aug. 27	Leadbetter Point to Cape Falcon (Columbia River Subarea), all-salmon fishery closes.
Sept. 1-5	OR/CA border to Horse Mountain all-salmon-except-coho fishery open seven days per week with a 20-inch minimum size limit for Chinook.
Sept. 3-5	Humbug Mountain to OR/CA border all-salmon-except-coho fishery reopens as scheduled. Seven days per week with a 24-inch minimum size limit for Chinook.
Sept. 3	Cape Falcon to Humbug Mountain all-salmon non-mark-selective coho fishery opens seven days per week through September 30 or attainment of a 7,500 coho quota. Bag limit is two fish per day.
Sept. 30	Cape Falcon to Humbug Mountain non-mark-selective coho fishery closes as scheduled.
Oct. 1-31	Cape Falcon to Humbug Mountain all-salmon-except-coho fishery re-opens as scheduled. Seven days per week with a 24-inch minimum size limit for Chinook.

a/ Unless stated otherwise, season openings or modifications of restrictions are effective at 00:01 hours of the listed date. Closures are effective at 23:59 hours of the listed date.

**APPENDIX D
HISTORICAL ECONOMIC DATA**

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TABLE D-1. California monthly troll Chinook and coho average dressed weights (pounds) by area of landing. (Page 1 of 3)

Year	Apr.	May	June	July	Aug.	Sept.	Oct.	Season ^{a/}	May	June	July	Aug.	Sept.	Season	
	CHINOOK								COHO						
<u>Crescent City</u>															
1976-1980	8.6	8.5	8.8	9.0	9.8	8.4	-	8.9	4.0	4.6	6.2	7.0	7.4	5.6	
1981-1985	-	7.7	8.3	8.6	8.7	9.2	-	8.5	3.9	4.6	5.4	6.4	6.8	5.9	
1986-1990	-	-	9.6	9.5	9.2	9.4	-	9.6	-	5.0	5.0	4.5	5.6	5.0	
1991-1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1996-2000	-	-	-	-	8.3	10.2	-	10.0	-	-	-	-	-	-	
2001-2005	11.1	12.0	10.9	11.6	12.7	12.2	10.1	12.6	-	-	-	-	-	-	
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2007	-	-	-	-	-	13.7	-	13.7	-	-	-	-	-	-	
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2011	-	-	-	15.5	16.0	-	-	16.0	-	-	-	-	-	-	
2012	-	-	-	-	-	11.7	-	11.7	-	-	-	-	-	-	
2013	-	11.7	11.2	14.6	11.9	13.9	-	12.7	-	-	-	-	-	-	
2014	-	-	-	-	-	11.8	-	11.8	-	-	-	-	-	-	
2015	-	-	-	-	-	12.7	-	12.7	-	-	-	-	-	-	
2016 ^{b/}	-	-	-	-	-	14.3	-	14.3	-	-	-	-	-	-	
<u>Eureka</u>															
1976-1980	7.7	8.1	8.4	8.9	9.2	9.5	-	8.4	4.1	4.4	6.2	6.9	6.8	5.1	
1981-1985	-	7.4	8.2	8.9	9.2	9.6	-	6.6	4.6	4.7	5.9	6.2	6.6	5.7	
1986-1990	-	-	9.0	10.1	10.2	9.2	9.6	9.3	-	5.1	5.6	5.5	6.2	5.3	
1991-1995	-	-	-	-	-	9.5	17.7	10.1	-	-	-	-	6.2	6.2	
1996-2000	-	-	-	-	11.9	10.1	-	10.2	-	-	-	-	-	-	
2001-2005	-	-	-	-	11.4	11.3	-	11.3	-	-	-	-	-	-	
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2007	-	-	-	-	-	12.3	-	12.3	-	-	-	-	-	-	
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2011	-	-	-	13.7	11.7	-	-	13.3	-	-	-	-	-	-	
2012	-	-	-	-	-	10.5	-	10.5	-	-	-	-	-	-	
2013	-	9.1	11.2	11.0	11.9	11.2	-	10.7	-	-	-	-	-	-	
2014	-	-	-	-	-	11.9	-	11.9	-	-	-	-	-	-	
2015	-	-	-	-	-	12.5	-	12.5	-	-	-	-	-	-	
2016 ^{b/}	-	-	-	-	-	11.9	-	11.9	-	-	-	-	-	-	

TABLE D-1. California monthly troll Chinook and coho average dressed weights (pounds) by area of landing. (Page 2 of 3)

Year	Apr.	May	June	July	Aug.	Sept.	Oct.	Season ^{a/}	May	June	July	Aug.	Sept.	Season
	CHINOOK							COHO						
<u>Fort Bragg</u>														
1976-1980	7.7	8.5	7.8	10.5	10.1	10.1	-	10.0	4.1	4.7	6.8	7.0	8.8	5.9
1981-1985	7.6	9.0	10.4	9.6	10.3	10.1	-	9.8	5.3	6.0	6.3	6.6	7.2	6.2
1986-1990	-	9.3	10.2	9.3	10.1	10.1	-	9.6	-	5.3	5.8	6.4	6.2	5.7
1991-1995	-	8.2	-	-	10.5	10.4	-	10.7	-	-	-	6.4	-	6.4
1996-2000	-	-	-	-	11.0	11.4	-	11.3	-	-	-	-	-	-
2001-2005	-	13.6	-	12.1	12.5	13.0	-	12.6	-	-	-	-	-	-
2006	-	-	-	-	-	15.9	-	15.9	-	-	-	-	-	-
2007	12.5	-	-	-	15.8	12.9	-	15.6	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	15.8	14.6	-	-	15.2	-	-	-	-	-	-
2011	-	-	-	14.3	14.7	12.5	-	14.5	-	-	-	-	-	-
2012	-	-	-	11.3	12.1	12.2	-	11.6	-	-	-	-	-	-
2013	-	12.2	13.4	13.3	12.9	12.8	-	13.2	-	-	-	-	-	-
2014	-	-	14.3	13.8	14.7	14.4	-	14.0	-	-	-	-	-	-
2015	-	10.3	11.0	10.6	11.9	12.1	-	10.6	-	-	-	-	-	-
2016 ^{b/}	-	-	10.5	-	11.2	12.1	-	10.8	-	-	-	-	-	-
<u>San Francisco</u>														
1976-1980	8.5	8.9	7.8	10.7	11.3	11.7	-	9.9	4.6	5.2	7.1	6.8	8.4	6.1
1981-1985	6.8	8.6	9.4	10.5	10.5	10.1	-	9.7	5.3	5.9	6.7	6.6	7.8	6.3
1986-1990	-	9.2	10.2	10.9	12.4	12.1	-	10.1	-	5.6	6.1	6.7	6.2	5.9
1991-1995	-	8.6	9.3	10.2	11.3	11.8	-	10.0	-	5.3	5.9	5.6	-	5.2
1996-2000	9.9	9.4	9.8	11.0	12.5	12.9	-	10.6	-	-	-	-	-	-
2001-2005	-	11.9	13.2	12.5	14.0	14.4	14.2	12.9	-	-	-	-	-	-
2006	-	-	-	15.1	14.4	16.8	18.0	15.3	-	-	-	-	-	-
2007	-	11.4	-	13.2	14.3	17.5	19.0	12.8	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	14.9	-	-	-	14.9	-	-	-	-	-	-
2011	-	13.2	13.1	13.8	13.9	12.9	15.0	13.5	-	-	-	-	-	-
2012	-	10.4	11.4	11.8	12.8	13.1	12.9	11.6	-	-	-	-	-	-
2013	-	11.4	13.0	12.7	15.1	12.3	13.7	12.4	-	-	-	-	-	-
2014	-	11.3	12.9	13.9	15.0	13.5	13.7	12.9	-	-	-	-	-	-
2015	-	9.1	9.8	11.3	13.2	11.8	11.8	11.2	-	-	-	-	-	-
2016 ^{b/}	-	9.7	10.0	-	12.9	11.5	12.5	12.0	-	-	-	-	-	-

TABLE D-1. California monthly troll Chinook and coho average dressed weights (pounds) by area of landing. (Page 3 of 3)

Year	Apr.	May	June	July	Aug.	Sept.	Oct.	Season ^{a/}	May	June	July	Aug.	Sept.	Season
	CHINOOK								COHO					
<u>Monterey</u>														
1976-1980	8.5	9.3	7.9	11.3	13.0	10.1	-	10.1	4.6	4.8	5.9	7.1	6.5	5.3
1981-1985	7.3	8.6	9.6	10.4	11.1	10.2	-	9.3	5.4	5.2	6.5	7.6	8.3	6.1
1986-1990	-	10.3	11.3	12.2	12.3	11.7	-	11.1	-	5.6	6.0	6.5	6.4	5.9
1991-1995	-	9.4	10.9	11.3	11.7	11.1	-	10.6	-	4.8	5.6	5.5	-	5.0
1996-2000	11.1	10.3	11.0	12.4	11.8	10.1	-	10.8	-	-	-	-	-	-
2001-2005	-	12.1	13.1	13.7	14.0	13.8	-	12.7	-	-	-	-	-	-
2006	-	12.4	12.6	16.2	13.3	15.7	-	12.6	-	-	-	-	-	-
2007	-	14.1	13.2	13.6	14.1	17.6	-	14.0	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	14.2	-	-	-	14.2	-	-	-	-	-	-
2011	-	14.9	14.4	14.5	12.5	12.6	-	14.6	-	-	-	-	-	-
2012	-	10.7	13.3	13.9	12.5	11.6	-	12.2	-	-	-	-	-	-
2013	-	12.4	13.6	16.0	14.7	12.3	-	13.3	-	-	-	-	-	-
2014	-	11.2	13.7	14.4	14.4	-	-	12.6	-	-	-	-	-	-
2015	-	9.8	10.5	11.4	12.5	-	-	10.4	-	-	-	-	-	-
2016 ^{b/}	-	9.6	10.8	-	-	-	-	9.9	-	-	-	-	-	-
Total Statewide^{a/}														
1976-1980	8.3	8.6	9.3	10.1	10.7	10.4	-	9.5	3.9	4.6	6.4	6.9	7.4	5.5
1981-1985	7.1	8.5	9.7	10.0	10.2	10.0	-	9.5	5.2	5.6	6.3	6.6	7.0	6.2
1986-1990	-	9.5	10.2	10.3	11.1	10.8	9.6	10.1	-	5.2	5.9	6.5	6.0	5.6
1991-1995	-	9.0	9.9	10.5	11.1	11.2	17.7	10.1	-	4.8	5.6	5.6	6.2	5.1
1996-2000	10.3	10.0	10.4	11.5	12.3	12.1	-	10.7	-	-	-	-	-	-
2001-2005	11.1	12.1	13.1	12.7	13.4	13.0	13.8	12.7	-	-	-	-	-	-
2006	-	12.4	12.6	15.1	14.4	16.4	18.0	15.0	-	-	-	-	-	-
2007	12.5	12.2	13.2	13.2	15.3	13.7	19.0	13.4	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	15.4	14.6	-	-	15.1	-	-	-	-	-	-
2011	-	13.8	13.5	14.2	14.6	12.8	15.0	14.2	-	-	-	-	-	-
2012	-	10.5	12.3	12.1	12.5	12.0	12.9	11.7	-	-	-	-	-	-
2013	-	11.6	13.1	13.2	13.5	12.5	13.7	12.7	-	-	-	-	-	-
2014	-	11.2	13.7	13.8	14.9	13.5	13.7	13.4	-	-	-	-	-	-
2015	-	10.0	10.6	11.0	12.7	11.8	11.8	10.8	-	-	-	-	-	-
2016 ^{b/}	-	9.6	10.6	-	12.5	11.5	12.5	11.1	-	-	-	-	-	-

a/ Total statewide and season averages includes minor landings from Oregon prior to 2005.

b/ Preliminary.

TABLE D-2. Oregon monthly troll Chinook and coho average dressed weights (pounds).

Year	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
CHINOOK											
1971-1975	-	-	9.5	10.7	10.4	10.2	9.4	10.7	16.9	-	10.2
1976-1980	-	-	10.2	10.2	10.6	10.0	9.9	10.5	15.4	-	10.3
1981-1985	-	-	9.0	9.1	9.5	9.0	8.8	11.5	14.7	-	9.2
1986-1990	-	-	9.3	9.5	9.6	9.0	9.3	10.4	13.8	-	9.5
1991-1995	-	-	9.9	9.8	9.2	9.4	9.2	10.7	12.3	-	9.6
1996-2000	-	-	11.1	11.7	12.0	10.5	10.1	12.5	14.6	-	10.9
2001	-	10.3	10.8	10.3	10.5	10.7	9.8	10.3	13.8	13.2	10.5
2002	12.3	9.9	10.2	10.5	11.2	10.9	11.4	11.1	15.1	14.1	10.9
2003	10.3	9.9	11.6	11.2	11.8	11.3	10.5	10.4	15.6	15.0	10.9
2004	9.4	10.1	10.9	11.5	11.5	11.4	9.8	12.2	14.4	12.6	10.9
2005	8.6	8.9	9.9	10.5	10.7	10.9	11.9	11.4	15.4	13.9	10.7
2006	-	-	12.2	13.6	15.5	15.3	13.8	16.0	15.8	13.7	13.9
2007	-	13.4	13.7	13.9	13.7	11.9	12.6	15.4	13.5	14.3	13.1
2008	-	-	10.4	10.4	12.1	11.5	14.3	19.9	15.3	-	11.1
2009	-	-	11.0	13.1	12.2	13.0	12.5	15.5	-	-	13.3
2010	-	-	12.4	12.3	12.7	13.7	13.6	17.6	-	-	12.8
2011	-	11.4	11.9	13.1	14.1	13.5	13.1	14.5	11.8	-	12.5
2012	-	9.5	10.3	10.3	10.9	10.5	9.8	9.6	11.3	-	10.1
2013	-	9.9	11.2	12.3	12.6	12.2	10.5	10.8	12.2	-	11.5
2014	-	12.2	12.5	11.7	13.1	12.5	11.3	13.2	12.6	-	12.4
2015	-	10.9	10.4	11.1	12.1	12.4	12.1	13.9	11.9	-	11.4
2016 ^{a/}	-	11.7	11.5	11.4	12.6	13.1	13.1	14.4	12.6	-	12.3
COHO											
1971-1975	-	-	-	5.1	6.1	7.0	7.0	7.9	-	-	6.2
1976-1980	-	-	-	4.4	5.5	6.1	5.9	6.3	-	-	5.5
1981-1985	-	-	-	-	4.8	5.3	3.6	-	-	-	5.0
1986-1990	-	-	-	4.8	4.8	5.1	5.4	7.2	-	-	4.9
1991-1995	-	-	-	4.2	4.0	4.8	5.4	-	-	-	4.7
1996-2000	-	-	-	-	-	5.9	6.6	-	-	-	5.9
2001	-	-	-	-	5.0	6.2	6.0	-	-	-	5.6
2002	-	-	-	-	-	7.0	-	-	-	-	7.0
2003	-	-	-	-	5.2	6.7	6.7	-	-	-	6.4
2004	-	-	-	-	5.6	6.8	7.9	-	-	-	7.5
2005	-	-	-	-	5.4	7.7	8.3	-	-	-	7.5
2006	-	-	-	-	7.2	9.1	9.5	-	-	-	9.2
2007	-	-	-	-	4.9	6.0	7.0	-	-	-	5.9
2008	-	-	-	-	5.2	8.6	8.9	-	-	-	8.4
2009	-	-	-	-	4.7	6.0	7.1	-	-	-	6.0
2010	-	-	-	-	6.1	7.3	12.0	-	-	-	6.7
2011	-	-	-	-	4.9	6.0	6.9	-	-	-	5.6
2012	-	-	-	-	4.2	5.6	6.3	-	-	-	6.1
2013	-	-	-	-	5.6	5.5	6.9	-	-	-	5.9
2014	-	-	-	-	4.7	5.0	6.9	-	-	-	6.1
2015	-	-	-	-	4.8	4.8	5.2	-	-	-	5.1
2016	-	-	-	-	-	-	-	-	-	-	-

a/ Preliminary.

TABLE D-3. Washington monthly troll Chinook and coho salmon average dressed weights (pounds).^{a/}

Year	May		June		July		Aug.		Sept.		Oct.		Season	
	Treaty Indian	Non-Indian	Treaty Indian	Non-Indian	Treaty Indian	Non-Indian	Treaty Indian	Non-Indian	Treaty Indian	Non-Indian	Treaty Indian	Non-Indian	Treaty Indian ^{b/}	Non-Indian
CHINOOK														
1980	10.9	12.0	12.6	-	12.5	13.2	14.2	13.5	10.9	13.1	6.7	-	7.3	13.0
1981-1985	7.3	9.7	8.8	-	9.6	12.3	9.3	12.2	7.7	12.7	5.1	-	6.4	10.6
1986-1990	8.1	9.5	8.1	11.1	9.6	12.1	9.1	12.1	6.8	12.2	5.2	12.6	6.7	10.4
1991-1995 ^{c/}	7.1	10.7	7.8	10.8	8.7	12.1	8.3	11.2	6.6	11.2	6.4	8.3	6.9	10.2
1996-2000 ^{c/}	8.4	11.2	8.5	12.0	7.1	12.3	8.4	11.0	7.5	10.7	-	-	8.5	11.5
2001	7.4	10.3	9.5	11.7	12.1	12.6	9.7	10.9	8.7	10.1	-	-	9.5	11.4
2002	9.5	11.4	12.9	12.2	11.5	13.1	11.8	14.5	8.3	NA	-	-	11.3	12.6
2003	11.2	12.4	9.3	12.9	13.9	16.0	18.0	17.4	13.4	13.9	-	-	12.5	14.6
2004	10.2	11.6	12.1	14.4	13.7	16.2	13.0	16.5	17.3	16.8	-	-	11.8	14.2
2005	9.1	10.7	9.9	11.7	16.2	17.1	18.4	17.9	12.0	-	-	-	11.9	13.4
2006	8.5	11.9	9.8	12.3	13.3	15.6	10.4	15.4	7.2	14.4	-	-	10.2	13.2
2007	7.7	12.0	8.2	12.3	8.2	14.3	14.2	17.0	6.8	15.8	-	-	8.9	12.9
2008	7.8	11.1	7.7	11.3	8.5	12.5	7.5	12.3	7.1	11.2	-	-	7.5	11.6
2009	8.7	11.3	7.4	12.4	9.4	16.2	9.4	15.1	5.8	12.7	-	-	8.1	12.6
2010	7.2	10.4	7.5	11.6	9.6	13.2	10.3	13.1	10.2	12.3	-	-	8.7	11.9
2011	8.9	10.3	9.1	11.4	12.2	13.6	14.1	15.0	15.0	17.2	-	-	11.0	12.0
2012	7.6	10.2	7.9	10.8	10.6	13.6	11.9	14.7	8.8	11.9	-	-	9.4	11.8
2013	7.5	9.6	8.0	10.5	12.1	12.4	13.1	13.0	10.5	12.2	-	-	9.5	11.2
2014	8.3	10.9	9.8	12.6	12.0	13.1	11.1	13.4	9.1	12.8	-	-	10.1	12.0
2015	10.8	9.8	10.7	10.9	12.6	12.6	11.9	12.3	14.7	13.1	-	-	12.1	11.3
2016	10.6	10.2	11.6	11.6	12.2	13.2	11.2	13.3	13.7	-	-	-	11.9	11.6
COHO														
1980	2.5	-	3.4	-	4.3	4.8	5.7	6.0	6.9	5.7	-	-	3.7	5.2
1981-1985	2.3	-	3.2	-	3.8	4.6	4.9	4.6	5.6	5.4	6.5	5.8	4.6	4.5
1986-1990	-	-	2.8	-	4.0	4.9	4.2	4.4	4.9	5.5	5.3	7.0	4.1	4.5
1991-1995	-	-	2.7	-	3.7	3.7	4.4	4.7	3.9	5.4	5.9	-	4.3	4.6
1996-2000	-	-	4.0	-	5.0	4.2	4.4	5.2	5.0	6.3	-	-	4.8	5.1
2001	-	-	5.2	-	4.8	5.0	5.6	6.1	6.0	6.8	-	-	5.6	6.0
2002	12.0	-	5.0	-	5.4	10.0	6.6	5.9	5.4	-	-	-	5.8	6.0
2003	7.3	-	-	-	5.3	5.1	6.2	6.4	5.8	7.1	-	-	5.7	6.0
2004	5.0	-	5.0	-	5.5	5.9	6.0	6.7	7.9	7.3	-	-	6.2	6.8
2005	3.7	-	3.9	-	4.5	6.1	6.9	7.0	5.5	-	-	-	6.3	6.8
2006	5.5	-	4.3	-	5.6	5.9	6.4	7.1	6.3	10.1	-	-	6.1	7.7
2007	-	-	4.8	-	4.3	4.9	7.1	5.9	6.9	6.4	-	-	5.5	5.6
2008	-	-	3.4	-	6.5	6.2	7.3	8.6	9.3	9.7	-	-	8.6	8.4
2009	-	-	3.5	-	5.2	5.5	6.1	7.1	6.2	7.7	-	-	5.7	6.8
2010	-	-	-	-	6.3	6.5	6.3	7.7	8.8	9.0	-	-	7.0	7.1
2011	-	-	-	-	5.2	5.2	5.8	5.9	5.9	6.3	-	-	5.7	5.6
2012	-	-	-	-	4.9	4.2	5.4	5.2	5.2	6.2	-	-	5.3	5.4
2013	-	-	4.4	-	4.5	4.5	4.9	5.4	7.0	6.5	-	-	5.1	5.2
2014	-	-	6.4	-	5.4	5.0	5.6	5.6	5.8	6.3	-	-	5.6	5.7
2015	-	-	4.7	-	5.3	4.9	4.9	5.4	4.7	5.6	-	-	5.0	5.4
2016	-	-	0.0	-	7.3	-	8.0	-	0.0	-	-	-	7.7	-

a/ All values in this table are based on preliminary information available at the start of each year's review. Treaty Indian statistics include landings from Puget Sound.

b/ Season totals include additional winter treaty Indian troll.

c/ In 1994-1996 the non-Indian fishery for Chinook was closed north of Cape Falcon; however, Chinook were caught off Oregon and landed in Washington.

TABLE D-4. California troll combined Chinook and coho salmon landings in dressed weight, value of landings, and number of registered vessels making commercial salmon landings.^{a/}

Year	Dressed Pounds Landed (thousands)	Nominal Exvessel Value (\$ thousands)	Vessels Landing Salmon	Vessels with Permits	Nominal Average Exvessel Value/Vessel (dollars)	Real Average Exvessel Value/Vessel (2016 dollars)
1960	6,221	3,339	1,365	-	2,446	15,585
1961-1965	7,772	4,206	1,586	-	2,642	15,638
1966-1970	7,925	4,327	2,088	-	2,089	11,025
1971-1975	7,917	6,338	2,542	-	2,461	10,156
1976-1980	7,233	12,083	3,997	-	2,989	8,669
1981-1985	5,082	11,826	3,729	4,920	3,099	6,390
1986-1990	8,392	21,532	2,487	3,622	8,593	14,623
1991-1995	3,083	7,550	1,447	2,960	5,171	7,560
1996-2000	4,337	7,091	852	2,068	8,223	10,882
2001	2,409	4,773	689	1,650	6,927	9,219
2002	5,008	7,776	708	1,586	10,982	14,394
2003	6,392	12,181	584	1,521	20,858	26,802
2004	6,230	17,895	741	1,511	24,150	30,202
2005	4,347	12,913	680	1,477	18,990	23,008
2006	1,043	5,350	477	1,408	11,216	13,184
2007	1,525	7,902	601	1,390	13,149	15,056
2008	-	-	-	1,306	-	-
2009	-	-	-	1,281	-	-
2010	228	1,246	215	1,239	5,794	6,379
2011	992	5,133	464	1,187	11,062	11,934
2012	2,530	13,521	616	1,171	21,950	23,252
2013	3,793	23,632	671	1,161	35,219	36,715
2014	2,253	12,521	653	1,151	19,175	19,638
2015	1,188	8,347	587	1,130	14,219	14,407
2016 ^{b/}	614	5,298	437	1,098	12,125	12,125

a/ Derived from vessel permit database and fish landing tickets.

b/ Preliminary.

TABLE D-5. Oregon troll combined Chinook and coho salmon landings in dressed weight, value of landings and number of registered vessels making commercial salmon landings.^{a/}

Year	Dressed Pounds Landed (thousands)	Nominal Exvessel Value (\$ thousands)	Vessels Landing Salmon	Vessels with Permits	Nominal Average Exvessel Value/Vessel (dollars)	Real Average Exvessel Value/Vessel (2016 dollars)
1974	-	7,937	2,253	-	3,523	12,804
1975	-	5,808	2,304	-	2,521	8,371
1976-1980 ^{b/}	6,679	8,185	3,875	4,314	2,112	4,930
1981-1985 ^{c/d/}	2,969	5,774	2,050	2,993	2,817	5,098
1986-1990	5,688	6,641	1,557	2,528	4,265	6,584
1991-1995 ^{e/}	1,265	3,294	476	1,465	6,920	9,459
1996-2000	1,428	3,063	399	1,062	7,677	9,652
2001 ^{f/}	2,949	4,721	449	1,175	10,515	13,992
2002 ^{f/}	3,498	5,391	468	1,175	11,519	15,097
2003 ^{f/}	3,681	7,222	494	1,178	14,620	18,786
2004 ^{f/}	2,920	9,919	595	1,181	16,670	20,848
2005 ^{f/}	2,691	8,503	565	1,168	15,050	18,234
2006 ^{f/}	499	2,701	357	1,127	7,565	8,893
2007	565	2,822	436	1,009	6,473	7,412
2008	70	494	138	1,092	3,579	4,019
2009	146	345	225	1,062	1,531	1,707
2010	513	2,791	370	1,021	7,543	8,305
2011	404	2,401	304	1,003	7,899	8,522
2012	745	4,271	369	990	11,576	12,262
2013	1,293	7,611	399	977	19,075	19,885
2014	2,639	14,760	493	977	29,938	30,661
2015	1,200	7,334	487	972	15,059	15,258
2016 ^{g/}	519	4,267	316	946	13,503	13,503

a/ Derived from vessel registrations and fish landing tickets.

b/ In 1980, the establishment of a restricted vessel permit system drew a number of historically active vessels back into the fishery.

c/ In 1984, vessels were not required to land at least one salmon to be eligible for a permit in 1985. The Oregon Fish and Wildlife Commission waived this requirement because of the elimination of the coho fishery south of Cape Falcon.

d/ In 1985, vessels traditionally landing salmon south of Cape Blanco and north of Cape Falcon were not required to land at least one salmon to be eligible for a permit in 1986. The Oregon Fish and Wildlife Commission waived this requirement because of the complete closure of the coho season south of Cape Blanco and a limited one-day coho season between the Columbia River and Cape Falcon.

e/ During the 1991 session of the Oregon Legislature, legislation passed waiving the requirement that troll permit holders must buy a 1991 permit to be able to renew for 1992. This was a one-time exemption for 1991 only.

f/ Permits were reissued in a lottery, because the total number of permits had fallen below 1,200.

g/ Preliminary.

TABLE D-6. Washington non-Indian troll combined Chinook and coho salmon landings in dressed weight, value of landings and number of registered vessels making commercial salmon landings.^{a/}

Year	Dressed Pounds Landed (thousands)	Nominal Exvessel Value (\$ thousands)	Vessels Landing Salmon	Vessels with Permits	Nominal Average Exvessel Value/Vessel (dollars)	Real Average Exvessel Value/Vessel (2016 dollars)
1978	4,746	10,025	3,041	3,291	3,297	9,094
1979	5,262	15,091	2,778	3,068	5,432	13,835
1980	3,398	7,114	2,626	2,797	2,709	6,323
1981-1985 ^{b/c/}	1,433	3,225	1,675	2,233	1,696	3,377
1986-1990	752	1,670	913	1,349	1,997	3,306
1991-1995 ^{d/e/f/g/}	345	834	397	586	1,607	2,313
1996-2000 ^{h/i/j/}	126	197	54	270	4,188	5,398
2001	290	383	57	169	6,718	8,939
2002	679	758	75	165	10,102	13,240
2003	875	991	82	163	12,087	15,531
2004	594	1,185	86	160	13,779	17,232
2005	481	1,290	91	158	14,170	17,169
2006	231	1,045	84	158	12,440	14,624
2007	217	953	79	158	12,062	13,811
2008	114	709	86	158	8,244	9,258
2009	291	1,169	97	158	12,051	13,432
2010	537	3,115	116	158	26,856	29,570
2011	339	1,687	112	158	15,066	16,253
2012	452	2,358	105	158	22,457	23,788
2013	481	2,838	108	157	26,275	27,390
2014	551	2,709	116	156	23,351	23,914
2015	640	3,448	122	153	28,266	28,640
2016	201	1,606	107	151	15,009	15,009

a/ Derived from vessel registrations and fish landing tickets. All values in this table are based on preliminary information available at the start of each year's salmon review.

b/ 312 licenses and delivery permits purchased by buyback program in 1984.

c/ 118 licenses and delivery permits purchased by buyback program in 1985.

d/ The 1994 season was closed north of Cape Falcon, but Chinook were caught off Oregon and landed in Puget Sound.

e/ Value information in 1994 is not provided in order to preserve confidentiality.

f/ Vessels were not required to purchase a permit in 1994 to maintain their eligibility for a permit in 1995.

g/ 190 licenses and delivery permits purchased by buyback program in 1995.

h/ 72 licenses and delivery permits purchased by buyback program at the end of 1996 and early 1997.

i/ 100 licenses and delivery permits purchased by buyback program at the end of 1997 and early 1998.

j/ 41 licenses purchased by buyback program at the end of 2000.

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon.^{a/} (Page 1 of 5)

Year	Vessels			Catch ^{c/}		
	Length Category (feet)	Number ^{b/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2016 ^{d/}	<20	20	5%	923	18,452	3%
	21-25	95	22%	824	78,253	13%
	26-30	78	18%	1,107	86,370	14%
	31-35	102	23%	1,421	144,981	24%
	36-40	74	17%	1,958	144,880	24%
	41-45	37	8%	2,552	94,441	15%
	46-50	23	5%	1,663	38,239	6%
	51-55	5	1%	1,313	6,565	1%
	>56	3	1%	493	1,479	0%
TOTAL	437		1,404	613,660		
2015	<20	35	6%	484	16,928	1%
	21-25	119	20%	1,146	136,353	11%
	26-30	93	16%	1,592	148,075	12%
	31-35	128	22%	1,908	244,190	21%
	36-40	99	17%	2,878	284,969	24%
	41-45	62	11%	3,706	229,802	19%
	46-50	34	6%	2,560	87,029	7%
	51-55	11	2%	1,812	19,933	2%
	>56	6	1%	3,460	20,761	2%
TOTAL	587		2,024	1,188,040		
2014	<20	39	6%	554	21,622	1%
	21-25	117	18%	1,669	195,278	9%
	26-30	106	16%	1,999	211,870	9%
	31-35	139	21%	3,792	527,109	23%
	36-40	109	17%	5,152	561,516	25%
	41-45	81	12%	5,836	472,719	21%
	46-50	41	6%	4,298	176,231	8%
	51-55	13	2%	4,256	55,324	2%
	>56	8	1%	3,958	31,660	1%
TOTAL	653		3,451	2,253,329		
2013	<20	41	6%	1,429	58,595	2%
	21-25	121	18%	2,082	251,950	7%
	26-30	113	17%	2,792	315,498	8%
	31-35	128	19%	5,147	658,858	17%
	36-40	111	17%	7,490	831,408	22%
	41-45	89	13%	10,578	941,458	25%
	46-50	51	8%	10,696	545,502	14%
	51-55	11	2%	10,361	113,969	3%
	>56	6	1%	12,697	76,183	2%
TOTAL	671		5,653	3,793,421		
2012	<20	42	7%	890	37,386	1%
	21-25	112	18%	1,877	210,275	8%
	26-30	99	16%	2,556	253,024	10%
	31-35	122	20%	4,249	518,329	20%
	36-40	104	17%	5,638	586,352	23%
	41-45	82	13%	7,292	597,924	24%
	46-50	41	7%	6,171	252,996	10%
	51-55	8	1%	5,634	45,072	2%
	>56	6	1%	4,838	29,026	1%
TOTAL	616		4,108	2,530,384		

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon. ^{a/} (Page 2 of 5)

Year	Vessels			Catch ^{c/}		
	Length Category (feet)	Number ^{b/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2011	<20	27	6%	252	6,795	1%
	21-25	86	19%	733	63,062	6%
	26-30	79	17%	889	70,270	7%
	31-35	91	20%	1,748	159,080	16%
	36-40	86	19%	3,175	273,088	28%
	41-45	64	14%	4,348	278,295	28%
	46-50	23	5%	4,782	109,992	11%
	51-55	5	1%	3,416	17,078	2%
	>56	3	1%	4,679	14,037	1%
TOTAL	464		2,137	991,697		
2010	<20	9	4%	419	3,772	2%
	21-25	46	21%	524	24,124	11%
	26-30	31	14%	1,161	35,990	16%
	31-35	46	21%	637	29,289	13%
	36-40	40	19%	1,360	54,414	24%
	41-45	30	14%	1,533	45,985	20%
	46-50	10	5%	2,066	20,656	9%
	51-55	3	1%	4,451	13,352	6%
	>56	e/	e/	e/	e/	e/
TOTAL	215		1,059	227,582		
2009	<20	-	-	-	-	-
	21-25	-	-	-	-	-
	26-30	-	-	-	-	-
	31-35	-	-	-	-	-
	36-40	-	-	-	-	-
	41-45	-	-	-	-	-
	46-50	-	-	-	-	-
	51-55	-	-	-	-	-
	>56	-	-	-	-	-
TOTAL	-		-	-		
2008	<20	-	-	-	-	-
	21-25	-	-	-	-	-
	26-30	-	-	-	-	-
	31-35	-	-	-	-	-
	36-40	-	-	-	-	-
	41-45	-	-	-	-	-
	46-50	-	-	-	-	-
	51-55	-	-	-	-	-
	>56	-	-	-	-	-
TOTAL	-		-	-		
2007	<20	20	3%	275	5,506	0%
	21-25	95	16%	718	68,173	4%
	26-30	87	14%	1,417	123,280	8%
	31-35	119	20%	2,622	312,075	20%
	36-40	124	21%	3,312	410,698	27%
	41-45	79	13%	4,273	337,558	22%
	46-50	55	9%	3,633	199,821	13%
	51-55	12	2%	3,676	44,108	3%
	>56	10	2%	2,403	24,026	2%
TOTAL	601		2,538	1,525,245		

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon.^{a/} (Page 3 of 5)

Year	Vessels			Catch ^{c/}		
	Length Category (feet)	Number ^{b/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2006	<20	19	4%	338	6,427	1%
	21-25	85	18%	944	80,260	8%
	26-30	80	17%	1,441	115,300	11%
	31-35	105	22%	2,288	240,201	23%
	36-40	88	18%	3,027	266,387	26%
	41-45	59	12%	3,723	219,638	21%
	46-50	30	6%	2,851	85,517	8%
	51-55	7	1%	3,356	23,492	2%
	>56	4	1%	1,533	6,131	1%
TOTAL	477		2,187	1,043,353		
2005	<20	34	5%	840	28,546	1%
	21-25	107	16%	2,249	240,668	6%
	26-30	107	16%	3,325	355,799	8%
	31-35	132	19%	6,127	808,775	19%
	36-40	130	19%	7,754	1,008,071	23%
	41-45	84	12%	10,779	905,449	21%
	46-50	62	9%	11,429	708,576	16%
	51-55	13	2%	15,821	205,679	5%
	>56	11	2%	7,802	85,827	2%
TOTAL	680		6,393	4,347,390		
2004	<20	39	5%	1,121	43,706	1%
	21-25	118	16%	2,203	259,933	4%
	26-30	112	15%	3,288	368,224	6%
	31-35	144	19%	7,202	1,037,078	17%
	36-40	141	19%	9,880	1,393,035	22%
	41-45	84	11%	16,223	1,362,724	22%
	46-50	66	9%	17,814	1,175,700	19%
	51-55	18	2%	21,405	385,281	6%
	>56	19	3%	10,764	204,515	3%
TOTAL	741		8,408	6,230,196		
2003	<20	22	4%	1,966	43,251	1%
	21-25	104	18%	2,665	277,192	4%
	26-30	94	16%	4,208	395,574	6%
	31-35	111	19%	8,288	919,974	14%
	36-40	113	19%	14,938	1,687,971	26%
	41-45	68	12%	20,592	1,400,250	22%
	46-50	48	8%	24,450	1,173,576	18%
	51-55	12	2%	24,685	296,220	5%
	>56	12	2%	16,468	197,613	3%
TOTAL	584		10,945	6,391,621		
2002	<20	34	5%	1,314	44,687	1%
	21-25	123	17%	2,211	271,972	5%
	26-30	111	16%	3,137	348,249	7%
	31-35	122	17%	5,760	702,716	14%
	36-40	147	21%	9,090	1,336,204	27%
	41-45	79	11%	13,411	1,059,442	21%
	46-50	64	9%	11,734	750,989	15%
	51-55	15	2%	19,988	299,817	6%
	>56	13	2%	14,880	193,446	4%
TOTAL	708		7,073	5,007,522		

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon.^{a/} (Page 4 of 5)

Year	Vessels		Percent of Total	Catch ^{c/}		
	Length Category (feet)	Number ^{b/}		Average Per Boat (pounds)	Total (pounds)	Percent of Total
2001	<20	26	4%	559	14,529	1%
	21-25	117	17%	1,117	130,707	5%
	26-30	105	15%	2,212	232,279	10%
	31-35	124	18%	3,308	410,150	17%
	36-40	145	21%	4,627	670,878	28%
	41-45	76	11%	6,087	462,586	19%
	46-50	64	9%	5,245	335,652	14%
	51-55	18	3%	5,324	95,824	4%
	>56	14	2%	4,000	56,006	2%
TOTAL	689		3,496	2,408,611		
2000	<20	41	5%	1,348	55,282	1%
	21-25	139	18%	2,502	347,743	7%
	26-30	116	15%	3,850	446,629	9%
	31-35	130	17%	6,389	830,573	16%
	36-40	165	22%	8,183	1,350,228	26%
	41-45	73	10%	11,447	835,622	16%
	46-50	66	9%	12,811	845,530	16%
	51-55	17	2%	17,942	305,017	6%
	>56	12	2%	9,512	114,139	2%
TOTAL	759		6,760	5,130,763		
1999	<20	41	6%	891	36,524	1%
	21-25	125	19%	2,259	282,366	7%
	26-30	88	13%	3,712	326,697	8%
	31-35	131	20%	5,196	680,635	18%
	36-40	139	21%	7,867	1,093,568	28%
	41-45	65	10%	10,422	677,411	18%
	46-50	55	8%	10,202	561,119	15%
	51-55	15	2%	9,101	136,509	4%
	>56	7	1%	7,275	50,928	1%
TOTAL	666		5,774	3,845,757		
1998	<20	45	7%	934	42,044	2%
	21-25	154	23%	1,406	216,593	12%
	26-30	101	15%	2,277	229,951	12%
	31-35	119	18%	2,604	309,870	17%
	36-40	129	19%	4,040	521,184	28%
	41-45	64	10%	4,514	288,916	16%
	46-50	40	6%	4,764	190,579	10%
	51-55	11	2%	3,256	35,821	2%
	>56	6	1%	2,018	12,105	1%
TOTAL	669		2,761	1,847,063		
1997	<20	54	6%	1,482	80,022	2%
	21-25	197	24%	2,791	549,756	10%
	26-30	126	15%	4,462	562,213	11%
	31-35	144	17%	6,358	915,510	17%
	36-40	157	19%	8,500	1,334,555	25%
	41-45	78	9%	11,281	879,913	17%
	46-50	54	6%	13,156	710,418	14%
	51-55	13	2%	11,806	153,476	3%
	>56	12	1%	5,161	61,929	1%
TOTAL	835		6,285	5,247,792		
1996	<20	66	7%	1,500	99,021	2%
	21-25	221	22%	1,793	396,205	10%
	26-30	163	17%	2,648	431,620	10%
	31-35	161	16%	4,315	694,793	17%
	36-40	176	18%	5,945	1,046,274	25%
	41-45	97	10%	7,311	709,120	17%
	46-50	73	7%	7,984	582,826	14%
	51-55	14	1%	7,751	108,511	3%
	>56	14	1%	3,217	45,032	1%
TOTAL	985		4,176	4,113,402		

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon.^{a/} (Page 5 of 5)

Year	Vessels			Catch ^{c/}		
	Length Category (feet)	Number ^{b/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
1995	<20	88	7%	1,478	130,074	2%
	21-25	295	25%	2,905	856,987	13%
	26-30	188	16%	4,542	853,887	13%
	31-35	176	15%	6,636	1,167,899	18%
	36-40	210	18%	8,147	1,710,765	26%
	41-45	105	9%	8,748	918,546	14%
	46-50	82	7%	8,480	695,374	10%
	51-55	21	2%	10,708	224,861	3%
	>56	14	1%	5,362	75,068	1%
TOTAL	1,179		5,626	6,633,461		
1994	<20	78	8%	584	45,530	1%
	21-25	254	25%	1,425	362,007	12%
	26-30	170	17%	2,085	354,515	11%
	31-35	151	15%	3,340	504,287	16%
	36-40	188	18%	4,719	887,232	29%
	41-45	94	9%	5,878	552,514	18%
	46-50	69	7%	4,001	276,100	9%
	51-55	13	1%	8,541	111,033	4%
	>56	7	1%	1,412	9,887	0%
TOTAL	1,024		3,030	3,103,105		
1993	<20	101	8%	447	45,103	2%
	21-25	321	26%	1,028	330,110	13%
	26-30	218	18%	1,538	335,333	13%
	31-35	167	13%	2,467	411,989	16%
	36-40	216	17%	3,103	670,209	26%
	41-45	103	8%	3,859	397,525	16%
	46-50	78	6%	3,050	237,930	9%
	51-55	22	2%	4,205	92,500	4%
	>56	14	1%	1,156	16,185	1%
TOTAL	1,240		2,046	2,536,884		
1992	<20	98	9%	347	33,962	2%
	21-25	279	26%	838	233,894	14%
	26-30	190	18%	1,178	223,847	14%
	31-35	158	15%	1,535	242,532	15%
	36-40	180	17%	2,579	464,288	28%
	41-45	87	8%	2,842	247,249	15%
	46-50	64	6%	1,720	110,058	7%
	51-55	19	2%	3,719	70,668	4%
	>56	10	1%	1,691	16,906	1%
TOTAL	1,085		1,515	1,643,404		
1991	<20	196	11%	540	105,895	3%
	21-25	427	24%	944	403,026	11%
	26-30	300	17%	1,489	446,841	12%
	31-35	219	12%	2,284	500,112	14%
	36-40	309	17%	3,194	987,011	27%
	41-45	148	8%	4,315	638,649	17%
	46-50	118	7%	3,814	450,025	12%
	51-55	27	2%	4,852	130,991	4%
	56-60	13	1%	1,514	19,681	1%
	>60	9	1%	1,594	14,349	0%
	Unknown	3	0%	226	677	0%
TOTAL	1,769		2,090	3,697,257		

a/ Derived from vessel registrations and fish landing tickets.

b/ Number of boats includes only those recording pounds greater than 0.

c/ Excludes pink salmon landings.

d/ Preliminary.

e/ Fewer than three vessels. Values combined with nearest category to preserve confidentiality.

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 1 of 5)

Year	Vessels			Catch		
	Length Category (feet)	Number ^{a/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2016 ^{b/}	<20	-	-	-	-	-
	20-29	77	24%	1,207	92,962	17%
	30-39	99	31%	1,543	152,738	27%
	40-49	118	37%	2,380	280,792	50%
	>50	24	8%	1,485	35,629	6%
	TOTAL	318		1,768	562,121	
2015	<20	4	1%	1,066	4,265	3%
	20-29	102	21%	1,091	111,253	9%
	30-39	155	32%	2,129	330,062	28%
	40-49	174	36%	3,401	591,695	50%
	>50	50	10%	2,874	143,715	12%
	TOTAL	485		2,435	1,180,990	
2014	<20	3	1%	1,201	3,603	1%
	20-29	115	23%	2,487	286,062	11%
	30-39	159	32%	5,220	829,910	31%
	40-49	169	34%	7,377	1,246,690	47%
	>50	47	10%	5,870	275,913	10%
	TOTAL	493		5,359	2,642,178	
2013	<20	4	1%	1,215	4,858	7%
	20-29	102	26%	1,825	186,110	14%
	30-39	127	32%	4,015	509,844	39%
	40-49	138	35%	3,794	523,542	40%
	>50	28	7%	2,524	70,679	5%
	TOTAL	399		3,246	1,295,033	
2012	<20	c/	c/	c/	c/	c/
	20-29	93	25%	919	85,423	11%
	30-39	124	34%	2,290	283,943	38%
	40-49	122	33%	2,697	329,070	44%
	>50	30	8%	1,558	46,727	6%
	TOTAL	369		2,019	745,163	
2011	<20	3	1%	1,157	3,472	2%
	20-29	80	26%	602	48,146	147%
	30-39	102	34%	1,308	133,379	33%
	40-49	97	32%	1,927	186,892	46%
	>50	22	7%	1,491	32,792	8%
	TOTAL	304		1,331	404,681	

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 2 of 5)

Year	Vessels			Catch		
	Length Category (feet)	Number ^{a/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2010	<20	4	1%	498	1,990	0%
	20-29	86	23%	620	53,298	10%
	30-39	124	34%	1,339	166,008	32%
	40-49	126	34%	1,991	250,837	49%
	>50	30	8%	1,351	40,527	8%
	TOTAL	370		1,386	512,660	
2009	<20	3	1%	269	808	1%
	20-29	94	42%	674	63,374	43%
	30-39	65	29%	693	45,040	31%
	40-49	53	24%	656	34,771	24%
	>50	9	4%	241	2,167	1%
	TOTAL	224		653	146,160	
2008	<20	3	2%	87	260	0%
	20-29	47	34%	250	11,738	17%
	30-39	43	31%	509	21,882	32%
	40-49	38	28%	828	31,473	46%
	>50	7	5%	500	3,498	5%
	TOTAL	138		499	68,851	
2007	<20	3	1%	246	739	0%
	20-29	90	21%	851	76,558	14%
	30-39	153	35%	1,426	218,197	39%
	40-49	146	33%	1,562	227,980	40%
	>50	44	10%	942	41,429	7%
	TOTAL	436		1,296	564,903	
2006	<20	3	1%	1,094	3,281	1%
	20-29	78	22%	662	51,607	10%
	30-39	124	35%	1,484	184,030	37%
	40-49	127	36%	1,672	212,290	43%
	>50	25	7%	1,898	47,462	10%
	TOTAL	357		1,397	498,670	
2005	<20	7	1%	335	2,343	0%
	20-29	122	22%	1,716	209,336	8%
	30-39	186	33%	4,878	907,312	34%
	40-49	188	33%	6,436	1,209,982	45%
	>50	62	11%	5,840	362,051	13%
	TOTAL	565		4,763	2,691,024	

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 3 of 5)

Year	Vessels			Catch		
	Category (feet)	Numbera/ Total		Boat (pounds)	(pounds)	Total
2004	<20	4	1%	721	2,883	0%
	20-29	120	20%	2,266	271,944	9%
	30-39	205	34%	5,149	1,055,574	36%
	40-49	199	33%	6,360	1,265,683	44%
	>50	67	11%	4,668	312,752	11%
	TOTAL	595		4,889	2,908,836	
2003	<20	4	1%	957	3,829	0%
	20-29	120	24%	2,425	291,051	8%
	30-39	167	34%	7,702	1,286,218	35%
	40-49	152	31%	10,170	1,545,898	42%
	>50	48	10%	11,220	538,580	15%
	TOTAL	491		7,466	3,665,576	
2002	<20	3	1%	1,760	5,281	0%
	20-29	103	22%	3,488	359,299	10%
	30-39	179	38%	7,931	1,419,713	41%
	40-49	140	30%	10,092	1,412,864	40%
	>50	42	9%	7,173	301,280	9%
	TOTAL	467		7,491	3,498,437	
2001	<20	6	1%	1,271	7,626	0%
	20-29	102	23%	2,768	282,386	10%
	30-39	170	38%	6,894	1,172,058	40%
	40-49	141	31%	9,175	1,293,723	44%
	>50	30	7%	6,488	194,652	7%
	TOTAL	449		6,571	2,950,445	
2000	<20	3	1%	2,056	6,169	0%
	20-29	100	25%	1,933	193,346	12%
	30-39	157	39%	4,726	741,968	48%
	40-49	111	28%	4,594	509,986	33%
	>50	28	7%	3,606	100,965	7%
	TOTAL	399		3,891	1,552,434	
1999	<20	6	2%	1,131	6,783	1%
	20-29	68	21%	1,205	81,964	11%
	30-39	140	43%	2,517	352,355	49%
	40-49	93	28%	2,499	232,418	32%
	>50	21	6%	2,298	48,263	7%
	TOTAL	328		2,201	721,783	

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 4 of 5)

Year	Vessels			Catch		
	Length Category (feet)	Numbera/	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
1998	<20	5	1%	1,536	7,679	1%
	20-29	65	17%	1,036	67,332	5%
	30-39	163	44%	3,673	598,702	43%
	40-49	110	29%	5,395	593,433	42%
	>50	30	8%	4,351	130,537	9%
	TOTAL	373		3,747	1,397,683	
1997	<20	5	1%	1,149	5,743	0%
	20-29	98	23%	838	82,089	5%
	30-39	185	43%	3,976	735,478	48%
	40-49	114	26%	5,401	615,756	40%
	>50	31	7%	3,322	102,982	7%
	TOTAL	433		3,561	1,542,048	
1996	<20	6	1%	2,088	12,530	1%
	20-29	117	26%	1,009	118,069	6%
	30-39	186	41%	5,010	931,895	48%
	40-49	115	25%	6,466	743,584	39%
	>50	32	7%	3,720	119,048	6%
	TOTAL	456		4,222	1,925,126	
1995	<20	8	2%	1,561	12,486	1%
	20-29	142	30%	1,190	168,999	9%
	30-39	185	39%	4,571	845,647	44%
	40-49	111	23%	6,884	764,118	39%
	>50	30	6%	4,995	149,846	8%
	TOTAL	476		4,078	1,941,096	
1994	<20	7	2%	968	6,776	2%
	20-29	114	31%	435	49,573	17%
	30-39	153	41%	825	126,188	44%
	40-49	85	23%	1,080	91,834	32%
	>50	12	3%	1,032	12,382	4%
	TOTAL	371		773	286,753	

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 5 of 5)

Year	Vessels			Catch		
	Length Category (feet)	Number ^{a/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
1993	<20	10	2%	662	6,619	1%
	20-29	206	34%	558	115,029	15%
	30-39	236	39%	1,549	365,597	47%
	40-49	128	21%	1,888	241,663	31%
	>50	32	5%	1,282	41,029	5%
	TOTAL	612		1,258	769,937	
1992	<20	7	1%	706	4,945	0%
	20-29	242	37%	849	205,466	17%
	30-39	245	38%	2,384	584,162	48%
	40-49	134	21%	2,911	390,040	32%
	>50	21	3%	1,630	34,231	3%
	TOTAL	649		1,878	1,218,844	
1991	<20	22	2%	621	13,672	1%
	20-29	568	47%	1,266	719,071	34%
	30-39	365	30%	2,138	780,386	37%
	40-49	209	17%	2,468	515,790	24%
	>50	53	4%	1,590	84,279	4%
	TOTAL	1,217		1,736	2,113,198	

a/ Number of boats includes only those with at least one landing containing troll-caught salmon.

b/ Preliminary.

c/ Fewer than three vessels. Values combined with next category below to preserve confidentiality.

TABLE D-9. Washington non-Indian salmon troll boat-size catch statistics in pounds of dressed salmon.^{a/b/} (Page 1 of 3)

Year	Vessels			Catch		
	Length Category (feet)	Number ^{c/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2016	<25	10	9%	982	9,822	5%
	25-36	26	24%	2,314	60,169	30%
	>36	71	66%	1,840	130,671	65%
	Unknow n	0	0%	-	-	0%
	TOTAL	107		1,875	200,662	
2015	<25	11	9%	4,496	49,459	8%
	25-36	30	25%	5,471	164,138	26%
	>36	80	66%	5,320	425,579	67%
	Unknow n	e/	e/	e/	e/	e/
	TOTAL	121		5,282	639,176	
2014	<25	11	9%	3,456	38,021	7%
	25-36	34	29%	4,772	162,253	29%
	>36	71	61%	4,936	350,480	64%
	Unknow n	0	0%	-	-	0%
	TOTAL	116		4,748	550,754	
2013	<25	9	8%	1,993	17,937	4%
	25-36	34	31%	3,616	122,956	26%
	>36	60	56%	5,623	337,374	70%
	Unknow n	5	5%	599	2,993	1%
	TOTAL	108		4,456	481,260	
2012	<25	8	8%	2,389	19,110	4%
	25-36	32	30%	3,687	117,999	26%
	>36	65	62%	4,849	315,197	70%
	Unknow n	e/	e/	e/	e/	e/
	TOTAL	105		4,308	452,306	
2011	<25	12	11%	1,329	15,946	5%
	25-36	33	29%	3,002	99,059	29%
	>36	67	60%	3,363	225,317	66%
	Unknow n	e/	e/	e/	e/	e/
	TOTAL	112		3,039	340,322	
2010	<25	10	9%	1,490	14,902	3%
	25-36	31	27%	3,990	123,695	23%
	>36	72	62%	5,693	409,871	75%
	Unknow n	3	3%	427	1,281	0%
	TOTAL	116		4,739	549,749	
2009	<25	5	5%	2,160	10,800	4%
	25-36	28	29%	3,553	99,475	34%
	>36	64	66%	2,842	181,911	62%
	Unknow n	0	-	-	-	-
	TOTAL	97		3,012	292,186	
2008	<25	4	5%	1,341	5,364	5%
	25-36	27	31%	1,486	42,835	37%
	>36	55	64%	1,203	66,167	58%
	Unknow n	0	-	-	-	-
	TOTAL	86		1,330	114,366	

TABLE D-9. Washington non-Indian salmon troll boat-size catch statistics in pounds of dressed salmon. ^{a/b/} (Page 2 of 3)

Year	Vessels			Catch		
	Length Category (feet)	Number ^{c/}	Percent of Total	Average Per Boat (pounds)	Total (pounds)	Percent of Total
2007	<25	3	4%	3,180	9,539	4%
	25-36	25	32%	2,610	65,240	30%
	>36	51	65%	2,807	143,155	66%
	Unknown	0	-	-	-	-
	TOTAL	79		2,759	217,934	
2006	<25	3	4%	2,398	7,194	3%
	25-36	24	29%	1,983	47,593	21%
	>36	57	68%	3,103	176,873	76%
	Unknown	e/	e/	e/	e/	e/
	TOTAL	84		2,758	231,660	
2005	<25	6	7%	4,309	25,854	5%
	25-36	24	26%	4,801	115,228	24%
	>36	61	67%	5,565	339,488	71%
	Unknown	e/	e/	e/	e/	e/
	TOTAL	91		5,281	480,570	
2004	<25	8	9%	4,463	35,700	6%
	25-36	20	23%	5,797	115,933	20%
	>36	58	67%	7,636	442,879	74%
	Unknown	e/	e/	e/	e/	e/
	TOTAL	86		6,913	594,512	
2003	<25	10	12%	6,141	61,407	7%
	25-36	19	23%	7,433	141,235	16%
	>36	53	65%	12,715	673,876	77%
	Unknown	0	-	-	-	-
	TOTAL	82		10,689	876,518	
2002	<25	7	9%	7,326	51,283	8%
	25-36	17	23%	6,275	106,668	16%
	>36	50	67%	9,931	496,565	73%
	Unknown	1	1%	25,133	25,133	4%
	TOTAL	75		9,062	679,649	
2001	<25	3	5%	4,534	13,603	5%
	25-36	15	26%	3,960	59,403	20%
	>36	39	68%	5,576	217,467	75%
	Unknown	0	-	-	-	-
	TOTAL	57		5,096	290,473	
2000	<25	3	6%	873	2,620	2%
	25-36	13	27%	3,401	44,218	27%
	>36	29	59%	3,627	105,171	65%
	Unknown	4	8%	2,573	10,291	6%
	TOTAL	49		3,312	162,300	
1999	<25	5	9%	2,511	12,557	6%
	25-36	14	25%	3,731	52,237	24%
	>36	35	61%	4,333	151,638	69%
	Unknown	3	5%	1,220	3,661	2%
	TOTAL	57		3,861	220,093	
1998	<25	3	13%	545	1,634	2%
	25-36	6	26%	2,842	17,050	21%
	>36	14	61%	4,493	62,907	77%
	Unknown	e/	e/	e/	e/	e/
	TOTAL	23		3,547	81,591	

TABLE D-9. Washington non-Indian salmon troll boat-size catch statistics in pounds of dressed salmon. ^{a/b/} (Page 3 of 3)

Year	Vessels			Catch		
	Length	Number ^{c/}	Percent of	Average Per	Total	Percent of
1997	<25	7	14%	322	2,253	3%
	25-36	16	31%	1,468	23,491	29%
	>36	28	55%	1,972	55,203	68%
	Unknown	e/	e/	e/	e/	e/
	TOTAL	51		1,587	80,947	
1996	<25	39	43%	709	27,664	31%
	25-36	24	27%	868	20,826	23%
	>36	20	22%	1,372	27,440	31%
	Unknown	7	8%	1,861	13,029	15%
	TOTAL	90		988	88,959	
1995	<25	45	47%	1,864	83,901	36%
	25-36	30	31%	2,936	88,083	38%
	>36	17	18%	2,950	50,144	22%
	Unknown	4	4%	2,351	9,403	4%
	TOTAL	96		2,412	231,531	
1994 ^{d/}	<25	0	-	-	-	-
	25-36	0	-	-	-	-
	>36	e/	e/	e/	e/	e/
	Unknown	0	-	-	-	-
	TOTAL	e/	e/	e/	e/	e/
1993	<25	174	37%	235	40,879	10%
	25-36	134	28%	627	84,005	20%
	>36	145	31%	1,832	265,684	65%
	Unknown	21	4%	924	19,406	5%
	TOTAL	474		865	409,974	
1992	<25	241	40%	276	66,617	11%
	25-36	167	28%	727	121,416	21%
	>36	170	28%	2,175	369,833	63%
	Unknown	26	4%	956	24,848	4%
	TOTAL	604		965	582,714	
1991	<25	292	36%	426	124,397	16%
	25-36	204	25%	729	148,643	19%
	>36	212	26%	1,859	394,075	51%
	Unknown	103	13%	1,006	103,637	13%
	TOTAL	811		950	770,752	

a/ All values in this table are based on preliminary information available at the start of each year's review.

b/ Excludes pink salmon landings.

c/ Number of boats includes only those recording pounds greater than 0.

d/ The fishery was closed north of Cape Falcon, however, Chinook were caught off Oregon and landed in Puget Sound.

e/ Fewer than three vessels. Values combined with nearest category to preserve confidentiality.

TABLE D-10. Preliminary California salmon landings (in pounds of dressed salmon) and exvessel values by vessel size categories and port from Crescent City to Morro Bay South, 2016.

Port	Length Category (feet)	Number of Deliveries	Total Dressed Pounds Landed	Total Exvessel Value (dollars)	Percent Exvessel Value Landed in Port
Crescent City	<26	-	-	-	-
	26-36	a/	a/	a/	a/
	>36	-	-	-	-
	TOTAL	a/	a/	a/	-
Eureka	<26	13	778	5,826	12%
	26-36	19	1,807	15,417	32%
	>36	34	3,355	26,457	55%
	TOTAL	66	5,940	47,700	
Shelter Cove	<26	26	2,111	16,416	39%
	26-36	26	2,980	25,421	61%
	>36	a/	a/	a/	a/
	TOTAL	52	5,091	41,837	
Fort Bragg ^{b/}	<26	72	7,365	61,941	4%
	26-36	350	66,374	596,368	42%
	>36	215	86,641	775,238	54%
	TOTAL	637	160,380	1,433,547	
Bodega Bay	<26	114	12,763	104,603	12%
	26-36	279	47,725	371,578	44%
	>36	173	48,545	374,965	44%
	TOTAL	566	109,033	851,146	
San Francisco	<26	163	11,527	107,344	11%
	26-36	159	36,649	283,227	30%
	>36	195	71,161	562,564	59%
	TOTAL	517	119,337	953,135	
Half Moon Bay	<26	90	11,525	101,351	14%
	26-36	151	31,516	297,966	40%
	>36	167	39,969	350,345	47%
	TOTAL	408	83,010	749,662	
Santa Cruz	<26	275	20,270	192,589	41%
	26-36	88	13,930	129,914	28%
	>36	47	15,361	145,854	31%
	TOTAL	410	49,561	468,357	
Moss Landing	<26	150	10,618	99,935	30%
	26-36	135	13,646	119,281	36%
	>36	71	12,279	112,601	34%
	TOTAL	356	36,543	331,817	
Monterey	<26	78	4,925	44,044	34%
	26-36	89	9,649	85,456	66%
	>36	a/	a/	a/	a/
	TOTAL	167	14,574	129,500	
Morro Bay south	<26	157	14,822	142,628	49%
	26-36	109	8,854	84,773	29%
	>36	40	6,512	64,339	22%
	TOTAL	306	30,188	291,740	

a/ Fewer than three vessels. Values combined with nearest category to preserve confidentiality. In 2016, Crescent City values were combined with Eureka.

b/ Fort Bragg includes minor landings made in Mendocino County areas.

TABLE D-11. Preliminary 2016 Washington non-Indian troll salmon landings (in pounds of dressed salmon) and exvessel value by vessel size category and port area.^{a/b/}

Port Area	Length Category (feet)	Number of Boats	Number of Boat Days Fished	Total Dressed Pounds Landed	Total Exvessel Value (dollars)	Percent Exvessel Value Landed in Port
Neah Bay	<25	c/	c/	c/	c/	c/
	25-36	3	34	4,569	32,543	14%
	>36	17	169	23,581	200,077	86%
	Unknown	-	-	-	-	-
	TOTAL	20	203	28,150	232,620	
La Push	<25	6	55	4,106	30,252	13%
	25-36	5	92	10,135	72,411	31%
	>36	10	128	17,661	128,445	56%
	Unknown	-	-	-	-	-
	TOTAL	21	275	31,902	231,108	
Westport	<25	4	48	3,106	23,354	2%
	25-36	18	298	40,483	320,700	33%
	>36	45	572	74,871	620,473	64%
	Unknown	-	-	-	-	-
	TOTAL	67	918	118,460	964,528	
Ilwaco	<25	-	-	-	-	-
	25-36	3	50	5,739	43,527	29%
	>36	12	136	13,245	109,046	71%
	Unknown	-	-	-	-	-
	TOTAL	15	186	18,984	152,573	
Puget Sound ^{d/}	<25	3	18	1,845	12,853	51%
	25-36	c/	c/	8	c/	c/
	>36	4	11	1,313	12,258	49%
	Unknown	-	-	-	-	0%
	TOTAL	7	29	3,166	25,111	

a/ Preliminary.

b/ Total pounds and exvessel values reported in this table may be less than are reported in other tables of the Review. The differences are generally one percent or less and likely related to vessel information missing for certain landings.

c/ Fewer than three vessels. Values combined with next category to preserve confidentiality.

d/ Landed on the coast and transported to Puget Sound for processing.

TABLE D-12. California number of vessels landing 50 percent and 90 percent of total pounds of salmon troll catch by year.

Year	Total Vessels	50 Percent of Pounds Landed		90 Percent of Pounds Landed	
		Number of Vessels	Percent of Fleet	Number of Vessels	Percent of Fleet
1978	4,919	542	11.0%	2,024	41.1%
1979	4,594	373	8.1%	1,641	35.7%
1980	4,738	431	9.1%	1,733	36.6%
1981	4,102	395	9.6%	1,599	39.0%
1982	4,013	438	10.9%	1,602	39.9%
1983	3,223	353	11.0%	1,268	39.3%
1984	2,569	213	8.3%	918	35.7%
1985	2,308	241	10.4%	898	38.9%
1986	2,582	302	11.7%	1,151	44.6%
1987	2,442	320	13.1%	1,080	44.2%
1988	2,571	409	15.9%	1,285	50.0%
1989	2,534	363	14.3%	1,244	49.1%
1990	2,115	295	13.9%	976	46.1%
1991	1,769	224	12.7%	791	44.7%
1992	1,085	131	12.1%	485	44.7%
1993	1,240	163	13.1%	554	44.7%
1994	1,024	141	13.8%	459	44.8%
1995	1,179	190	16.1%	581	49.3%
1996	985	128	13.0%	434	44.1%
1997	835	117	14.0%	377	45.1%
1998	670	90	13.4%	325	48.5%
1999	666	103	15.5%	316	47.4%
2000	759	117	15.4%	370	48.7%
2001	689	90	13.1%	328	47.6%
2002	708	89	12.6%	315	44.5%
2003	584	74	12.7%	237	40.6%
2004	741	108	14.6%	344	46.4%
2005	680	111	16.3%	341	50.1%
2006	477	80	16.8%	236	49.5%
2007	601	95	15.8%	293	48.8%
2008	-	-	-	-	-
2009	-	-	-	-	-
2010	215	21	9.8%	84	39.1%
2011	464	58	12.5%	204	44.0%
2012	616	100	16.2%	312	50.6%
2013	671	103	15.4%	328	48.9%
2014	653	98	15.0%	306	46.9%
2015	587	86	14.7%	291	49.6%
2016 ^{a/}	437	61	14.0%	214	49.0%

a/ Preliminary.

TABLE D-13. Oregon number of vessels landing 50 percent and 90 percent of total pounds of salmon troll catch by year.^{a/}

Year	Total Vessels	50% of Pounds Landed		90% of Pounds Landed	
		Number of Vessels	Percent of Fleet	Number of Vessels	Percent of Fleet
1974	1,914	326	17.0%	1,032	53.9%
1975	1,979	329	16.6%	1,054	53.3%
1976	2,770	453	16.4%	1,460	52.7%
1977	3,108	473	15.2%	1,597	51.4%
1978	3,157	446	14.1%	1,576	49.9%
1979	3,114	423	13.6%	1,449	46.5%
1980	3,875	372	9.6%	1,375	35.5%
1981	3,615	420	11.6%	1,391	38.5%
1982	3,269	359	11.0%	1,249	38.2%
1983	2,951	294	10.0%	1,082	36.7%
1984	771	88	11.4%	333	43.2%
1985	2,050	132	6.4%	514	25.1%
1986	2,284	238	10.4%	851	37.3%
1987	2,111	292	13.8%	928	44.0%
1988	2,061	337	16.4%	1,069	51.9%
1989	1,937	303	15.6%	959	49.5%
1990	1,557	221	14.2%	709	45.5%
1991	1,217	206	16.9%	651	53.5%
1992	649	87	13.4%	286	44.1%
1993	612	67	10.9%	235	38.4%
1994	371	43	11.6%	152	41.0%
1995	476	52	10.9%	184	38.7%
1996	456	62	13.6%	202	44.3%
1997	433	60	13.9%	184	42.5%
1998	373	51	13.7%	165	44.2%
1999	328	47	14.3%	150	45.7%
2000	399	68	17.0%	197	49.4%
2001	449	68	15.1%	221	49.2%
2002	467	76	16.3%	230	49.3%
2003	491	83	16.9%	254	51.7%
2004	595	110	18.5%	318	53.4%
2005	565	103	18.2%	310	54.9%
2006	357	67	18.8%	200	56.0%
2007	436	69	15.8%	232	53.2%
2008	140	25	17.9%	75	53.6%
2009	224	27	12.1%	105	46.9%
2010	370	43	11.6%	139	37.6%
2011	304	32	10.5%	113	37.2%
2012	369	41	11.1%	144	39.0%
2013	399	52	13.0%	158	39.6%
2014	493	63	12.8%	184	37.3%
2015	485	75	15.5%	250	51.5%
2016 ^{b/}	316	36	11.4%	134	42.4%

a/ Includes licensed (permitted for 1980 on) and properly identified vessels only. Total poundage on which the numbers are based is not equal to total aggregate troll landings because of landings by unlicensed or misidentified vessels. Percentages of total pounds not credited to licensed (permitted) vessels were: 1974 - 19 percent, 1975 - 19 percent, 1976 - 9.4 percent, 1977 - 8 percent, 1978 - 1.4 percent, 1979 - 0.2 percent, 1980 - 1.7 percent, 1981 - 0.11 percent, 1982-2002 - less than 0.05 percent, 2003 - 0.06 percent, 2004 - 0.15 percent, 2005 - 0.32 percent, 2006 - 0.08 percent, 2007 - 0.7 percent, 2008 - 0.05 percent, 2009 - 0.05 percent, 2010 - 0.05 percent, and 2011 - 0.02 percent.

b/ Preliminary.

TABLE D-14. Washington number of vessels landing 50 percent and 90 percent (by numbers of fish) of non-Indian troll salmon catch.^{a/}

Year	Total Vessels	50% of Fish Landed		90% of Fish Landed	
		Number of Vessels	Percent of Fleet	Number of Vessels	Percent of Fleet
1978	3,041	223	7.3%	1,040	34.2%
1979	2,778	253	9.1%	946	34.1%
1980	2,626	206	7.8%	883	33.6%
1981	2,439	214	8.8%	810	33.2%
1982	2,253	181	8.0%	703	31.2%
1983	2,056	75	3.6%	409	19.9%
1984	374	55	14.7%	180	48.1%
1985	1,259	104	8.3%	443	35.2%
1986	1,252	100	8.0%	387	30.9%
1987	883	97	11.0%	385	43.6%
1988	650	51	7.8%	239	36.8%
1989	883	70	7.9%	268	30.4%
1990	897	111	12.4%	373	41.6%
1991	811	84	10.4%	344	42.4%
1992	604	59	9.8%	193	32.0%
1993	474	47	9.9%	162	34.2%
1994 ^{b/}	<3	NA	NA	NA	NA
1995	96	13	13.5%	41	42.7%
1996	90	14	15.6%	45	50.0%
1997	51	7	13.7%	23	45.1%
1998	23	5	21.7%	12	52.2%
1999	57	10	17.5%	32	56.1%
2000	49	11	22.4%	28	57.1%
2001	57	12	21.1%	34	59.6%
2002	75	15	20.0%	42	56.0%
2003	82	18	22.0%	47	57.3%
2004	86	18	20.9%	53	61.6%
2005	91	25	27.5%	63	69.2%
2006	84	17	20.2%	48	57.1%
2007	79	17	21.5%	49	62.0%
2008	86	18	20.9%	47	54.7%
2009	97	18	18.6%	61	62.9%
2010	116	29	25.0%	73	62.9%
2011	112	27	24.1%	70	62.5%
2012	105	24	22.9%	67	63.8%
2013	108	25	23.1%	67	62.0%
2014	116	31	26.7%	79	68.1%
2015	122	31	25.4%	80	65.6%
2016	107	29	27.1%	75	70.1%

a/ All values in this table are based on preliminary information available at the start of each year's review and are not updated in subsequent years.

b/ The fishery was closed north of Cape Falcon; however, Chinook were caught off Oregon and landed in Puget Sound. Values omitted to preserve confidentiality.

TABLE D-15. Preliminary 2016 California, Oregon, and Washington troll fleet by home state and salmon landings and exvessel value.^{a/}

Home State	Number of Vessels	Percent	Landings (Pounds)	Percent	Total Value (\$ thousands)	Percent
CALIFORNIA						
California	418	96%	592,797	97%	5,116	97%
Oregon	4	1%	4,505	1%	41	1%
Washington	9	2%	9,248	2%	86	2%
Unknow n/Other	6	1%	7,110	1%	56	1%
TOTAL	437		613,660		5,298	
OREGON						
Oregon	246	76%	340,276	66%	2,003	66%
California	21	7%	42,402	8%	264	9%
Washington	50	16%	116,838	23%	689	23%
Unknow n/Other	5	2%	15,882	3%	93	3%
TOTAL	322		515,398		3,050	
WASHINGTON						
Washington	96	90%	188,699	94%	1,507	99%
Oregon	10	9%	11,171	6%	11	1%
California	0	0%	0	0%	0	0%
Unknow n/Other	1	1%	792	0%	7	0%
TOTAL	107		200,662		1,525	

a/ Pink salmon excluded, except Oregon.

TABLE D-16. Vessels landing salmon in California by vessel length and skipper's state of residence.

Year	Home State ^{a/}															
	California (length)				Oregon (length)				Washington (length)				Total (length) ^{b/}			Grand Total ^{c/}
	<26	26-36	>36	Subtotal	<26	26-36	>36	Subtotal	<26	26-36	>36	Subtotal	<26	26-36	>36	
1978	2,325	1,165	1,006	4,496	97	176	262	535	5	16	85	106	2,462	1,365	1,378	4,919
1979	2,243	1,152	980	4,375	68	158	210	436	3	20	59	82	2,338	1,338	1,266	4,594
1980	2,069	1,248	1,138	4,455	97	163	228	488	6	25	90	121	2,189	1,447	1,478	4,738
81-85 ^{d/}	1,209	906	744	2,860	39	79	135	253	2	11	43	56	1,277	1,024	939	3,243
86-90	828	757	635	2,220	12	44	86	143	2	6	32	39	856	814	760	2,449
91-95	420	415	346	1,180	3	19	30	52	0	3	7	11	424	438	384	1,259
96-00	210	264	252	726	1	7	23	31	1	2	8	11	214	277	286	783
2001	142	221	286	649	0	4	23	27	1	3	7	11	1443	229	317	689
2002	153	229	285	667	1	3	28	32	2	0	4	6	157	233	318	708
2003	126	201	230	557	0	2	16	18	0	0	5	5	126	205	253	584
2004	155	250	288	693	1	3	28	32	0	2	11	13	157	256	328	741
2005	139	233	271	643	1	2	25	28	0	2	3	5	141	239	300	680
2006	103	181	180	464	0	1	5	6	0	1	1	2	104	185	188	477
2007	112	200	255	567	1	3	22	26	0	1	1	2	115	206	280	601
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	55	74	81	210	0	1	2	3	0	0	0	0	55	77	83	215
2011	110	166	169	445	0	2	9	11	1	0	2	3	113	170	181	464
2012	151	213	218	582	0	4	14	18	0	1	8	9	154	221	241	616
2013	158	233	243	634	1	3	16	20	1	1	9	11	162	241	268	671
2014	151	237	235	623	1	3	9	13	1	1	6	8	156	245	252	653
2015	149	209	188	546	2	4	13	19	1	1	8	10	154	221	212	587
2016 ^{e/}	113	173	132	418	0	2	2	4	1	1	7	9	115	180	142	437

a/ "Home state" refers to the declared state of residence of vessel skipper, who, in most cases, is also the vessel owner.

b/ Includes vessels with home states other than California, Oregon, and Washington.

c/ Includes vessels of unknown lengths.

d/ Length category for 1982 is ≥ 36 .

e/ Preliminary.

TABLE D-17. Percentages of vessels landing troll salmon in Oregon by license holder's state of residence.

Year	Oregon	California	Washington	Other/Unknown
1977	83.8%	6.9%	8.7%	0.6%
1978	83.6%	5.9%	10.0%	0.5%
1979	82.5%	6.5%	10.3%	0.7%
1980	80.4%	8.5%	9.6%	1.5%
1981	81.2%	7.4%	9.9%	1.6%
1982	82.1%	6.3%	10.2%	1.4%
1983	85.0%	3.9%	10.1%	1.0%
1984	85.2%	2.9%	11.0%	0.9%
1985	86.9%	4.0%	8.0%	1.1%
1986	84.5%	5.2%	9.1%	1.2%
1987	81.7%	6.8%	10.2%	1.2%
1988	78.7%	6.4%	13.5%	1.3%
1989	80.0%	5.6%	12.9%	1.4%
1990	81.1%	6.7%	10.7%	1.5%
1991	83.8%	2.5%	12.1%	1.6%
1992	83.4%	3.4%	12.5%	0.8%
1993	85.8%	2.5%	11.1%	0.6%
1994	86.5%	1.1%	12.1%	0.3%
1995	85.5%	2.7%	10.7%	1.1%
1996	83.5%	2.0%	13.8%	0.7%
1997	85.0%	1.2%	12.5%	1.4%
1998	82.3%	0.8%	16.6%	0.3%
1999	87.2%	0.9%	11.6%	0.3%
2000	84.4%	1.8%	13.3%	0.5%
2001	81.1%	4.0%	14.3%	0.6%
2002	79.7%	3.9%	15.6%	9.8%
2003	79.2%	3.7%	15.9%	1.2%
2004	72.3%	10.3%	15.8%	1.7%
2005	73.3%	10.8%	14.2%	1.8%
2006	81.0%	4.8%	13.4%	0.8%
2007	78.0%	10.3%	11.2%	0.5%
2008	83.6%	2.1%	13.6%	0.7%
2009	90.2%	1.3%	7.6%	0.9%
2010	80.3%	9.7%	9.2%	0.8%
2011	84.2%	5.6%	9.2%	1.0%
2012	82.4%	4.3%	11.9%	1.4%
2013	79.4%	8.5%	11.0%	1.0%
2014	73.2%	14.4%	11.0%	1.4%
2015	71.0%	12.7%	13.7%	2.6%
2016 ^{a/}	76.4%	6.5%	15.5%	1.6%

a/ Preliminary.

TABLE D-18. Percentages of vessels landing non-Indian troll salmon in Washington by license holder's state of residence.^{a/}

Year	Washington	Oregon	California	Alaska	Other/Unknown
1978	90.8%	4.6%	0.3%	0.2%	4.1%
1979	90.9%	3.8%	0.3%	0.3%	4.7%
1980	93.7%	3.6%	0.3%	0.3%	2.1%
1981	92.6%	3.0%	0.4%	0.2%	3.8%
1982	92.6%	4.1%	0.6%	0.0%	2.8%
1983	92.7%	2.8%	0.2%	0.1%	4.2%
1984	94.8%	1.6%	0.0%	0.0%	3.7%
1985	92.7%	3.3%	0.2%	0.2%	3.6%
1986	93.1%	1.7%	0.0%	0.1%	5.1%
1987	90.4%	1.3%	0.0%	0.3%	8.0%
1988	88.0%	1.8%	0.2%	1.5%	8.5%
1989	92.2%	0.9%	0.0%	1.0%	5.9%
1990	92.7%	0.7%	0.0%	0.1%	6.5%
1991	85.8%	0.7%	0.0%	0.0%	13.5%
1992	92.7%	2.0%	0.7%	0.3%	4.3%
1993	93.3%	0.8%	0.8%	0.0%	5.1%
1994 ^{b/}	100.0%	0.0%	0.0%	0.0%	0.0%
1995	95.8%	0.0%	0.0%	0.0%	4.2%
1996	93.3%	0.0%	0.0%	0.0%	6.7%
1997	96.1%	0.0%	0.0%	0.0%	3.9%
1998	95.7%	0.0%	0.0%	0.0%	4.3%
1999	94.7%	0.0%	0.0%	0.0%	5.3%
2000	91.8%	0.0%	0.0%	0.0%	8.2%
2001	100.0%	0.0%	0.0%	0.0%	0.0%
2002	96.1%	0.0%	0.0%	0.0%	3.9%
2003	100.0%	0.0%	0.0%	0.0%	0.0%
2004	96.5%	1.2%	0.0%	0.0%	2.3%
2005	95.6%	3.3%	0.0%	0.0%	1.1%
2006	98.8%	1.2%	0.0%	0.0%	0.0%
2007	93.7%	6.3%	0.0%	0.0%	0.0%
2008	95.3%	3.5%	0.0%	1.2%	0.0%
2009	94.8%	4.1%	1.0%	0.0%	0.0%
2010	91.4%	5.2%	0.0%	0.0%	3.4%
2011	91.1%	8.0%	0.0%	0.0%	0.9%
2012	85.7%	11.4%	1.9%	0.0%	1.0%
2013	86.1%	9.3%	0.0%	0.0%	4.6%
2014	94.0%	6.0%	0.0%	0.0%	0.0%
2015	86.1%	10.7%	0.8%	0.0%	2.5%
2016	89.7%	9.3%	0.0%	0.0%	0.9%

a/ All values in this table are based on preliminary information available at the start of each year's review .

b/ The fishery was closed north of Cape Falcon; however, Chinook were caught off Oregon and landed in Washington.

TABLE D-19. Number of California charter boats participating in the ocean recreational salmon fishery, by port area and activity level.

Year	Activity Level ^{a/}	Port Area					Total
		Monterey	San Francisco	Fort Bragg	Eureka	Crescent City	
2016 ^{b/}	Active	0	27	5	5	0	37
	Casual	12	40	11	5	2	70
	TOTAL	12	67	16	10	2	107
2015	Active	0	31	5	5	0	41
	Casual	17	44	7	8	2	78
	TOTAL	17	75	12	13	2	119
2014	Active	10	39	10	9	0	68
	Casual	10	34	3	4	2	53
	TOTAL	20	73	13	13	2	121
2013	Active	5	44	9	10	0	68
	Casual	11	25	3	3	1	43
	TOTAL	16	69	12	13	1	111
2012	Active	14	38	7	8	1	68
	Casual	11	24	3	3	0	41
	TOTAL	25	62	10	11	1	109
2011	Active	9	35	8	7	0	59
	Casual	8	23	1	3	0	35
	TOTAL	17	58	9	10	0	94
2010	Active	7	13	1	0	0	21
	Casual	12	38	7	7	0	64
	TOTAL	19	51	8	7	0	85
2009	Active	-	-	-	0	0	0
	Casual	-	-	-	14	0	14
	TOTAL	-	-	-	14	0	14
2008	Active	-	-	0	-	-	0
	Casual	-	-	3	-	-	3
	TOTAL	-	-	3	-	-	3
2007	Active	2	24	6	7	0	39
	Casual	21	25	6	4	0	56
	TOTAL	23	49	12	11	0	95
2006	Active	9	41	10	5	0	65
	Casual	15	17	1	4	0	37
	TOTAL	24	58	11	9	0	102
2005	Active	16	46	10	5	0	77
	Casual	9	17	1	3	0	30
	TOTAL	25	63	11	8	0	107
2004	Active	16	48	11	8	0	83
	Casual	7	12	1	1	1	22
	TOTAL	23	60	12	9	1	105

a/ Active vessels landed more than 100 salmon; casual vessels landed 100 salmon or less.

b/ Preliminary.

TABLE D-20. Number of charter boats licensed in Oregon.

Year	Total Number of Licensed Charter Boats ^{a/}	Oregon Resident License Holders	Washington Resident License Holders	Other State Resident License Holders
1980	194	192	2	0
1981	248	213	34	1
1982	253	212	40	1
1983	255	206	47	2
1984	218	185	31	2
1985	226	198	25	3
1986	247	216	26	5
1987	254	226	23	5
1988	313	266	42	5
1989	322	273	44	5
1990 ^{b/}	170	157	9	4
1991	171	161	7	3
1992	157	150	4	3
1993	148	144	2	2
1994	145	137	6	2
1995	134	NA	NA	NA
1996	127	121	6	0
1997	122	119	3	0
1998	129	125	4	0
1999	137	133	4	0
2000	143	139	4	0
2001	172	162	10	0
2002	181	172	9	0
2003	206	186	19	1
2004	203	184	18	1
2005	225	205	19	1
2006	228	203	24	1
2007	228	198	26	4
2008	237	192	41	4
2009	249	200	46	3
2010	238	196	39	3
2011	260	209	46	5
2012	252	204	42	6
2013 ^{c/}	NA	NA	NA	NA
2014	64	60	4	0
2015	69	46	6	17
2016	69	41	8	20

a/ Legislation that created the license requirement expired in 1987. Annual license fees were between \$25 and \$100 from 1980-1987. The license requirement was reinstated by rule in 1988 and 1989 with a \$10 fee.

b/ Beginning in 1990, responsibility for licensing of charter vessels was transferred to the Marine Board, and fees for Oregon residents were increased from \$10 to between \$50 and \$100.

c/ Beginning in 2013, only vessels of over 6 passengers with a valid USCG Certificate of Inspection can obtain an Oregon Charter Boat License due to change in Oregon law. Smaller vessels, previously included as charter boats, are categorized as guides/outfitters.

TABLE D-21. Number of salmon charter boats licensed in Washington (including Puget Sound).

Year	Number of Licenses Issued	Washington Resident License Holders	Other State Resident License Holders	Buyback
1975	404	351	53	-
1976	427	362	65	-
1977 ^{a/}	569	NA	NA	-
1978	535	483	52	-
1979	516	473	43	-
1980	510	465	45	16
1981	478	443	35	3
1982	415	387	28	25
1983	375	354	21	19
1984	334	313	21	21
1985	288	268	20	19
1986	308	286	22	15
1987	280	269	11	-
1988	281	268	13	-
1989	276	263	13	-
1990	273	258	15	-
1991	267	251	16	-
1992	269	252	17	-
1993	265	250	15	-
1994	260	245	15	-
1995	231	217	14	23
1996	210	199	9	18
1997	210	197	13	0
1998	198	188	10	20
1999	180	172	8	0
2000	143	139	4	37
2001	142	137	5	0
2002	138	134	4	0
2003	140	137	3	0
2004	143	140	3	0
2005	142	136	6	0
2006	142	138	4	0
2007	142	138	4	0
2008	142	138	4	0
2009	142	137	5	0
2010	142	137	5	0
2011	142	136	6	0
2012	142	135	7	0
2013	142	137	5	0
2014	141	138	3	0
2015	142	139	3	0
2016 ^{b/}	142	138	4	0

a/ First year moratorium in effect.

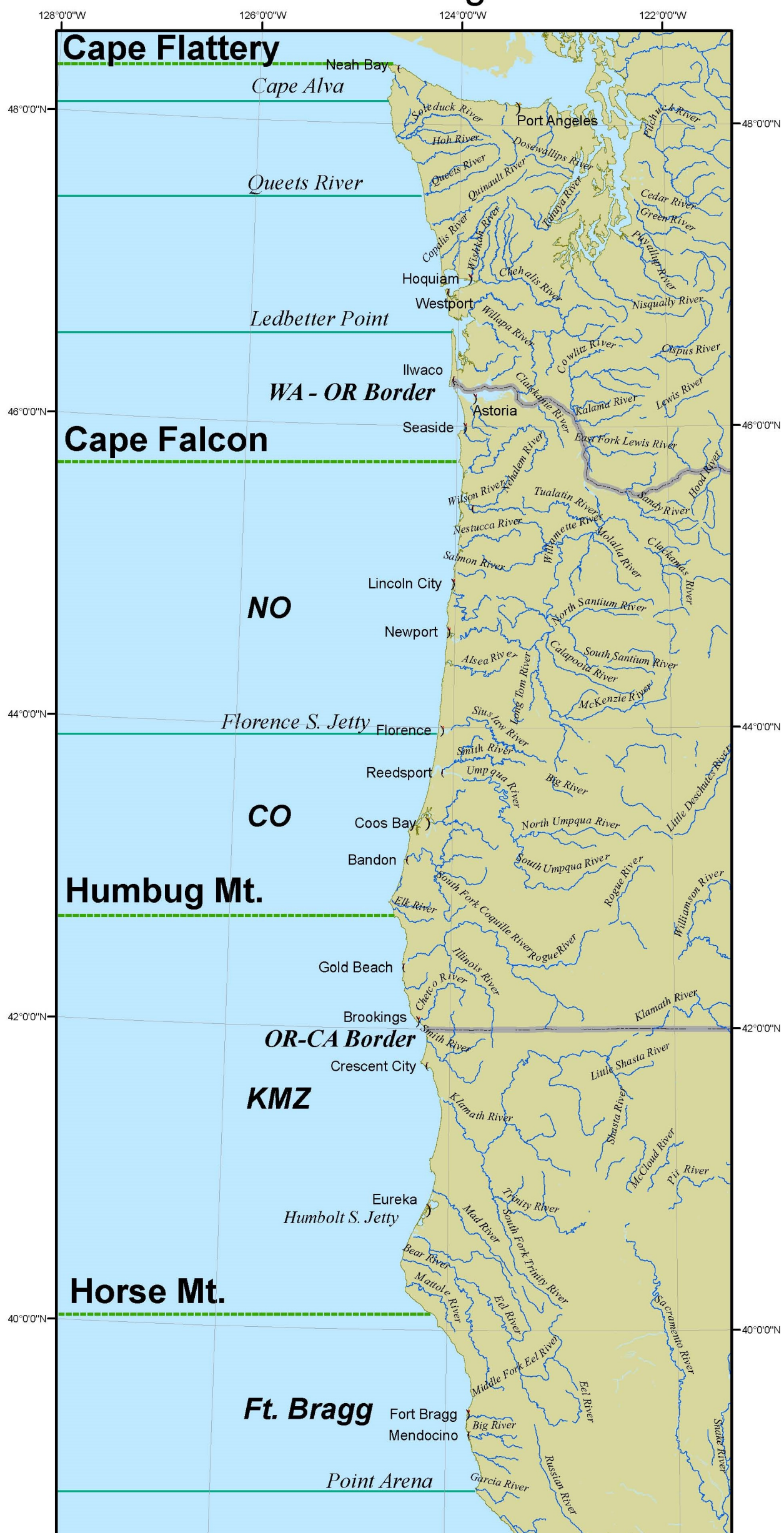
b/ Preliminary.

TABLE D-22. Price index.^{a/}

Year	Price Index
1970	21.8
1971	22.9
1972	23.9
1973	25.2
1974	27.5
1975	30.1
1976	31.8
1977	33.9
1978	36.2
1979	39.3
1980	42.8
1981	46.9
1982	49.7
1983	51.7
1984	53.6
1985	55.2
1986	56.5
1987	58.1
1988	60.1
1989	62.4
1990	64.8
1991	67.1
1992	68.7
1993	70.2
1994	71.7
1995	73.2
1996	74.5
1997	75.9
1998	76.7
1999	77.9
2000	79.5
2001	75.1
2002	76.3
2003	77.8
2004	80.0
2005	82.5
2006	85.1
2007	87.3
2008	89.0
2009	89.7
2010	90.8
2011	92.7
2012	94.4
2013	95.9
2014	97.6
2015	98.7
2016	100.0

a/ Based on gross domestic product implicit price deflator.

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Cape Flattery

Neah Bay
Cape Alva

Port Angeles

Queets River

Ledbetter Point

WA - OR Border

Cape Falcon

NO

Florence S. Jetty

CO

Humbug Mt.

OR-CA Border

KMZ

Horse Mt.

Ft. Bragg

Point Arena